

# PROFESSIONAL DISTRIBUTOR

MAY 2023  
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ENDEAVOR  
BUSINESS MEDIA

## SCANNING FOR SALES

Help your customers find the perfect fit  
for their shops' next scan tool.

Page 20

Most Wanted Page 12

Show Me Your Truck Page 34

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Mac Tools team Ed and Maria Lee are both full-time on the truck, which allows them to better cater to all their customers' needs.

20

## COVER STORY

### 20 Scanning for sales

Scan tools can be complicated, but selling them doesn't have to be—with some basic knowledge, a good support team behind you, and a few sales tips for added guidance, you should be on track for making the sale.

## PRODUCTS

### 6 Sneak Peek

Brand new products from Rotary, DeWalt, AGS Company, and more.

### 12 Most Wanted

The top requested products from technicians and shop owners, based on inquiries from *PTEN* magazine.

### 14 In Focus

Take a closer look at products from Streamlight, Mueller-Kueps, Autel, CTA, Electronic Specialties, and Mayhew Tools.

## MAY 2023 CONTENTS



8



13



35

## DEPARTMENTS

### 4 Editor's Note

Off to the tool show

### 26 Diagnostic Tech

Scott Brown dives into the technology behind advanced driver assistance systems (ADAS).

### 42 Tales from the Road

This husband and wife team didn't quite choose this career, it sort of chose them.

## SALES

### 34 Show Me Your Truck

Jim Castaneda, Cornwell Quality Tools

### 36 Go Sell Something

Alan Sipe shares how some demonstrations require more preparation in order to make the sale.

### 38 Driving Sales

Products that will help your bottom line.

## WEB EXCLUSIVES

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### VIDEO:

While attending the Mac Tools Fair, tool distributor Stewart Brown shares how he manages his time and some tips for success.

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### ARTICLE:

As Q1 comes to an end, check out the most clicked-on diagnostic tools and updates from 2023 so far.

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### VIDEO TOOL REVIEW:

In this video, John Baumgardt III, shop owner, reviews Mayhew Tools 3-pc Hammerless Set, No. 89021.

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## Off to the tool show

A few highlights from the Mac, Matco, and Cornwell tool shows.

The past few months I've spent my fair share of time sitting in airports, in the backs of taxis, and standing in line waiting to check-in to my hotel room. And where did my travels take me? Some of you may already know the answer as I chatted with many of you at the Mac Tools Fair in Dallas, the Matco Tools Expo in San Antonio, and Cornwell Quality Tools Rally in Las Vegas.

Whether you drive for one of these flags or work solo as an independent, it's always a good idea to stay up-to-date on what's new. Here are a few highlights from each of this year's shows.

### MAC TOOLS

Mac debuted numerous new tools including ANTIVIBE Hi-Vis Hammers, a 6-pc 4V Screwdriver Set, and a new line of code readers. Similar to their ET9200 Series Scan Tools, the code readers span across three levels. Additionally, Mac introduced the RBRT (rounded bolt removal technology) SAE & Metric Combination Wrenches – what Rob Ronan, vice president of channel marketing at Stanley Black & Decker, believes to have been the star of the show. The sets are designed to provide up to two times more torque when removing 60 percent and 80 percent rounded fasteners compared to existing existing Mac Tools combination wrenches

### MATCO TOOLS

This year's expo came with the exciting announcement that

Milwaukee Tool would be partnering with Matco's Cordless Infinium line.

Also showcased at the event, Matco's 360-degree diagnostic portfolio—especially one of their newest releases, the Maximus TPMS 3.0 Diagnostic Tool. The 16V Cordless Infinium 3/8" Sealed Head Ratchet Kits were another hit at the show. The ratchet's sealed head prevents dust and debris from clogging up the inner components of the tool, increasing its durability. Additionally, Matco launched purple flex-head ratchets and pry bars.

### CORNWELL QUALITY TOOLS

The buzz on the show floor centered around the new ARCA Tool Storage line. The line consists of a 57" 8-drawer double bank roller cabinet and a 79" 13-drawer triple bank roller cabinet, and introduced seven new colors – Ignition Orange, Lightning Yellow, Torch Blue, Vapor, Smoke, Storm, and Shadow. The colors also feature metal flakes and interference pigments, which give the boxes just a bit of sparkle.

Also launched at the show, were the 3/8" Drive 120 Tooth Extra Long Ratchets, a 29-pc Tempest Point Mechanic's Length Drill Bit Set from Consolidated Toledo Drill, a variety of screwdriver sets from Mayhew, and racing creepers and seats from Whiteside.

Did I miss anything? If you attended one of these shows what was your favorite new release? **PD**

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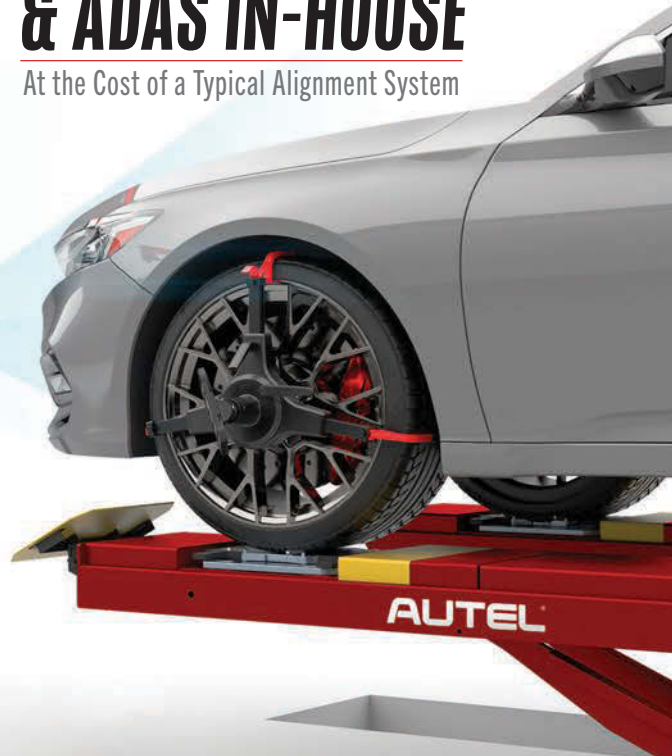


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**AUTEL**

## Welcome to Sneak Peek!

This section features recently introduced automotive tools and equipment. See new products even before automotive technicians read about them in *PTEN* magazine.



### STRAIGHTENS TUBING UP TO 3/8"

The **AGS EZ Fit Adjustable Tubing Straightener** is designed to straighten tubing including NiCopp, copper, aluminum, stainless steel, and plastics up to 3/8" in diameter. It can be used by hand or in a vice. It also has a wheel, allowing users to run it along a workbench or floor surface. Constructed of a corrosion-resistant plated steel body and eight stainless-steel rollers with nylon bearings to ensure smooth tube rolling. The adjustable open side entrance allows users to straighten lines that are already flared. Simply open the jaws, insert the line, use the hand lever to adjust to the tube diameter, and squeeze the handle. ■

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### MARKS TOOLS OR ANY OTHER MATERIAL

The **Ingersoll Rand 140EP Engraving Pen** is easy to use and versatile, allowing technicians to mark tools or any other material with greater legibility and ease. The tool is lightweight and features a slender, ergonomic body design and a soft rubber grip for comfort. It measures 5-1/2" in length and weighs 0.425 lb. ■

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### COMPATIBLE WITH ALL DEWALT 20V MAX TOOLS

The **DeWalt POWERSTACK 20V Max 5Ah Compact Battery** is lightweight, weighing in at 1.5 lbs, to provide tool maneuverability, high precision, and reduced fatigue when used in tight workspaces. It features an impact-resistant, rubber over molded base and includes a charge indicator with three LEDs. The POWERSTACK 20V Max 5Ah Compact Battery offers 50 percent more power than DeWalt's previous 20V Max 5Ah Battery (DCB205). Battery is compatible to work with all DeWalt 20V Max tools and chargers. ■

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**CUSTOMER REVIEW:**  
It has a nice rubber overmold on the bottom to prevent scratching surfaces if you have to set the tool down. ■



### LEFT AND RIGHT HANDED THREADS

The **Performance Tool 18-pc Brake Caliper Wind Back Kit**, No. W89202, is ideal for installing pads on domestic and import cars and trucks that have the wind-back piston calipers. The wind-back pistons are made from carbon steel and have left and right-handed threads. The kit includes 14 adapter plates of different sizes and patterns to fit most vehicles and a storage case. ■

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### VERSATILE CLAMPING HANDLE

The **Streamlight Vulcan Clutch Lantern** is a multi-function, rechargeable lantern that features a swivel neck and a 340-degree rotating head. The light includes a versatile clamping handle, enabling users to attach it virtually anywhere to provide light in multiple directions. The lantern uses three white high-power LEDs for brightness. On high, it delivers 1,700 lm and 67,500 candelas over 520m; on low it offers 380 lm and 15,000 candelas over a 245m beam distance. Run-times are 6.5 hours on high and 18 hours on low. The Vulcan Clutch is waterproof, impact resistant, and available in safety orange and safety yellow. ■

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### USES ANY SMARTPHONE

The **TOPDON TopScan** is a pocket-sized tool designed to turn any smartphone into a professional-grade scanner. TopScan is capable of reading and clearing fault codes for over 60 different vehicle makes across American, Asian, and European vehicles as well as offers advanced diagnostics and bidirectional control through the user's phone. With TopScan, users can access eight maintenance services, AutoVIN technology, vehicle performance testing, and a repair data library. Additionally, it offers Bluetooth connectivity and multilingual support, includes feedback functions, and can test emissions easily with a one-click I/M ready button that generates a testing report. ■

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### AVAILABLE IN VARIOUS COLORS

The **Cornwell Quality Tools ARCA Tool Storage** lineup consists of a 57” 8-Drawer Double Bank Roller Cabinet and a 79” 13-Drawer Triple Bank Roller Cabinet, along with canopies and lockers. The ARCA tool storage features dual roll cage construction, Accuride drawer slides, a lock mechanism, 6” by 2” glass-reinforced casters, and a textured mid-gloss finish. The drawer slides operate well under load and reduce drawer droop when the drawer is at full extension. Latching also works well even if the box is on an uneven floor. Available in various colors: ignition orange, lighting yellow, torch blue, vapor, smoke, storm, and shadow. ■

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### ERGONOMIC, TWO- COMPONENT HANDLE

The **Mueller-Kueps Mini Pry Bar Set**, No. 276 100, is a universal use set ideal for any application that requires lifting or prying. The pry bars have a black oxide finish to help protect the tools against corrosion, are made from hardened and tempered steel to provide maximum durability, and feature a six-sided shaft for strength. With an ergonomic, two-component handle, the pry bars offer a comfortable and secure grip through all applications. The set includes two different tip widths and an angled design to give the user maximum leverage and options. ■

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### AVAILABLE WITH OR WITHOUT IQITY

The **Thraxus Elite Safety Eyewear** from **Radians** are available with or without IQity, Radians’ intelligent anti-scratch, anti-fog technology. The Elite eyewear are engineered with the same patented edge design and cyclonic venting of the original high-performance Thraxus safety glasses. To provide a custom fit on a variety of head shapes and sizes, Elite also features three-position ratcheting temples with a wire core that allows for more adjustability. A soft brow further boosts the comfort level. Thraxus Elite IQity incorporates even more features to offer ANSI Z87.1+ high impact protection, D4 dust and D3 liquid splash protection, as well as X anti-fog performance. ■

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### PERFORMS DPF RESETS AND REGENS

The **CanDo HD Mobile II** transforms a smartphone, iOS or Android, into a Class 4-8 code scanner that can read and clear trouble codes, log live data, and perform DPF resets and regens for Detroit, Cummins, Paccar, Mack/Volvo, International, Isuzu, and Hino. It also has Caterpillar on- and off-highway coverage, as well as can work on OBD-II engine diagnostics for passenger cars and light trucks. The VCI comes with six, nine, 16-pin, and CAT connectors and has free updates. ■

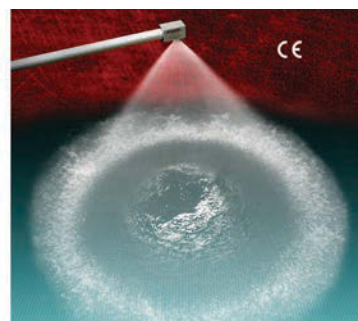
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### DESIGNED FOR EV TECHNICIANS

The **Carlyle Insulated Hand Tools** range has been developed specifically for electric vehicle service in the automotive aftermarket and offers a full line of tools. Each tool is individually tested and certified to meet VDE, GS, IEC60900, and ASTM F1505 standards and rated to 1,000V AC/DC to minimize the threat of severe injury to technicians, prevent damage to customer's cars, and to mitigate the risk of fire inside repair shops and garages. ■

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### FOR COOLING AND WASHING

The **Exair 1/2 NPT HollowStream Cone Liquid Atomizing Spray Nozzle** provides a hollow cone spray pattern for pressurized liquids and is ideal for cooling, cleaning, rinsing, and dust suppression applications. The tangential flow design is vaneless, with wide open internal features to resist clogging. The liquid nozzle produces a uniform distribution of liquid in a ring pattern with medium to large droplets. Its right-angle design is compact and can fit in small areas. Additionally, the nozzle has a liquid operating pressure of up to 250 psi, is made from type 303 stainless-steel for durability and corrosion resistance, is CE compliant, and is available in a variety of flow rates. ■

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## IMPROVED WEAR AND TEAR ENHANCEMENTS

The **Danmar Updated Swing-Arm Tire Changers**, Nos. DT-50 and DT-50A, now include enhancements to improve wear and tear. The bead breaker blade received a rubber bump-stop to ensure a smooth arm return, reducing shock loading. The stainless steel and aluminum pneumatic cylinders received internal end-of-stroke cushions that protect the seals, wear band and piston rod. Both tire changers feature a swing-arm design that facilitates quick loading, with steel clamps to efficiently handle 12" to 26" wheels, including low-profile and run-flat beads. For stiff sidewalls, the DT-50A adds a power-assist tower. The Danmar tire changers' high-torque turntable with reverse-direction control enables fast tire swaps. ■

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## DESIGNED TO STAY IN PLACE

