

# PTEN

Professional Tool & Equipment News

The Independent Tool Authority

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By Drew Technologies

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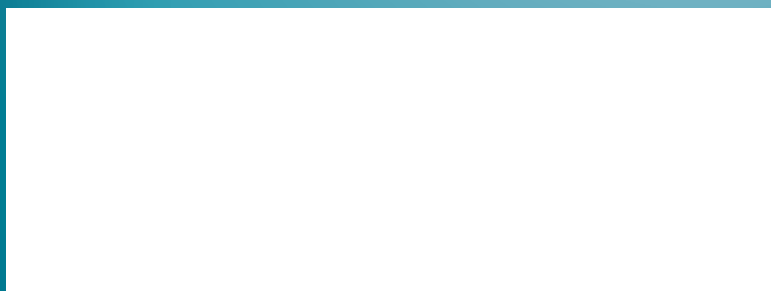


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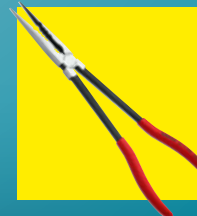
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- ▼ Polyurethane seat will not deteriorate
- ▼ Straight or a 45-degree angled jaw
- ▼ Padded bumpers protect the clamped surface





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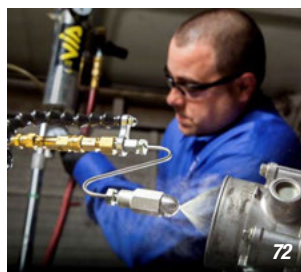


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Shop: Crystal Lake Automotive  
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## In the Next Issue

Once we return from Vegas next month, we'll share all the latest and greatest tools we scoped out while at the shows. Stay tuned for the AAPEX and SEMA Editor's Picks in December.

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## On Our Cover

RAP - Remote Assisted Programming Kit by Drew Technologies



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### TOOL REVIEW

The WD-40 Specialist Spray & Stay Gel Lubricant offers lubrication and corrosion protection that won't run, drip or make a mess. The gel-like formula is engineered with self-healing technology that softens to lubricate when there's friction, and when the friction stops, it solidifies again to protect against rust and corrosion. WD-40 Specialist Spray & Stay Gel prevents rust for up to one year. To read the full review, visit [VehicleServicePros.com/12244028](http://VehicleServicePros.com/12244028)

### Ask the Expert



What are the top considerations that go into designing safe automotive workwear? To read the full article, visit: [VehicleServicePros.com/12256073](http://VehicleServicePros.com/12256073)

### Tech Tip



If you work with tools for a living and you want the security and protection of knowing that your professional investments are covered, then PRO-TEC is a viable option. To read the full article, visit: [VehicleServicePros.com/12254980](http://VehicleServicePros.com/12254980)

### Video



The Snap-on P87150 Precision Pliers are designed with cutting edge geometry to balance sturdiness with sharpness. To watch a video about this product, visit: [VehicleServicePros.com/12191101](http://VehicleServicePros.com/12191101)

  
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### Featured Products



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**UTest, No. 16-200**  
AESwave  
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12223205](http://VehicleServicePros.com/12223205)



**746XLT Impact Wrench**  
Nesco Professional Tool  
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GROUP PUBLISHER Larry M. Greenberger  
LGreenberger@SouthComm.com

PUBLISHER Kylie Hirko  
262-473-9497 KHirko@SouthComm.com

EDITOR Erica Schueller  
800-547-7377 x1630 ESchueller@SouthComm.com

MANAGING EDITOR Mike Schmidt  
800-547-7377 x1394 MSchmidt@SouthComm.com

ASSISTANT EDITOR Vesna Brajkovic  
800-547-7377 x1645 VBrajkovic@SouthComm.com

MULTIMEDIA ACCOUNT EXECUTIVE  
Cortni Jones 800-547-7377 x1391  
CLJones@SouthComm.com

MULTIMEDIA ACCOUNT EXECUTIVE  
Diane Braden 800-547-7377 x1364  
DBraden@SouthComm.com

MULTIMEDIA ACCOUNT EXECUTIVE  
Mattie Gorman 800-547-7377 x1636  
MGorman@SouthComm.com

INSIDE SALES Kaylee Kidd  
800-547-7377 x1362 KKidd@SouthComm.com

PRODUCTION MANAGER Wes Gray  
800-547-7377 x1337 WGray@SouthComm.com

ADMINISTRATIVE ASSISTANT Mary Houk  
800-547-7377 x1764 MHouk@SouthComm.com

ART DIRECTOR Yuly Osorio

LIST RENTAL REP Elizabeth Jackson  
847-492-1350 x18 ejackson@meritdirect.com

AUDIENCE DEVELOPMENT MANAGER  
Sue Hanson

### SOUTHCOMM, INC

CEO - Chris Ferrell

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EVP - Gloria Cosby

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Circ.PTEN@omeda.com

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## A recall isn't just parts replacement anymore

Vehicle software updates are necessary to address any number of maintenance or repair events in the shop, even parts replacement.

By Erica Schueller, Editor  
[Erica@VehicleServicePros.com](mailto:Erica@VehicleServicePros.com)

may catch some flak for this from some of you, but I have my vehicle serviced at a dealership. (They caught me with a maintenance package deal when I bought it.) My Subaru Outback has already had three vehicle recalls since I purchased it two years ago – but one of those notices was actually a software update to the Starlink infotainment system, instead of the traditional parts replacement to address a system issue.

In fact, looking through recent recalls for Subaru, as well as other vehicle manufacturers, there's been a continuous increase in software updates to fix computer-related systems on late-model vehicles.

While vehicles under warranty will still be taken to dealerships, and vehicle recalls will still likely be handled at the dealer level, the tools and equipment used to reprogram the vehicles can handle all vehicle software updates – not just NHTSA-mandated recalls. There are also a number of tool options available to the aftermarket to complete this service.

“With the advent of CAN networks, there are many more instances where programming is necessary when a component is replaced. Many vehicles now require a programming event when seemingly normal service repairs, like battery replacements, are done,” says Barry Hoyland,

Many vehicles now require a programming event when seemingly normal service repairs, like battery replacements, are done.

PTEN contributing editor, shop owner and industry trainer.

As the average age of vehicles on the road continues to rise, and those vehicles are no longer covered by a manufacturer's warranty, drivers won't necessarily need to receive these services at a dealership – but an aftermarket repair shop must become a one-stop shop for all service needs in order to fill that void.

