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(Main photo courtesy Warn Products; inset photo courtesy Subaru)

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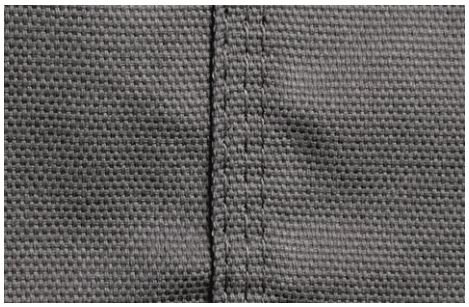
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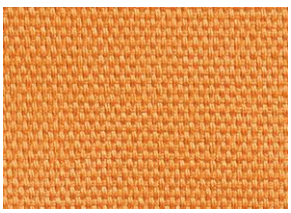


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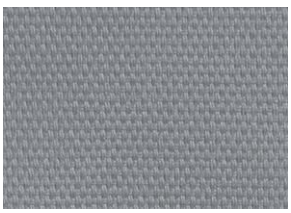


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Jef White
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Most Drivers Underestimate the Cost of Car Ownership

If your customers are complaining about paying more to keep and maintain their daily drivers or specialty rides, they aren't alone. Synchrony's new Cost of Car Ownership survey reveals drivers are paying nearly 167% more per year than expected to keep their current vehicles on the road.

According to Kelley Blue Book, the average sale price of a new car hit a record $50,080 in 2025. With ongoing economic uncertainty adding further pressure, many consumers have been rethinking their buying decisions.

In a 2024 study, nearly 60% of Americans said they were choosing to keep their vehicles longer to avoid the financial burdens associated with purchasing a new car. However, Synchrony's survey found that even those forgoing a new-vehicle purchase are still spending more than they thought they would on maintenance and other auto-related expenses.

Excluding loan and lease payments, car owners estimate spending $2,738 annually on their vehicle. However, the survey shows the actual yearly total is $7,303—a $4,565 discrepancy. And the figures are even higher for younger drivers, with millennials and Gen Z spending $10,101 and $9,984 per year, respectively, the survey found.

"The disparity between perceived and actual spending can create real financial strain for drivers who may not be budgeting for the true cost of car ownership," says Curtis Howse, EVP & CEO, Home and Auto, for Synchrony. "That's why becoming informed about the full scope of car ownership costs and planning ahead for how to pay for them is essential. Access to flexible financing can help ease that affordability burden, allowing drivers to handle routine maintenance and address unexpected repairs without making difficult financial trade-offs."

For the specialty aftermarket, drivers who are already paying more than expected on automotive upkeep may be more hesitant to add utility items or customize. Some of the trends behind their thinking found in the survey include:

- ***Gas and Insurance are the Biggest Contributors to Annual Car Spend:*** Gas and insurance cost drivers a yearly average of $1,956 and $1,730, respectively. Other top annual expenses include maintenance ($622), service/repairs ($659) and tires ($377). Of interest to aftermarket shops, auto parts and accessories account for $240 annually.
- ***Multicar Households on the Decline:*** According to the research, 65% of respondents report they are responsible for managing only one vehicle in their household, while just 25% manage two cars. These numbers fall below the 2023 U.S. Census, which showed 37% of households had two vehicles and 22% of households owned three cars or more.
- ***Gen Z and Millennials are the Leading Spenders:*** Gen Z and millennials spend the most across all major categories, including car maintenance, where they spend $976 and $768 each year, respectively, compared to the $622 average. The same holds for service and repairs, including transmission replacement and engine work, where Gen Z and millennials are spending $983 and $931 each—well above the $659 average. These groups also outspend the others on gas, tolls, parking and car washes each month.

Synchrony's Cost of Car Ownership survey was a quantitative online survey of 1,030 consumers aged 18-up from across the U.S. All survey respondents were self-reported to be financially responsible for the general costs and upkeep of at least one passenger vehicle that they owned or leased.

More at: synchrony.com/contenthub/newsroom/annual-cost-of-car-ownership.html. ***TS***

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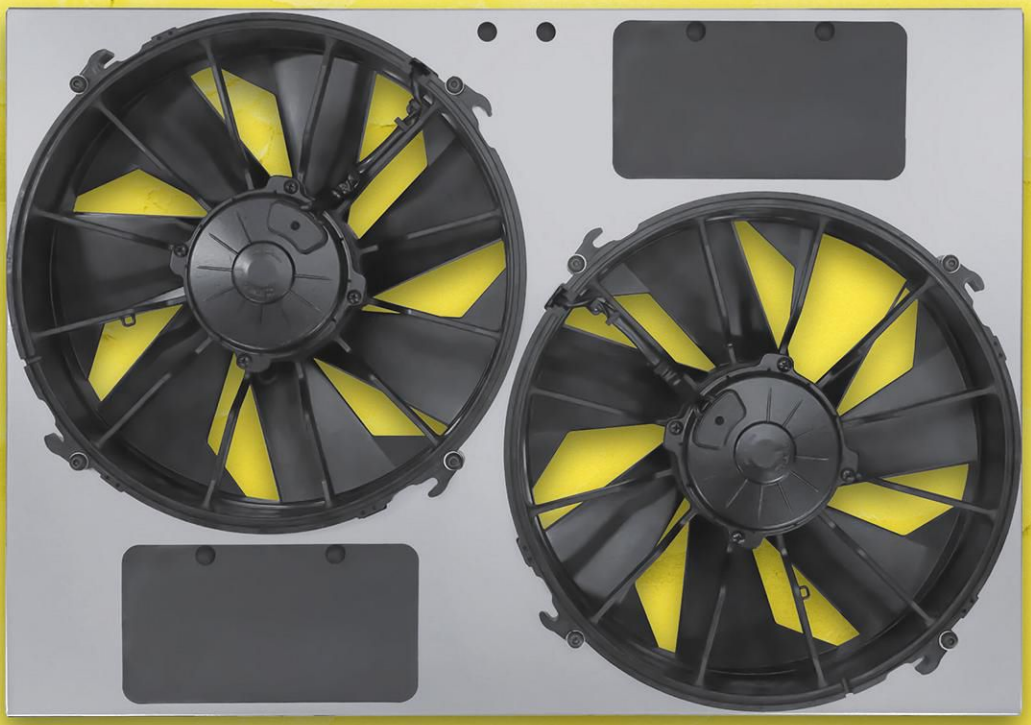
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NEW VEHICLE REPORT

A sampling of the latest models, updates & special editions.

Carmakers are busy rolling out new models, special editions, notable updates and EV and hybrid offerings as 2026 vehicles take center stage nationwide. Here's a sampling of what restylers may encounter on local dealer lots.

2026 DODGE DURANGO GT

Dodge has unlocked more powertrain choices in 2026 for its "muscle SUV." In addition to strong demand for the Hemi V-8-powered Dodge Durango GT, the brand is reopening orders for the Durango GT with the proven 3.6L Pentastar V-6 as well.

"Dodge Durango is on a tear," says Matt McAlear, Dodge CEO. "(In 2025), Durango ranked No. 1 in the JD Power APEAL Study for Upper Midsize SUVs. We launched the new Durango SRT Hellcat Jailbreak with 7 million potential customization options, brought back the B5 Blue exterior color, opened SRT Hellcat orders in 10 additional CARB states and announced the Hemi engine in the all-wheel drive Durango GT. Durango recently achieved its best Q3 sales in 20 years, and to keep that sales momentum going we're re-opening orders for the V-6 Durango GT to help us meet Durango demand while supply of Hemi engines ramps up."

The three-row muscle SUV delivers performance, capability and attitude. The expanding 2026 Dodge Durango GT lineup includes:

- The Pentastar V-6 engine returns on Durango GT, delivering 295 hp and 260 pound-feet of torque with optional all-wheel drive capability.
- The 360-hp 5.7L Durango GT Hemi AWD offers affordable room and traction for families on the go.



Dodge has unlocked more powertrain choices for its 2026 Durango GT "muscle SUV." (Photos courtesy Dodge)

But why stop there? The 6.4L V-8 Hemi Durango R/T with 475 hp opened for orders in Q1 2026. Meanwhile, the 6.2L supercharged V-8 Durango SRT Hellcat with 710 hp sets the standard as the quickest, fastest, most powerful three-row gas SUV on the market.

Also, the new Durango SRT Hellcat Jailbreak model opens more than 7 million potential customization options on the supercharged Durango, allowing owners to mix and match colors and features.

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2026 TOYOTA TACOMA



The 2026 Toyota Tacoma midsize pickup expects to continue its run as an aftermarket favorite. (Photos courtesy Toyota)

The Toyota Tacoma enters the 2026 model year poised to continue its legacy as America's bestselling midsize pickup for more than two decades and, more recently, an aftermarket favorite.

This year's updates include a black front logo on the TRD Off-Road, TRD Sport and TRD Pre-Runner trims, along with 18-inch TRD wheels paired with 32-inch Goodyear All-Terrain tires featured in the TRD Off-Road i-FORCE Premium Package.

The lineup is further enhanced by the introduction of the new Heritage Blue and the striking Wave Maker colors, exclusive to the TRD Pro. Additionally, a tow hitch is now standard on SR XtraCab models.

Tacoma offers two engine choices—the available i-FORCE MAX hybrid powertrain delivers 326 hp and 465 pound-feet of torque, paired with an 8-speed automatic transmission. The standard i-FORCE 2.4L turbocharged engine offers up to 278 hp and 317 pound-feet of torque. A 6-speed intelligent manual transmission with rev-matching and stall avoidance is available on select i-FORCE models.

For those seeking added off-road capability, the Trailhunter grade is powered exclusively by the i-FORCE MAX hybrid powertrain and comes with either a 5- or 6-foot bed. Premium off-road components include Old Man Emu 2.5-inch forged monotube shocks with rear piggyback reservoirs; a low-profile high-mount air intake; 33-inch Goodyear Rugged-Terrain tires on 18-inch bronze colored wheels; and signature exterior touches including RIGID Industries color-selectable LED fog lamps and a bronze-color "TOYOTA" grille with integrated LED light bar.

The Baja-inspired TRD Pro, also featuring the i-FORCE MAX and IsoDynamic Performance Front Seats, uses an air-over-oil shock absorber system to reduce body movement and stabilize the head and neck on rough terrain. TRD Pro boasts TRD-tuned FOX QS3 adjustable shocks with remote rear piggyback reservoirs, a TRD performance air intake, 33-inch Goodyear tires on black 18-inch alloy wheels and available two-tone paint options.

Tacoma's drivetrain options include 2WD, part-time 4WD and full-time 4WD. Most i-FORCE MAX models come standard with 4WD, while Limited trims feature full-time 4WD with an electronic locking center differential. The smooth Adaptive Variable Suspension (AVS) is now standard on all Limited models, delivering a refined ride on any surface.

2026 SUBARU WRX



The 2026 Subaru WRX looks to bring back the affordable rally-inspired sports sedan. (Photo courtesy Subaru of America Inc.)

The 2026 Subaru WRX looks to bring back the affordable rally-inspired sports sedan starting at $32,495 MSRP. Subaru of America Inc. also announced the return of a base WRX and new limited-production WRX Series.Yellow trim levels.

Performance begins with a 271-hp, 2.4L turbocharged SUBARU BOXER engine and Subaru Symmetrical All-Wheel Drive system. The WRX will be offered in six trim levels: Base, Premium, Limited, GT, tS and Series. Yellow. A 6-speed manual transmission is standard on all trim levels, except GT. The Subaru Performance Transmission (SPT) is available on the Limited trim level and is standard on the GT trim level.

Visually, the sports car is marked by its iconic hood scoop and signature hexagonal grille flanked by compact LED headlights. The "WRX" badging stands out thanks to a red badge on the grille, rear trunk lid and front floor mats for certain trim levels. Sunrise Yellow exterior paint returns on the 2026 WRX Series.Yellow, which is based on the tS trim level and limited to 350 units.

The interior is equipped with an 11.6-inch Subaru Multimedia Plus System with wireless Apple CarPlay and Android Auto compatibility, SiriusXM with 360L and SiriusXM Travel Link (4-month free trial), HD radio, rear-vision camera and Bluetooth hands-free phone and audio streaming.

For 2026, all Subaru WRX models are equipped with Subaru EyeSight Driver Assist Technology and DriverFocus Distraction Mitigation System, including models equipped with a manual transmission. On vehicles with a manual transmission, EyeSight includes Advanced Adaptive Cruise Control with Lane Centering, Emergency Stop Assist, Lane Departure & Sway Warning, and Pre-Collision Braking. (Pre-Collision Throttle Management is included on models equipped with SPT.)

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2027 RAM POWER WAGON DIESEL

Ram debuted the first-ever 2027 Ram Power Wagon with Cummins turbo diesel engine in “Resurrection,” a short film hosted by Tim Kuniskis—head of American brands, SRT Performance, NA marketing and retail strategy—and the only AI used in the jump sequence were "adrenaline" and "insanity."

Powered by a 6.7L Cummins HO turbo diesel inline-six engine, the new Power Wagon produces 430 hp and a best-in-class base diesel torque of 1,075 pound-feet.

The off-road-capable full-size pickup delivers true towing capability and includes trail-ready touches such as underbody skid plates and 20-inch Satin Black wheels with machined accents and 34-inch all-terrain tires.

The Ram retains solid front and rear axles with class-exclusive locking differentials, activated by electromagnetic actuators (E-lockers). When disengaged, the rear locker functions as a mechanical anti-slip differential, enhancing passive grip. Built by American Axle Manufacturing, the axles measure 9.25 inches in the front and 11.5 inches in the rear, delivering power via a 3.42:1 ring and pinion ratio. Robust rear axle shafts are upgraded to 38mm.

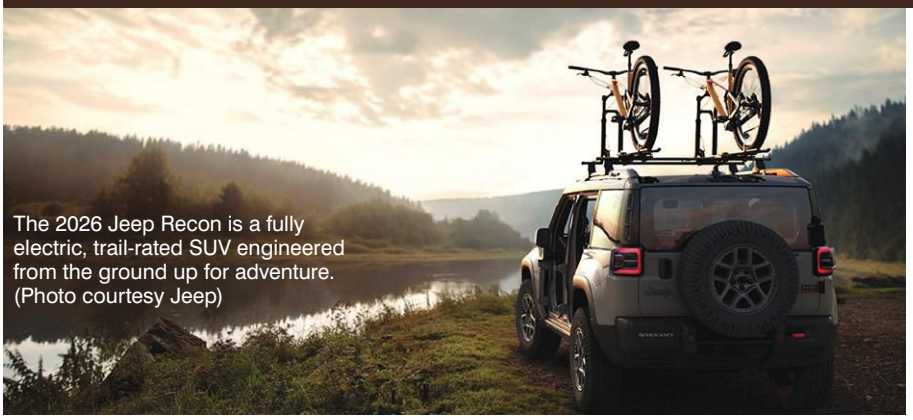
The entire Ram Heavy Duty lineup features an advanced three-link front suspension to ensure roll stiffness. The Ram Power Wagon packages a unique-to-model design with Bilstein monotube shocks and a class-exclusive electronic disconnecting sway bar. The rear axle features Ram’s class-exclusive five-link coil suspension, also cushioned by Bilstein monotube shocks and coil springs, including a Bilstein damper connecting the rear axle to the frame.