The **Groove Belt** from **Groove Life** is designed to stay in place. Once the belt is adjusted to the proper length, it offers the right amount of stretch for an all-day comfortable fit without sagging or drooping. The buckle uses high-strength, neodymium magnets for an easy and seamless snap on/off as well as A380 aluminum alloy. The belt is made from proprietary webbing and includes Stiff-Tech to eliminate folding in belt loops. ■

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## MEASURES RESISTANCE UP TO 5K OHMS

The **12V/24V Sensor Voltage Probe** by **Prologics** can emulate signals generated by different types of sensors in a vehicle. Simply set the output voltage to the correct value and activate it with either 3A or 150mA on a permanent output or with a switch. Whether checking the component independently or using a diagnostic scanner, this voltage probe is designed to make it easy to identify if the fault lies in the sensor or its connection. The Sensor Voltage Probe can also be used to measure resistance up to 5K Ohms. ■

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## CHARGES BATTERY PACKS OF UP TO EIGHT BATTERIES AT ONCE

The **AutoMeter Fully Automatic Heavy Duty Smart Charger**, No. BPC-100, features a switching power supply design that allows for high-efficiency charging of a single battery or battery packs of up to eight batteries at once without the need to separate the pack. With fast charge and full charge options, users can safely charge both standard/flooded and AGM batteries. The BPC-100 can accept input voltages ranging from 100V to 240V AC and has a charging output of up to 100A. The counter feature displaying remaining charge time and automatic shut off facilitate optimal utilization of shop labor. It includes a carrying handle, 2 gauge cables with heavy duty clamps, and an audible charge completion alert. ■

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## AVAILABLE IN METRIC AND SAE

The **GEARWRENCH 90-Tooth 12 Point Reversible Ratcheting Wrenches** are now available in a 16-pc metric set and 14-pc SAE set. The wrenches require just 4 degrees of swing arc to turn a fastener in tight spaces. With large, color-coded SAE/metric markings, the wrenches are easy to identify. Additionally, the tools feature a 15 degree offset box end that increases clearance and reduces injury potential, a low-profile reverse lever that quickly switches from forward to reverse without removing the wrench, and have off-corner loading on both open and closed ends that reduces the risk of fastener rounding. Metric sizes range from 8mm to 25mm and SAE sizes from 1/4" to 1". ■

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## WORKS IN TIGHT SPOTS

The **Electrical Disconnect Pliers**, No. 37960, from **Lisle Corporation** are designed to easily remove locking push tab style electrical connectors found on mass air flow sensors, fuel injectors, ignition coils, and other applications. Simply use the hook on the end of the pliers to pull the tab out to unlock and then use the point to engage the tab. Squeeze the tabs together and lift to separate the connector from the sensor without damage. The pliers allow technicians to use the tool with one hand, and to work on sensors in tight spots. The tool measures 8" in length and has dual durometer grips for comfort. ■

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\*Your specific location may require a combination of multiple models and/or sizes to provide the most effective cooling experience.

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## HAS BUILT-IN OBD-II

The **Matco Tools Maximus TPMS 3.0 Diagnostic Tool**, No. MDMAXTPMS3G, provides functions like suspension diagnostics, fuel economy, oil life, and more. The pocket-sized TPMS tool features an icon-based touchscreen, one-touch wireless Wi-Fi updates, built-in OBD-II, and a customizable background color interface. Additionally, it's able to read all vehicles equipped with TPMS through 2022, offers upgrades and software updates, and keeps customer records including stored history and record storage. ■

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## REMOVES DAMAGED AND FROZEN FASTENERS

The **ARES Tool 18-pc Combo Turbo Socket Set**, No. 29022, comes with 16 1/4" drive turbo sockets with SAE and metric size markings, a 1/4" drive hex adapter, a knockout pin, and a storage case. Socket sizes include 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 4.5mm, 5mm, 5.5mm, 6mm, 6.5mm, 7mm, 7.5mm, 8mm, 8.5mm, 9mm, 9.5mm, and 10mm. Made of premium hardened steel, the impact grade turbo sockets feature a helical teeth design that offers a secure grip and reduces slippage when removing damaged, tapered, rounded, or frozen fasteners. The set is ideal for automotive repair involving rusted and damaged fasteners, and small engine care. ■

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## HAS A BUILT-IN MAGNETIC CLIP

The **SABER 150 Lumen Inspection Penlight with Headband and Hat Clip**, No. ATD-80252, features two lights in one: a 150 lm COB LED floodlight and a 150 lm SMD LED top spotlight. With a built-in magnetic clip, the 3.7" light rotates 360 degrees for multiple mounting options. The light has a memory function that records the setting after five seconds. The setting is then recalled the next time the device is activated. Additionally, the inspection penlight features an impact-resistant and lightweight aluminum housing that resists rust and corrosion, offers a red light mode, and has a battery indicator LED to show charging progress. The light is rechargeable and includes a USB Type-C charging cord. ■

**For more information, click on "PD e-inquiry" on VehicleServicePros.com**



## MAXIMUM SPEED OF 2,400 RPMS

The **Martins Industries Impulse 1/2" Cordless Impact Wrench**, No. MX-P1, features a maximum breakaway torque of 796.6 ft-lbs for a maximum speed of up to 2,400, 1,900, and 1,500 rpms. The MX-P1 utilizes a forward/reverse button and a three-speed push button switch to easily increase speeds for optimal mounting. It has a built-in LED worklight and an ergonomic handle for comfort. With a brushless motor, the impact wrench provides ideal performance with less maintenance. The tool is operated by a 21V - 4000 mAh Li-ion battery and comes with a charger and an additional battery. ■

**For more information, click on "PD e-inquiry" on VehicleServicePros.com**

## SAFELY RELEASES ROOF PANELS

The **CTA Manufacturing 2-pc VW Roof Grab Release Tool Kit**, No. 3033, is designed to help Volkswagen technicians easily and safely release the roof panels. The kit includes CTA's VW Roof



Grab Release Tool (v2), No. 1464, and VW Roof Grab Release Tool (v1), No. 8061. These tools are specifically designed to fit Volkswagen vehicles and are made with high-quality materials to ensure durability. The v2 tool features an updated design with a different angle and shank dimensions, as well as a more secure grip. The tool is also made with hardened steel for added strength and durability. ■

**For more information, click on "PD e-inquiry" on VehicleServicePros.com**

## SUPPORTS 10 OBD-II MODES

The **Mac Tools Elite Code Reader**, No. ET1600, has a 4" touchscreen, is Android based, and supports 10 OBD-II modes and CAN protocols. It has six reset service functions, including BMS, oil, EPB, ABS bleeding, SAS, and brake. The ET1600 provides OE-level U.S. vehicle coverage as well as Asian and European coverage from 1996 and newer. It's capable of reading and erasing DTCs for ABS, SRS, engine, and transmission systems as well as automatically generates diagnostic health reports for sharing and analyzing. It also auto-detects VIN, offers a multilingual menu and codes definitions, and can graph, record, and playback diagnostic data with live streams. ■



**For more information, click on "PD e-inquiry" on VehicleServicePros.com**





FOR MORE INFORMATION ABOUT ANY OF THESE PRODUCTS, CLICK ON "PD E-INQUIRY" at [VehicleServicePros.com](https://VehicleServicePros.com).



### AVAILABLE IN THREE MODELS

The **Rotary R3AC Series A/C Recharging Machines** are designed to automatically service the refrigerant in vehicle air conditioning systems. The product line provides professionals with a quick, efficient and cost-effective way to recover, recycle, and recharge R-134a and R-1234yf refrigerant gases. Powered by TEXA, the A/C machines are available in three models: single-gas R3AC50-A (R-134a compatible), single-gas R3AC60-YF (R-1234yf compatible), and dual-gas R3AC80-AYF (both R-134a and R-1234yf compatible). Each machine is Wi-Fi enabled, updates automatically, and can connect to peripheral devices, such as smartphones and printers. Remote monitoring is also available through a mobile app. ■

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



### FOR BOTH ON- AND OFF-CAR CUTTING

The **ATD Tools Exhaust Pipe Cutter Pliers**, No. ATD-5721, are designed for both on- and off-car cutting. They are ideal for heavier walled exhaust pipes and have large diameter cutting wheels to cut deep into exhaust pipes. The Exhaust Pipe Cutter Pliers are able to cut pipe from 3/4" to 3-1/4" in diameter and feature cushioned grip, non-slip handles. The tool will not cut double walled tube and will not leave burrs. A replacement cutting chain (No. PRT5721-01) is sold separately. ■

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



### PROTECTS AGAINST CRACKLING OR SHREDDING

The **Milwaukee Tool SHOCKWAVE Impact Duty 1/2 Drive Lug Nut Wheel Sockets** are designed for tire installations and removals. The sockets feature a durable, non-marring sleeve to protect rims during tire changes while ensuring the durability of the sleeve. With this Armor-Guard sleeve, each socket protects against crackling or shredding. The lasting-protection sleeves are color-coded gray and red to distinguish between metric and SAE sizing and include stamped, ink-filled markings on the socket for easy size identification. The sockets also have a plastic insert, preventing the lug nut from marring while being used. Constructed with thin walls, the sockets are optimized for users to access the tight spaces around lug nuts. ■

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



### FOAM FOOTBED FOR LONGWEARING COMFORT

The **Striver Steel Toe Work Boot** from **Cat Footwear** protects against open circuits up to 600V in dry conditions. They feature a durable, slip-resistant rubber outsole for traction, a steel toe for protection against impact or compression (ASTM F2413-18), an engineered foam footbed for longwearing comfort, and has 100 percent post-industrial recycled sock lining with CleanSport NXT pro-biotic odor control. The Striver Steel Toe Work Boot is available in men's sizes from seven to 14. ■

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



### DISPLAYS OVER 40 MESSAGES DURING DIAGNOSTIC OPERATIONS

The **TEXA TXT Multihub** is a VCI designed to easily adapt to any vehicle connection in the shop or in the field. It features a built-in backlit display to visually confirm connection status, new protocols (including RP1210 for heavy duty vehicles) and connection options for versatile modular vehicle diagnostics, a standalone Linux operating system for adaptable vehicle connection and greater security, as well as new certified durability for rugged environment use. The TXT Multihub confirms constant control by displaying more than 40 messages during diagnostic operations, like connection status as standard, Wi-Fi, DoIP ethernet, and Pass-Thru. ■

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



### SHATTER-RESISTANT POLYCARBONATE LENSES

The **Coxreels Industrial Duty LED Lights** for **PC10 Series** feature a 50,000 hour rating, internal light diffusers, and shatter-resistant polycarbonate lenses. Designed for PC10 Series reels, the LED lights are available in three models to compliment a variety of applications and include adjustable steel hooks for handsfree placement. The line includes: a compact LED (-M), an LED with additional power source (-K), and an industrial-duty, UL-listed LED (-H). ■

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)

# MOST WANTED

## Do YOU stock it?

The following products are among the most requested tools and equipment from recent issues of *PD*'s sister publication, *PTEN*. Perhaps you've already received requests about some of these items. Take a closer look at stocking them.

### A Blade measures 10-1/2"

The **Lisle Corporation Pistol Grip Wire Insertor**, No. 83550, is designed for easy insertion of metal or fiber cutting wire through polyurethane. The tip has a slotted end to push and a hole to pull wire through the windshield bonding. It also allows wire to be inserted closer to the pinch weld. The blade measures 10-1/2" long to reach into tight spaces.

**For more information, click on "PD e-inquiry" on VehicleServicePros.com**



### B Can jump start both 12V gas or diesel engines

The **SP Tools USA HD Diesel 1600A Jump Starter / Jump Box**, No. SP61073, is a compact, high-density jump starter that can supply a lot of power in a short time to start both 12V gas or diesel engines up to 10 liters in capacity. The jump pack is equally suitable to jump-start motorcycles, ride-on mowers, cars, outboard motors, etc. While not being used as a jump starter, it can be used to power or charge low-voltage accessories and USB-compatible electronics. The storage case with an EVA insert includes 14 interchangeable tips and cords to connect to most devices, extra heavy duty cable clamps, and chargers.

**For more information, click on "PD e-inquiry" on VehicleServicePros.com**

### C Enables handsfree operation

The **Tool Aid Clamp Probe Set**, No. 21200, is designed to allow a lone technician to test for voltage drop by probing top battery posts directly. The probe enables handsfree operation and works with standard 4mm banana plugs. Its probe swivels and adjusts in height to test where needed. The 21200 is ideal for testing recessed connections and is available individually as the No. 21215 (black) and No. 21216 (red). Includes clamp tips for added grip.

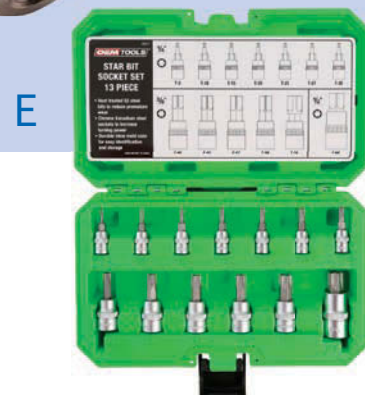
**For more information, click on "PD e-inquiry" on VehicleServicePros.com**



### D Designed with 3/8" air intake thread

The **Titan Professional Tools High Flow Air Blow Gun**, No. 19393, is designed with 3/8" air intake thread. When used with thread sealant tape, this high-volume air gun allows for greater air flow and higher psi, with adjustable pressure between 25 to 230 psi. The air blow gun has a non-slip-aluminum ergonomic handle, and the tapered high-flow tip can be directed towards hard-to-reach areas. The product includes a 1/4" series plug with 3/8" NPT male thread with pre-applied thread sealant, and it meets OSHA standards.

**For more information, click on "PD e-inquiry" on VehicleServicePros.com**



### E Made of heat-treated S2 steel

The **OEMTOOLS 13-pc Star Bit Socket Set**, No. 22977, comes in many sizes, including (1/4" drive) T8, T10, T15, T20, T25, T27, T30, (3/8" drive) T40, T45, T47, T50, T55, and (1/2" drive) T60. The long-lasting bits are made of heat-treated S2 steel while the reinforced chrome vanadium steel sockets are designed to give extra turning power. The bits are made with a fully refined hard chrome plated finish and zinc phosphate to prevent rust and corrosion. The precision-made set exceeds ANSI standards and comes in a sturdy blow molded case for convenient and organized storage.