Service technicians at independent repair shops currently have access to J2534 reprogramming devices, but there is still reluctance from many techs in the industry to take on reprogramming for a number of reasons: uncertainty in training, concerns with purchasing the equipment and the return on investment for buying this equipment.

But, that may soon change.

This month's cover product addresses these concerns for the independent repair shop. The Drew Technologies Remote Assisted Programming Kit (on page 10) provides shops the ability to complete J2534 ECU reprogramming updates and electronically-controlled parts replacements remotely. Meaning, the service tech receives all the necessary equipment to hook up to the vehicle – including the necessary power supply – and access to experts in the field to conduct the reprogramming remotely on the tech's behalf.

And, the shop isn't purchasing any of the reprogramming equipment – they pay only for the programming event.

This isn't to say that shop-owned programming hardware won't be commonplace at some point in the future, but there are now options in the interim as shops begin to take on more programming work; or only choose to intermittently provide this service. **PTEN**



Mike Schmidt  
Managing Editor



Vesna Brajkovic  
Assistant Editor



Barry Hoyland  
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# FEATURED New Products



## Polyurethane seat will not deteriorate

The ShopSol Welding Stool, No. 1010302, has a polyurethane seat developed with a chemical mix to not deteriorate even with welding splash that is not removed immediately. The seat will wipe clean. With all components tested in welding environments, the seat's ergonomic design promotes increased productivity, according to the company. The round ring height adjustment control can be accessed from any seating position to move the seat from its low setting of 15-1/2" to 20-1/2" or its high setting of 19-1/2" to 26-1/2". The Welding Stool includes an 18" diameter steel tool tray, and it meets and exceeds BIFMA testing standards.

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## Straight or 45-degree angled jaw

The KNIPEX Extra Long Needle Nose Pliers, Nos. 28 71 280 and 28 81 280, feature multiple gripping zones and are capable of pulling and twisting. Small pipes, screws, cables and round parts can be carefully gripped, held and guided with the four grooves in the serrated jaws of these slim pliers. The tool is available with a straight or a 45-degree angled jaw for additional flexibility, which helps prevent scraped knuckles while trying access hard-to-reach areas. The pliers offer non-slip plastic coated handles and they are forged from German tool steel, oil-hardened and tempered.



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## Padded bumpers protect the clamped surface

The E-Z Red Hood Hawk Under Hood Clamp Light System, No. XLUHLS, can be used as hands-free illumination under hoods, wheel wells and undercarriage. The COB LED provides 1,000 lm on high and 500 lm on low. It is micro-USB rechargeable - both a cord and A/C adapter are included - and provides a three-hour run-time on high, and six hours on low. Padded bumpers protect the clamped surface from damage and provide a secure grip. The light adjusts through two axes, allowing versatility when directing the light onto a work area. It also includes an interchangeable hand grip for handheld use.

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**K**icking off the New Products section each month, our Featured New Products page includes brand new products showcased on the cover that are available to the automotive market.



## J2534 reprogramming, with no equipment cost

### The Drew Technologies Remote Assisted Programming (RAP) Kit

provides shop technicians the ability to complete J2534 ECU reprogramming updates and electronically-controlled parts replacements, with no start-up or equipment costs, and no specialized technician training required. Flash success is guaranteed, says the company. Shops have two options for using the RAP kit: they can rent the kit or they can lease the kit. Both options do not require any upfront costs, and are based on a pay-per-use model. The self-contained kit provides everything needed to program an ECU, including the remote expert.

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## Available in 6- and 14-gal versions

The **Homak Line of Oily Waste Cans** can be used with or without a liner and offer a self-closing lid, molded handles, a hands-free foot lever, a flared base for stability and a seamless leak-proof design. These waste cans offer a heavy wall HDPE construction, offer fire-safe temporary material storage and meet OSHA NFPA Code 30 requirements. The Line of Oily Waste cans comes in a 6-gal and a 14-gal version and are made in the U.S.A.

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## Quick socket release switch

The **Florida Pneumatic AIRCAT 3/8" Mini Palm Ratchet**, No. 807, offers 35 ft/lbs of torque at a free speed of 300 rpm. The 1.1-lb, 5.4" tool has a quick socket release switch to assist changing sockets. The compact tool can be used around radiators and in other restricted work spaces. The composite grip adds comfort while insulating the operator's hand from the effects of cold air.

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## Robotic nozzle cleaning station for welding systems

The **Tregaskiss Tough Gun TT3E Reamer** robotic nozzle cleaning station offers remote monitoring capabilities, allowing companies to oversee and troubleshoot the I/O of each reamer function and its allowable parameters through the programmable logic controllers, all in real-time and without the need to remove the unit from the weld cell. Featuring discrete control, the TT3E offers the flexibility to monitor and adjust all motions, along with insert



recovery or fault control. In automatic mode, the reamer provides control over double-stroke, start-up dwell time and top-of-stroke dwell time. In the manual mode, there is control over the sequence and duration of each function by firing individual I/O. A 3/4 hp lubricated air motor with gear reducer offers the high torque necessary for spatter removal, while operating at lower speeds to protect the spindle and cutter blade from excessive wear. Adding to this durability, the spindle has a rotating rod accuracy of 0.001" to 0.004" at its extended position.

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## Powered by an 18V Li-ion battery pack

The **Zipp Air Tool Cordless Riveter**, No. ZCR18BL, uses a brushless motor that extends the life of the motor and does not have electromagnetic interference. With double injection housing, the riveter has a battery power indicator, overloading protection and high-efficiency ventilation. Powered by an easy-release 18V Li-ion battery pack, the tool sets blind rivets up to 1/4", offers two-speed adjustment, a stroke of 26mm and pulling force of 1,900 lbs. The cordless riveter offers automatic reversing, a full metal gearbox and an ergonomic grip.



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## Insulate and protect soldered connections and connectors

The **Lisle Adhesive Heat Shrink Tubing Assortment**, No. 27100, includes 60 4" long tubes with five diameters in various colors for insulating and protecting soldered connections and connectors. The tubing, which provides a water-resistant seal, also can be used for marking and bundling wires. This tubing is halogen free and both UL- and CSA-certified at 600V at 125 degrees C. It shrinks at 194 degrees to 248 degrees F (90 degrees to 125 degrees C) with a radial shrink ratio of 3:1. The assortment includes 14 1/8" diameter tubes, 16 3/16" diameter tubes, 14 1/4" diameter tubes, eight 3/8" diameter tubes and eight 1/2" diameter tubes.