Paired with the TorqueFlite HD 8-speed automatic transmission, the drivetrain setup returns a higher final drive ratio in gears 1-6 for confident towing performance and acceleration, and a lower ratio in gears 7-8 for improved highway fuel economy and less noise, vibration and harshness (NVH). A standard 31-gallon fuel tank enables an estimated 600-mile range.



Ram recently debuted the first-ever 2027 Ram Power Wagon with Cummins turbo diesel. (Photo courtesy Ram)

2026 JEEP RECON EV


The 2026 Jeep Recon is a fully electric, trail-rated SUV engineered from the ground up for adventure. (Photo courtesy Jeep)

The 2026 Jeep Recon is a fully electric, trail-rated SUV engineered from the ground up for adventure. Offering full 4x4 capability in a full electric vehicle (EV) package, it is built on purpose-designed electric architecture to deliver confident traction across a variety of terrain.

Supported by the Jeep brand’s exclusive Selec-Terrain system with multiple drive modes tailored for all conditions, Recon is rated at 650 hp and 620 pound-feet of instant torque, accelerating from 0-60 mph in as little as 3.6 seconds. It carries an estimated all-electric range of up to 250 miles (based on trim).

The core of the Jeep Recon’s propulsion system is the front and rear Stellantis-designed electric drive modules (EDMs), each rated at 250 kilowatts, which deliver standard electric 4x4 propulsion and instant torque on demand. Each EDM combines an electric motor, gearing and power electronics into a single, compact unit for enhanced efficiency.

To increase capability, the Moab trim’s rear EDM uses a 15:1 final drive ratio that delivers a high level of torque multiplication to help the driver power through challenging conditions. Off-road performance is enhanced via an electronic locking differential to ensure torque flows to both rear wheels when engaged. At the flip of a switch, the driver can go from open differential to fully locked.

The Jeep Recon’s suspension—a short-long arm (SLA) up front and integral link in the rear—is responsive to driver input and helps maximize the tire contact patch to deliver a blend of on-road ride comfort with Jeep off-road capability. The suspension and standard 33-inch tires on the Moab trim provide 9.1 inches of ground clearance. Off-road specifications include 33.8-degree approach angle, 33.1-degree departure angle and 23.3-degree breakover angle.

Additionally, the Jeep Recon is fitted with low-speed Selec-Speed Control for challenging inclines and declines. When engaged, Selec-Speed Control maintains the set speed, freeing the driver to concentrate on steering.

Recon offers a standard dual-pane sunroof or an available Sky One-Touch power top. Gloss black accents on the grille, pillars and window trim, plus an available gloss black roof, add visual contrast. At the rear are Wrangler-inspired LED taillamps and a swing gate, which holds the full-size, rear-mounted spare tire, a segment-exclusive feature.

2026 JEEP WRANGLER MOAB 392





The powerful 2026 Jeep Wrangler Moab 392 features a 6.4L, 470-hp V-8 engine with 470 pound-feet of torque. (Photos courtesy Jeep)

The powerful new 2026 Jeep Wrangler Moab 392 features a 6.4L, 470-hp V-8 engine with 470 pound-feet of torque, 17-inch beadlock-capable wheels, 35-inch all-terrain tires, 4.56 axle ratio, 2.72:1 Selec-Trac full-time T-case, two-mode dual exhaust and a cold-air intake hood with water separator.

Available trim levels include Sport, Sport S, Willys, Sahara (four-door only), Rubicon, Rubicon X and Moab 392 (four-door only). An enhanced hinge system makes door removal quick and easy, while new, limited-edition exterior colors include Reign, Goldilocks, Joose, Earl Grey and Tuscadero. Available steel bumpers and a front Warn winch on Willys (two-door only) models add to the appearance.

Highlights include a best-in-class maximum towing capacity of 5,000 pounds (when properly equipped), maximum crawl ratios up to 100:1 and four advanced 4x4 systems—Command-Trac, Rock-Trac (part-time and full-time) and Selec-Trac.

Off-roaders will appreciate the Wrangler's extreme approach (47.4), departure (40.4) and breakover (26.7) angles, with 12.9 inches of ground clearance and up to 35 inches of water fording capability.

2025 FORD F-150 LOBO





The 2025 Ford F-150 Lobo is big on street attitude. (Photos courtesy Ford)

The street attitude of the Ford Maverick Lobo pickup is taken to new heights with the F-150 Lobo. Highlights include V-8 sound and performance, standard dual exhaust tips and aggressive styling.

Designed to serve a new segment of full-size truck owners seeking a lowered stance, the F-150 Lobo is a package on STX, comes as a SuperCrew, and is powered by a 5.0L engine that puts out 400 hp and 410 pound-feet of torque. It features an upgraded 2-speed automatic 4WD system, an updated suspension that drops the rear of the truck 2 inches, a 10-piece ground appearance package and a wide, gloss black mesh lower grille.

Black-accented exterior features include the hood vents, exhaust and badging, along with unique Lobo 22-inch gloss-black wheels. Updated headlamps draw a family line with Maverick Lobo, and the taillamps are upgraded from the STX Package for a premium look.

The new F-150 Lobo is available in five exterior colors—Agate Black Metallic, Atlas Blue Metallic, Carbonized Gray, Oxford White and Rapid Red Metallic Tinted Clearcoat.



2027 KIA TELLURIDE X-PRO





2027 Kia Telluride SUV offerings include the X-Pro off-road-ready trim level. (Photos courtesy Kia)

Kia unveiled the next-generation 2027 Telluride SUV at the 2025 Los Angeles Auto Show.

Highlights of the three-row SUV include a new available hybrid powertrain, greater overall length, more cargo space and interior roominess, and a sanctuary-like cabin outfitted with features and materials typically found in luxury SUVs.

The turbocharged hybrid powertrain can reach up to 329 hp, and Telluride is offered in LX, S, EX, SX and SX-Prestige, as well as stylish X-Line and capable X-Pro trims.

The Telluride X-Pro in particular is designed for rugged excursions without compromising its dependable, family-friendly attributes, adding an exclusive suspension with additional stroke, e-LSD, 9.1 inches of ground clearance and multiple drive modes, including Terrain Mode. The rugged halo variant of the Telluride also features front and rear recovery points and all-terrain tires.

On-trail technology starts with the Ground View Monitor system that displays a composite view of the ground when driving below 6 mph. It uses onboard cameras and can be selected from the new off-road vehicle status screen accessed through the infotainment system. Among other important information, the screen illustrates pitch, roll and steering angle.

Also exclusive to the X-Pro, Ground Lighting on the front, side and rear areas surrounding the Telluride help illuminate off-grid adventures.

Standard and available Advanced Driver-Assistance Systems (ADAS) functions include Highway Driving Assist, Lane Following Assist, Forward Collision Avoidance Assist, Safe Exit Warning, Driver Attention Warning and Intelligent Speed Limit Assist.

2026 HONDA PRELUDE

The 2026 Honda Prelude hybrid-electric sports coupe is the first model to pair the award-winning Honda two-motor hybrid-electric powertrain with high-performance chassis hardware from the performance-focused Civic Type R. It also marks the debut of S+ Shift, a new drive mode that simulates a performance transmission experience while remaining comfortable for everyday driving.

The first-ever electrified Prelude is powered by the powerful and efficient Honda two-motor hybrid-electric system found in Civic, Accord and CR-V hybrid models. It combines two large electric motors with a highly efficient 2.0L Atkinson cycle direct-injection gasoline engine to deliver a sporty driving experience and obtain impressive fuel economy ratings. A combined system output of 200 hp and 232 pound-feet of torque gives the new Prelude quick and responsive acceleration off the line and out of corners.

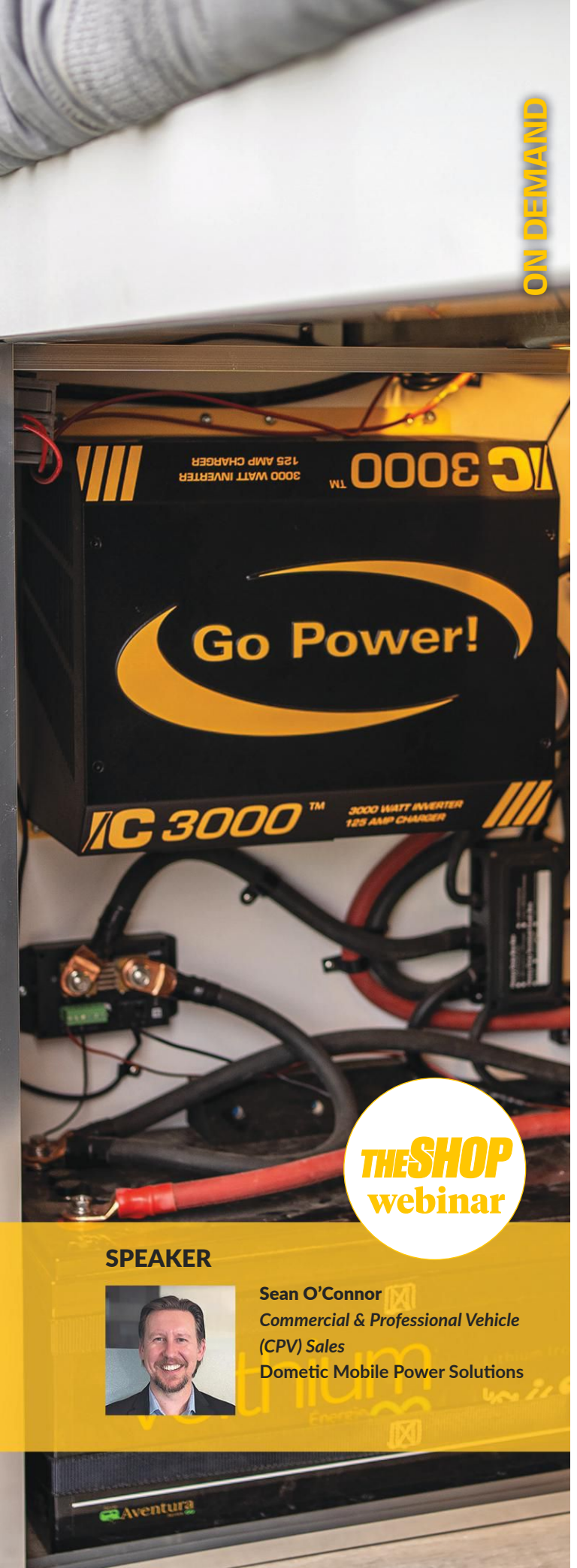
Notably, the Honda two-motor hybrid system is not equipped with a traditional transmission or CVT. Rather than use a torque converter and multiple gear ratios, or mechanical pulleys and drive belt, drive force from the traction motor is sent to the wheels directly through a fixed ratio, while engine power is blended through a lock-up clutch, offering smooth, predictable acceleration from the traction motor, matched with efficient low-rpm highway cruising when the gasoline engine is in operation. ***TS***







The 2026 Honda Prelude hybrid-electric sports coupe marks the debut of S+ Shift, a new drive mode that simulates a performance transmission experience. (Photos courtesy Honda)



ON DEMAND

SMART, SAFE & READY TO WORK: POWER INVERTER BASICS FOR FLEETS & UPFITTERS

Power inverters are the backbone of mobile power—quietly transforming DC battery energy into the AC electricity needed to run tools, equipment and critical electronics on work trucks, service vans and specialty commercial vehicles. As fleets and upfitters push for higher productivity, safer operations and reduced idling, inverters have become essential components of modern mobile power systems. This session introduces the fundamentals of how inverters work, why design and quality matter, and how to select, size and integrate them effectively across different applications.

Attendees will learn:

- Selecting inverter types and features (pure sine vs. modified sine, surge handling, GFCI/grounding, remote switching, transfer switching).
- Sizing the correct inverter for common AC loads without over-spec'ing or overspending.
- Battery & charging considerations (advanced trail charging, alternator, shore, DC-DC, lithium/AGM) that protect vehicle systems and maximize runtime.
- Installation best practices for cable routing, fusing, ventilation and EMI—including what inspectors and fleet safety teams look for.
- Safety standards & performance variations, including UL certifications, thermal derating and temperature impacts on output and runtime.
- Connectivity & communications capabilities, including full-system communication, Bluetooth monitoring and ignition integration.
- Live Q&A to address real-world inverter questions directly.

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SPEAKER

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Best Foot Forward

The performance clutch market is firmly established with knowledgeable, enthusiastic drivers.

BY JEF WHITE

Most performance drivers and racers view a manual transmission as nonnegotiable when it comes to getting the most out of their vehicles. Their dedication has kept the performance clutch market viable and thriving, even as fewer standard transmissions are available from the original equipment manufacturers (OEMs).

Speed shops and builders know the proper clutch kit can improve performance and drivability, enhancing customer enjoyment and leading to repeat sales.

To help shops find success in the performance clutch market, suppliers offer tips on market trends, sales strategies and hot new products that allow retailers and installers to put their best foot forward.

WIDE MARKET APPEAL

Not too long ago, the market was somewhat worried that a lack of new manual transmission offerings from the OEMs might limit the clutch market. Instead, it's become firmly established, consisting of knowledgeable, enthusiastic racing and performance customers.

"There are fewer manual options, but the options that do exist are in very good cars and the drivers are very passionate about them," says Geoff Gerko, owner of Mantic Clutch USA.