**For more information, click on "PD e-inquiry" on VehicleServicePros.com**



## F Includes five-sided Torx Plus profile sockets

The **CTA Manufacturing 16-pc 5-pt EPR Torx Socket Set**, No. 1220, includes five-sided Torx Plus profile sockets, from 6EPR to 32EPR. The socket set is made from satin finish chrome vanadium and packed in an EVA foam tray for convenient storage in toolboxes. The sockets, also referred to as Pentalobe sockets, include three different sizes: 25mm, 1/4" square drive (6EPR, 7EPR, 8EPR, 10EPR, and 11EPR), 37mm, 3/8" square drive (12EPR, 14EPR, 16EPR, 18EPR, and 20EPR), and 45mm, 1/2" square drive (22EPR, 24EPR, 26EPR, 28EPR, 30EPR, and 32EPR).

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



F



G

## G Features a spring ratchet locking mechanism

The **Lang Tools 2-pc Internal/External Retaining Ring Pliers Set**, No. 1487, features a spring ratchet locking mechanism that securely holds against snap ring tension, a thumb release allowing for smooth and controlled tension release, and a cushion grip for comfort. The internal ring size ranges from 3-1/16" to 6-1/4", and the external ring size ranges from 3-1/2" to 6-1/2". The pliers set includes with two sets of replaceable tips (size .120") that come in straight, bent 45-degree, and bent 90-degree angles.

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)

## H Eliminates bearing and hub damage

The **OTC Hub Seal Puller Set**, No. 5085-S, is designed to eliminate bearing and hub damage that can occur when a punch and hammer is used to remove the seal. An extra long 28" handle provides leverage, and the unique pulling head design quickly and easily removes the seal in one piece. Removes hub seals on trailer and truck axles, including truck steering axles. The set includes a larger size replaceable head (No. 600053) for hub oil seal removal on seals with 4-5/8" I.D. and larger. The head screws onto the handle of the hub seal puller for more applications and leverage.

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



H

## I Features a 3/4" bore size

The **Ingersoll Rand 135MAX Heavy Duty Air Hammer** is designed for vehicle, truck, bus, and heavy machinery repair. Weighing in at 4.5 lbs, the 135MAX HD Air Hammer delivers 2,600 bpm, with a 3" piston stroke. It also has a feather-touch trigger that provides the accuracy needed for fine-tuned pin driving and steering, making it ideal for jobs that require light handling. Featuring a 3/4" (19mm) bore size, the air hammer is available in a convenient kit that includes five chisels and the air hammer in a carrying case or as an individual tool.

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



I



J

## J Tested to 10,000 VAC

The **Cementex Automotive Electric Service Tool Kit**, No. ITS-12B-AES, is an ideal base of insulated tools for use with hybrid and electric vehicles (EVs) as well as troubleshooting and repair to EV charging stations. Stored in a standard toolbox, this tool kit includes double-insulated diagonal cut, needle nose, slip joint, crimping, and water pump pliers, as well as a variety of double-insulated cushion grip screwdrivers. Cementex double-insulated tools are made in the U.S.A., tested to 10,000 VAC, rated for 1,000 VAC/1,500 VDC when working on energized parts, and marked with the (double-triangle) international safety symbol. These tool combinations can be customized to fit a customer's needs.

For more information, click on "PD e-inquiry" on [VehicleServicePros.com](https://VehicleServicePros.com)



FOR MORE INFORMATION ABOUT ANY OF THESE PRODUCTS, CLICK ON "PD E-INQUIRY" at [VehicleServicePros.com](https://VehicleServicePros.com).

# STREAMLIGHT

## Stinger Color-Rite

The Stinger Color-Rite is ideal for color matching and identifying body imperfections before and after paint repairs.



### APPLICATION

The Streamlight Stinger Color-Rite is ideal for color matching and identifying body imperfections before and after paint repairs. Additionally, the light's high CRI LEDs reflect back less light than bright white LEDs, meaning technicians can see greater detail when working in dark, hard-to-reach places under a car or hood.

### FEATURES AND BENEFITS

Developed to enhance visualization in low-light conditions, the Stinger Color-Rite features Streamlight's Color-Rite technology, which allows technicians to differentiate between colors, and perform other tasks that require precise attention to detail in darkened conditions.

The light specifically uses a high color rendering index (90 CRI) LED, allowing workers to see the color spectrum as they would in natural light. The light provides a softer, warmer beam to assist with identifying subtle details and true colors in a variety of applications. It also prevents glare and eye fatigue.

### MANUFACTURING SPECS

- Rechargeable battery with charging options, including PiggyBack charger.
- Three modes and strobe:
  - High: 500 lm; 265m beam; runs 1.5 hours; 17,500 candela
  - Medium: 275 lm; 190m beam; runs 2.5 hours; 9,000 candela
  - Low: 140 lm; 134m beam; runs five hours; 4,500 candela
- Strobe runs three continuous hours.
- Durable machined aircraft aluminum with non-slip rubberized comfort grip.
- Head-mounted push-button switch.
- Unbreakable polycarbonate lens with scratch-resistant coating.
- Weighs 12.4 oz and measures 8.41".

### STORAGE AND DISPLAY

The product is shipped in a standard pack of six in a four-color printed presentation box to be displayed on a shelf.

### ORIGIN

Streamlight offers a family of Color-Rite lights for situations that require color differentiation for markets as diverse as industrial, law enforcement, military, and even outdoor recreation. Streamlight continues to develop lights with Color-Rite technology for a wide variety of tasks, including automotive, that require exacting attention to detail.

### SELLING POINTS

- Provides true color recognition with Streamlight's Color-Rite technology featuring a high color rendering index (90 CRI) LED.
- Rechargeable up to 1,000 times; fits all existing Stinger chargers.
- **Delivers up to 500 lm.**
- Offers three modes (high, medium, and low) and a strobe.
- Powerful, but compact measuring only 8.4" in length.

### \$ SUGGESTED RETAIL PRICE

The Stinger Color-Rite has an MSRP ranging from \$246.50-\$300.50 (depending on model) and comes with Streamlight's limited lifetime warranty.

### i FOR MORE INFORMATION

Call 610-523-7488 or email [cs@streamlight.com](mailto:cs@streamlight.com).



FOR MORE INFORMATION ABOUT ANY  
OF THESE PRODUCTS, CLICK ON  
“PD E-INQUIRY”  
at [VehicleServicePros.com](https://VehicleServicePros.com).

# MUELLER-KUEPS

## Conical Eraser Kit

Removes adhesive left by sticky wheel weights or decals.

### APPLICATION

The Mueller-Kueps Conical Eraser Kit, No. 282 260/KIT, is designed to remove the adhesive from sticky wheel weights or decals.

### SELLING POINTS

- The conical shape is made to properly fit the inside of the rims, ensuring it is cleaned efficiently.
- Its high-quality rubber lasts a long time.
- **The soft rubber also allows users to remove paint or adhesive on the body of a vehicle as well.**
- Kit includes six erasers and one adapter for drill chuck.
- For best performance, use at 500 rpms.

### ORIGIN

With nothing else like this on the market, Mueller-Kueps saw a need to create a kit to reduce the damage done to the rims when removing sticky wheel weight adhesive.

### MANUFACTURING SPECS

Made of high-quality rubber.

### STORAGE AND DISPLAY

The item ships in a blister with six conical erasers and one adapter. Can be hung on a wall.

### FEATURES AND BENEFITS

- Removes adhesive left by sticky wheel weights.
- Will not damage or scratch aluminum rims.
- Saves technicians time spent cleaning rims.



#### SUGGESTED RETAIL PRICE

Contact Mueller-Kueps customer service at [info@mueller-kueps.com](mailto:info@mueller-kueps.com) for pricing.



#### FOR MORE INFORMATION

Contact Mueller-Kueps at [info@mueller-kueps.com](mailto:info@mueller-kueps.com).





# AUTEL MaxiSYS EV Diagnostics Upgrade Kit

The Autel MaxiSYS EV Diagnostics Upgrade Kit tests EV battery packs for a variety of manufacturers including Tesla, diagnoses the battery's state of charge and state of health, and recalibrates the battery's state of health.



### APPLICATION

The Autel MaxiSYS EV Diagnostics Upgrade Kit tests EV battery packs for a variety of manufacturers including Tesla, diagnoses the battery's state of charge and state of health, and recalibrates the battery's state of health.

### ORIGIN

Autel designed the EV Diagnostics Upgrade Kit to keep repair shops relevant with the rise of electric vehicle manufacturing, provide easier adaptation of EV and hybrid repair using the familiar MaxiSYS software, and enable technicians to help prolong the life of HV batteries.

### SELLING POINTS

- Help customers expand their shop services to EV and hybrid vehicle owners.
- Can be sold with a MaxiSYS Ultra, Ultra ADAS, MS919 or MS909.
- Has exclusive off-car HV battery testing and HV A/C compressor testing capabilities to ensure the part is good before installation.

### STORAGE AND DISPLAY

The kit ships two units per master case and contains several various manufacturer and universal cables.

### MANUFACTURING SPECS

The kit is manufactured in China and weighs 22 lbs.

### FEATURES AND BENEFITS

- **Battery and complete BMS diagnostics for EV and hybrid vehicles.**
- Allows in-depth A/C compressor diagnostics for electric drive vehicles.
- Keep customers loyal if they were to become a new owner of an EV or hybrid.

**\$ SUGGESTED RETAIL PRICE**  
MSRP \$1095.00

**i FOR MORE INFORMATION**  
Visit [Autel.com](http://Autel.com) or contact tech support at 1-855-288-3587 or [USSupport@autel.com](mailto:USSupport@autel.com).



To watch a video demonstration of this product, visit:  
[VehicleServicePros.com/53056737](http://VehicleServicePros.com/53056737)

**VEHICLESERVICEPROS** COM

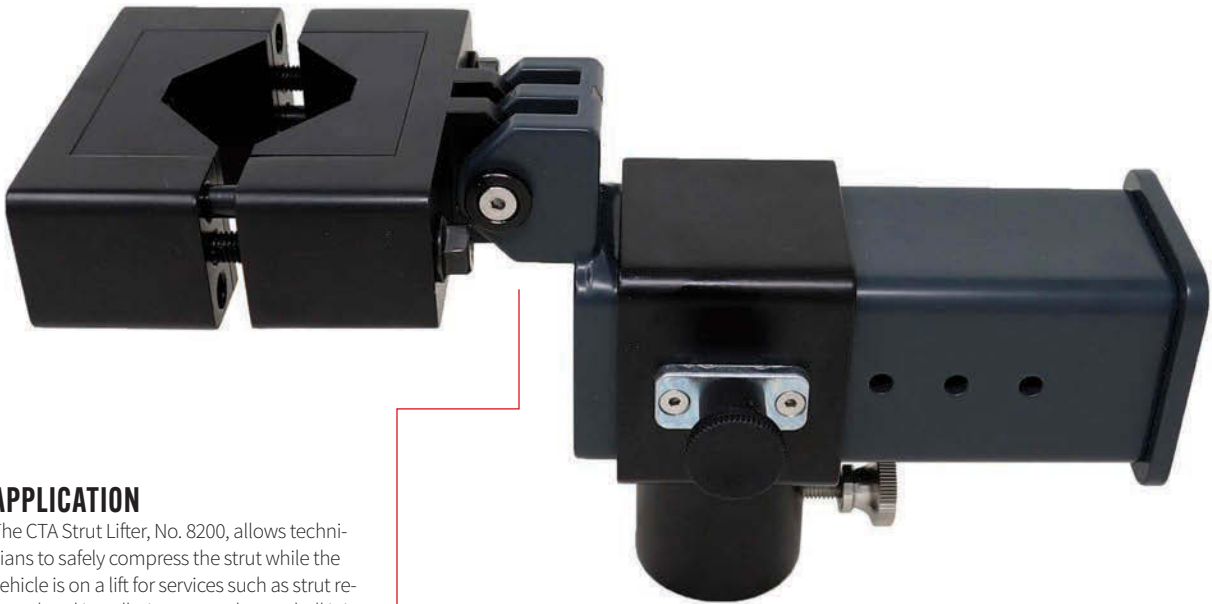


FOR MORE INFORMATION ABOUT ANY  
OF THESE PRODUCTS, CLICK ON  
"PD E-INQUIRY"  
at [VehicleServicePros.com](https://VehicleServicePros.com).

# CTA MANUFACTURING

## Strut Lifter

Allows technicians to safely compress the strut while the vehicle is on a lift.



### APPLICATION

The CTA Strut Lifter, No. 8200, allows technicians to safely compress the strut while the vehicle is on a lift for services such as strut removal and installation, control arms, ball joint hub separation, and pre-tensioning bushings.

### FEATURES AND BENEFITS

- Allows technician to safely compress the strut while the vehicle is on a lift.
- Service can be performed by one person.
- **Offers an articulated depth and tilt.**

### STORAGE AND DISPLAY

The Strut Lifter is shipped unassembled in a box with assembly instructions included. Shipping specs: 11.5" by 9.5" by 3.5" and weighs 10.5 lbs. CTA recommends placing the tool near other strut service tools.

### SELLING POINTS

- Provides a simpler and safer method to service struts on vehicles with double wishbone suspension.
- Services removal and installation of struts, drive shaft, control arms, and ball joint hub separation.
- Prevents risk of damaging sensors, wire harnesses, and plastic wheel well panels.
- Use with the shop's hydraulic transmission jack (30mm diameter).
- Supports the strut on the vehicle up to 500 Kg (1,102 lbs).

### MANUFACTURING SPECS

Made from high-density steel and polyoxymethylene (POM) clamping jaws. The tool supports up to 500 Kg (1,102 lbs).

### ORIGIN

While more and more modern vehicles are using pinch-welded design struts, which are seated directly into the hub, knuckle or control arm, CTA designed the Strut Lifter to allow a technician to utilize a hydraulic transmission jack to compress the strut and remove it from the knuckle with ease. The Strut Lifter also supports the strut in place for reinstallation, allowing the technician to secure the top mount nuts without support from a second technician.