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## Cordless, rechargeable drum pump

Designed for pumping DEF, diesel, antifreeze, water, detergents, herbicides, pesticides, kerosene, light oils and more, the **K-Tool International 19.2V Electric Rechargeable Drum Pump**, No. KTI72215, delivers up to 7.4 gpm and up to 110 gallons on a single battery charge. This cordless pump includes 19.2V Ni Cd rechargeable battery and UL-listed quick battery charger. It is portable, compact and features a lightweight polyacetal body, making it easy to use just about anywhere. The versatile telescopic pump tube allows use with 55-gal drums as well as 275-330 gal IBCs. The pump comes with a built-in 2" bung and an additional bung converter (2.5" x 5 buttress) to allow for use with plastic drums and IBCs.



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## Satin chrome plated

The VIM Tools Ford Truck Bed Socket, No. FTB24, is available for the Inverted Torx Plus on 2017 Ford truck beds. The beds have low-profile Torx Plus fasteners holding the truck bed to the frame. This tool is well-suited for applications related to the Ford truck beds. Satin chrome plated, this socket features EP24 Torx and 1/2" Square Drive.

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## Operates for 90 minutes on single charge

The Larson Electronics RL-11 rechargeable handheld HID light is a lightweight, ergonomic handheld light that operates for 90 minutes on a single charge of its 14.4V Li-ion battery. The 35-watt, high-intensity discharge lamp in this unit produces a 3,500-lm light beam capable of reaching distances up to 3,000'. A snap-on diffuser lens transforms this unit to a flood configuration producing a 200' by 200' light beam for close, wide area illumination. This HID light is weatherproof and resists the intrusion of water and dust. The Li-ion battery is fully charged in approximately four hours. An integral micro-relay enables the user to power the HID light from a 12/24V DC vehicle cigarette plug outlet. This unit includes a molded carrying case that houses the light, the battery, the flood lens, a shoulder strap and the AC wall charger.

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## Works with any scope

The Automotive Diagnostics and Publishing Automotive Secondary Ignition Probe works with the company's Scope-1, as well as with any other oscilloscope. This tool will turn any scope into an engine analyzer. Users can perform misfire diagnosis and repair quickly and easily.

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## Non-slip drawer liners

The SK Hand Tool 56" 9 Drawer Roller Cabinet, No. 56561, is part of the SK Tool Box line. With 6,396 sq. in. of space, the all-aluminum cart provides a load capacity 1,000-lb per caster and each drawer has a rating of 250 to 500 lbs. It comes with premium non-slip drawer liners and measures 56" wide by 43.5" high by 30" deep.

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## Low manganese levels

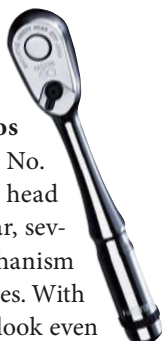
The Hobart FabCO Element 71C and FabCO Element 71M wires have been added to the company's Element line of low-manganese wires. In addition to low manganese levels, both the Element 71C and Element 71M wires offer enhanced out-of-position capabilities, making it easier for welding operators to create quality welds regardless of joint placement. The wires produce low spatter levels to minimize post-weld cleaning, and have a fast-freezing, easy-to-remove slag to reduce the risk of slag inclusions. The Element 71C is formulated to operate with 100 percent CO2 shielding gas, while the Element 71M operates with 75 to 90 percent argon and a balance of CO2. Hobart offers both in industry standard diameters of 0.045", 0.052" and 1/16" on 33-lb fiber spools.

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## Compact head and rounded sides

The KTC Tools Nepros 3/8" sq. Ratchet Handle, No. NBR390, has a compact head that houses a 90-tooth gear, seven-level claw driving mechanism with a feed angle of 4 degrees. With rounded sides to make it look even more compact, the Ratchet Handle's switch lever has a large swing width, adding to easy usability. The tool's light return travel and smooth action enhance effectiveness when working in tight spaces, according to the company.

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## Won't accidentally close

The Coast FDX302 Knife uses the company's Double Lock System with a Frame Lock, which provides added safety and prevents the knife from accidentally closing. With a stainless steel handle to go along with the a stainless steel blade, this knife carries less bulk yet is strong enough for many tasks. The FDX302 is a stylish and extra-safe, mid-size knife for everyday carry. The knife, which is 7.5" long overall — 4.5" when closed with a 3" blade — is backed by Coast's lifetime warranty against defects in materials and workmanship.

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SEMA Booth #30318 / 52036

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## Take amperage readings on large cables

The SOLAR Amp Clamp Accessory, No. BAA8, from Clore Automotive, can be connected to the BA427 Digital Battery and System Tester to take amperage readings throughout the vehicle electrical system. It features a 29mm opening, allowing it to clamp over large gauge cables, such as battery cables. The Amp Clamp is CAT-III/600V certified and connects to the Clore BA427 via a standard port on the front of the unit. It can also be used to interface with other electronic equipment, including most DMMs and scopes.



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## Supplies both task and area lighting

The Milwaukee Tool M18 Rocket LED Tower Light/Charger can be set up in five seconds, provides 3,000 lm of Trueview high-definition output and is equipped with a built in M18 charger. Supplying both task and area lighting, this tower light delivers multi-directional light through the use of three adjustable light heads. Its impact-resistant, reinforced legs and low center of gravity allow it to thrive in the toughest conditions, according to the company. It has a run-time of up to 17 hours.



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## Automotive C-Frame Socket Press

10205

The automotive press can be used for a number of different removal and installation jobs on various driveline and non-driveline related parts. Any standard socket with 1/4", 3/8" or 1/2" drive can be used in any combination for the use on virtually all cars, ATV/UTV/SxS, light-duty trucks and farm machinery.

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## Extract metal chip and debris

The Guardair ReverseForce Air Gun, No. 75RF048AA, extracts metal chips and debris from deep inside axle housings, machine cavities and gear boxes. According to the company, standard air guns with conventional nozzles can drive metal chips and debris deep into sensitive mechanical equipment, causing failure and future maintenance problems. The ReverseForce directs compressed air back toward the opening, thereby expelling chips and debris from the interior. ReverseForce, which is made in the U.S.A., has a durable cast aluminum with a hanging hook, nozzle and extension, a wide trigger for comfort and a 1/4" FNPT inlet.