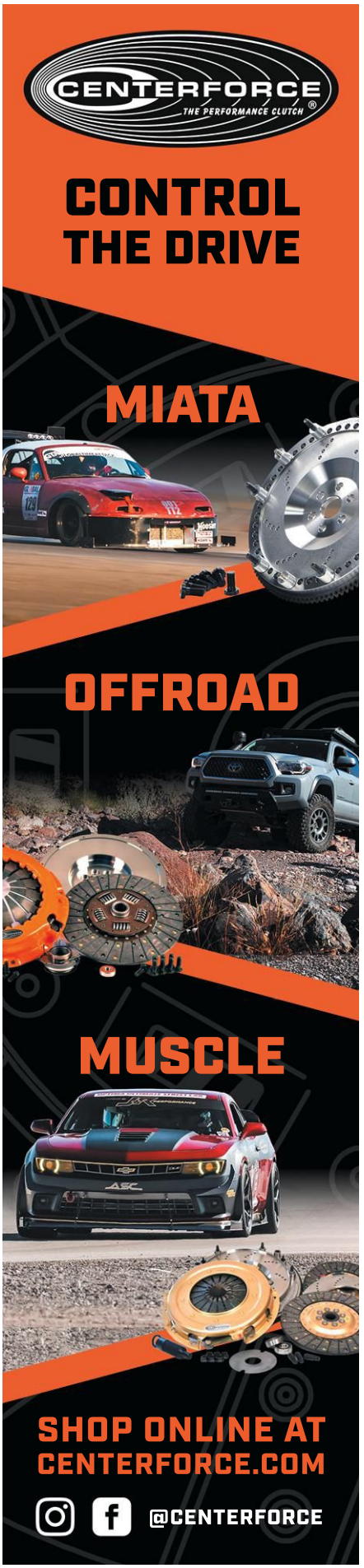
Despite customer familiarity, performance clutches are in no way a legacy product, with designs and approaches continually evolving.

"Over the past 10 years, the performance clutch market has shifted from a niche, power-centric parts arena to a data-



View performance clutch upgrades as a complete system service instead of as a simple parts swap. (Photo courtesy Advanced Clutch Technology)


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HOT CLUTCHES

■ **HOT PRODUCT:** Mod-Twin Clutch
■ **FEATURES & BENEFITS:** High torque capacity and heat resistance in a compact, dual-disc design without sacrificing drivability; modular configuration to tailor engagement, pedal feel and durability for street or track use; forged and heat-treated components are fully rebuildable.

Advanced Clutch Technology
Rich Barsamian
VP Sales & Marketing

■ **HOT PRODUCTS:** Mazda Miata Clutch Kits and Low-Inertia Billet Steel Flywheels
■ **FEATURES & BENEFITS:** Options available for 1.6L and 1.8L Miata platforms; ability to choose from different flywheel weights and clutch kit configurations allows enhanced enjoyment without sacrificing drivability; complete clutch kits simplify the ordering process.

Centerforce Clutches
Roger Warner
Director of Customer Satisfaction

■ **HOT PRODUCTS:** Sport Compact Twin-Disc Clutch Kits
■ **FEATURES & BENEFITS:** Revamped lines for street and race applications; options include the 184 Series with small diameters and the ability to hold high power, and the 245 Series that offers a softer pedal feel and smooth engagement.

Competition Clutch
Bob Scheid
Vice President

■ **HOT PRODUCTS:** Stage 1 and 2 Clutch Kits for GR Corolla
■ **FEATURES & BENEFITS:** Both bolt directly to the OE flywheel and use the OE release bearing; Stage 1 delivers a stock-like feel and handles 400 pound-feet of torque at the wheels; Stage 2 offers a cerametallic compound and handles nearly 600 pound-feet of torque at the wheels.

Exedy Globalparts Corporation
Teddy Jernigan
Technical Coordinator

■ **HOT PRODUCTS:** Performance Clutch Kits
■ **FEATURES & BENEFITS:** Popular applications include GT350 Mustang, Hellcat and CT5 Blackwing; OE-like drivability; reduced moment of inertia for more power to the ground; rebuildable and upgradeable.

Mantic Clutch USA
Geoff Gerko
Owner

■ **HOT PRODUCT:** Concept 9.5 Dual Disc for Fox Body Mustang
■ **FEATURES & BENEFITS:** Designed to fit easily in 1986-95 Mustang applications using either an aluminum or steel bellhousing; utilizes a strap-driven floater plate for quiet operation and a sprung hub top disc to gain dampening on initial engagement; smooth-engaging metallic versions.

RAM Clutches
Mike Norcia
Marketing Manager

driven, highly engineered, customer-oriented ecosystem," says Rich Barsamian, vice president of sales and marketing for Advanced Clutch Technology. Products, he notes, are now:

- More application-specific
- Better engineered with advanced materials
- Tunable for multiple use cases
- Supported by richer data and documentation
- Responsive to digital research and retail trends



Talk with customers to determine what their expectations are regarding how the clutch will perform and drive in real-world situations. (Photo courtesy RAM Clutches)

Bob Scheid, vice president of Competition Clutch, has seen platforms become broader and more inclusive, particularly in the import tuner market.

"No longer is it just Honda and Mitsubishi that rule sport compact," he says. "Until recently, it would have been unheard of to swap a domestic engine into a sport com-



Never miss a chance to promote the "three-pedal" lifestyle to performance customers. (Photo courtesy Centerforce Clutches)

pact or to see 2JZ engines being used in domestic swaps."

Today's offerings have moved from simply adding more clamping force to creating a more sophisticated, highly engineered clutch system, says Teddy Jernigan, technical coordinator for Exedy Globalparts Corporation.

"Advancements in materials allow us to get a higher coefficient of friction without adding clamping force and being able to make the clutches smaller and thinner while handling the same or more amount of power and heat," he notes.

Roger Warner, director of customer satisfaction for Centerforce Clutches, explains how demand for higher holding capacity has increased.

"With simple bolt-on modifications, turbochargers, nitrous systems and modern tuning capabilities, today's vehicles can produce serious horsepower and torque while still being daily-driven. At the same time, OE manufacturers continue pushing performance boundaries. Some new vehicles now produce over 700 pound-feet of torque directly off the showroom floor—and many customers push those platforms beyond 1,000 horsepower," he says. "Despite the massive power increases, customers still want the same things—a clutch that holds the power, maintains a comfortable pedal feel, operates quietly and offers smooth engagement. That's a major reason the twin-disc market has grown so significantly."

When it comes to clutch designs, Mike



Modern clutches are smaller and thinner while still handling the same amount of power and heat. (Photo courtesy Exedy Globalparts Corporation)





Know and understand the products you carry and use suppliers to fill in any gaps. (Photo courtesy Competition Clutch)

Norcia, marketing manager for RAM Clutches, concurs with the growing popularity and widespread acceptance of dual-disc clutch systems, as well as the market move toward the use of hydraulic release systems.

"The factories have used these for years, but now we see our hydraulic bearing kits used in nearly every form of street application including restorations, restomods, autocross, kit cars and late-model performance vehicles," he says.

TAKE A NUMBER

Scheid says most customers solely judge a stage clutch strictly by the power it will hold.

"It is important to make sure the clutch matches the type of use it will see as well," he says. "Match the disc material to the type of driving planned. If you use the wrong disc material you will get a customer that either burns their clutch up quickly or has a clutch that is unfriendly for the type of driving they do."

Warner explains the importance of shops selling the clutch best suited for the customer's needs and not simply what happens to be in stock.

"The worst scenario is getting a call from a customer who was misled and had the wrong clutch or flywheel installed for their application," he says. "Those negative experiences can cost you customer loyalty, when they could have been avoided by properly understanding the product or making a quick call to the manufacturer for guidance. Matching the clutch to the customer's modifications and intended use is critical."

He also outlines some common installation issues including:

- Failing to test-fit the disc on the transmission input shaft spline
- Not verifying flywheel thickness, which can affect clutch fork geometry
- Dampening springs contacting flywheel-to-crank bolts
- Insufficient flywheel countersink depth for pressure plate bolt shoulder length

Finding that perfect match requires customer and vehicle information.

"There are a lot of factors when selecting a clutch—single versus multi-plate, sprung hub versus rigid disk, organic versus metallic friction are just a few of the options," says Jernigan. "Understanding the torque output and intended use of the vehicle are the keys. Our tech team gets many calls from people that have broken their transmissions by putting a significantly higher-rated clutch in their vehicle."

To maximize the impact of each project, Barsamian recommends viewing performance clutch upgrades as a complete system service instead of treating them as a simple parts swaps.

"Failing to inspect and properly prepare components like the flywheel, release system, hydraulics and clearances often leads to engagement issues, premature failure or drivability complaints," he notes. "Modern performance clutches require precise measurements and strict adherence to manufacturer specifications to perform as intended."

Successful shops get to know their customers before recommending a clutch system.

"It's critical to not only pick the correct parts for the vehicle based on the loads the clutch will see, but to also talk with the customer to determine what their expectations are regarding how the clutch will perform and drive in real-world situations," says Norcia.

When it comes to installation, Gerko recommends always double-checking the measurements for the CSC/slave cylinder.

"We stress checking the compression on the slave, as that's how it's really used in the practical sense and you are more likely to spot a problem if you look at it that way," he says.

LEARNING CURVE

Norcia from RAM Clutches encourages shops to learn as much as they can up front about the vehicle and its planned use—not only to choose the correct clutch, but also to understand all that's involved in installation.

"Many applications require a few extra steps in the installation process to ensure success versus simply swapping out a factory clutch," he explains. "Take your time during the installation to ensure success the first time."

Scheid from Competition Clutch suggests studying up on clutches as much as possible and then relying on suppliers to fill in the blanks.

"Know the product you are offering. I say that with a catch. You will never be an expert with every line you carry," he explains. "For that reason, rely on the tech department for that brand. Not every clutch is the same. That is why we keep an expert tech staff ready and willing to help. Know where to find expertise so you can pass that along to your customer."

Becoming the local clutch expert earns shops a strong reputation and repeat business, says Jernigan from Exedy Globalparts Corporation.

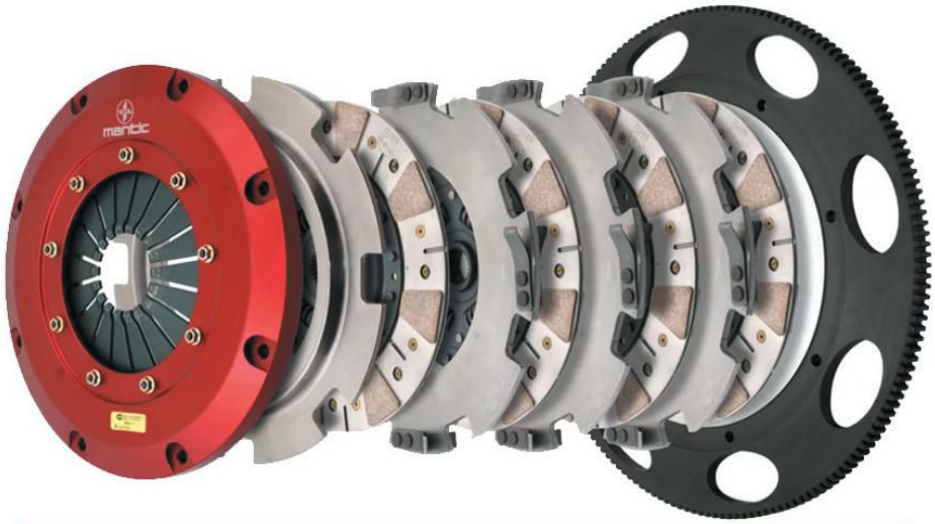
"Educate yourself so that you can be confident in your recommendations, then educate your customers and instill that confidence in them," he says. "When your customer has confidence that you know what you're talking about, they will come back to you, they will bring their other vehicle to you and they will recommend you to their friends."

Warner from Centerforce Clutches encourages promoting the "three-pedal" lifestyle.

"Display items such as short-throw shifters, clutch pedal assemblies, hydraulic throw-out bearings and other manual transmission components. These items do not take up a lot of floor space but reinforce performance identity and spark conversations," he says. "Another strong strategy is having access to a test vehicle equipped with a manual transmission and a performance clutch. Letting customers experience the difference firsthand proves that not all clutches are created equally and builds confidence in the sale."

Gerko from Mantic Clutch USA encourages shops to take the time to determine the best solution for each application.

"Reach out to the manufacturers on anything unique so we can help steer it in the right direction," he adds.



Today's clutch market consists of knowledgeable, enthusiastic racing and performance customers. (Photo courtesy Mantic Clutch USA)

Advanced Clutch Technology's Barsamian again stresses the importance of addressing performance clutches as a complete system.

"Educating customers on related components—flywheels, hydraulics, bearings and break-in requirements—reduces comebacks while increasing ticket value and customer trust," he says. "Shops that position themselves as clutch system experts, rather than parts installers, consistently see higher margins and repeat business." ***TS***





The days of classic vehicles sitting around in a parking lot at a show have given way to cruises and road tours. (Photo courtesy Total Cost Involved Engineering)
AI background image credit: VolumeThings - stock.adobe.com

FIRM FOUNDATION

Street suspensions blend the spirit of classic vehicles with the latest stance & handling advancements.

BY JOHN CAROLLO

There was a time when some classic car "purists" railed against adding modern technology to older vehicles. Most likely it only took one ride in a well-done Pro-Touring/restomod ride, however, to quickly change their minds.

The blending of original muscle car mystique with the advantages of today's top aftermarket products reenergized and redesigned the street and track-day scenes. Nowhere is that more evident than in the latest street suspensions, which offer performance, safety and aesthetic improvements to older cars and trucks that still have a lot to give.

Shops enjoy the demands for professional recommendations and expert installations that drive the street suspension market, with enthusiasts seeking performance gains and style enhancements. For an insider's edge, product suppliers are happy to share their thoughts on market direction, sales strategies and recent product updates.

REENERGIZING THE CLASSICS

For many Pro-Touring and restomod fans, the best thing about today's comprehensive street suspension systems is that they blend the pioneering spirit of classic vehicles with the latest technological advancements.

"The car culture is and has been a growing phenomenon for some time and has crossed into popular culture in a number of areas, from music videos and TV commercials to a featured presence in last year's Super Bowl halftime show," says Scott Adcock, creative services manager at Specialty Products Company (SPC). "Nearly all builds can benefit from suspension upgrades, but vintage and classic cars are certainly the big winners when it comes to the modern caster and camber features available today. Making a vintage car handle more like a modern car not only makes it more enjoyable to drive, but it's also safer as well."

As more enthusiasts see the benefits of improving the stability and performance of their classic rides, manufacturers and shops will continue to reap the rewards.

"Most of these vintage cars were originally designed to work with bias-ply tires and, with all the upgrades being done to other parts of the vehicle, it only makes sense to have a car that drives as well as it looks while taking advantage of today's modern tire technology," Adcock adds.

A sweeter, more responsive ride for these vehicles also means more road and track time, says Jason Wilcox of the marketing department at Total Cost Involved Engineering.

"Customers are getting out and actually driving their classic and modern vehicles more and more every year," he observes. "The days of sitting around in a parking lot

STREET SUSPENSION PRODUCTS

■ **HOT PRODUCTS:**
Adjustable Upper Control Arms for Muscle Cars
■ **FEATURES & BENEFITS:**
Popular applications include GM A-body, F-body and G-body models; tubular lower control arms offered to complement the installation of the uppers; unique ability to adjust the camber and caster settings without the old shims or arm removal.