**\$ SUGGESTED RETAIL PRICE**  
\$695.95

**i FOR MORE INFORMATION**  
Contact Alberto, technical director at CTA, at [aroldan@ctatools.com](mailto:aroldan@ctatools.com).



To watch a video demonstration of this product, visit:  
[VehicleServicePros.com/53029038](https://VehicleServicePros.com/53029038)

**VEHICLESERVICEPROS**<sub>tools</sub>



# ELECTRONIC SPECIALTIES

## Relay Fuse Buddy

The Relay Fuse Buddy is deployed in diagnostic situations where components have failed and/or circuit wiring may be faulty.



### APPLICATION

The Electronic Specialties Relay Fuse Buddy, No. 316, is deployed in diagnostic situations where components have failed and/or circuit wiring may be faulty. Bypass of circuit power at the fuse panel is quite valuable and saves time when working under the hood.



To watch a video demonstration of this product, visit:  
[VehicleServicePros.com/21268071](https://VehicleServicePros.com/21268071)

**VEHICLESERVICEPROS** COM

### SELLING POINTS

- The Relay Fuse Buddy combines the strength of two popular products Fuse Buddy and Relay Buddy.
- It will give your customer unique shortcuts when troubleshooting circuits, which are not available in other products.
- This package gives relay bypass capability along with live circuit current readings—two powerful diagnostic capabilities.

### STORAGE AND DISPLAY

Place near your circuit testers and other diagnostic tools.

### FEATURES AND BENEFITS

- With full relay bypass capability, the user can plug into any relay-controlled circuit, directly at the fuse panel. There, the user can control power to components downstream of the relay via the on/off switch, giving certain troubleshooting advantages.
- Questionable components can be activated within sight or listening distance. Diagnostic decisions regarding the wiring or the component can then be made.
- The component amp draws can be viewed without the need for an expensive amp clamp.
- **Displays live circuit current - 20A continuous / 30A momentary.**
- Greatly enhances your customer's circuit and relay test capabilities, cutting diagnostic times.

### MANUFACTURING SPECS

Relay Fuse Buddy can read currents up to 20A continuously and up to 30A momentarily. There are six interchangeable adapters for the most popular relays in the field. The tester can be used on vehicles up to 48V.

### ORIGIN

The idea for Relay Fuse Buddy spawned from various trade show conversations and even some phone calls from end user techs. Many techs love Fuse Buddy, but also wanted to plug it into relay-controlled circuits. Given the different relay footprints on vehicles, it would require a set of several adapters. The bypass switch was added to the relay adapters and the product came together.



### SUGGESTED RETAIL PRICE

MSRP \$131.25



### FOR MORE INFORMATION

Contact Steve White at  
800-227-1603.



FOR MORE INFORMATION ABOUT ANY  
OF THESE PRODUCTS, CLICK ON  
“PD E-INQUIRY”  
at [VehicleServicePros.com](https://VehicleServicePros.com).

# MAYHEW TOOLS

## 8-pc Slotted and Phillips Set

Ideal for a wide array of applications where a slotted or Phillips screwdriver is needed for fastening and/or turning corresponding screws.



### APPLICATION

The Mayhew Tools 8-pc Slotted and Phillips Set, No. 27024T, is ideal for a wide array of applications where a slotted or Phillips screwdriver is needed for fastening and/or turning corresponding screws.

### SELLING POINTS

- This 8-pc set features a combination of popular slotted and Phillips screwdrivers, conveniently packaged in a custom molded tray designed to fit inside most tool drawers.
- This set is part of a bigger, comprehensive product line, featuring over 100 SKUs that are sold individually and as sets.
- Fastener types available throughout the product line include slotted, Phillips, Torx, square recess, Torx tamper resistant, micro slotted and Phillips, and micro Torx.
- Tools are 100 percent made in the U.S.A. and backed by a lifetime warranty.

### ORIGIN

Many screwdrivers in the market are manufactured in countries outside of the United States. Mayhew Tools wanted to fill the market void, offering end users the option to own and use a screwdriver that is 100 percent manufactured in the U.S.A. These screwdrivers are manufactured using the highest quality materials, processes, and craftsmanship, ensuring that they are built to last, while providing the user with high-performance capabilities and superior comfort.

### MANUFACTURING SPECS

- All blades are manufactured using tempered high alloy steels and have a black oxide finish to help prevent rust.
- The handle is comprised of acetate, which is a naturally occurring renewable resource derived from wood pulp and cotton fiber. It's an extremely rugged impact and chemically resistant material, including being resistant to all sorts of common mechanical and automotive fluids.
- This set weighs 1.32 lbs.

### FEATURES AND BENEFITS

- High performance: Ergonomic, acetate tri-lobular handle allows for maximum strength and torque transfer. Its ribbed design on the neck allows for fingertip control and a no-slip grip.
- The acetate is impact- and chemically-resistant material, including being resistant to all sorts of common mechanical and automotive fluids, ensuring a more secure grip.
- **Strength and durability: Blades are manufactured using tempered high alloy steel and have a black oxide finish to help prevent rust.**
- Reliable fastener engagement: Each tip is precision CNC machined to industry specifications with tight tolerances.

### STORAGE AND DISPLAY

Each set is shipped in a corrugated box, five each to a master pack. Each tray set is packed in a white carton with a label and two hang tab cutouts, which are then shrink-wrapped.

**\$ SUGGESTED RETAIL PRICE**  
\$119

### **i** FOR MORE INFORMATION

Contact Mayhew's customer service department via email at [customerservice@mayhew.com](mailto:customerservice@mayhew.com) or call 800-872-0037





When Ed is trying to help their customers find the perfect scan tool, he asks them about where they are at in their careers and where they want to be tomorrow.

Photo Courtesy of: Ed & Maria Lee



# SCANNING for sales

Scan tools are complicated, but selling them doesn't have to be—with some basic knowledge and a good support team behind you, you'll be on track for making the sale.

By Emily Markham, *Editor*

**D**id you know that 87 percent of shops own a scan tool? Or how about that even if a shop owns one scan tool or multiple scan tools, 24 percent of technicians have also purchased their own? These stats are straight out of this year's Aftermarket Profile—a comprehensive guide of the automotive aftermarket that provides insights from over 300 PTEN readers on tool and equipment purchases they've made recently or plan to make soon—and they prove just how important having a scan tool is to shops and individual technicians alike.

Ed and Maria Lee are a Mac Tools team who understand the significance of getting the correct scan tool in the hands of their customers. Traveling through their route in Spokane, Washington, the duo makes stops at dealerships, independent shops, private shops, body shops, and a few farms. They have a little bit of everything along their route, and between their lineup of Mac scan tools, which are branded Bosch products, and their offering of the full Launch Tech lineup, the couple has a scan tool fit for each and every technician they visit.

## NEW FEATURES AND FUNCTIONS

The technology in vehicles is in a constant state of advancement, so it makes sense that the tools and equipment used

to fix them are also advancing. Unfortunately, a scan tool's updates can be a bit trickier to keep track of than a screwdriver with a new ergonomic handle. However, one way Ed and Maria have found that helps them to stay on top of new features and updates is by staying in touch with representatives from their scan tool's manufacturers.

"Bosch does a really good job of keeping us well informed of what's in every new update, and our updates come out at a minimum once a quarter, but it's probably more like six or seven times a year," Maria says. "And so, we review those updates pretty thoroughly for what's new coming to the scan tool at that time."

Though you may only stock one or two brands of different scan tools, having an understanding of what's new

with some other brands could be beneficial. Perhaps there's a brand that has features better suited for your customers. Or maybe having this knowledge will better enable you to compare and contrast features between what you stock from a competitor.

Here are a few updates from three scan tool manufacturers on what's new in their product line-ups.

### **Autel**

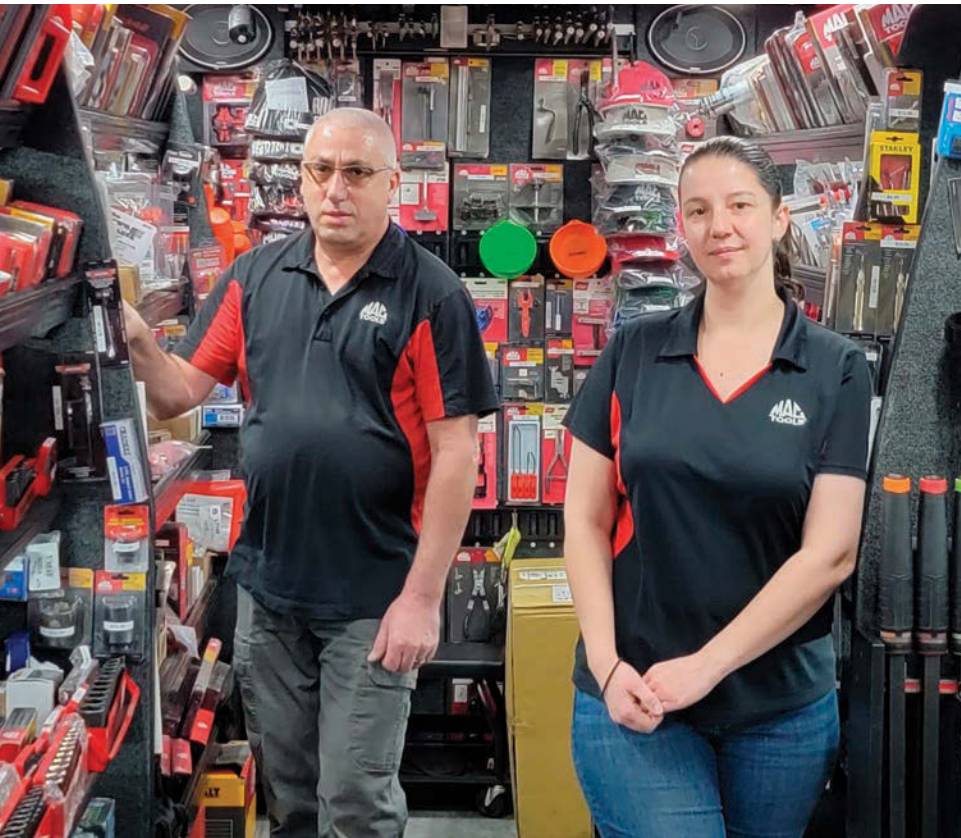
Autel Technical Trainer, John Forro covers a handful of Autel's largest changes he believes mobile tool dealers should be aware of.

"Our top-tier tools support the newest protocols found on today's vehicles such as Can FD and DoIP," Forro notes.

He explains that "protocol" just means the language and speed that the modules talk. The Can FD protocol was started in 2019 on select Ford products, whereas the DoIP or diagnostics over the internet protocol is commonly used by European manufacturers like BMW.

Autel's lineup of scan tools also supports an exclusive EV diagnostic box that allows technicians to perform diagnostics on the battery management system, as well as HVAC compressors. ➔

Photo: Ed & Maria Lee



*Ed and Maria Lee have been running their Mac Tools tool truck for six years now.*

This update enables technicians to run these tests on or off the vehicle.

“This new technology allows one to see information and perform bidirectional tests that we could never do before by simply seeing the information shared along the data bus communications lines found within the typical OBD-II connector,” Forro says.

Additionally, by being able to run these tests, technicians will have the ability to routinely perform calibrations on high-voltage batteries which could help in prolonging battery life.

## **Bosch**

“One function mobile tool dealers should be aware of is internet connectivity and how it can extend the life of scan tools – ultimately saving shop owners and technicians money in the long run,” explains Scott McKinney, senior product manager for Bosch

Automotive Aftermarket. “Internet connectivity allows tool and equipment manufacturers to share updates with technicians digitally and can store information on specific vehicles via a cloud connection.”

By utilizing a cloud connection, shops won’t need to store any vehicle data, which could lead to improved performance and efficiency of the scan tool, McKinney notes.

Just as Maria notes above, McKinney agrees that paying attention to software renewals and updates is crucial. Knowing the latest added coverage of the scan tools you stock could be the difference between making or losing a sale. Your customers never know what vehicle might end up in their bay, but you can help reassure them with a scan tool that provides them with access to the most up-to-date information on their customers’ vehicles.

## **Launch Tech USA**

The X431FIX by Motor is one of Launch Tech’s newest feature upgrades for their X-431 scan tool lineup. The repair information database can be opened on the scan tool and offers users access to repair diagrams, electrical schematics, images, and more.

“The goal of implementing this feature is for accessibility and time productivity,” says Haresh Gobin, product development manager for Launch Tech USA. “Now the technician does not need to leave the vehicle while formulating their diagnostic work plan and identifying issues. They have access to all the repair and OEM specifications in the X431FIX on their X-431 scan tool.”

A few other recent updates for the X-431 lineup include ADAS calibration software and target upgrades, immobilizer diagnostic functions, and a streamlined interface for oscilloscope waveform analysis, Gobin lists.

## **ANY QUESTIONS?**

When selling a tool as complex as a scan tool you’re bound to get some questions. Most customers aren’t going to know exactly what they want and/or need for their shop. The best place to start is by breaking down what vehicles they have coming into their bays.

## **Vehicle workflow analytics**

Gobin recommends taking a look at the shop’s vehicle workflow analytics—what type of services and repairs are they performing? What is the skill level of their technicians? Do they perform any specialty work? Are they working on domestic, European, or Asian vehicles or is it a bit of each?

He also advises thinking about more advanced diagnostics such as module replacement, reflashing/reprogramming, and ADAS calibrations. It’s important to take into consideration whether these repairs are taking place in-house or are being outsourced. ➔

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## Product support and training

After these questions are answered you'll want to discuss the type of support the scan tool's manufacturer has to offer. What happens if the scan tool breaks or a technician is uncertain about how to perform a specific scan?

Ed and Maria ran into a situation where a lack of support cost someone a customer. When they went to visit a shop in Airway Heights, they came across a technician who was having trouble contacting a competitor's support team for their scan tool. The couple asked the technician what they were trying to do, and then Ed brought in one of their scan tools and showed the technician how their device could solve the problem.

"In answering their questions and putting them in contact with our

support team, they bought the tool on the spot," Ed says.

In addition to support, customers should also think about training.

"While using a scan tool doesn't require any specific certification," McKinney notes, "there's great value in exploring training sessions to keep skills sharp and learn how to tackle new and unique problems."

Forro also mentions that Autel, like many scan tool manufacturers, puts together training videos for their products that can be found on social media platforms like YouTube.