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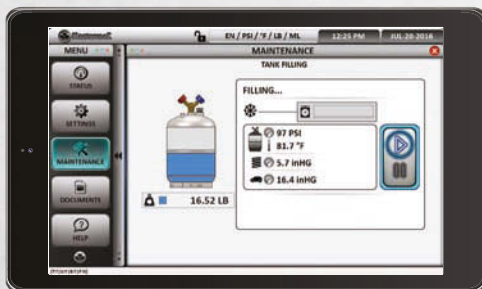
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R134a SEMI AUTOMATIC

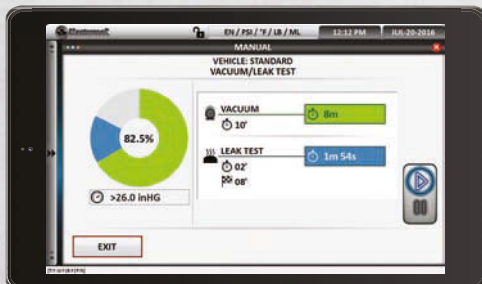
It's about time somebody introduced R/R/R machines for the 21<sup>st</sup> century!



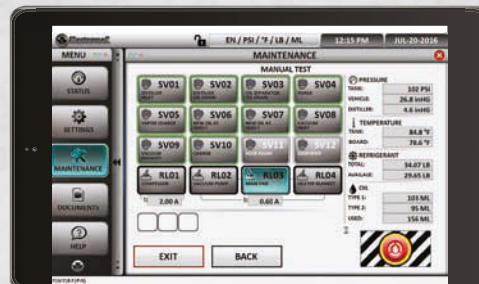
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# New Products



## Lightweight, durable composite housing

The Cornwell bluePOWER 1™ Impact Wrench with 6" Extended Anvil, No. CAT6156BP, has a twin-hammer mechanism that generates a maximum torque of 2,000 ft/lbs in reverse and a free speed of 6,200 rpm. With a lightweight, durable composite housing, the tool offers an oversized rear-mounted directional switch to allow quick changes even with gloves on. To achieve its full power, the tool should be used with a 3/4" I.D. hose. The chainsaw-style trigger improves ergonomics, and the overall length of the product is 19.8". It has a side handle for user control, and the extended 6" anvil reaches into wheels without the need for any extra extensions.

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## Low height of 3.5"

The Monster Low Profile Service Jack, No. MST13002, features solid steel construction, green and black Monster colors, a wide 4.5" saddle and a dual-piston pump system. With a low height of 3.5", the heavy duty jack can get under most low-clearance vehicles, and its dual-piston pump system allows the jack to reach its maximum height of 21.38" in only four pumps with no load. It can lift up to 3.5 tons and is equipped with a safety valve to prevent overloading. The two-piece handle with bumper pad offers a comfort grip while also offering protection for the vehicle. The company offers a two-year warranty and this jack complies with ASME PASE 2014 safety standards.

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## Features a 212cc Mi-T-M overhead valve engine

The Mi-T-M Corporation 3000 Watt Inverter Generator provides clean and quiet power for job sites. Compact and easy to move, this generator features a 212cc Mi-T-M overhead valve engine with low-oil shutdown and recoil start. Its insulated side panels reduce noise and it offers 3,000 watts of power. Copper windings and an alternator total harmonic distortion (THD) of less than 3 percent provide power for sensitive electronic equipment. When more power is needed, utilize the parallel connection port box accessory. This option connects two Mi-T-M inverter generators together to utilize the power of two units at once.

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# New Products

## Compresses any size brake caliper

The Cal-Van Tools Universal Caliper Turn and Push-Back Tool, No. 727, compresses any size brake caliper, from motorcycles, standard size cars, trucks and SUVs, to 18-wheelers. A 3/8" ratchet can be inserted on the end of the tool for easier use. This turn and push-back tool can also perform front brake jobs by flipping the head around, and it eliminates the need for sets with high piece counts.



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## Increases the speed of tire changes

The GRP Redline Pneumatic Manual Tilt with 24" Turntable, No.

2460, allows for one-person operation.

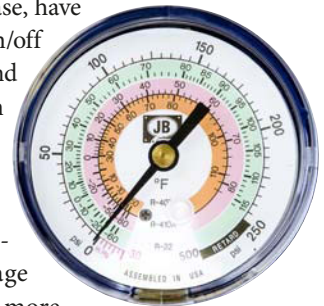
The tower safeguards against wheel damage and the twin cylinder mounting helper, with two points of depression, changes low-profile and run-flat tires simply and safely. This manual tilt increases the speed of tire changes and reduces technician fatigue, according to the company. This manual tilt has a 10" to 24" outside clamping capacity, a 13" to 27" inside clamping capacity and offers plastic protection for alloy wheels.



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## Illuminated gauge face for easy readability

The JB Industries LED Backlit Gauges, Nos. M2-820L and M2-825L, offer an illuminated gauge face for legibility in dark environments. The 3-1/8" gauges feature a sturdy metal case, have an accessible on/off rocker switch and are assembled in the U.S.A. The replaceable 3V lithium coin-cell battery provides an average battery life of more than 250 hours. Both the compound (No. M2-820L) and pressure (No. M2-825L) gauges are available for the two-valve Patriot, four-valve Zeppelin and four-valve Revolver manifolds.



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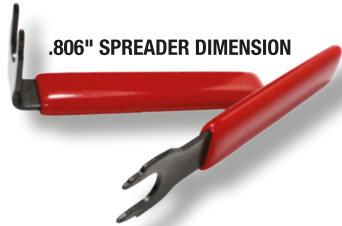
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FOR 3/4-1 TON PICK-UPS  
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LOW-PROFILE PITMAN  
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FOR 1/2-3/4 TON PICKUPS



## Works alongside technical data

The Auto Workshop Supplies Diagnostic Assistance software works alongside technical data and is focused on guiding the technician on how best to analyze a fault and identify the origin of the cause. The Diagnostic Assistance also explains how to test individual components, how the components work and also give professional hints and tips. This tool helps to fix a fault quickly, and also serves as a teaching system, according to the company.

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## Lifting vehicle of any axle length or wheelbase

The Challenger Lifts Heavy Duty Mobile Lift, No. CLHM-135, is a maneuverable mobile lift with columns that can be operated on almost any solid surface, indoor or out, and lift any rubber tired vehicle up to 148,000 lbs. The mobile lift is capable of lifting vehicles of any axle length or wheelbase. This lift system, along with optional sets of accessory support stands, can also accommodate multiple bays at a time.