Specialty Products Company (SPC)
Scott Adcock
Creative Services Manager

■ **HOT PRODUCTS:**
Pro-Touring Line of Engineered Suspension Systems
■ **FEATURES & BENEFITS:**
Popular applications include trucks, muscle cars and even street rods; engineered and heavily tested for street and track performance; provide modern sports car handling capabilities in a classic vehicle package; balance front/rear weight bias.

Total Cost Involved Engineering
Jason Wilcox
Marketing

■ **HOT PRODUCT:**
RQ-S Steel Body Adjustable Shock Program
■ **FEATURES & BENEFITS:**
Offered for a wide variety of vehicle applications; add adjustability and improved shock valving, internals and design; available as a shock option on StreetGRIP suspension systems, combining RQ-S 1.5-inch Fox Factory shocks with the Ridetech catalog.

Ridetech
Blane Burnett
Marketing Manager





Shops may have to fight through misinformation and/or misconceptions to steer customers to the correct street suspension setup. (Photos courtesy Ridetech)

at a show have given way to cruises and road tours. This is a pathway that leads to upgrades that provide a more enjoyable, fun and even safer driving experience."

And when performance enthusiasts are looking to add horsepower gains, a capable suspension and chassis shouldn't be far behind.

"Having a good, balanced handling machine can provide the customer with that extra peace of mind when pushing the limits on those mountain roads or wide-open stretches of highway. A properly designed and tested suspension package can offer both comfort and performance."

Blane Burnett, marketing manager at Ridetech, says street suspension upgrades

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TRINITĒ ROAD RALLY LAUNCHES 500-MILE ADVENTURE MOTORSPORT EVENT

Traveling from the foot of the Golden Gate Bridge to the cliffs of the Pacific and the shores of the Russian River, the inaugural Trinitē Road Rally will take place May 4-7 in California.

Created by the team behind the all-women Rebelle Rally, Trinitē Road Rally is a four-day event that includes three days of driving. Covering approximately 500 miles of classic American roads, Trinitē finishes with the Track Day Presented by Pennzoil and awards at Sonoma Raceway.

The format is precision navigation and driving in a traditional time-speed-distance rally style and welcomes all vehicles—not just race cars. It consists of three primary classes: car, classic and X-Cross (SUV and CUV).

The rally's mission is to "celebrate all vehicles and create an egalitarian space within the rally world that welcomes the vehicles in our driveways, not just rare, vintage or specific brands," organizers stated in a press release.

While the inaugural event is not exclusive to women, Trinitē Road Rally invites and encourages women to participate and compete.

"The Trinitē is a platform for participants to shine, as well as the vehicles we drive every day," says Emily Miller, founder of the Trinitē Road Rally and Rebelle Rally. "We believe that motorsport should be experienced by all—not as merely a spectator sport."

The competition is focused on precision driving and navigation, not the fastest speeds. Participants will experience carefully curated routes on paved and well-maintained roads, discover special "secret spots" along the way and have the opportunity to drive on iconic racetracks.

The event launches in San Francisco's Presidio park area and travels through Northern California. Subsequent editions will take place in different locations.

The bulk of the teams for the inaugural year of Trinitē will be invited by organizers, with some spots available for application at triniterally.com.



The inaugural Trinitē Road Rally, put on by the organizers of the Rebelle Rally, will travel through Northern California in May. (Photo courtesy Trinitē Road Rally)



Quality suspension setups combine performance and comfort in one package. (Photo courtesy Total Cost Involved Engineering)

are even more popular than one might think.

"It is one of the greater opportunities when it comes to the specialty aftermarket space," he reports. "In general, a large percentage of enthusiasts end up modifying their vehicle's suspension, often in tandem with wheel, tire and brake upgrades. Not to mention, there are far more street-focused customers when compared to the dedicated motorsport segment. To be sure, some crossover exists between the street and race markets, and the companies that go the extra mile to R&D products that can survive the rigors of both ecosystems will stand to have the greatest success."

MORE TO LEARN

While street suspension projects are becoming more common, a firm understanding of exactly how they work can be more elusive for many performance drivers.

"What a customer doesn't know can hurt

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STÄRKE MOTOR COMPANY DEBUTS RESTOMOD GEN 2 SPEEDSTER

Boutique automotive coachbuilder Stärke Motor Company has launched the Stärke Gen 2 Speedster, combining classic styling with the modern features of the 2017-up 718 platform. The builds blend the soul of a classic 1950s icon with the comfort, reliability, performance and safety of modern 21st-century engineering, according to officials.

At the forefront of the "classic car reimagined" movement, Starke utilized 3D scanning and computer-aided design (CAD) to create a custom body that fits precisely over a 718 chassis. Underneath the hand-sculpted body lies the options of either a 2.0L, 300-hp turbocharged flat-four; a 2.5L, 350-hp turbocharged flat-four; or a 4.0L, 394-hp naturally aspirated flat-six engine, with the choice of a 6-speed manual or a 7-speed paddle-shift transmission.

Virtually the entire drivetrain, suspension and crash structure are carried over directly from the 718, including all ADAS features (when optioned with the original exterior rearview mirrors). All modern interior features are retained, including heated seats and a heated steering wheel, full power accessories and a power soft top.



Stärke Motor Company has launched the Stärke Gen 2 Speedster, combining classic styling with modern features. (Photo courtesy Stärke Motor Co.)

Each Gen 2 Speedster is handcrafted to order, with clients choosing the exterior paint scheme, a variety of interior colors and materials, wheel designs, drivetrains and individual details.

"The Gen 2 Speedster represents the pinnacle of our design philosophy, delivering a fun, classic Speedster experience without any of the classic car downsides," says Seth Gortenburg, CEO of Stärke Motor Company. "I always admired the design of classics from the '50s and '60s and wanted to create a way to enjoy it with the everyday usability and drivability of a modern car."





Nearly all builds can benefit from suspension upgrades. (Photos courtesy Specialty Products Company)

them. All too often, the customer may not even be aware that major improvements can be made to their vehicle's handling and ride comfort at the same time," says Wilcox. "Even well-engineered systems that are improperly sprung for the given weight can take all the fun out of driving. What we see all too often is that vehicles are oversprung for the given setup. This idea that any body roll is a bad thing is not necessarily true. Stiffening up the suspension may be visually pleasing to onlookers, but, as the driver, it can make the vehicle twitchy and hard to control. We test our vehicles at a high level and find that softer, more compliant setups work great on track and also ride comfortably on the street. You can have your cake and eat it too when it comes to performance and comfort in one package."

Consumers don't always know best.

"In this era of the internet and AI recommendations, customers are certainly more informed than they used to be. But that doesn't mean they have considered all the angles when it comes to their upcoming suspension, especially if they're lacking in the experience column," Burnett states. "It is more important than ever (for) professional shops to guide the conversation and cut through the nonsense when it comes to what a customer saw on Instagram or YouTube and thinks will best serve their needs."

Shops should be the subject matter experts when it comes to these conversations, he continues.

"Brushing up on some consultative sales skills will certainly aid in helping identify the best way to deliver on a customer's dream," Burnett continues. "Start with asking the question, 'What do you intend to do with the vehicle?' and take it from there."

Meanwhile, Adcock offers examples of the pros and cons of limited suspension knowledge that shops may have to combat:

- ***CON:*** No matter what parts are hung on an old muscle car, it will never handle just like a newer performance car.
- ***PRO:*** Adjustment is far easier than shimming.
- ***PRO***: Adjustments not possible with OE parts can be achieved with aftermarket setups, such as positive caster for older cars that were designed for low/negative caster due to bias-ply tires and lack of power steering.

- ***CON:*** People can get too crazy with the amount of negative camber possible and can load up the small, outside wheel bearing too much.
- ***CON:*** Droop travel stop is often an issue, causing bent upper arms.
- ***PRO:*** Taller ball joints allow for improved suspension/steering geometry.
- ***PRO:*** Setups are readily adaptable for transplanted front "clips" that may not be located quite right and have caster issues.
- ***PRO & CON:*** The complete suspension and steering package must be designed to work correctly together.

THAT TRACKS

As with most aftermarket projects, successful street suspension upgrades start with a real conversation about intended vehicle use and client expectations before any parts are ordered or installed.

"Many customers truly don't know what they don't know and must rely on your guidance and advice to arrive at the ideal solution," says Burnett from Ridetech. "That means getting familiar with what current trends are at play in the street performance market. The other key area to focus on is quality products. While you may end up paying a bit more out of pocket initially, often that makes all the difference between the customer who is able to drive their vehicle with a smile on their face and the guy who ends up having to buy twice."

He notes that not all suspension systems are created equal for all purposes.

"It's also important to consider the connections a customer will make when it comes to the less-than-ideal part you may be considering carrying," Burnett adds. "Someone once pointed out that a rising tide lifts all boats, and that is certainly true when it comes to high-quality suspension manufacturers and qualified professional shops and installers."

Becoming the local go-to street suspension shop requires building product knowledge and experience.

"Many shops are not aware that an adjustable upper control arm is available. There are many aftermarket tubular arms available, but none offer the amount of adjustability that the SPC offerings provide," says Adcock. "Excellent selling points are that the arms can be adjusted while on the car, without removal and without using shims, and the clearance gained from the original shim configuration is a plus with vehicles that require additional header clearances."

Finally, Wilcox from Total Cost Involved Engineering recommends getting to know potential street suspension customers through track visits, car club connections and anywhere else enthusiasts gather and compare notes.

"Working directly in person with your customers gives you a chance to provide that extra level of service and sales," he explains. "Get out to events, cruises, road tours and even shows to have those face-to-face interactions. It's the best way to gain a customer—by showing them how the parts work in the real world. Being able to put a customer in the passenger seat of a vehicle is the best way to show them the possibilities. It's a direct comparison to what they have now and, more often than not, it's an eye-opening experience." ***TS***



PERFORMANCE **PRODUCTS**

Stock Your Shelves With These Go-Fast Components



Mustang Shock Absorber Kit

Aldan American, Signal Hill, California, presents Rear Adjustable Shock Kits for 1964-73 Ford Mustang models. TruLine Series single-adjustable and TrackLine Series double-adjustable shocks are offered for improved performance and tuning capabilities. The shocks are designed to work with factory-style rear springs and use the OEM shock mounting locations in the rear. They are made from lightweight, high-strength billet aluminum and are fully rebuildable and serviceable.

Gen 2/3 Corvette Lowering Systems



Ridetech, Jasper, Indiana, presents its StreetGRIP Suspension System that brings modern handling, ride quality and a lowered stance to Gen 2/3 1963-82 Chevrolet Corvette models. The systems include lowering springs; adjustable shocks; high-performance, self-lubricating bushings; a larger, heavy-duty sway bar; and optional steel rear leaf springs. Hardware and instructions are included for an easy installation. StreetGRIP keeps the vehicle's tires planted, reduces body roll and sharpens steering response for an improved driving experience.



VW Mk7.5 Jetta GLI Exhaust Suite

AWE, Horsham, Pennsylvania, presents an Exhaust Suite for 2022-newer Volkswagen Mk7.5 Jetta GLI models. Available as a sophisticated Touring Edition with proprietary drone-canceling 180 Technology or in the more unleashed Track Edition, the systems feature a slip-fit inlet adapter for factory downpipe fitment while leaving an open 3-inch connection. Delivering dyno-proven horsepower and torque gains while reducing weight from stock, the exhausts are handcrafted from CNC mandrel-bent U.S.-sourced T304L stainless steel.

6-Door Truck Cab Kit

King Series, Emery, South Dakota, presents its patent-pending 6-Door Truck Cab Kit. Built in the USA and designed for custom upfitters, the standardized system is engineered to convert traditional four-door trucks into spacious, fully functional six-door vehicles. Kits fit 2017-26 Ford Super Duty platforms, with optional HVAC kits, wiring packages and frame extensions available. One-piece composite middle doors, a one-piece extended composite roof, composite outer side panels and weather seals, brackets and hardware are included.





Evolution ODV31 Battery

EnerSys, Reading, Pennsylvania, presents the **ODYSSEY** Evolution ODV31 battery. Featuring exclusive AGM2 technology, the battery offers more than 650 charge/recharge cycles at 80% Depth of Discharge (DOD). The Evolution ODV31 is designed as a reliable choice for multi-battery marine systems and medium- to heavy-duty trucks with hotel loads, Electric Auxiliary Power Units (EAPUs) or other auxiliary equipment such as liftgate trailers or refrigeration systems.



Sprint Car Brake Kit

Wilwood, Camarillo, California, presents its new High-Performance Scalloped Rotor Kit, engineered to deliver control and tunability for winged Sprint Cars. Featuring a compact, lightweight 10.20-inch steel rotor design, the package enhances wheel clearance and improves pedal feel. Drivers can change brake compounds to achieve precise, customizable braking performance to suit different track conditions or driving styles. A newly designed, smaller and lighter scalloped rotor weighs only 3.20 pounds and maintains the popular 3x5.00-inch mount. ***TS***