## Additional sales

A scan tool can only do so much for a technician on its own. Recommending some accessories to your customers may help them get a better, more in-depth

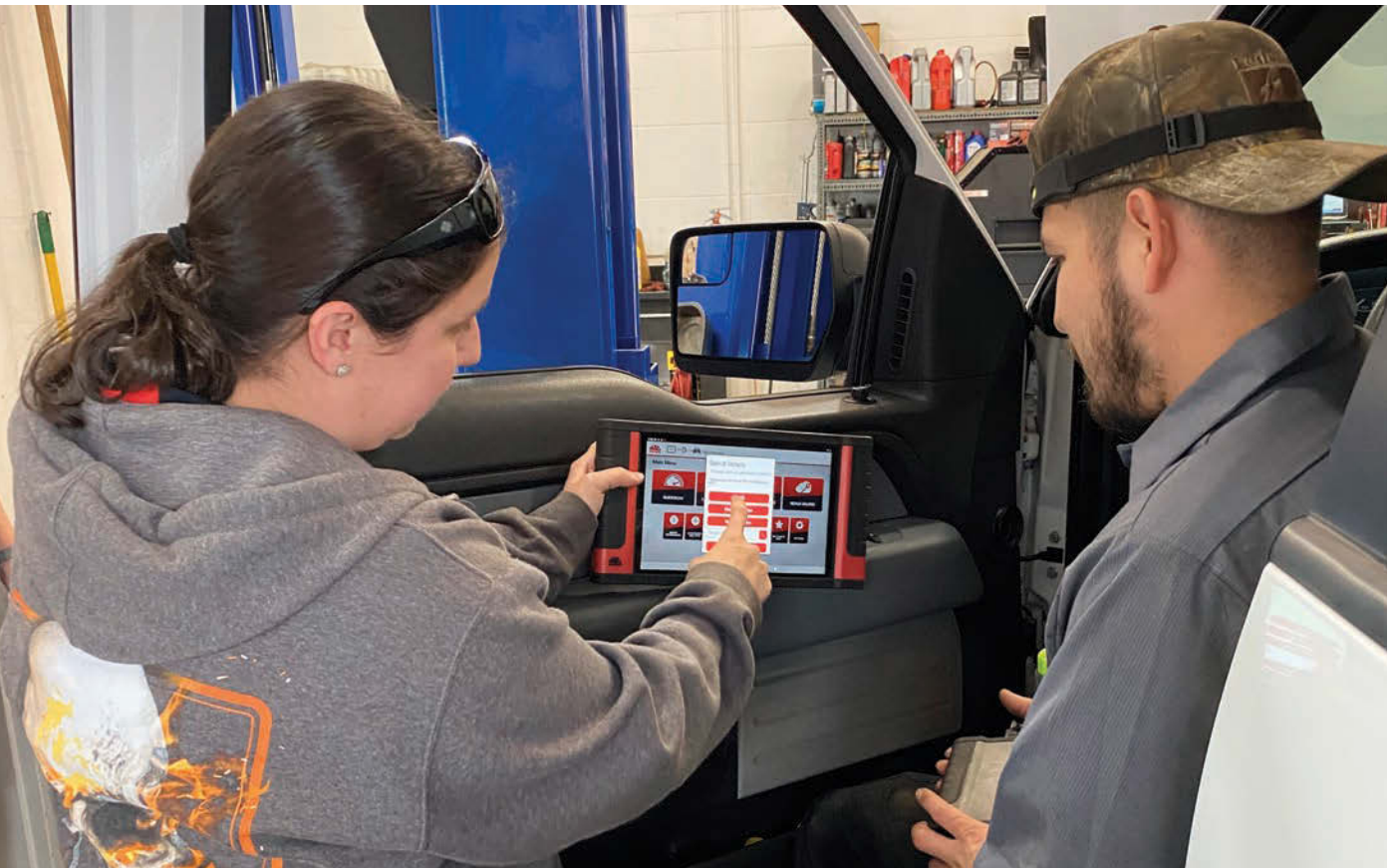
use out of their device.

"The primary thing to remember when viewing scan tool data is that it is interpreted data," Forro says. "This means that there is a margin for error in diagnostics. For this reason, a technician will need to accompany their scan tool with other equipment such as a lab scope, a multimeter, and a signal generator."

McKinney also suggests wireless borescopes for more access in tight spots, battery testers, and noise, vibration, harshness (NVH) analyzers for optimizing noise in a vehicle as other optional accessories.

## SELLING TIPS

Scan tools can be complicated, but selling them doesn't have to be—with some basic knowledge, a good support team



*Maria knows that in order to sell your product, you have to know your product. She encourages other distributors to play around with their scan tools and get to know the platform, so you have at least a basic understanding when your customers come with questions.*



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behind you, and a few sales tips for added guidance, you should be on track for making the sale.

#### 1. Utilize your support team

Maria is a firm believer that as long as you have the right support behind you in your diagnostic team, you don't have to be able to answer every question your customer asks you.

“I can answer questions on how my scan tool works and where to go because I played with the scan tool and used it to do certain features, but I can't tell you about a specific question for that make and model of a car,” Maria explains. “That's where our diagnostic team and support team come into play. I can show you a scan tool without a problem, but I'm not worried about being able to answer all the technical questions for the car.”

#### 2. Demo mode

Many scan tool manufacturers now include a “demo mode” on their devices so technicians can get a feel for how the scan tool works before making a purchase.

Gobin explains that on Launch Tech's X-431 platform, the demo features “simulates the OBD connection to a vehicle and allows the potential customer or user of the scan tool to view the interface [and] ease of navigation while allowing the user to explore the features of the diagnostic software platform.”

Users can explore features like vehicle coverage and check out the tool's ability to diagnose and repair a variety of vehicles.

#### 3. Address your customers' needs

When speaking to a customer about buying a scan tool, Ed likes to start out by asking them where they're at in their career and where they'd like to go. He wants to get a feel for the customer and whether they're going

to be staying in the auto industry or are just making a pit stop.

“From there I talk to the technicians about what they're doing day-in, day-out and asking them if they are at a good point in their career or if they're wanting to further their knowledge,” Ed says. “That kind of directs me to which scan to put them in to make them happiest.”

#### 4. Have the tools available

Forro recommends having an inventory of the tools you're selling.

“No one likes to wait for shipping,” he says.

Having that inventory available also enables you to have a few loaner or demo tools at the ready, so customers can try out the device for a while before making their final decision on purchasing.

#### 5. Play to your strengths

Ed and Maria both run the truck together full-time, and they use this to their advantage.

“You don't come across that very often in the tool industry,” Maria notes. “Having both of us present on the truck allows us to cater to our customers' needs. If somebody is asking about a scan tool, one of us can provide that customer with one-on-one time while the other one deals with the rest of the shop. If there are multiple people with questions, [we can] field those questions a lot easier between the two of us.”

The duo also plays off of each other's strengths.

“Ed has that knowledge of the technical side of using the scan tool, whereas I have the knowledge of setup and functionality of the scan tool,” Maria explains, “and between the two of us, it works to our benefit pretty much every time we start talking seriously to a customer about a scan tool.” **PD**

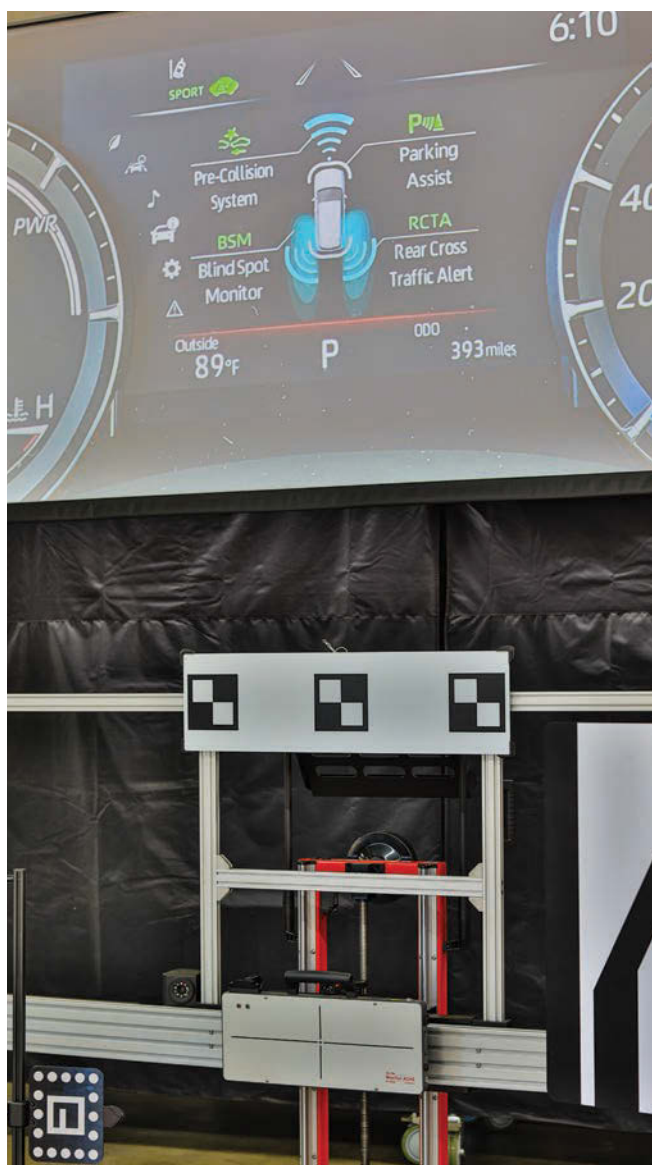
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# Sensors for current and future vehicle systems:

## Understanding ADAS sensors, part 1

Diving into the technology behind cameras, lidar, infrared cameras, radar sensors, acoustic sensors, and others used in advanced driver assistance systems.

By **Scott Brown**, Technical Editor



*Today's advanced driver assistance systems (ADAS) are supported by various sensors and are paving the way toward future automation in next-generation vehicles.*

The advanced driver assistance systems (ADAS) of today are supported by various sensors and are paving the way toward future automation in next-generation vehicles. You've likely encountered these systems where service operations required you to perform additional operations to maintain system integrity to support proper operation. These sensors could include cameras, infrared cameras, lidar (light, detection, and ranging), radar, and ultrasonic sensors. In this two-part article, we will take a closer look at different types of ADAS sensors and discuss how they are used to support ADAS and ultimately, SAE J3016 Level-5, fully autonomous vehicles.

### CAMERAS

For at least the last decade we've seen most manufacturers deploy forward-facing cameras on some of their vehicles. The very early systems classified as SAE J3016 Level-0, mainly provided warnings for lane departure and potential collision events with vulnerable road users (VRUs). As computer vision (CV) technology advanced, ADAS became far more capable. CV and artificial intelligence (AI) brought forward artificial neural networks (ANNs) capable of identifying the environment around the vehicle with object detection, classification, body pose detection, semantic segmentation, character recognition, and more, typically based upon industry standard "common objects in context" (COCO) datasets used for training perception networks.

### DIGITAL CAMERA BASICS

A digital camera collects the light rays reflected from objects within the camera's field of view (FOV) which are passed through a series of concave and convex glass elements that make up the lens. Light rays passing



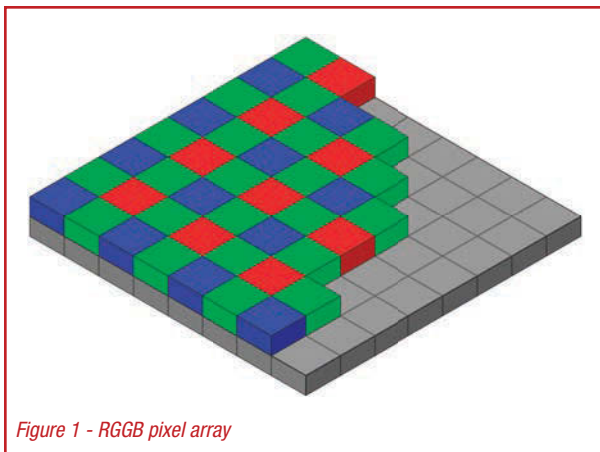


Figure 1 - RGGB pixel array

through each layer are deformed in a way so that they are translated onto a flat plane. The flat plane hosts the digital sensor made up of receptor pixels. The light is first passed to the receptors via an array of red, green, and blue filters which are arranged in an out-of-balanced manner where 25 percent are red, 25 percent are blue, and 50 percent are green (**Figure 1**). Red, green, and blue are typically the primary colors used in digital photography because they

are additive colors and the mix of adding these together at various levels allows for the closest reproduction of the images for display.

If the imager has a resolution of 1920x1080, there would be an array of color receptors in the arrangement of about 500,000 red and blue filters and about 1.5 million green filters. From there, each pixel “borrows” the color information from each adjacent color receptor to fill in the other colors. This process is referred to as “bayering.”

The lens elements help to capture the desired field of view (FOV) by the design engineer. This could be an extremely wide area such as required by a single backup camera sweeping up to 180 degrees (**Figure 2**). This can be classified as the extreme where straight lines are clearly distorted. This is where one level of calibration comes into play which we’ll go into later in the calibration section of this article.