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## Removes corrosion in areas that are difficult to reach

The Die Blaster from MONTI Tools features an angled head design, and it provides a solution to accessing difficult-to-reach areas. The Die Blaster pneumatic incorporates a patented Accelerator Bar multiplying four times the impact force of the bristles on the 11mm wide belt to ensure easy removal of rust, paint and protective coatings leaving a clean and textured (as blasted) surface, ideal for the adhesion of a new coating application. It is meant to be a solution for hard-to-reach areas on bodywork and mechanical applications. The company also offers six different Die Blaster belts to choose from in carbon steel and stainless steel materials.

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SEMA Booth #10361

## New Products

### Maximum capacity of 66,000 lbs

The MAXIMA Battery Operated Mobile Column Lift, No. 4030BC, is an ALI-certified battery operated unit. These mobile column lifts feature a lifting capacity 16,500 lbs per column and a maximum capacity of 66,000 lbs. MAXIMA's mobile columns are easily moved by one person, have adjustable lifting forks, an LCD screen on each column, an "emergency stop" button and the capability of being used indoors and outdoors. Rechargeable batteries are included with all battery-operated units.

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### Ratcheting flare jaw mechanism

The Astro Pneumatic 5-pc Ratchet and Release Flare Nut Wrench Sets are available for SAE (No. 7120) and metric (No. 7210M) applications. Featuring a patented ratcheting flare jaw mechanism, the tools offer the strength of a ratcheting box end wrench with the accessibility of a flare nut wrench. Smaller sizes feature a rocker pawl clutch for freeing the wrench from the line and flare nut, and larger sizes are designed to provide more strength. The SAE set includes 3/8", 7/16", 9/16", 5/8" and 11/16" sizes while the metric set provides 10mm, 12mm, 13mm, 14mm and 18mm sizes.

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### Cleaning and surface preparation products

The Madison Chemical ReStore Kit is a combination of several of the company's cleaning and surface preparation products. The multi-product kit comes in one box that contains one gallon of AquaBlue general purpose multi-metal surface cleaner, one gallon of TreadBrite Foam acidic cleaner for multi-metals including stainless steel, one gallon of CR-120N Nitric Acid cleaner for passivation of stainless steel, a container of Jel Terge powdered viscosity enhancer/gel builder that is 2 lbs, as well as detailed instructions. This comprehensive kit allows users to clean, etch, remove surface oxides, and prepare a wide variety of metal surfaces. When used with the Compound CR-120N this can help to start to passivate some 300 series stainless steels where desired.

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# New Products



## Protects the forward/reverse switch

The ProMaxx ProGard, No. PPG5250, snaps right over the top of a ProMaxx ProRatchet (No. PPR5250). This accessory allows using small pry bar to make drilling easier and faster while guarding the forward and reverse switch, and the ProRatchet tool, from damage. The ProGard is constructed of solid aluminum and hard coated red anodize to last longer. Made in the U.S.A.

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## Offers increased visibility

The Snap-on Industrial Williams Wireless Borescope, No. JHW40282, features a detachable 3.5" thin-film transistor LCD monitor, as well as a flexible 3/8" lens tube measuring 3' in length. A lens-mounted LED provides adjustable brightness while the 3x zoom capability offers increased visibility. In addition to a lightweight, handheld design, wireless connectivity allows for the transmission of still images and video without hassle. The borescope also supports up to a 32GB micro SD card, has a built-in rechargeable Lithium battery and features a waterproof camera. This borescope comes with a power adapter, USB and AV output cables, and includes a carrying case.



## Alignment numbers in 88 seconds

The GRP Space Aligner provides alignment numbers in 88 seconds for five-wheel alignment, including the steering wheel, the company says. The fast rolling run-out allows cars to be rolled about 6" for a read. The space aligner features eight sensor CCD accuracy, Bluetooth connection for stable wireless transmission, remote controls and indicators.

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- DC /AC Volts for checking voltage drops while under load
- Cat IV rated safety for use with HEV diagnostics

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## New Products



### Foot-operated grease gun

The LockNLube G.Gun is a 10,000-psi foot-operated grease gun that does not require batteries. It features a two-stage pump that creates a wave action in the grease, eliminating air locks and the need for a follower plate. The canister holds 2 gallons of grease. The G.Gun's patented pressure return valve eliminates pressure locks and returns excess grease to the canister, instead of spilling onto the shop machine. It comes equipped with a LockNLube Grease Coupler and a 6.5' hose. Longer hoses are also available.

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### Torque multiplier lug wrench

The Cheater Wrench is a torque multiplier lug wrench that can generate the force needed to loosen lug nuts. To use, attach the socket to the lug nut, insert the output shaft into the socket, attach the handle to the input shaft and turn. There is no need for an impact gun to turn the input shaft. Users just turn it by hand to loosen the lug nut. The Cheater Wrench includes a socket extension that allows use on all kinds of wheels, not just steer tires. The tool comes with a lifetime warranty, and several other 1" drive sockets are also available.

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### Redesigned to reduce user energy and strain

The KNIPEX Tools Lineman's Pliers were redesigned to reduce user energy and strain by 25 percent while providing superior cutting power, according to the company. The redesigned Lineman's line features a smaller rivet moved closer to the jaws to create an ultra-high leverage design, an oval-shaped design for better cutting of round or oval-shaped cable and a design well-suited for deburring conduit pipes. The pliers are forged and oil hardened out of German, vanadium electric steel and feature precise, induction-hardened (64 HRC) cutting edges for long life and easy cutting of soft, hard and ACSR wire. The pliers have a serrated, cross-hatched knurled gripping zone in the jaws for pulling and gripping applications. The pliers are available with dipped, dual-component grip and 1,000V-insulated handles.

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## 6700 Series Low Vibration "Lube Free" Orbital and Geared Sanders



AIRCAT has developed a series of "lubrication free" sanders that incorporate the latest engineering concepts, advanced materials and patented designs. The AIRCAT technology reduces weight, noise & vibration, while extending the tool life. The AIRCAT "smooth design throttle lever" and the "ergonomic grip" featured in orbital sanders provide unmatched operating comfort.