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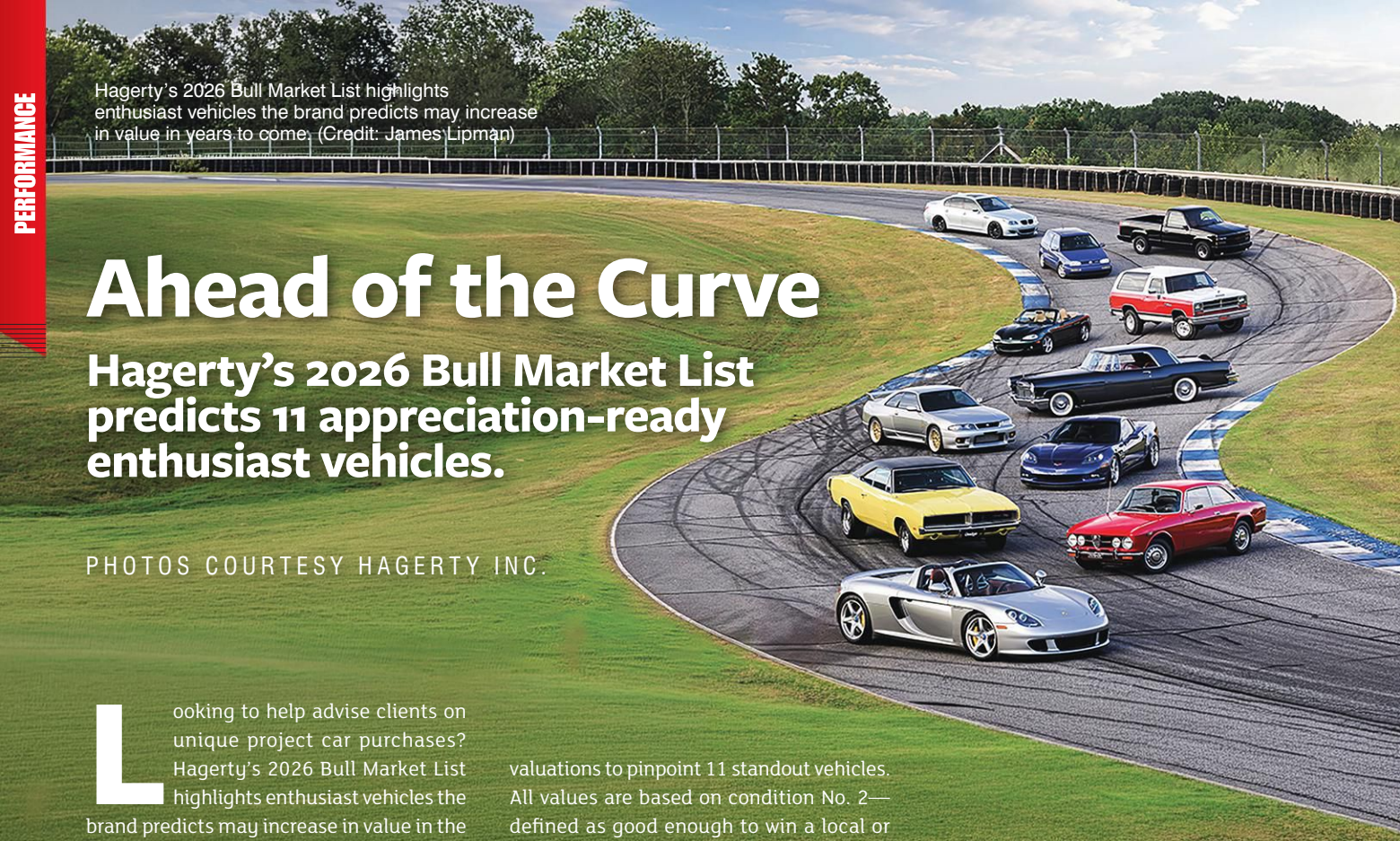
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HELLA



Hagerty's 2026 Bull Market List highlights enthusiast vehicles the brand predicts may increase in value in years to come. (Credit: James Lipman)

Ahead of the Curve

Hagerty's 2026 Bull Market List predicts 11 appreciation-ready enthusiast vehicles.

PHOTOS COURTESY HAGERTY INC.

Looking to help advise clients on unique project car purchases? Hagerty's 2026 Bull Market List highlights enthusiast vehicles the brand predicts may increase in value in the near future.

Now in its ninth year, the report features cars that punch above their weight class from value, ownership cost and enjoyment perspectives, while representing a cross-section of automotive passions and price points from less than $10,000 to more than $1 million.

The 2026 Bull Market List shifts gears into the 1990s and 2000s, showing that modern enthusiast cars are gaining popularity fast and represent the final chapter of the analog era—think modern speed and tech paired with manual transmissions and limited electronic interference.

Not to be outshone, several iconic classics made the list as well, illustrating that there are buying opportunities in all areas of the market.

"No matter your budget, it's never been easier to get into an enthusiast car you truly love," says Larry Webster, Hagerty senior vice president of media. "For this year's list, we scanned automotive history and found a set of cars that do two things really well—they're kind on the wallet, sometimes even rewarding savvy buyers, and they're an absolute blast to drive, whether that's putting miles behind you on the highway or carving-up your favorite country road."

In creating the list, Hagerty Automotive Intelligence sifted through public and private sales, historic trends and insurance valuations to pinpoint 11 standout vehicles. All values are based on condition No. 2—defined as good enough to win a local or regional show and drive like new, but not quite concours quality.

"Using the Hagerty Automotive Intelligence team's enthusiast car expertise to analyze millions of data points covering public auction results, private sales insights and insurance data, along with buyer and seller behavior, we are able to target the vehicles that rise above the rest," says Brian Rabold, Hagerty vice president of automotive intelligence.

From youngest to oldest, here's the 2026 Bull Market List, complete with Hagerty's observations:

2006-13 CHEVROLET CORVETTE Z06 ($55,900)

The 505-hp C6 Z06 hits the sweet spot for performance per dollar among modern sports cars, and its 7.0L V-8's rumble is so powerful, your heart jumps into your throat at every startup.

2006-10 BMW M5 ($36,000)

Whereas most high-performance BMW M engines are related to regular-series motors, this 5.0L V-10 (codename S85) is a complete one-off. Enthusiasts under 40 years old make up 58% of the interest in this generation of BMW M5s.

2004-07 PORSCHE CARRERA GT ($1,550,000)

Porsche made only 1,270 examples of its V-10-powered, road-ready race car. As such, the Carrera GT is highly sought after by collectors, 28% of whom are in their 40s or younger.

1999-2005 MAZDA MX-5 MIATA ($16,600)

By the late 1990s, the original Miata was already a legend. For its second act, Mazda kept the magic while adding bigger brakes and a more powerful engine. No matter the supply, demand is consistently higher—few cars appeal to as broad a demographic.

1995-98 NISSAN SKYLINE GT-R ($82,350)

The Skyline GT-R, Nissan's twin-turbocharged tech tour de force, was never sold in the United States. But the car gained a cult following among American enthusiasts via Gran Turismo, and examples were snatched from Japan as soon as it was legal to import under the 25-year exemption.



The Alfa GTV has long enjoyed a devoted cult following. (Credit: Cameron Neveu)



Enthusiasts under 40 years old make up 58% of those interested in 2006-10 BMW M5 models. (Credit: James Lipman)



Roughly 40,000 Chargers were built in the coveted high-performance R/T specification from 1968-70. (Credit: Cameron Neveu)



The 454 SS pickup holds its own in a straight line or on twisty back roads. (Credit: Cameron Neveu)



With a purchase price of $10,000 ($120,000+ in 2026 dollars), the 1956-57 Continental Mark II was the most expensive American car of its time. (Credit: James Lipman)



The 505-hp Corvette C6 Z06 hits the sweet spot for performance per dollar among modern sports cars. (Credit: James Lipman)



Few cars appeal to as broad a demographic as the Mazda Miata. (Credit: James Lipman)



The Nissan Skyline GT-R was never sold in the United States but quickly became a popular import once eligible. (Credit: Chris Stark)



Porsche made only 1,270 examples of its V-10-powered 2004-07 Carrera GT. (Credit: James Lipman)



Ramchargers from 1981-93 sported chiseled sheet metal and a standard V-8. (Credit: Chris Stark)



The 50-and-under crowd represents a whopping 78% of interested buyers for the Volkswagen Golf GTI VR6. (Credit: Cameron Neveu)

1995-98 VOLKSWAGEN GOLF GTI VR6 ($20,000)

First- and second-generation GTIs had four-cylinder engines; the third go-round had a 2.8L, 12-valve six-cylinder engine under the hood. The 50-and-under crowd represents a whopping 78% of interested buyers for the Mk III GTI.

1990-93 CHEVROLET 454 SS ($59,800)

Straight-line speed is obviously the animating idea here, but, with an upgraded suspension, the 454 SS pickup also holds its own on twisty back roads. New insurance policies are growing faster than the overall average for Hagerty while the average insured value has increased 57% since 2021.

1969-72 ALFA ROMEO GTV ($105,000)

The Alfa GTV has long enjoyed a devoted cult following, but it now seems to be getting more attention, perhaps from collectors getting priced out of contemporary 911s and the like.

1981-93 DODGE RAMCHARGER ($25,300)

The new Ramcharger sported chiseled sheet metal and a standard V-8. The order sheet let buyers swap Mopar's venerable 318-ci V-8 for its larger-displacement 360. The Ramcharger has been rising in value but is still a bargain compared to just about anything with the word "Bronco" on it.

1968-70 DODGE CHARGER ($91,450)

Roughly 40,000 Chargers were built in the coveted high-performance R/T specification, which could be optioned with the meanest engine available: the 426-ci, 425-hp Hemi V-8. More than half (52%) of owners are Gen Xers and younger.

1956-57 CONTINENTAL MARK II ($82,700)

With a purchase price of $10,000 ($120,000+ in 2026 dollars), the Mark II was the most expensive American car of its time. Behind the wheel, the car feels stately with its 368-ci, 300-hp V-8 moving nearly 5,000 pounds of leather, steel and chrome fluidly along with modern traffic.

Learn more about Hagerty's 2026 Bull Market List under the Media tab at hagerty.com. ***TS***

Restoring Vintage Carbureted Engine Performance, Part I

Tuning begins by analyzing the air/fuel mixture & accounting for today's unleaded gas blends.

ARTICLE & PHOTOS BY HENRY OLSEN



Henry Olsen of Performance Motorsports in Millbrae, California, specializes in tuning vintage carburetor-equipped engines for today's reformulated gasoline. Reach him at olescarb@yahoo.com.

EDITOR'S NOTE: *This is the first installment of a two-part series addressing carburetor tuning issues in vintage vehicles using today's unleaded gasoline blends.*

We have quite a few customers who come into our shop with their vintage carburetor-equipped vehicles who have engine performance and drivability complaints. One of the most recent examples was a 350-hp, 327-ci small-block 1965 Chevrolet Corvette.

The car's owner, who's had it since 1975, came in complaining about an overall lack of power. The engine would hesitate on acceleration, she reported, and the exhaust was unpleasant to breathe in and made her eyes burn.

Most of her complaints could be traced back to today's unleaded gasoline, which is formulated quite differently than the leaded gasoline that was sold when the vehicle was new. Owners of vintage cars and trucks from the 1950s, '60s and '70s enjoy both the driving experience and the attention they get whenever they are out in their classic vehicles, so they are very happy to find out we can restore the power and drivability the vehicle had back in the day.

TUNING FOR TODAY'S GASOLINE

There are many differences between the oxygenated and unleaded reformulated gasoline of today and leaded fuels from the 1950s-'70s. The burn time of the fuel is one, as is the distillation profile—but it is even more complicated than that.

These new fuels are designed to reduce evaporative emissions so they can be somewhat harder to light, but they burn faster than the leaded gasoline of days past. A good percentage of the gasoline that is available across our nation now contains ethanol and the percentage content of ethanol in each gallon of gasoline is likely to keep increasing. California has recently authorized the sale of gasoline with up to 15% ethanol, which will create even more tuning challenges for the owners of vintage carburetor-equipped vehicles.

Overall, these various gasoline formulations contain from 2% to 5% less energy and also have lower volatility than the leaded gasolines that were sold when most carburetor-equipped vehicles were built.

A modern fuel injected engine performs very well with today's unleaded reformulated gasoline, mainly because it has a computer that is continually adjusting the ignition timing and air/fuel mixture for the lowest exhaust emissions, maximum engine performance and the highest possible fuel mileage.

Since older carburetor-equipped vehicles did not have a computer to make the needed ignition timing and air/fuel mixture adjustments for today's gasoline, drivers will need to have both their ignition spark advance systems and air/fuel mixtures "tuned" for the gasoline that is sold today.

OUR TOOLS

- **EXHAUST GAS ANALYZERS:** BRIDGE ANALYZERS
- **DIGITAL AIR/FUEL METERS:** INNOVATE MOTORSPORTS
- **DIAL-BACK TIMING LIGHT:** OTC TOOLS





The engine is a 350-hp, 327-ci small-block Chevy.



A dial-back timing light is a very valuable tool for carburetor adjustments.

DIAGNOSING THE IGNITION & FUEL SYSTEM

The first steps we take when diagnosing a carburetor-equipped vehicle for performance or drivability complaints is to check the air/fuel mixture with a 5-gas exhaust gas analyzer. Then we look at the ignition spark advance.

The 5-gas exhaust gas analyzer unit we use is made by Bridge Analyzers. The readings allow us to determine the engine's air/fuel mixture and therefore how efficiently the engine is burning the fuel. The readings we look at are CO (carbon monoxide and air/fuel mixture), HC (unburned hydrocarbons/engine misfire), NOx (oxides of nitrogen, an indicator of excessive combustion temperatures), CO2 (carbon dioxide, an indicator of combustion efficiency) and O2 (unused oxygen).

Another important step is to measure fuel pressure. Proper fuel pressure is important because too much fuel pressure will cause the carburetor to be too rich or flood, while fuel pressure that's too low causes the carburetor to run too lean, especially during heavy throttle operation.

Fuel tank venting is also an important issue. For every gallon of fuel pumped from the gas tank, a gallon of air must get into the fuel tank through the vent system. We've seen quite a few vehicles in which the vent system was causing vacuum to build up in the fuel tank, causing the engine to starve for fuel during high engine load driving conditions.

We've found that Edelbrock carburetors seem to work best with 5 pounds maximum fuel pressure, while most Holley and Rochester carbs work best with 6 pounds. It's advisable to use a high-quality fuel pressure regulator on any carburetor-equipped engine, since we are seeing a lot of high fuel problems with today's reformulated gasoline.

The results we saw on the Corvette with the exhaust gas analyzer showed that the carburetor was supplying the engine an air/fuel mixture that was too rich at idle, lean off



The 1965 Corvette we are tuning.





A 5-gas exhaust gas analyzer allows users to observe what the air/fuel mixture is and how well the engine is burning it.



A distributor test bench allows you to observe and then modify both the mechanical and vacuum advance systems.

idle and then looked good above 2,500 rpm.

The exhaust gas analyzer also showed us the HC (hydrocarbons) readings were well above 1,500 ppm (parts per million)—thus the stinky exhaust complaint. The timing was 6 degrees at idle with the vacuum advance disconnected and the mechanical advance was not operating properly. Plus, the vacuum advance was not working.

IGNITION SPARK ADVANCE

The first rule when tuning any carbureted engine for these newer blends of gasoline is to start by optimizing the ignition advance curve(s). The combustion process must be started at the correct time if you expect an engine to perform as it should.

Today's reformulated gasoline causes an engine that was tuned for leaded gasoline to need more initial timing with a slightly faster mechanical advance curve, but the total mechanical advance is about the same as it was with leaded gasoline.

The amount of ignition total spark timing advance the engine needs to perform its best changes with engine rpm, engine load and the air/fuel mixture the engine is burning. The leaner air/fuel mixtures the engine gets from its carburetor at light throttle cruise speeds burn slower than the richer air/fuel



The arrow points to the area we modified on the advance plate so we could use advance limit bushings from an MSD distributor in order to limit the amount of mechanical advance.

power mixture the engine gets when it's operated at high load or wide-open throttle (WOT) driving conditions. This causes an engine to need more spark advance so that it can fully burn the leaner air/fuel mixtures it has when it is operated at low-load cruise driving conditions.