For automotive use, cameras are typically designed differently by eliminating the green filters and replacing them with clear ones. You may see this denoted as RCCB. The reason for this is that the clear pixels allow for better low-light sensitivity and lower noise because

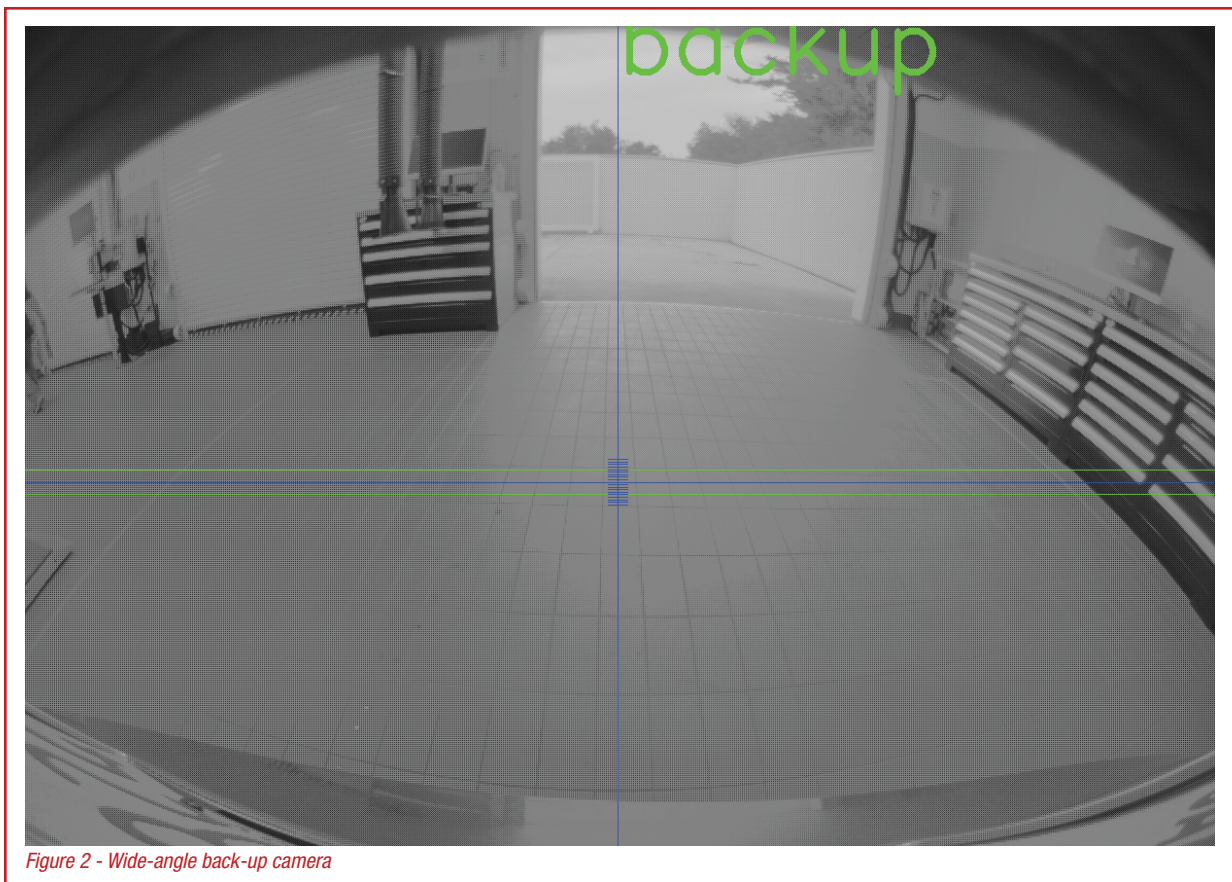


Figure 2 - Wide-angle back-up camera



Figure 3 - Lidar sensor

the sensor gain doesn't have to increase as much in such conditions. CV supporting ADAS doesn't need to see pretty pictures, they just need the appropriate information leading to superior perception of the environment around the vehicle.

### TOF CAMERAS — LIDAR

Time of flight (ToF) cameras typically work by emitting light pulses, typically in the infrared (IR) spectrum which we humans cannot see without special instruments, (see my video covering lidar here: [youtu.be/K7NRdwpqaAI](https://youtu.be/K7NRdwpqaAI)) and measuring the time it takes for the light to reflect from an object and return to the camera sensors. With this measurement, along with the speed-of-light time constant, the system can calculate the distance to the object. ToF cameras can be used for a variety of ADAS applications, such as ACC, AEB, and PAEB. They are particularly useful in low-light environments where other sensors may struggle to provide useful information. ToF cameras are becoming increasingly popular in the automotive industry as they provide an efficient and accurate way of providing CV perception. However, these technologies are still rather expensive, but as their costs

come down, we're likely to see more of them in the future. You may have already seen a lidar system on a vehicle passing through your shop. See **Figure 3** to see if this looks familiar.

### MONO CAMERAS

Mono cameras consist of a single camera that captures images of the environment. The camera's image sensor can detect light, and the camera's processor is able to interpret the data to produce an image. These images are then analyzed by the ADAS system to detect objects, such as other vehicles, pedestrians, and traffic signs. The technology of mono cameras has advanced over the years, which has improved their performance and capabilities for ADAS applications.

For example, early mono cameras used CCD image sensors that provided low-resolution images with poor low-light performance. Nowadays, most mono cameras use CMOS image sensors which provide higher-resolution images and better low-light performance. Additionally, the processing power of mono cameras has also increased, which allows them to perform more advanced image analysis in real time.





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Moreover, the use of deep learning techniques within cameras is continuously advancing. This has improved their ability to detect pedestrians, bicycles, and other objects, which is important for ADAS safety features such as AEB, PAEB, and LKS.

Most recently, Honda has been able to remove the radar sensor on some of their vehicles and still achieve the same or better ADAS functionality for ACC, AEB, PAEB, LKS, and more.

## STEREO CAMERAS

A stereo camera system consists of two cameras mounted side-by-side, typically forward facing, that capture images at the same time. By comparing the images captured, the stereo camera system can calculate the distance to objects in the scene providing depth perception. This is accomplished by using epipolar geometry. The known distance between the two sensors within the camera mounted on the same plane within the camera module can be used to triangulate the distance to the object being observed.

**"Returning a vehicle to service in proper operating order is an essential step today, especially with all the active safety systems being deployed on vehicles."**

Therefore, it is important to properly calibrate the camera following service events calling for those procedures. This information can be used for a variety of ADAS applications, such as ACC without the need for radar, obstacle avoidance, and pedestrian detection. The stereo camera system can also be used to create a 3-D map or sometimes referred to as a point cloud of the environment within its FOV, which can be used for navigation and localization.

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Figure 4 - 2022 Toyota Mirai – ADAS sensor suite including a stereo camera

This 3-D mapping capability is particularly useful for autonomous vehicles, as it allows the vehicle to understand its surroundings and navigate accordingly. Stereo cameras are becoming increasingly popular in the automotive industry as they provide an efficient and accurate way of measuring distance, which is important for the safe operation of ADAS-equipped vehicles. See **Figure 4** showing a 2022 Toyota Mirai equipped with a stereo camera and an array of other sensors.

Sensor calibration is an essential step in ensuring the proper functioning of these ADAS features. Sensor calibration involves adjusting and configuring the sensors to ensure they are providing accurate and reliable data to the vehicle's control systems.

Here are some reasons why ADAS sensor calibration is important:

- **Safety:** Accurate sensor calibration is crucial for the safety of both the driver and VRUs. Mis-calibrated sensors can lead to deficient system operation.
- **Legal compliance:** In many countries, sensor calibration is a legal requirement.
- **Performance:** Properly calibrated sensors can lead to improved ADAS performance.

In summary, performing ADAS sensor calibration is crucial for ensuring the safety of the driver and VRUs.

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It is important to have the calibration operations carried out by a trained service professional to ensure that it is performed properly.

## CAMERA CALIBRATION

Cameras have two basic forms of calibration. The first (intrinsic) involves transforming three dimensions onto a flat plane with accurate representation. One of the challenges is the distortion that occurs as the light rays are passed through each lens element. The easiest way to visualize this, as mentioned earlier, is the viewing of straight lines on the flat image plane. This calibration operation is typically a "one and done" calibration performed at the time of camera manufacturing since it should not change. However, it is possible that there could be corrections applied during field calibration. In photography, higher-end cameras with interchangeable lenses carry calibration data that is then transferred to the camera body when mounted and operated. The calibration information is used to transform the image properly onto the flat plane

## ADAS Acronyms

- **ACC** - Adaptive cruise control
- **AEB** - Automated emergency braking
- **BSW** - Blind spot warning
- **CTA** - Cross-traffic alert
- **LCA** - Lane change assist
- **LDW** - Lane departure warning
- **LKA** - Lane keeping assistance
- **PAEB** - Pedestrian automated emergency braking
- **RAEB** - Rear automated emergency braking
- **RCTA** - Rear cross-traffic alert
- **TSR** - Traffic sign recognition



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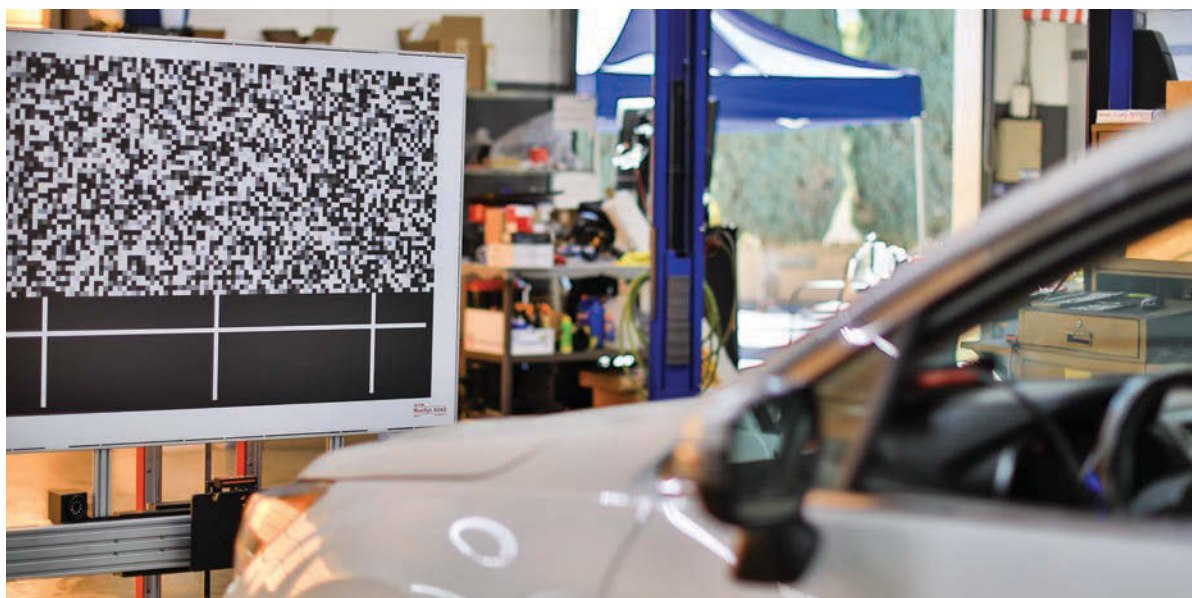


Figure 5 - Subaru stereo camera calibration target-7810

of the sensor image with little to no distortion. Keep in mind that what you see being displayed may not be the exact data the imaging system is using to accomplish its job as mentioned earlier.

The second type of calibration is called extrinsic. Extrinsic basically means external and how the camera placement on the vehicle is in relation to a known datum point (usually vehicle centerline) to its field of view. If the calibration routine is classified as static, this means that there will be a requirement for a special target(s) to be placed in specific coordinates within the camera's FOV (**Figure 5**). Many of the modern tools today provide efficiency gains with target placement operations as they relate to specific vehicle data points.

This is very important to understand because if the system does not have a solid relationship between the camera view and the known datum point on the vehicle, then any of the warnings or corrective actions issued on an ADAS-equipped vehicle could have negative consequences. What this comes down to is that if there are changes to the vehicle ride height, steering/suspension geometry, or body-to-chassis changes, then calibration operations should be considered by referencing the appropriate service information (SI). In some cases, you may not find direct statements within SI telling you that if you perform operation 'X' then you must do 'Y'. However, you may want to adopt a policy of your own. It all comes down to liability, and if you look from the courtroom perspective where the judge is looking at an owner's manual statement claiming that the AEB system may not work if the wheels are misaligned on a vehicle you

aligned, and asks you why you didn't perform a recalibration on the camera when you, as the automotive service professional, knew that there is a relationship between the vehicle geometry and camera, you may be found at fault if you did not carry out the procedure. To date, I haven't been made aware of any such events I described above but they cannot be ruled out from happening.

## CONCLUSION

Many service operations carried out today may require additional operations to be performed that relate to ADAS. Be sure to reference up-to-date service information to ensure that complete repairs are being performed on your client's vehicles. Returning a vehicle to service in proper operating order is an essential step today, especially with all the active safety systems being deployed on vehicles.

In part two of this series, we'll dive into infrared cameras, radar, and ultrasonic sensors and some of the lessons learned during the service and repair of these systems. ❌

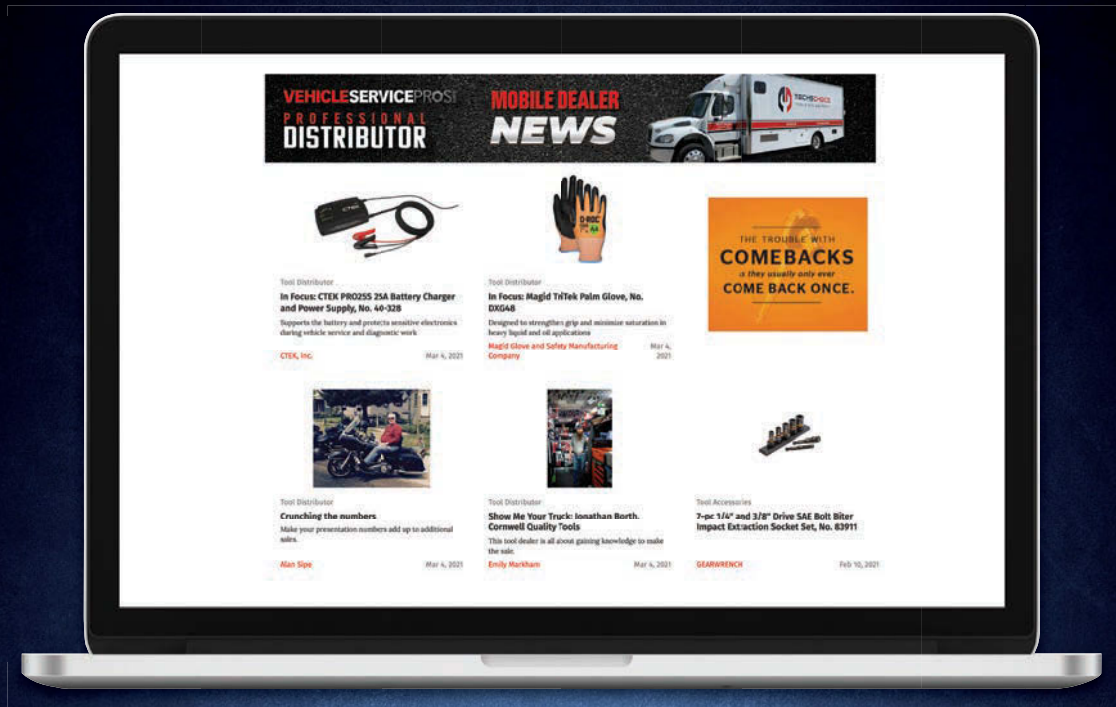


**SCOTT BROWN** is an ASE Master Certified L1 Technician and has over 37 years of professional service industry experience. He is an independent shop owner in Southern California and is engaged at various levels within the industry. He has a deep understanding of the challenges technicians experience at the service level and is continuously striving to move the industry forward through education and networking. Brown found Diagnostic Network ([diag.net](https://diag.net)) after 22 years of service at iATN, where he is retired as company president in 2018.