- A choice of fourteen models 3/32" and 3/16" orbit options
- Non vacuum, central vacuum and self vacuum options
- 3", 5" 6", and 8" "hook & loop" pad options
- Only 1.6 CFM average air consumption and 6.2 CFM continuous running under load
- Advanced silencing technology reduces noise levels to 75-78 d(B)A
- Patented double sealed, lubrication free motor prevents dust contamination of the air motor and eliminates the need for oiling
- Orbital sanders feature the AIRCAT "smooth design" throttle lever and "ergonomic grip" providing unmatched comfort
- Patented "anti vibration" motor reduces vibration level to 0.8 m/sec<sup>2</sup>
- Low weight: Orbital sanders 2.0 lbs. and geared sanders 3.4 lbs.
- Low profile: Orbital sanders 4.3" high and geared sanders 4.5"



[www.AIRCAT.com](http://www.AIRCAT.com)

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SEMA Booth #10379



# Our newest Heavy-Duty & Commercial Diagnostic tool



A storm is brewing in the world of Heavy-Duty, Medium-Duty, and OBDII Vehicle Diagnostic Adapters...

DrewLinQ is a high-performance, rugged device supporting Heavy-Duty, Medium-Duty, and OBDII vehicles as well as off-highway, agricultural, military, automotive, and other industrial-stationary equipment. It supports 3 high-speed CAN (J1939/ISO15765) channels, J1708, and all of the OBDII protocols. It works with the TMC RP1210 applications you currently use, other J2534 OBDII pass-thru and diagnostic applications, and comes with a standard 2-year warranty.

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SEMA Booth #10664

Call now or visit our website for more information.

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**DREW TECHNOLOGIES**



## New Products



### Stiffen sheet metal

The **Woodward-Fab Bead Roller**, No. WFBR6, is used to stiffen sheet metal used in replacement floor or trunk panels. It can also be used to create decorative beads and overlap weld joints. The WFBR6 features a large 18" throat depth, which allows the operator to reach the center of a 36" panel. The standard machine includes six sets of various size sand shapes of dies that will cover most applications. Woodward-Fab also offers even more die choices and can also make custom dies.

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### Produces up to 700 lm

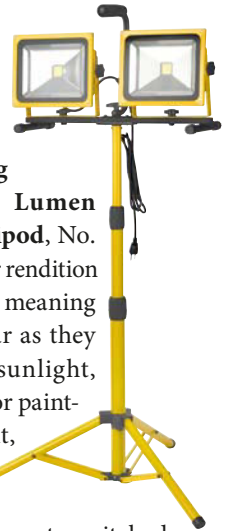
The **Maxxeon WorkStar 620 Technician's Headlamp**, No. MXN00620, offers a rechargeable LED that produces up to 700 lm. This lighting tool uses a brilliant white light to illuminate a work space. The beam has adjustable focus for distance, allowing users to select the appropriate beam dimensions — either flood or spot — depending on the distance from the work area. A single switch selects high, medium or low light output as needed. The light head pivots up or down to direct the light. The adjustable head strap makes it easy to wear for extended periods of time. The light comes with a 3' coil cord for mounting the battery pack on belt. It includes a 120V charger and USB cable, and an optional spare battery pack (No. MXN00600) is available.

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### Heads tilt and swivel independently

The **Alert Stamping Twin Head 7,000 Lumen Floodlight with Tripod**, No. LF238T, offers a color rendition rating of 79 percent, meaning colors closely appear as they would in natural sunlight, which is beneficial for painting. The COB light, featuring a comfortable color temperature, has separate switched heads that tilt and swivel independently so the lights can be aimed in opposite directions to provide 360 degrees of illumination. The head bracket has a handle and can be unscrewed from the tripod and used alone. The 9' SJTW cord remains flexible in cold temperatures.

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## CATERPILLAR ON AND OFF-HIGHWAY EQUIPMENT, CLASS 4 -8 HD AND OBDII COVERAGE - ALL FOR UNDER \$500.00



- CLASS 4-8 HEAVY DUTY TRUCK
- ENGINE, BRAKES AND TRANSMISSION
- CAT INDUSTRIAL, CONSTRUCTION AND POWER EQUIPMENT
- J1939, J1708, J1587 COVERAGE
- OBDII COVERAGE
- READ & CLEAR CODES
- VIEW & GRAPH LIVE DATA
- CAPTURE SCREENSHOTS
- FULL COLOR SCREEN
- VERY EASY TO USE INTERFACE
- FREE INTERNET UPDATES

MSRP \$449.95

INTRODUCING THE ALL-NEW, FULL COLOR **HD CODE II**

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AAPEX Booth #565



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Manufacturing Corporation

Workbenches • Tool Storage • Storage Cabinets • Cart Systems • Shop Equipment • Shelving & Storage Solutions

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Or Call Us At 1-800-227-4873

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No purchase necessary to win; set up and installation are NOT included. Deadline to enter **December 31, 2016**. For more information on Shure Manufacturing and its products, contact your participating mobile dealer, your local distributor or visit [www.shureusa.com](http://www.shureusa.com)

# Endless Storage Solutions for your Shop

## The award-winning Hansen Global ToolHanger



**H**ansen Global's newest storage system, the ToolHANGER, is a plastic organization system offering technicians an efficient way to display, locate, organize, and account for tools quickly and easily. According to Julie Thielbar, Executive Vice President of Hansen Global, Inc., "The ToolHANGER's features and benefits are endless! In fact, it can be used to organize almost anything."

- 11.5" x 18" boards can be hung horizontally or vertically to maximize space.
- Six unique hangers allow for the organization of sockets, wrenches, power drills, screwdrivers, more!
- ToolHANGER's interlocking design allows for unlimited assembly of sizes and layouts
- Lifetime Warranty

Like all of Hansen Global's products, the ToolHANGER is proudly made in the USA



out of high-grade polypropylene and is built to last; "it will not break, warp, bend or rot," said Thielbar. Its durable, patented twist-and-lock hangers are made of glass-filled nylon, which securely fasten tools and equipment to the board making them a breeze to locate. The ToolHANGER is easy to install on all surfaces and can create any number of unlimited layouts—it can even span entire walls! ■

For more information, please visit our website, [www.HansenGlobalinc.com](http://www.HansenGlobalinc.com), or call us toll-free at 877-793-5213.