Since today's gas is somewhat harder to ignite, upgrading the ignition system to electronic ignition can be a good investment. Since the Corvette we were working on already had the transistor ignition system of its day, no upgrade was needed.

The aftermarket electronic ignition systems we find the most tuner-friendly are MSD Ready-To-Run distributors, because they have a mechanical advance system that allows easy adjustments of both the rate and amount of spark advance.

We use a vacuum advance corrector to limit the amount of spark advance from the vacuum advance to between10-12 degrees, which we've found works best with today's faster-burning reformulated unleaded gasoline. Before purchasing a new or rebuilt distributor, check that you can adjust both the rate and amount of mechanical advance and the vacuum advance systems for the needs of the engine.

Using a dial-back timing light is a good way to read the spark advance curves while the distributor is in the engine, while a distributor test stand allows you to see the advance curves at any rpm or vacuum level.

MECHANICAL ADVANCE

When considering these older carbureted engines, the mechanical spark advance consists of three components:

- Initial advance
- The rpm-based advance rate
- The degrees of advance from the advance weights

The advance rate of most original equipment and performance replacement distributors can be modified using different advance springs, but changing the amount of mechanical advance from the distributor is not always quite as easy.

The method each distributor manufacturer used to limit the mechanical advance varies from brand to brand—some are easy to tune while others can prove challenging.

The guideline we use for determining what initial timing is best for an engine that is using today's unleaded reformulated gasoline is based on the engine's camshaft. This guideline recommends:

- 10-12 degrees of initial timing when the camshaft duration is less than 220 degrees at 0.050 (mild or stock cam)
- 14-16 degrees of initial timing with less than 240 degrees
- 18-20 degrees of initial timing with less than 260 degrees

We use 12 degrees of initial timing for most vintage and muscle cars with a mild cam since the camshaft they used was well under the 220-degrees-at-0.050-valve-lift threshold.

The mechanical ignition spark advance curve we use most will cause the spark advance to be all-in by 3,200-3,600 rpm. This is a good starting point—you can gain power if you allow the advance to come in sooner, but risk engine damage from detonation if the advance comes in too early for the needs of the engine and the octane of the fuel.

The ignition spark advance curve as set by the advance springs should not start advancing until the engine rpm is raised above the base idle speed. The advance curve must not advance so quickly that the engine experiences detonation/ping problems.

Most vintage V-8 engines respond well to an advance curve that allows the total advance to be all-in by the 3,200-3,600 rpm range, but this will vary by the compression ratio of the engine and the octane of the fuel.

A vintage small-block Chevrolet, Ford or Chrysler engine with 9.5-to-1 compression will, in most cases, respond well to 34-36 degrees of total ignition advance (initial timing plus the mechanical timing), but if the engine has fast-burn cylinder heads it may require less total spark advance.

The total mechanical ignition spark



We installed a custom advance limiter plate to limit the advance from the vacuum advance to 10 degrees.

advance must be checked and possibly reduced when you increase the initial timing. If the total ignition spark advance needs of the engine are exceeded, the engine could be damaged from the resulting detonation. Whenever you increase the initial spark advance you must remove advance from the mechanical advance system so that the engine has the same total advance.

VACUUM-BASED SPARK ADVANCE

A distributor that has both mechanical and vacuum advance systems can allow the ignition spark to be advanced when the intake manifold vacuum is high so there is more time for this leaner air/fuel mixture seen at light-throttle cruise driving. The amount of spark advance from the vacuum advance system needs to be limited to about 10 degrees, since the spark advance from the various vacuum advance units that were used back in the days of leaded gasoline varied from 10-30 degrees of spark advance.

If the engine gets too much spark advance from the vacuum advance system the engine will experience misfire problems that have often been described as “bucking” or “trailer hitching.” This over-advanced vacuum spark problem can often be heard in the exhaust as an engine misfire at light-throttle driving conditions that goes away when the vacuum advance is disconnected.

There are two different vacuum sources for a vacuum advance. The first is ported vacuum, which only causes the vacuum advance to provide spark advance when the throttle is past idle speed. The second is manifold vacuum, which causes the spark advance whenever the engine vacuum is above the starting rate of the vacuum advance that is being used.

If you are using manifold vacuum as the source for the vacuum advance, the engine vacuum at idle must be at least 2 inches of vacuum above the vacuum needed for the vacuum advance to be fully advanced. As mentioned, most of the vacuum advance units available today were designed when there was lead in the fuel—thus, they should be limited to 10-12 degrees of advance because today’s reformulated unleaded gasoline burns faster than the older leaded fuels.

The HC (unburned hydrocarbon) readings from a 5-gas exhaust gas analyzer can be used to see what ignition spark advance setting gives the lowest misfire rate. The CO2 reading is used as an indicator of combustion efficiency—thus, the higher the reading, the better the engine is burning the fuel.

The NOx reading from a 5-gas exhaust gas analyzer can be used to see if the combustion temperatures are excessive, which can result from either over-advanced ignition spark timing and/or overly lean air/fuel mixtures.

We pulled the distributor from the 1965 Corvette and looked at it on our distributor test stand. The mechanical advance system had gummed up over time, and the vacuum advance unit was bad. We recurved the distributor to supply the engine with 22 degrees of mechanical advance—the advance kicked in at 900 rpm and was all-in by 3,400 rpm. We also installed a new vacuum advance that was limited to 10 degrees.

Once the distributor was installed in the engine, we then set the initial timing at 14 degrees BTDC (before top dead center). Once the ignition spark advance curves were optimized for the unleaded gasoline with ethanol that is sold here in California, the next step was to tune the carburetor.

We’ll cover that in the next article. ***TS***

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for pediatric cancer

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hatcherfoundation.org

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ENGINE **PRODUCTS**

The Latest Under-Hood Offerings



Ram Supercharger

ProCharger, Lenexa, Kansas, presents its Supercharger System for 2025 Ram 1500/2500/3500 models. Designed to enhance factory Hemi engines, the turnkey intercooled kit improves horsepower, towing and hauling capability, and everyday reliability for street, trail or jobsite applications. Designed to deliver optimum power for 8-speed transmissions, the complete systems offer quick and easy installation.

Super Duty Fuel Pump

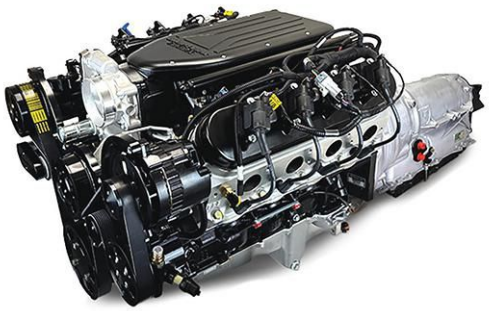


Stanadyne, Jacksonville, North Carolina, and its **PurePower Technologies** aftermarket division, present a compact, two-piston, high-pressure Fuel Pump upgrade for Ford Super Duty 6.7L Power Stroke applications. Created in partnership with **S&S Diesel Motorsport**, the system fits in the factory valley location, matches the factory output curve and does not require any ECU calibration changes. The plug-and-play replacement uses OE-grade braided hose and steel fuel lines for added durability.



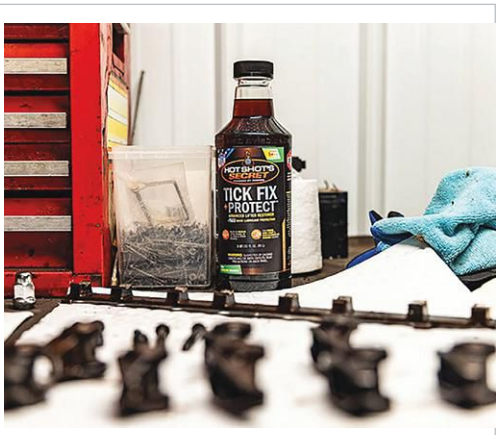
SBC Camshaft Kits

Air Flow Research (AFR), Valencia, California, presents its AFR Spec Performance Camshaft Kits, built for power and reliability. Each cam is designed to work hand in hand with optional matched valve springs, **Morel** hydraulic lifters and melonized distributor gear packages for combinations that deliver proven performance gains with street-to-race flexibility.



Engine Packages With ZF 8-Speed Transmission

BluePrint Engines, Kearney, Nebraska, presents the newest addition to its Builder Series lineup—GM LS-compatible 376-ci Pro Series engine packages paired with a ZF 8HP70 8-speed automatic transmission. Features include a Pro Series LS-compatible engine producing up to 530 hp, BluePrint high-strength LSX-style block with multiple intake options, and calibrated EFI engine and transmission management with no external TCU required. A BPE electronic shifter for the ZF 8HP70 is included.



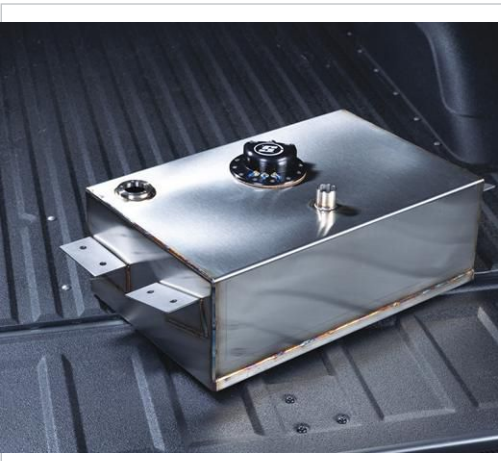
Oil Enhancer

Hot Shot's Secret, Mt. Gilead, Ohio, presents Tick Fix + Protect advanced oil enhancer developed for gas-powered vehicles. Designed to address the root cause of valvetrain noise and hydraulic lifter malfunction by targeting damaging conditions uniquely found in engines with stop/start systems, Displacement-on-Demand (DOD) and hybrid technology, the enhancer is formulated with a dexos 1 GEN 3-compliant additive package and FR3 Nano Technology. It cleans deposits to support proper lifter function while reducing engine wear by up to 30%.

Engine Refinishing Kit



KBS Coatings, Valparaiso, Indiana, presents its Motor Coater Kit, a complete cleaning, rust removal and paint system offering professional-quality engine refinishing. Use KBS Klean for surface cleaning, RustBlast for rust removal and surface prep, and Motor Coater Engine enamel for complete coverage and protection. The kit also includes No. 1 Thinner to thin Motor Coater for spray equipment applications, ensuring an even, professional finish. KBS Coatings are made in the USA.



TwoLane Fuel Systems

Speedway Motors, Lincoln, Nebraska, presents TwoLane Fuel Systems designed to bring modern reliability and performance to classic rides. Systems deliver dependable flow for EFI swaps, street builds and high-performance applications. Precision-machined billet aluminum components and **Walbro** pumps ensure lasting, street-proven dependability. Available in aluminum, stainless steel or powder-coated black finish, choose from single- or dual-pump setups, 255- or 450-lph flow and E85-compatible configurations.

EFI CAN Bridge for Holley EFI Systems



AutoMeter, Sycamore, Illinois, presents its new EFI CAN Bridge for **Holley** systems (P/N 9111), a streamlined solution engineered to simplify adding gauges or an AutoMeter InVision LCD dash to Holley EFI-equipped vehicles. Designed for maximum compatibility and easy installation, the EFI CAN Bridge connects directly to the Holley CAN output and converts existing sensor data into clean, usable signals for AutoMeter instrumentation. It is compatible with Holley HP, Dominator, Terminator and Sniper EFI systems.



Heat Barrier

Design Engineering Inc. (DEI), Avon Lake, Ohio, presents Adapt-A-Shield XT, a formable, removable heat barrier engineered for extreme flexibility and protection in high-heat environments. Designed to reflect intense engine and exhaust heat while shielding components, wire connections, fluid lines and other critical areas from abrasion and wear, the barrier features ultra-thin 0.011-inch aluminum construction reinforced by a durable poly-glass cloth backing. The material is exceptionally flexible, easy to cut with scissors and simple to shape. *TS*



Performance Modules

DeatschWerks, Oklahoma City, presents its DW430c + Performance Modules. Featuring a compact 38mm design that delivers 400-plus-lph flow while fitting into OE-style fuel modules, the systems are fully assembled and available for platforms including Ford F-150, Honda Civic and Nissan 350Z models, offering a complete, factory-style, E85-compatible replacement.



Restyling
AFTERMARKET ACCESSORIES

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Off-roaders want to invest in a winch setup that will deliver when needed. (Photo courtesy Borne Off-Road/ Mishimoto)

FROM HERE TO THERE

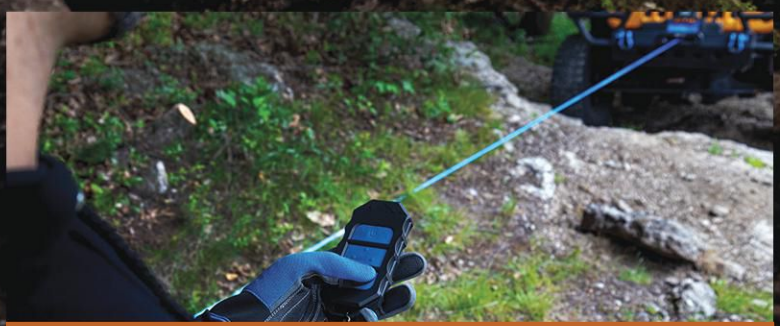
The pull of off-road winches remains irresistible.

By Jef White

From the trailhead to the jobsite, owners of heavy-duty vehicles of all stripes can't resist the pull of an aftermarket winch. Offering safety, utility and aesthetic benefits, the power-packed electric motors and ultra-strong lines create real connections with automotive enthusiasts.

When shops view winches as complete systems and not just single transactions, it opens add-on sales prospects to include proper mounting and electrical accessories as well as recovery gear. Throw in professional installation and even advanced educational opportunities, and the market delivers multiple inroads to serve off-road, overland and even fleet consumers.

For shops interested in building those strong attachments, winch suppliers provide observations on market trends, sales strategies and hot new products to discover—all in the name of getting your customers from here to there in any situation.



Off-road recovery isn't just about having one piece of gear. (Photo courtesy Borne Off-Road/Mishimoto)

PULLED INTO THE MODERN ERA

If you think winches are still just for hard-core Jeep customers, it's time to take another look at the product category and all it encompasses.

BUILT TOUGH PRICED RIGHT



XV95 WINCHES

Engineered for dependable performance without the red letter price tag, the TrailFX XV95 synthetic rope winch delivers on the details that truly matter to you and your customers - 9,500lb pulling capacity, 5.7hp motor, 218:1 gear ratio, automatic full load braking and IP67 rating for dust and moisture resistance. The XV95 winch is also backed by a limited lifetime warranty on mechanical components and a limited 3 year warranty on electrical components. Built tough, priced right, easy to sell.