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# Custom built for comfort

This Cornwell tool dealer upgraded his truck to better accommodate his customers and the extreme heat.

By Kayla Nadler, Associate Editor

Last year, after nearly 10 years on the job, Cornwell Quality Tools dealer Jim Castaneda started kicking around the idea of expanding his business in Henderson, Nevada. When his daughter overheard him talking about it one day, she said she wanted to do it.

With no previous automotive background or experience, Castaneda wanted to make sure his daughter was serious about it, so he not only had her job shadow him on his truck for a while but also with other tool dealers.

Naturally, like her dad, she quickly picked up on it and has been selling successfully on her own since. Not only did Castaneda gain a driver, but he also had a reason to get a new truck.

He gave his 2016 22' Hino truck to his daughter and purchased a custom-built 2022 Freightliner M2 24' Widebody.

"Having a widebody makes a difference," Castaneda says. "When you have six to eight people on here at a time, they're not all bumping into each other. That's the biggest thing."

Although, he does joke that it makes it a little harder to drive around, but in the end "it's easier to do business."

## MUST-HAVE ITEMS

When designing his new truck, Castaneda made sure to include a few extra items and features in his plan. A mini fridge was one. Situated next to his desk, Castaneda makes sure to have drinks available for sale to appease his customers.

Multiple A/C units to handle the Vegas heat was another must. His previous truck had two roof A/C units. This time around, he decided to add an engine-powered unit within the box along with two generator-powered roof units that he uses for extremely hot days.

Lastly, he made sure to have the ability to fit multiple toolboxes onboard. By having custom removeable shelves and hideaway cabinets, Castaneda can easily accommodate three toolboxes and a hutch, if and when needed.

## NOT ALL ABOUT THE TOOLS

Although, this tool dealer has his truck packed full of tools from the ceiling to the floor and everywhere in between, he says it's more about selling the service.

"If I sell the service and that I'm going to be here for them when they need something or have issues, the tools actually sell themselves," he says. "I don't have to be a salesman on the tools. My customers know that when they buy from me that there's the after care that comes with it."

However, it's not to say that keeping up with products is not necessary. Castaneda notes that staying current with new tools is still an important part of the business.

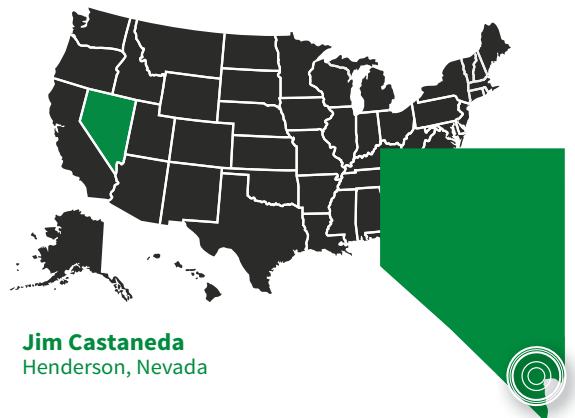
"Product knowledge is a must even if you're not trying to sell to them, you still have to know what you're selling," he says.

Prior to becoming a mobile tool dealer, Castaneda worked as a technician on and off for 20 years and admits that he comes across tools that he doesn't know what they're used for.

"Product knowledge is an ongoing thing," he notes. "You constantly have to educate yourself on what's new and innovative and what works and what doesn't. I'll tell my customers straight up if I feel that it's an invaluable tool."

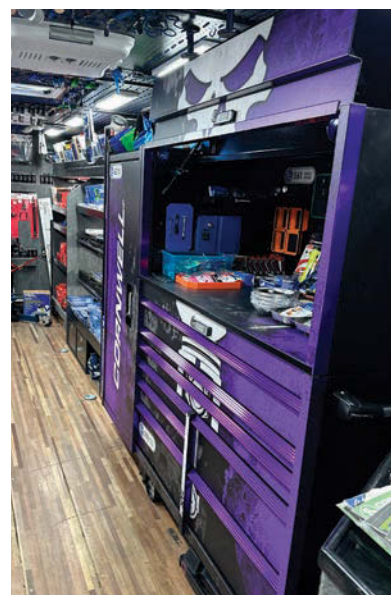
## FUTURE PLANS

Being a Cornwell Top 100 tool dealer numerous times, including last year, Castaneda's goal is to "keep going the way it's going" and to help his daughter build up her business, who also has her sights on becoming a Top 100 tool dealer. **PD**



To view more photos of Castaneda's truck, scan here





**Top Left-** Keeping his truck full is important, but it's just as important, if not more, on selling the service. **Top Right-** Castaneda pictured with his daughter, who he gave his old tool truck, a 2016 22' Hino, to before purchasing his custom-built truck, a 2022 Freightliner M2 24' Widebody. She also has her sights on becoming a Top 100 tool dealer, like her father. **Middle/bottom left-** Castaneda made sure to have the ability to fit multiple toolboxes onboard his new truck. That was a must, along with having a mini fridge and multiple A/C units to handle the Vegas heat. **Bottom right -** Although it may be a little harder to drive around, Castaneda says having the widebody makes it easier to do business.

## Show us your truck

Recently upgraded your truck? Have a product display or demonstration area for customers? Share it with us!

Contact us at [Editor@VehicleServicePros.com](mailto:Editor@VehicleServicePros.com) for your chance to be featured.



# Not all demonstrations are created equal

While demonstrating something like a hammer is quick and easy, other demonstrations require more preparation in order to make the sale.

By Alan Sipe, Contributing Editor

I've been so very lucky in my selling career to have been associated with some of the greatest tool companies. Klein Tools, Witte Tools, Stanley, KNIPEX, Ajax Tools, and BETA Tools. At all these terrific companies I had many executive duties but none of these duties were more important than my sales responsibilities. Selling and sales team development skills are why they hired me.

This is no different than being a mobile jobber. Yes, you have finance, inventory, truck maintenance, insurance, and probably a bunch more responsibilities that I am not aware of, but none of these are more important than getting out there every day selling your stuff.

Since you have all those non-fun duties to take care of, you had better make the most of the selling time you do have by giving great demonstrations and closing every day, all day.

## A "SELLING BENEFITS" ATTITUDE

Giving great demonstrations all day, every day is a frame of thought. Whether you're presenting a single 4" Phillips screwdriver or a \$15,000 tool storage system. A benefit-driven frame of mind will provide you with demonstrations that sell.

However, there is a world of difference between the demonstration of a screwdriver and the demonstration of a huge tool storage system. There are demonstrations, and there are *demonstrations*. Developing a "selling

benefits" attitude will help you be successful with both.

A selling benefits frame of mind comes easily to some people and not so easily to others, but it is available to anyone who sets their mind on sales success.

Simply said, work on getting your mind set on following every feature/detail you present to a customer with why that feature is a benefit to them personally.

- **Feature:** This is a 75,000 BTU furnace.
- **Advantage:** This furnace is reliable and works well.
- **Benefit:** It keeps you and your family warm and comfy on cold winter nights.

The feature is simply what it is—it is a Streamlight Switchblade Worklight. The advantage is what the feature does—it provides precise lighting or illuminates large areas. The benefit is what the features and advantages mean to the user you are speaking to—you will be able to see better to safely work harder, faster, and longer, or you'll be able to find those small nuts and bolts you drop while you're working.

Sure, the advantage is important. Having a well-lit work area is essential but all good quality lights will light your work area. This light, however, will allow you to work safer, longer, and harder which is a benefit to that individual customer.

- **Feature:** The screwdriver blade has a forged-in wide end that is

injection molded into the handle.

- **Advantage:** The blade will never twist in the handle, pound through, or pull out.
- **Benefit:** This screwdriver will be stronger and last you a lifetime.

If you go into every situation with a "benefit selling" frame of mind it will soon become second nature.

## WHAT'S IN IT FOR YOUR CUSTOMER?

As you hand out your company's monthly brochure don't just say, "Here is the brochure of all our current specials." Say something like, "Here is our current brochure of specials which contains some of our most interesting and new products. Purchasing these this month will help you save money, which is always a good thing, isn't it?"

It is almost never a good idea to tell a customer that buying this will help *you* win some contest or qualify for some increased benefit. They may like you, but their primary care is what's in it for them.

It is unfortunately easy to slip into "advantage" selling and neglect "benefit" selling. As in the example below.

- **Feature:** This is our cool, red dead blow hammer.
- **Advantage:** When you hit something the beads inside will slam forward to force the impact on your target and absorb the impact so the hammer will never bounce off what you are hitting.



So, in this example, you might make the sale with just the feature and the advantage, but the benefit will assuredly close the deal as the benefit shows your customers what's in it for them.

- **Benefit:** In addition to not damaging anything around what you are hitting, this dead blow hammer will not bounce off your target and injure you.

## DEMONSTRATIONS VS. DEMONSTRATIONS

Now, back to the difference between demonstrations and *demonstrations*.

With the quick demo of a simple product, like our dead blow hammer, there are probably three or four features/benefits to hit on that will close the deal. If your customer needs to replace their hammer, then your dead blow hammer will almost sell itself. Just be sure to follow those three to four features with the benefit those features have for that individual.

However, the demonstration of the massive tool storage system needs to be thought through in advance—planned,

staged, and professionally executed.

Set the stage by inviting the prospect onto your truck where you can close the door to create a quiet environment allowing both you and the prospect to focus 100 percent on this potential sale. If you have a cup of coffee or a soda available be sure to offer it to your prospect. The objective is to get the individual relaxed and focused on you.

Present your tool storage system in logical order. Maybe start at the bottom (wheels) and work up. Wheels, slides, drawer sizes, the material, etc. Do not begin with your best and most important features. You want the prospect to get comfortable with your feature, advantage, benefit, and trial close pattern. You want them to get in the habit of agreeing with your trial closes that these benefits are good for them. Your objective is to get the prospect in the habit of saying yes. If you hit them with the best and most important benefits first, you will run out of things to talk about pretty quickly.

Never ever hand the prospect a piece of literature or a catalog until the end of your presentation or at least only

when you have something you must show them in the literature. And once you've shown that feature, take the literature back from them until the end of your presentation.

It is a sales skills fact that as soon as you hand the prospect some literature, they go deaf, start looking at the literature, and quit listening to you.

Be prepared for the normal questions and objections. Build them into your presentation so you answer them before the customer has a chance to ask them. This way you control the question and can shape the answer to your product's benefit.

- **Feature:** Our storage unit side is made of XX-gauge steel.
- **Advantage:** We've been manufacturing high-end storage systems for 50 years and our engineers design our products to have the perfect strength and weight steel to fit a professional's needs.
- **Benefit:** I imagine you agree that is the best way to manufacture a great system, don't you?

The above is a lot better than having the prospect say, "The other system I'm looking at uses XXX-gauge steel, why don't you?"

In the end, the more you can impress your prospect that this product is going to benefit them personally the easier it will be to close the sale.

Now, go sell something! 



**ALAN W. SIPE** has spent the last 42 years in the basic hand tool industry including positions as president of KNIPEX Tools

North America, senior vice president of sales and marketing at Klein Tools, manager of special markets at Stanley Tools, and sales manager at toolbox manufacturer Waterloo Industries. Currently, Sipe is the owner of Toolbox Sales and Consulting, a company specializing in sales strategy, structure, development, and training.  
[alansipe@gmail.com](mailto:alansipe@gmail.com)

# DRIVING SALES

Body Shop & Collision Repair

## Body Shop & Collision Repair

From installation and removal equipment to color matching lighting solutions, there are a variety of tools needed for collision repair. Check out the following pages for examples on what tools you may want to consider on stocking for your body shop customers.