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# SIX GREAT BENCH PLAYERS



Hansen has six slick ways to straighten out toolbox clutter and chaos. Socket trays come in six sizes, two each in 1/2", 3/8" and 1/4" drives for both SAE and Metric sockets. The best selling 3/8" drive SAE socket tray holds 26 sockets from 1/4" to 1" while the Metric version holds sockets from 6mm to 20mm. SAE trays are red, Metric are gray. Ask for Hansen Socket Trays at your nearby tool distributor or retailer, or contact Hansen Global for the name of your nearest dealer.

*Innovative Tools That Really Work*



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AAPEX Booth #864

new

# ECT3000

THE INTELLIGENT CIRCUIT TRACER



Get Direction straight to a shorted circuit with arrows on the tool

Trace Open wires with visual navigation & sound indicators

See how far you are from the wire with the distance level indicator

No need to remove carpet, paneling or plastic

Trace a short/open in half the time

Works on Cars, Boats, RV's, light Duty & Heavy Duty Trucks

new

# PPKIT04

POWER PROBE MASTER COMBO KIT

Test Components on/off the vehicle

Verify you are working with Good/Bad Grounds

Take Voltmeter Readings to verify circuit operation

Take AC Voltmeter Readings for testing sensors and computer outputs

Take Resistance Measurements for verifying circuits operating parameters

Diagnose Fuel Injectors & injector circuits are operating correctly

Verify correct computer driver operation (PCM/ECM Testing)

Locate Open Circuits with ECT3000



SEMA Booth #10521

Circle 79 on card, or enter at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)

# New Products

## Electro-mechanical wheel clamping

The ADG Mondolfo-Ferro M-4000C Wheel Balancer offers automatic laser measurement of lateral and radial run-out of the tire/wheel assembly, as well as automatic laser parameter entry and laser weight placement. Electro-mechanical wheel clamping ensures maximum mounting accuracy on the 40mm shaft, while the 22”



LCD touchscreen display makes operation simple and intuitive, according to the company. Auto location and shaft brake at weight correction location for both planes comes standard.

Circle 80 on card, or enter at “e-inquiry” on VehicleServicePros.com

## Adapters for most brake systems

The Actron Brake Bleed Kit, No. CP7840, assists in completing various brake jobs that require a full system bleed, such as replacing a brake caliper, wheel cylinder, brake hose or line, or master cylinder. The kit offers the capability to bleed brake fluid without spilling. It includes adapters for most vehicle brake systems, as well as the most common auto and light truck straight and angle adapters. Removable caps allow storage of leftover fluids.



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## Degreasing regular, large and oversized parts

The Bio-Circle CleanBox Compact S, CleanBox Maxi and CleanBox Mega parts cleaning systems range in size to ease cleaning and degreasing regular, large and oversized parts. These units are designed for use with the company’s water-based cleaning agents, CB 100 and CB 100 ALU. The Compact S and Maxi are available in heated versions to increase cleaning efficiencies, and non-heated versions for use at room temperature. The CleanBox Mega is designed to handle extremely large parts or to facilitate cleaning multiple large parts at once. The system includes a foot-pedal activation flow-through brush with a funneled hose to supply cleaning product while brushing.

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## New Products!

### 147 18 Pc. Micro 64 Test Connector Kit

- Terminal adapter set makes good fit with Micro 64 style connectors
  - GM & Benz mainly + other EU/Asians
- Includes 4 ea. square & round both male & female
- 48 inch stacking test leads included
  - Use with DMM's & scopes



AAPEX, booth 1050

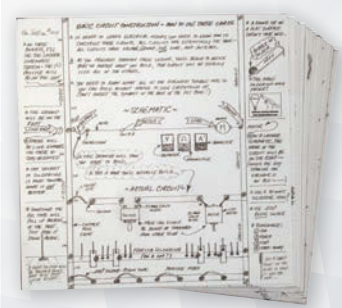
### 329 Small Engine Tach/Hour Meter

- Accurate RPM readings on small engines
- Max RPM viewable & resettable
- Engine hour meter for service intervals
- IP68 water proof for permanent mounting



### Hands-On-Line Electrical Training Cards, No. 186

- A hands-on training system
- Users can apply, solder and install all the parts onto the training cards
- Each card becomes a working circuit that users build
- 16 training cards
- Training by Dan Sullivan via youtube



Call 800-227-1603 for more information  
[www.esitest.com](http://www.esitest.com)

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 since 1967

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AAPEX Booth #1050



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LIGHTS • KNIVES • MULTI-TOOLS



PREMIER LIGHTS. **BRAND NEW COLORS.**



AAPEX Booth #871

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**Resists solvents and chemicals**

The **Galeton Slick Grip Nitrile Double Coated Gloves**, No. 12835, are fully waterproof and provide resistance to solvents and chemicals. A micro-textured, non-slip grip finish allows for dexterous superior grip in oily and wet applications, according to the company. This outer layer of non-slip grip is only applied to the palm side and fingertips where it is most needed to keep the gloves flexible. The inner layer of smooth nitrile coating covers the entire glove for 11" of liquid protection.

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**Type 2 cable for J1939 communications**

The **Cojali Jaltest High-speed 9-pin Cable**, No. JDC217M3, is a Type 2 cable for J1939 communications. Also known as the 9-pin Green Connector, this cable allows technicians to connect to heavy duty vehicles and buses that meet new greenhouse gases regulations. The cable adds the possibility to communicate with heavy duty vehicles at different SAE 1939 baud rates. New communication protocols allow system manufacturers to increase the data bus speed by the different Electronic Control Modules (ECMs). It features backward compatibility with the previous 9-pin Type 1 diagnostic connector, so users will be able to connect to any vehicle with a 9-pin Green or Black Connector.

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**Produces up to 200 lm**

The **CAT Rechargeable Micro Utility Light**, No. CT6525, is compact yet boasts 200 lm on high and 100 lm on low. A magnetic base and recessed folding hooks provide hands-free versatility. With a rechargeable Li-ion polymer battery and an onboard USB charge cord attached in a recessed groove, the Rechargeable Micro Utility Light provides approximately six hours of run-time on high and up to 14 hours on low. Additionally, an LED battery level indicator and a protected USB output charging port are included.

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**Martin**

**NEW Light Weight Dinging Hammer**

*Manufacturing Quality Hand Tools Since 1917*



**Light Weight Dinging Hammer**

- Great for Aluminum Work
- Short Head Length Ideal for Tight Spaces
- Used to Bump Odd Fender or Bumper Contours
- 1 9/16" Round Face Diameter
- 1 7/8" Overall Head Length
- 12" Handle

*Martin* Tools offers:

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**Come visit us at the SEMA Show Booth #11543**

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**SEMA Booth #11543**

# SHIFT EVERY ALIGNMENT INTO HIGH GEAR.

THE FAST, FLEXIBLE WAY TO REV UP YOUR ALIGNMENT REVENUE.