TRAILFX®

Exclusively distributed by Keystone Automotive Operations, Inc.

"The winch market has evolved dramatically over the past decade. What used to be a niche, off-road accessory has become a mainstream necessity across multiple categories, including UTVs, overlanding, trailers, farm/ranch and industrial use," says Greg Robinson, director of business development for Warrior Winches. "Customers today expect far more from their equipment—better sealing, faster line speeds, wireless control, cleaner installations and higher overall reliability. Overall, the market has become more educated, more demanding and more performance-driven."

It's also keeping pace with today's modern vehicle designs, says Tony Savasta, vice president of marketing for Superwinch and Westin Automotive.

"Electric recovery winches are more mainstream than ever, especially with more winch bumpers available for more trucks," he says. "Electric winches have also become more powerful and reliable—the designs are lighter weight, along with synthetic ropes and advanced materials."

As the winch market grows, shops and consumers are forced to cut through the clutter to find the quality products that fit their unique applications.

"Customer expectations have evolved," says Kia Aghai, associate director of product education for Warn Industries. "Today's users demand more than pulling power—they expect reliability, durability and ultimate performance, both mechanical and electrical. Technology integration continues to accelerate, with wireless control, real-time

WINCHES

HOT PRODUCT:
12K Winch
FEATURES & BENEFITS:
Strong 12,000-pound rating; pure copper motor and 3-stage planetary gear system delivers smooth, consistent power; includes an 85-foot synthetic rope available in six colors; heavy-duty fairlead; forged alloy steel hook; RFID-linked remote.

Borne Off-Road/Mishimoto
Chris McKendry
Marketing Manager

HOT PRODUCT:
12K Xtract Synthetic Rope Winch
FEATURES & BENEFITS:
Paired with the CNC-machined Xtract fairlead, it is designed to look good and engineered for strength, safety and clean operation; simple design fits most bumper applications; integrated, fully remote control; strong and ready for any situation.

DV8 Offroad
Brandon Miller
Brand Manager

HOT PRODUCT:
TS13000S Winch
FEATURES & BENEFITS:
Powerful premium winch; 7-hp motor delivering 13,000 pounds of pulling capacity; illuminated control box logo with line pull indicator lights; 2-in-1 wired or wireless remote featuring a magnetic base; synthetic rope; relocatable control box; IP67 rating.

Rough Country
Chad Enochs
Chief Marketing Officer

HOT PRODUCT:
Scorpion Winch
FEATURES & BENEFITS:
Purpose-built for modern trucks; combines compact design, pulling power, advanced braking and modern controls for off-road and work truck demands; fits tighter bumpers while delivering maximum performance;10,000-pound rating; synthetic rope.

Superwinch by Westin
Tony Savasta
Vice President of Marketing
Superwinch & Westin Automotive

HOT PRODUCTS:
Reflex 2.0 Winches
FEATURES & BENEFITS:
Available in 9,500- or 12,000-pound capacities with wire or synthetic rope; automatic braking system; load indicator light; manual clutch; IP68-rated protection; kits include a fairlead, steel clevis hook, and both a wired and wireless remote.

TrailFX
Sara Ford
Marketing Manager

HOT PRODUCTS:
ZEON XD, XP & XC 10K, 12K & 14K Winches
FEATURES & BENEFITS:
Designed, engineered, tested and assembled in Clackamas, Oregon; reliable and durable; fastest-in-class no-load line speeds of up to 40-plus fpm; IP68 and IP69K rated; OEM-grade hardware; advanced controls; compact power and flexibility.

Warn Industries
Kia Aghai
Associate Director of Product Education

HOT PRODUCTS:
Gladiator F-Type Series
FEATURES & BENEFITS:
Premium winches built to perform under extreme conditions; full steel-bodied construction; relocatable control box; Armortek Extreme synthetic rope; IP-rated sealing; high-output motor; steel gearing; professional-grade braking system.

Warrior Winches
Greg Robinson
Director of Business Development







Know the customer's setup prior to offering a specific winch brand or style. (Photos courtesy DV8 Offroad)

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Electric recovery winches are more mainstream than ever, especially with more winch bumpers available for more vehicles. (Photo courtesy Superwinch by Westin)



A systematic sales approach complete with training and education creates long-term customer satisfaction. (Photo courtesy Superwinch by Westin)

monitoring and app connectivity becoming increasingly important. At the same time, vehicle OEMs are placing greater emphasis on factory integration, styling and packaging, pushing winch design toward more refined, low-profile and vehicle-specific solutions. As the originator of the industry's first recreational electric winch and with nearly 80 years of continuous operation, Warn continues to push the envelope in innovation to remain one of the most trusted and recognized names in the off-road and utility markets."

In a busy industry, suppliers are working to make an impression.

"The winch market has become a lot more crowded with companies trying to offer any new features to stand out from the crowd," says Brandon Miller, brand manager for DV8 Offroad. "Our priority was to offer a good-looking product that focuses on functionality at an obtainable price."

While the winch market may seem fairly straightforward, trends and preferences continue to evolve.

"We've seen a trend of more consumers wanting a winch but not desiring the look of an external winch mount," says Chad Enochs, chief marketing officer at Rough Country. "We've continued to expand our lineup of hidden winch mounts that offer a factory look while providing a rigid mounting location. Some of our newest mounts, like the FXS Bumper, even offer a Paint to Code option."

Among the recent market updates is an increase in line material options.

"Ten years ago, most winches came standard with steel cables. Today, there has been a significant shift of preference from steel to synthetic rope models," says Sara Ford, marketing manager for TrailFX. "If budget isn't a concern, consumers often choose synthetic rope models because they are generally lighter, safer and easier to handle."

MORE TO LOVE

Taking extra steps to ensure a precise fit for the vehicle and its planned usage will benefit the shop and the driver when it comes to winch sales and installations.

"For obvious reasons, shops may want to sell what they have readily available," says Chris McKendry, marketing manager for Borne Off-Road/Mishimoto. "With that said, consumers may end up with a winch that isn't the correct weight rating for their needs based on GVWR plus all the heavy gear, bumper, etc. that has been added. Investing time and money into a winch setup that may come up small when you need it most is a huge disappointment for the customer."

Ford explains that choosing the winch unit can be just the beginning.

"While a winch is a must-have for off-road adventures, shops should also make sure customers are equipped with the right recovery accessories to stay safe







Different price points help buyers find the level that works for them.
(Photos courtesy Rough Country)

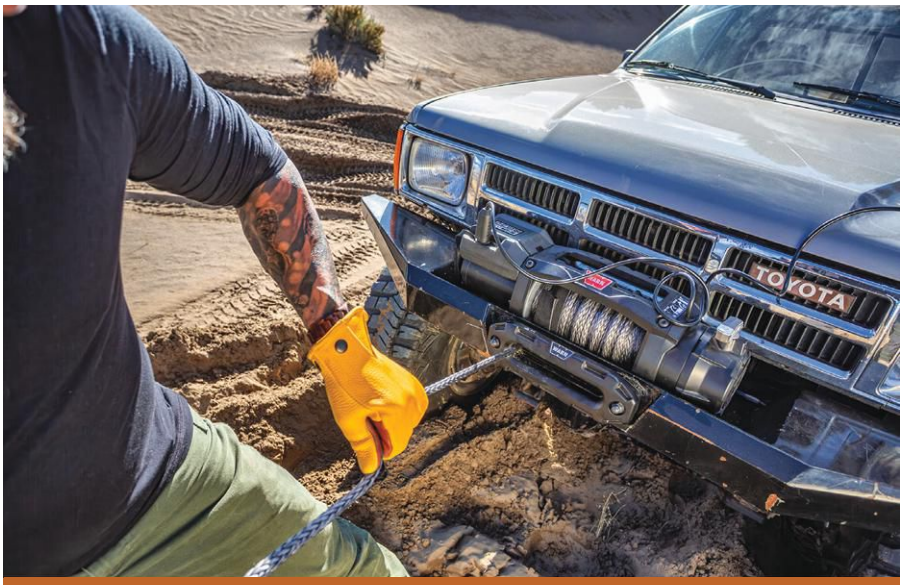
and prepared on the trail," she advises. "Recommending items like recovery kits, winch dampers and safety gloves helps ensure a smoother, safer recovery when it matters most."

Aghai notes how approaching vehicle recovery as a complete system can benefit shops as well as drivers.

"Too often, the focus is placed solely on rated capacity or price point, without fully considering vehicle weight, intended use, mounting structure, electrical requirements and supporting recovery accessories," he says. "In many cases, shops simply do not take the time to fully understand the customer's needs and how the vehicle will actually be used. It's not just about getting a winch into the hands of the customer—it's about getting the right integrated recovery system into their hands, with the winch serving as one component of a larger solution."

When it comes to being "off-road" or "winch equipped," he continues, every customer has a different vision.





Technology integration continues to accelerate, with wireless control, real-time monitoring and app connectivity becoming increasingly important. (Photo courtesy Warn Industries)

"For some, it's exploring remote trails. For others, it's competition use, jobsite demands or simply having a capable daily driver that can leave the pavement when needed. Understanding how a customer intends to use their vehicle is critical to defining the appropriate winching and recovery setup."

Robinson identifies mis-specifying the winch, either by undersizing capacity or overlooking duty cycle, as a common mistake shops often make.

"Matching a winch to a vehicle's curb weight instead of its true loaded recovery weight leads to slow performance, overheating and customer dissatisfaction. Starting with at least 1.5-times the vehicle's gross weight is a much safer benchmark," he says. "Shops also tend to treat every winch the same, whether it's going on a UTV, a 4x4 or a trailer. Each application creates different loads, line angles and duty demands. Choosing the right gearing, braking and sealing, especially when customers frequently encounter water or mud, is essential."

He adds that, on the installation side, electrical shortcuts can cause future issues.

"Undersized cables, weak grounds and long runs create voltage drop and rob a winch of power. Using the proper cable gauge, grounding to battery negative and protecting the contactor make a dramatic difference in performance and reliability."

Savasta cautions against selling and installing winch systems focused only on line pull ratings.

"Rope length, line speed and the ability to clock the winch for easy access to controls all come into play," he advises. "Front-end load capacity, mounting structure, airflow and bumper compatibility are sometimes also overlooked. Undersized wiring, poor grounding, inadequate battery/charging support and incorrect rope spooling or brake orientation can also be a factor."

To complete a successful installation, the platform holding the unit must be stable and accessible as well.

"A common mistake is not knowing the compatibility between the winch and the aftermarket bumper," says Miller. "Some install locations may be limited to smaller winches or require the winch control box to be relocated. Knowing the customer's setup prior to offering a specific winch brand or style is very important."

Meanwhile, count Enochs among those favoring newer line materials.

"Recommend an upgrade from a steel rope to a synthetic rope," he advises. "A synthetic rope provides a safer winching experience for customers."



Today's winch users demand more than pulling power—they expect reliability, durability and ultimate performance. (Photo courtesy Warn Industries)

PULLED IN THE RIGHT DIRECTION

When seeking winch sales, shops that offer professional installation and customer education can increase average ticket value while creating safer, more capable vehicles and more confident drivers, says Aghai from Warn Industries.

"Education and training are critical keys to success. A winch is only as effective and safe as the user operating it, and while many customers are eager to learn, they lack access to reliable, experience-based information," he says. "Shops that position themselves as trusted advisors by explaining proper winch selection, safe recovery practices and the value of quality components naturally build confidence and long-term loyalty. Through its family of USA-made brands—Factor 55, Fab Fours and Fabtech—Warn delivers a complete, integrated recovery system. In return, this approach strengthens long-term customer relationships, builds trust and positions the shop as a knowledgeable, reliable resource for future upgrades and service."





Consumers often choose synthetic rope models because they are generally lighter, safer and easier to handle. (Photos courtesy TrailFX)

Robinson from Warrior Winches provides a three-question entry point for customer discussions:

- What are you mounting the winch on? (vehicle, trailer, UTV, etc.)
- What will you be pulling and how often?
- What's more important to you—speed, strength, price or long-term durability?

"This not only builds trust, but also naturally guides customers toward higher-quality solutions," he says, adding that "bundle-based selling is a huge missed opportunity. Shops that package winches



CAMPING REPORT SHOWS LOVE OF THE OUTDOORS CONTINUES

Campsite app The Dyrt has released its 2026 Camping Report Presented by Toyota Trucks. Toyota has partnered with The Dyrt for the third consecutive year to create the latest edition of its award-winning annual report, which organizers call "the camping industry's go-to data source."

Among the main findings: RVs and trailers continue to be the most popular types of camping setups, according to survey respondents—the majority of which also report having had difficulties booking a site because campgrounds were full.

"We continue to see a diverse cohort of first-time campers discovering camping in all its forms," writes Sarah Smith, founder of The Dyrt, in an introductory letter to the report. "It's amazing to see growth in camping among such a wide variety of people and camping types."

The report is compiled from the results of surveys conducted with three groups—thousands of members of The Dyrt community, a representative sample of U.S. residents and camping property managers across all 50 states. According to the findings, 2025 saw the second-highest total number of campers on record with 82.4 million (84.8 million in 2023). There were 2.6 million first-time campers in 2025.

"As campsites continue to fill up and bookings remain competitive, camping etiquette is more important than ever," continues Smith. "This year, we explored behavior and opinions among the camping community on bookings and cancellations, as well as what it takes to reserve a first-come, first-served campsite."

The report also incorporates the opinions of Toyota truck owners, as "Toyota Adventure Detourists" shared some of their favorite memories, traditions and camping spots they've found in their Tacomas, Tundras, 4Runners, Sequoias and Land Cruisers.

As Smith writes in the report, the most common answer given by Toyota drivers when asked about their favorite camping memories in their truck: "All of them."



The Dyrt's 2026 Camping Report Presented by Toyota Trucks aims to be "the camping industry's go-to data source." (Image courtesy The Dyrt)



Educating customers before they hit the trail ensures safe winch use and drastically reduces comebacks. (Photo courtesy Warrior Winches)

with proper mounting plates, synthetic rope upgrades and recovery gear kits not only boost their ticket size but also make the whole buying experience easier for the customer."

Savasta from Superwinch by Westin outlines an approach that includes selling an integrated system including the winch, winch mount, electrical accessories and recovery gear, followed by adequate training to create long-term customer satisfaction.

"Also, we have winch showroom displays available to make it easy to display our entire offerings and help shops make more sales," he says. "And don't forget literature and replacement parts."

Miller from DV8 Offroad explains that staff knowledge and inventory are the keys to selling more winches.