### NOW HAVE SPECIFIC COLOR CASES

The updated **Tool Aid Body Hammer Repair Kits**, Nos. 89450 and 89470, now have specific color cases for less chance of cross contamination. The hammers and dollies are the same, but it is now easier to categorize with the colored storage cases. Additionally, the hammers and dollies within the 9-pc Aluminum Body Repair Kit, No. 89450, were red but are now metallic. Red bands have been added to the hammer and spoon handles, and red stickers have been applied to the dollies. The hammers and dollies within the 9-pc Body Repair Kit, No. 89470, were blue but are now black. Blue bands and stickers have been added as well, similar to 89450. ■

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### FLEXES TO FOLLOW CONTOUR OF DOOR

The **Matco Tools Glass Debris Door Cleaner**, No. GDDC1, features a special shaft design that flexes to follow the contour of the bottom of the door to shift broken glass to an area where it can be removed. Features a 23" flexible steel shaft with a small handle that provides easy access. Vinyl caps protect the prongs from scratching the bottom of the door. ■

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### ABLE TO SAVE AND RECALL FAVORITE WELD SETTINGS

The **Dynasty 300 Multiprocess Wireless Foot Control Complete** from **Miller Electric** features AC/DC TIG, pulsed TIG, stick, air carbon arc, MIG, and flux-cored processes. With its intuitive interface LCD display, weld operators can quickly and easily adjust parameters. The welder has the ability to save and recall favorite weld settings, and offers locks and limits to provide control of the weld parameter ranges minimizing deviations from the welding procedure specifications (WPS). For portability and reliability, the inverter power supply allows for any single-phase input voltage hookup (208-600V) with no manual linking. It also includes a USB port to easily update software, a high-frequency arc starter for non-contact arc initiation, and an on-demand cooling system. ■

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### DOUBLE-STITCHED SEAMS

The **MIG Welding Gloves** from **Mac Tools** feature double-stitched seams for additional strength and a reinforced palm pattern. Made with premium leather, the gloves provide increased dexterity. The MIG Welding Gloves also have a ribbed sure-fit cuff and are available in sizes from medium to XXL. ■

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### LITHIUM-POWERED, PORTABLE WELDER

The **Vanair EPEQ Welder140** is a 140A CC stick welder that offers clean, quiet operation. Weighing 34 lbs, the cordless welder is designed to be portable. It measures 18.3" in length, 7.6" in width, and 14.9" in height. It's powered by a Li-ion battery for convenience and mobility. The EPEQ Welder140 features a built-in high power constant-current and constant-voltage charging unit for fast charging, hot start for easier welding, high accuracy display for current, easy-to-read LED display, and is user friendly for quick repair jobs. It also has built-in safety features, including overcharge, overload, and over discharge protection. ■

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### PULLING FORCE OF 3,579 LBS

The **Marson BT-8 Battery-Powered Rivet Nut Installation Tool** from **Howmet Fastening Systems** is designed to deliver reliable pull-force for high-volume assembly applications. Engineered for versatility and extensive use, the tool is lightweight, has an ergonomic grip and built-in LED, offers ideal balance, and has a recharge time of approximately 45 minutes. The tool has a stroke length of 0.25" and a pulling force of 3,579 lbs. The BT-8 kit includes one tool with a battery, a battery charger, and a carrying case. ■

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## OFFERS UP TO 9 TONS OF FORCE

The **H&S Autoshot SPR-Pro Self-Piercing Riveter**, No. UNI-6800, is able to rivet aluminum and steel panels with up to 9 tons of force (adjustable 4T-9T). The cold-forming process doesn't require heat or pre-drilled holes. The SPR-Pro is used for self-piercing, flow form, solid rivets, flattening, hole punching, and rivet removal. The cordless tool features an LED and intelligent trigger for quick adjustments as well as an LCD display to show the tool's battery, usage, and rivet pressure. System includes an ABS storage case, starter rivets, a 16-pc die set, two 18V Li-ion batteries and a charger, and a medium SPR tool arm. An optional small arm, large arm, and blind rivet attachment are available. ■

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## AVAILABLE IN 110V AND 220V

The **Killer Tools Deluxe Steel Dent Puller with Ergonomically Designed Seated Cart**, Nos. ART38Special-110DX and ART38Special-220DX, are designed to put the technician in the ideal position to repair the majority of dents. The deluxe unit adds two seat-level storage trays, lever pulling, and weld key pulling capabilities to the company's original steel dent pullers. The deluxe dent pullers are available in 110V and 220V, and come with a voltage conversion kit to fit the requirements of the user. Complete with steel electrode dent puller, seated cart, two storage trays, lever puller + electrodes, slide hammer + electrodes, shrinking/wiggle wire electrode, wiggle wire, key weld electrode, weld keys and key bar, and pulling claw. Made in the U.S.A. ■

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## FEATURES A CUTTING CAPACITY OF 7/8" CLEAN CUT

The **Forney Industries 45 P PRO Plasma Cutter** features a cutting capacity of 7/8" clean cut (1/2" aluminum) and 1-1/8" sever cut. The 25' Forney Ignite Plasma Torch offers drag torch technology that supports all skill levels. The integrated air pressure and water separator provide additional protection to the machine while maximizing consumable life. This plasma cutter is dual-voltage and runs off 120V or 240V (adapter included). The Forney 45 P PRO Plasma Cutter is generator friendly (8 KW of continuous power for 240V) and comes with a three-year power source warranty. ■

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# DRIVING SALES

Body Shop & Collision Repair



## 360-DEGREE ROTATIONAL HEAD PIECE

The **Kent Automotive Dent Fix Slimline Swivel Manual Rivet Gun Kit** is designed for plastic rivets and is ideal for tight and hard-to-reach places, requiring only about 2" of clearance to fully pull rivets. The rivet tool features a 360-degree rotational head piece for easy operation and a locking metal clip to keep the handles together when not in use. The blow molded case includes the slimline manual swivel rivet tool, interchangeable tips (5.0mm and 6.3mm), 5.0mm (.197") plastic rivets (10 pieces), 6.3mm (.250") plastic rivets (10

pieces), and a wrench. ■

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## CLOSELY MIMICS NATURAL SUNLIGHT

The **NextLED Professional LED Color Matching Light**, No. NT-2040B-3, is ideal for color matching and spotting body flaws. With a CRI rating of 96+, it closely mimics natural sunlight, allowing users to precisely match paint colors and assisting in finding paint flaws before and after painting. It features three different color temperatures: 2700k, 4500k, and 6500k. Additionally, a mounting charging station, a hanging hook, and a built-in magnet are included. ■

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## INCREASED WRIST SUPPORT

The **Dynabrade Dynaorbital Extreme Combo Pack**, No. X3161H, contains a 3" Mini-Dynaorbital Extreme, No. X31, and a 6" Dynaorbital Extreme, No. X61H. The sanders are designed to assist technicians with stripping paint quickly and efficiently as well as finishing color and/or clear coats. The 3" sander has .1hp and weighs 1.17 lbs, while the 6" sander has .3hp and weighs 1.88 lbs. Both sanders feature an ergonomic design with an integrated comfort platform for more wrist support and overall operator comfort. Recessed throttle lever eliminates pinch and pressure points on an operator's palm. Sanders come with weight-mated backing pads for low vibration levels. ■

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## AVAILABLE IN 18" AND 13" SIZES

The **Milwaukee Tool M12 FUEL Bandfiles**, Nos. 2482-20 and 2483-20, are available in both 18" and 13" sizes and are designed to deliver fast spot removal. The bandfiles feature two speed adjustment settings (high 3,600 sfm and low 1,800 sfm), a lock-on button, a variable speed trigger, forward and reverse functionality, and are resistant to belt slip. Both are also equipped with a 360-degree tool-free arm rotation to improve access in hard-to-reach applications. When equipped with an M12 Redlithium XC 4.0 battery, users can remove up to 50 spot welds using the 18" bandfile and up to 40 spot welds with the 13" bandfile on a single charge. ■

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## IDEAL FOR GRINDING, CUTTING, OR WELDING FUNCTIONS

The **Jackson Safety Hellfire Auto Darkening Welding Helmet**, No. 47101, is designed to provide an ideal view of the welding arc, reduce eye strain, and provide a comfortable welding experience. The auto darkening filter allows welders to adapt to a variety of applications by switching the lens shade-range (3/5-13) and transitioning from light to dark in 1/20,000 seconds. With a 1/1/1 rating and a patented 370 Speed Dial, the Jackson ratcheting headgear offers optical clarity with an adjustable fit. The welding helmet is ideal for grinding, cutting, or welding functions. ■

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## LONG LASTING AND DURABLE ADHESIVE

The **Dent Fix Equipment Cold Adhesive Glue Slide Hammer Set**, No. DF-CGS71, is a lightweight kit designed to enable auto body professionals to quickly and safely move large areas of metal efficiently. The kit includes the company's 2.8 lbs Slide Hammer, 50 grams of Mammoth Tar Cold Glue, and four tabs. Each tab is aluminum for strength and durability. Tab sizes include: 38mm and 52mm round tabs and 22mm by 57mm and 36mm by 80mm rectangular tabs. The Mammoth Tar Cold Glue provides almost instantaneous, strong adhesion and will not harm the finish of the vehicle, the company says. ■

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## HAS A DUTY CYCLE OF 175 AT 30 PERCENT

The **Lincoln Electric POWER MIG 211i MIG welder**

is a 200A machine ideal for MIG, flux-cored, and spool gun welding. The unit weighs 41 lbs and is portable thanks to its sleek design with multiple lift points and inverter technology. With its seven-segment display and basic knob controls, users can weld quickly in a simple three-step process: select welding process, select wire diameter, and select material thickness.

The machine then takes it from there, automatically providing the optimal voltage and wire feed speed settings. The POWER MIG 211i has a duty cycle of 175 at 30 percent and can operate on 120V or 230V input voltage. Various accessories included. ■

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# The life-changing ad

This husband and wife team didn't quite choose this career, it sort of chose them.

By Kayla Nadler, Associate Editor

When Becky and Miguel Richards became pregnant, the plan was for Becky to quit her teaching job to stay home with the baby for a couple of years. But when Miguel found himself unemployed from his IT job a week after the birth, they were thrown for a loop. It wasn't until Miguel saw an ad in the paper for a flag that sparked the idea of becoming a mobile tool dealer.

"[The ad] sort of jumped off the page at us and we thought, 'We can do that,'" Miguel recalls.

Now 13 years later, what started as a career change for Miguel has now turned into a life-changing, family affair. A lot has happened over the years.

For starters, the Richards decided that after eight years with a flag it was time to make the switch to go independent and join the GEARWRENCH Street Team. Then a few years later, Becky went from handling the paperwork of the business and working full-time as a teacher to helping Miguel with his route by driving a second truck.

### WORKING TOGETHER

Miguel was putting in long hours on the road which meant he was coming home late and often missing family dinners.

To get him home earlier, they decided to have Becky train with Miguel to learn the business.

#### What's your story?

Share the ups and downs of life on the road with us at [Editor@VehicleServicePros.com](mailto:Editor@VehicleServicePros.com) and you could be featured in our next Tales from the Road column.



What started as a career change for Miguel has now turned into a life-changing, family affair.

"I have greater respect now [for Miguel] because I can understand what he was doing more than when I was just handling the backend," Becky notes.

She then went on to take part of his route, first starting with one day a week and is now up to four days a week.

"It's fun," she says. "I like being able to talk to so many different people across different types of work and there's something different every day."

Not to mention, Miguel's just a phone call away if she needs help.

"I can call Miguel and have the customer explain to him what they are looking for on speakerphone," she adds.

Although, over time those phone calls became less and less as she felt more comfortable.

"For a while she was calling me frequently about different questions on tools, but now she barely calls me," Miguel says. "She has grasped all the information about the different products and tools and what they're used for."

### OVERSTOCK OVERLOAD

One thing that makes the Richards' stand out with their customers is by always having fully stocked trucks. They have

so much inventory on hand that they are now having to move because their overstock is taking over their house, literally.

"It first started with one shelf [in the house] and has since spilled into the dining room, living room, hallway, garage, and storage spaces."

However, this overstock obsession has saved them a few times, including the time Miguel's previous truck caught fire due to an electrical issue while visiting a customer's shop and nothing was deemed salvageable as well as when Becky first started as a tool dealer.

In both situations, they were able to fill a truck quickly to serve their customers. **PD**

### FUN FACTS:



#### Favorite Snack

Becky – Mountain Dew  
Miguel – Whatever is in the candy bin



#### Music for the Road

Becky – 80s, 90s, or 2000s  
Miguel – Talk radio



#### Most Random Sale

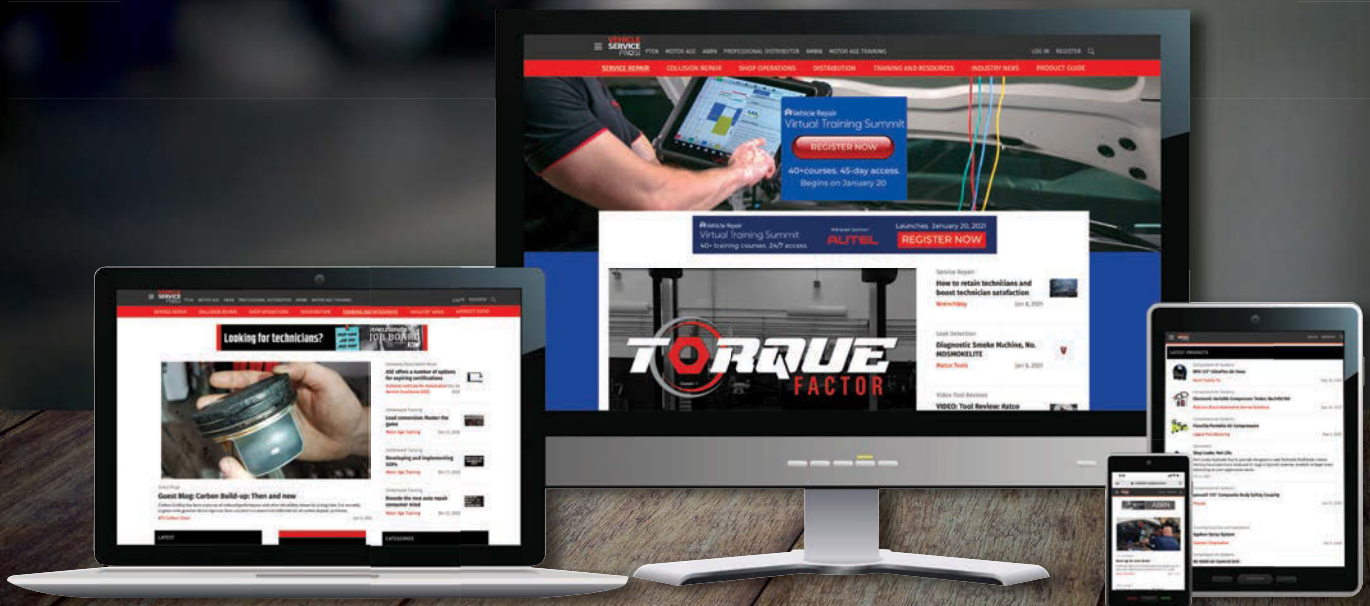
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Insert and extract SPR rivets, pull blind rivets, install flow form rivets.

#### FEATURE & BENEFITS

- **ALL-IN-ONE SET-UP** - Complete tool set
- **MOBILE** - All the tools right at the work site
- **ORGANIZED** - A place for everything
- **SECURE** - Lockable cart



### CHANCE TO WIN

**\$270**  
Retail Value



**SCAN HERE  
TO ENTER  
FOR A CHANCE  
TO WIN THIS  
PRIZE PACK**



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For more information, click on "PD e-inquiry" at VehicleServicePros.com

**PTEN**  
**PEOPLE'S  
CHOICE**  
**2021**

The RIVMAX includes  
the Award Winning  
DF-SPR70 10 Ton Riveter  
& Blind Rivet Adapter !