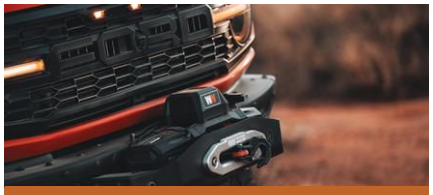
"Counter salespeople need to be armed with the right information to be able to identify the right winch for a customer's setup," he says. "Having it in stock can help close the sale when a customer is trying to get ready for the next trail day."

For new customers, and particularly novice off-roaders, nothing beats a hands-on experience for those who find winches intimidating.

"Displaying a winch installed on a shop vehicle gives customers real-world context, lets them see the product beyond the box and creates opportunities for hands-on demonstrations that can help close the sale," says Ford from TrailFX.







Be sure to perform proper rope pre-tensioning to reduce buried wraps and premature rope wear. (Photos courtesy Warrior Winches)

Overall, a fully outfitted customer has an increased chance for a successful adventure.

"Off-road recovery isn't just about having one piece of gear," says McKendry. "While a winch may be at the core, there are complementary parts that can maximize the capabilities of the winch and increase the number of ways a vehicle can be recovered. Borne offers some recovery essentials such as soft shackles, snatch blocks, traction boards, kinetic recovery ropes and more—all things that could come in handy when you least expect it but need it the most."

Finally, different price points help buyers find the level that works for them, says Enochs from Rough Country.

"Be sure to offer a good variety of winch price ranges," he says. "Some customers are looking for inexpensive recovery options, but others like the features of premium winches." ***TS***



Is Data Becoming the New Diesel?

Understanding the role of telematics in the EV transition.

BY LISA DRAKE



Fast Lane Transportation Inc., a Southern California-based provider of intermodal and logistics services, is expanding its fleet of Orange EV electric yard trucks after years of consistent performance. (Above photo courtesy Fast Lane Transportation Inc./PR Newswire)

The fleet industry is approaching a pivotal juncture, with electrification increasingly positioned as a potential path forward for businesses working to reduce emissions and operating costs. Yet, during this period with evolving expectations and uncertain environmental regulations, the direction and pace of this transition remain fluid.

While momentum is building around the shift from traditional combustion engine vehicles to electric vehicles (EVs), it's clear that this evolution involves far more than just replacing engines. As fleets venture into this complex landscape, one constant emerges—data will be essential in guiding strategic decisions and shaping the future of fleet management using advanced telematics.

Historically, telematics has been a powerful tool for fleet operators, enabling them to streamline operations with insights into routing, fuel usage, maintenance schedules and driver behavior. But as the industry embraces electrification, the telematics capabilities are expanding to offer a more nuanced view—not only of energy consumption and vehicle deployment, but also where and how EVs are charged, and what that means for operational costs and efficiency.

In essence, data is becoming the new diesel.

THE EV ADOPTION SLOWDOWN

While EV adoption has made significant strides in recent years, it's no secret that progress has slowed, particularly over the past year. Reports show battery electric vehicles (BEVs) made up 8.9% of U.S. light-duty vehicle sales in Q3 2024, but that share slipped to 7.5% in Q1 2025—reflecting a plateau in consumer uptake despite year-over-year gains.

Several factors have contributed to this slowdown, with economic pressures and regulatory uncertainty playing the most significant roles. Additional challenges lie in the difficulty of accessing EV incentives, infrastructure readiness and availability, and long-term return on investment driven by unpredictable residual values. That said, there are clear areas where EVs are already proving to be cost-effective—such as in urban delivery fleets and predictable regional routes—offering lower total cost of ownership and measurable ROI.

In this context, fleet operators cannot afford to sit on the sidelines waiting for EV adoption to accelerate. While the transition may take longer than initially expected, having a well thought-out transition plan is crucial.

Fleet managers must begin preparing their fleets for electrification, even if full adoption is still years away. This is where data and telematics become essential. As fleet operators start thinking about electricity not just as a power source but as a managed resource, they will need to adopt new strategies for energy usage.

TELEMATICS & THE EV SHIFT

Managing EVs is not simply about replacing diesel- or gasoline-powered trucks with electric ones; it's about thinking differently about how energy is consumed.

Telematics data from traditional fleet vehicles can be the baseline for identifying when and where EV replacements can be successful. Telematic systems used in EVs can then help fleet operators track energy usage in real time, match EV capability to route planning, identify periods of high electricity demand or peak energy usage based on operational schedules, and predict future energy needs based on vehicle deployment patterns.

Telematics platforms, which have traditionally focused on managing diesel or gasoline vehicles, are now being enhanced to track electricity consumption, charging behavior and vehicle deployment strategies, thus giving fleet operators the tools they need to optimize their transition toward electrification. In doing so, they provide a comprehensive approach to managing energy consumption and vehicle performance—two critical areas for effective fleet management and cost control.

Fleet operators are beginning to realize that electricity, like diesel or gasoline, needs to be managed, particularly with the complexities of charging and electricity pricing. Telematics tools that monitor charging behavior and provide charging data can help fleet managers direct effective charging practices and can also identify the best times to charge vehicles to ensure cost reductions and vehicle readiness, ensuring the fleet remains operational while optimizing energy costs.

By integrating energy usage data with operational data, telematics can provide fleet operators with insights that can help them balance energy demand and vehicle deployment, reducing operational costs in the long run. As fleets scale up their adoption of EVs, the ability to manage this transition effectively will be a key to their long-term success.

ADDRESSING TELEMATICS CHALLENGES

While telematics holds immense promise in facilitating the electrification transition,

Image credit: Vadym - stock.adobe.com.

there are still significant hurdles to overcome. One of the main challenges is the lack of interoperability across different telematics, fleet management and EV charging platforms.

A siloed approach to various sources of data can limit a fleet managers' ability to make data-driven decisions across all areas of their operations.

CREATING DATA-DRIVEN EV FLEETS

Despite the current slowdown in EV adoption, most agree there's no denying the long-term benefits of transitioning to electric fleets. As fleet managers continue to explore ways to optimize their operations, data-driven solutions will be integral to their success.

Telematics, which has already revolutionized traditional fleet management, is set to play an even larger role in guiding fleet operators through the complexities of electrification.

For fleet managers, now is the time to start gathering data, analyzing energy consumption patterns and exploring the evolving tools that will help them manage the next phase of their fleet's transition.

By understanding the capabilities of telematics today and preparing for what's to come, fleet managers can make informed decisions that will help them achieve a successful transition, no matter how long the road to full electrification may be. This is also the time they can work with upfitters and restylers to enhance vehicle efficiency and utility.

Merchants Fleet is actively monitoring these trends and staying ahead of the curve to help support fleet operators through this pivotal transition. The evolution of telematics and the data-driven tools supporting fleet electrification will ensure that, regardless of the challenges ahead, fleet operators are prepared for a more sustainable, cost-efficient future. ***TS***

Lisa Drake, P.E., is director, fleet electrification at Merchants Fleet, a privately held company that provides highly customized fleet management and fleet leasing solutions to large businesses, midsized companies, governments, educational institutions and more. Learn more at merchantsfleet.com.





Truck Bed Cover

RealTruck, Ann Arbor, Michigan, presents the next generation of the BAKFlip MX4 truck bed cover. Featuring a sleek design and delivering reliability and ease of use, the cover includes upgraded security, strength and durability. Improved seals and all-new tight-fit clamps provide state-of-the-art weather protection, and the units are constructed for increased durability and heavy-duty use with a sturdy, premium-grade aluminum surface and high-density polymer core.

Low-Profile Winch



Warn Industries, Clackamas, Oregon, presents its ZEON XC compact, low-profile winch. Easily mounted in tighter spaces, the winch is available in 10,000-, 12,000- and 14,000-pound capacities with either steel rope, Spydura synthetic rope or no rope. The high-performance, high-efficiency motor and geartrain combination delivers up to 40 feet per minute, while a new, low-profile Albright contactor, complete with bus bars, offers control, reliability and efficiency. The ZEON XC is also IP68/IP69K waterproof, complete with O-ring sealing.



Winch With Synthetic Rope

Superwinch, San Dimas, California, presents its new Scorpion 10000SR 12V DC Winch with Synthetic Rope. Engineered for strength and reliability, the winch delivers a full 10,000 pounds of pulling capacity in a lightweight, compact design that fits where traditional winches can't, reducing stress on the vehicle without sacrificing performance. Equipped with a high-torque permanent magnet motor and instant dynamic braking, the winch features a versatile, clockable four-stage planetary gearbox with dual-range gearing, a full load-holding brake and more.

Eco-Solvent Roll-To-Roll Printers



Mimaki USA, Flowery Branch, Georgia, introduces the Mimaki JV200 Series of eco-solvent, roll-to-roll printers. Designed to easily produce indoor and outdoor display graphics and vehicle wraps, the entry-level printers are available in 54- and 64-inch widths. Highlights include outdoor color durability, the latest software and up to eight color inks. The JV200 Series is particularly suited for smaller vehicle wrap shops using an external cutter or a lamination workflow.



12V Electric Winch

Warrior Winches, Arlington, Texas, presents its all-new Sentinel 12V Electric Winch. Engineered to deliver 8,000 to 12,500 pounds of pulling capacity with 23- to 27.5-feet-per-minute line speeds, the winch features a lightweight, durable full-metal casing. Designed to withstand mud, water and dust, the Sentinel boasts an IP68 waterproof rating and is equipped with an IP67-rated control box for enhanced durability. The complete kit includes two remotes, a charging cable, battery leads and stainless steel mounting hardware.



Affordable Wheel Line

American Tire Distributors (ATD), Huntersville, North Carolina, presents **Edge Wheels**, a proprietary wheel brand offering new designs in a wide range of sizes, styles and finishes for cars and light trucks. Positioned as ATD's opening price point wheel brand, Edge Wheels deliver value-driven options with modern styling and dependable performance. Three styles—Edge 301, 302 and 303—are initially available in painted, painted with milled accents and chrome-plated finishes. Additional off-road and street styles will be introduced throughout 2026. ***TS***

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GNRS Crowns 1932 Ford America's Most Beautiful Roadster

The O'Reilly Auto Parts Grand National Roadster Show, presented by Meguiar's, recognized the country's top roadsters, hot rods and custom vehicles in February at the Fairplex in Pomona, California. The ceremony marked the culmination of the 76th annual show and included the presentation of two of the custom car world's most coveted awards—America's Most Beautiful Roadster (AMBR) and the Al Slonaker Memorial Award.

America's Most Beautiful Roadster, considered the ultimate recognition in hot rodding, was awarded to a standout 1932 Ford Roadster owned by Nicole Baird and built by Squeeg's Kustoms. It outshined eight other AMBR contenders, taking home the title's $12,500 prize sponsored by ARP Fasteners.

Baird will be added to the award's 9.5-foot-tall perpetual trophy alongside 75 former AMBR award recipients including legends like George Barris, Andy Brizio and Chip Foose.

A descendant of the Ford Motor Co. family, Baird presented a meticulously executed roadster finished in metallic blue pearl with white scallops. The paintwork was completed by Tracy and Terry Weaver, complemented by extensive chrome by Jon Wright & Ogden and polish from Russell's Custom Polish. Power is supplied by a Buick Nailhead V-8 built by Roger Beckman, while the interior was crafted by Recovery Room.

AL SLONAKER MEMORIAL AWARD

Meanwhile, Dennis Troggio's 1955 VW Karmann Ghia built by Type One Restoration was awarded the 2026 Al Slonaker Memorial Award.

Troggio stood out among the diverse field of 12 contenders, which included 1958 Chevrolet Corvette, a 1956 Plymouth Roadrunner and a 1951 Studebaker Champion.

Dedicated to the memory of Al Slonaker and Mary Slonaker, founders of the Grand National Roadster Show in 1950, the award has been presented to the show's best non-roadster vehicle since 1974. In addition, Troggio also received a $12,500 prize courtesy of ARP Fasteners and a billet trophy.

Built over the course of approximately four years, the car was extensively reengineered with reshaped body panels, including restyled fenders, doors, hood and decklid, along with modified wheel openings and stretched quarter panels to accommodate wider tires. Finished in a custom dark green over olive green paint scheme, the Ghia features bespoke fasteners with custom-machined bolt heads and brake rotors machined from solid 90-pound blocks of cast iron.

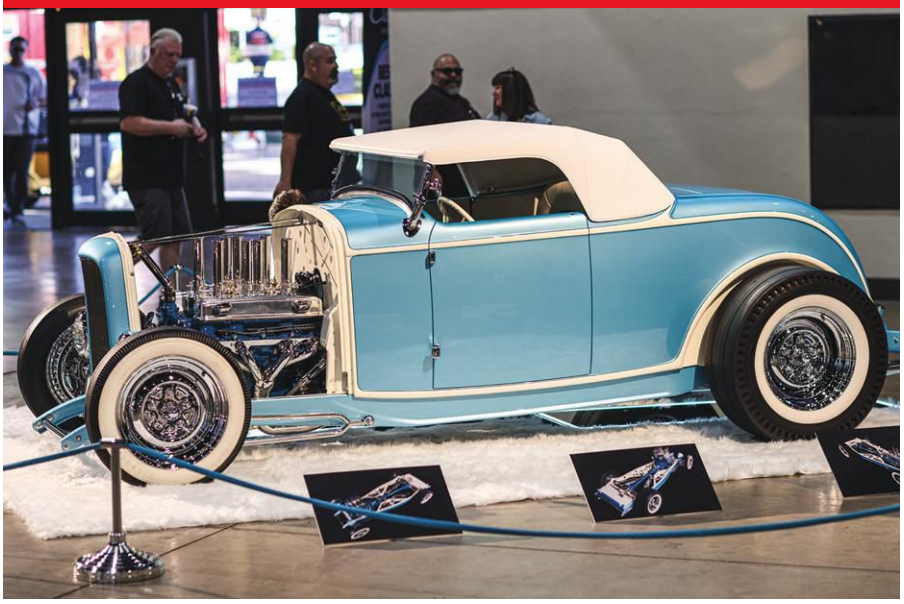
At its core is a 2.4L air-cooled flat-four, paired with a reinforced transmission and limited-slip differential.

"The 76th annual Grand National Roadster Show demonstrated that the world of hot rodding and custom cars is as innovative and popular as ever," says John Buck, owner of Rod Shows and producer of the Grand National Roadster Show. "We were honored to have so many industry legends, historic cars and groundbreaking builds fill the Fairplex this year. It was the perfect way to celebrate more than seven decades of this incredible show."

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Dennis Troggio's 1955 VW Karmann Ghia built by Type One Restoration was awarded the 2026 GNRS Al Slonaker Memorial Award.



A standout 1932 Ford Roadster owned by Nicole Baird and built by Squeeg's Kustoms was named America's Most Beautiful Roadster at the 76th O'Reilly Auto Parts Grand National Roadster Show, presented by Meguiar's. (Photos courtesy Grand National Roadster Show)

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