## INTRODUCING THE **V3300** DIAGNOSTIC WHEEL ALIGNMENT SYSTEM



Featuring the next-generation user interface, the new V3300 wheel aligner is optimized for the high-volume customer and loads vehicles in a flash, providing rapid measurements and faster, more accurate alignments. And since its lightweight, three-camera system also folds to a compact size, it takes up less floor space and can move as one unit whenever required. For more information on how the V3300 can improve your team's performance, visit [www.JohnBean.com](http://www.JohnBean.com).

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SEMA Booth #41095

# JohnBean

# New Products



## Tower camera boom rises automatically

The CEMB DWA3400 3D Image Wheel Aligner is designed for cars and light trucks. This aligner runs on a Windows-based program with 30 years of U.S. car and light truck database specifications. There are no electronics to the targets on the wheels, and the tower camera boom rises automatically with the lift. Graphic illustrations show adjustment points by vehicle application and the software program that takes users through the alignment is user-friendly, according to the company. In the continental U.S., trained factory representatives install and train the aligner onsite when purchased.

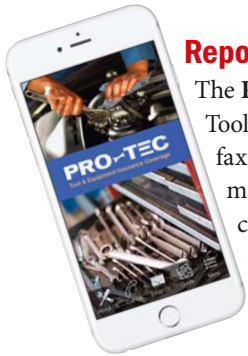
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## Works on wheels with and without a lip

The QuickTrick Alignment QuickSlide Elite Series features little-to-no detachable parts and will work on most wheels with and without a lip, says the company. The QT Lippins hold fast to a wheel rim between the tire and wheel, and provides accuracy within 0.1 degree. No lift is required. Included is a QuickTrick case; dual side setup frame for caster, camber and toe; digital gauge; two tape measures; six attachment pins with red protector caps; an Allen wrench; and instructions.

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## Report claims via phone, fax or email

The Pro-TEC Mobile App allows users to sign up for the company's Tool and Equipment Insurance Coverage and report a claim via phone, fax or email. Additionally the app enables users to access vital informational on their coverage at any time, request a quote, contact the company and stay up to date on renewals.

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# GREASY HANDS DOWN, THE FASTEST, MOST PORTABLE A/C RECOVERY UNIT.

INTRODUCING THE YELLOW JACKET REFRIGERANT MANAGEMENT SYSTEM AUTOMATIC FOR R-134A AND R-1234YF WITH PORTABLE TABLET



### YELLOW JACKET REFRIGERANT RECOVERY SYSTEM FEATURES:

- Portable tablet enables remote troubleshooting/diagnostics
- 30% faster than the competition

- R-134a easily converts R-1234yf with kit
- Colorful, easy-to-use tablet interface
- Made-in-America durability



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MADE IN THE U.S.A.



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AAPEX Booth #1454

# GTC505

## Engine Ignition Analyzer

### Quick, Powerful, and Easy to Use

- 3.5" color display shows ignition waveform in real time
- Compares measurements between cylinders
- Detects intermittent misfires
- Analog gauge and digital display
- Designed for use on car, marine, motorcycle, and small engines:
  - coil on plug
  - waste spark (D.I.S.)
  - conventional (distributor)
  - magneto, etc.



### Set Includes

- GTC505 with protective rubber holster
- Sensors for coil-on-plug & spark plug wires
- 12" long flexible probe
- USB charger and cable
- Hard padded case for carrying and storage



Displays secondary ignition waveforms



Candle stick graph compares maximum, minimum and average measurements of several cylinders



Analog gauge and digital readout with maximum and minimum

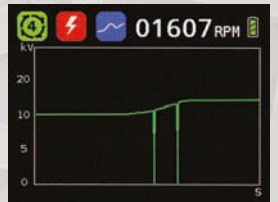


Chart mode used for detecting intermittent or infrequent failures and misfires



## GTC505-CSC

Cable extension & spark plug wire clip-on sensor

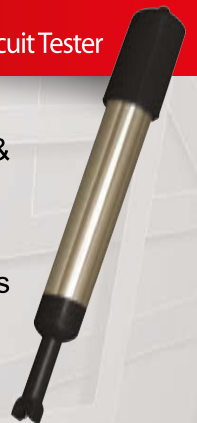
- Clip-on sensor for spark plug wires
- 78" (2 m) long cable
- Shielded sensor and cable
- No ground connection required
- Can be used with COP sensor
- Designed for use with the GTC505



## CT8002

Professional Cordless / Computer-Safe Circuit Tester

- No ground or clip required
- High impedance input (computer & sensor-safe)
- Detects from 3 to 28 VDC
- Lights-up, buzzes, and vibrates
- Rugged construction with stainless steel body
- Safety v-groove needle accessory for piercing and carrying
- Powered by a single AA alkaline battery



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[www.gtc.ca](http://www.gtc.ca) or call toll free **1-800-440-5582**

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**GTC**  
General Technologies Corp

# New Products

## Quick rpm adjustable dial

The Astro Pneumatic Onyx 3/4hp Quick-Lock 1/4" Quiet Die Grinder, No. 216QL, utilizes a simple slide collar to lock the spindle in place. It requires only one standard wrench instead of two wrenches for attachment changes, and it offers a quick rpm adjustable dial under the locking lever throttle. The grinder features a composite handle that eliminates vibration and cold temperatures. The 7/8", 1.82-lb tool has a free speed of 5,500 to 20,000 rpm and an average air consumption of 3.65 cfm.

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## Featuring soft padding for greater comfort

The Galeton Panther RT Leather Palm Gloves with Reinforced Thumb (No. 12334) and Panther Leather Palm Gloves Sewn with Cut- and Heat-Resistant Thread (No. 12507) are constructed from select leather for strength and suppleness. The 12334 Panther gloves have an extra piece of black premium leather in the high-wear area between the thumb and first finger. The 12507 Panther gloves are identical to the company's Panther Leather Palm gloves' design, except they are sewn with a cut- and heat-resistant thread made from DuPont Kevlar fibers. Both styles feature soft padding for greater comfort and to reduce chafing. They also feature sturdy and breathable black canvas backs and durable, rubberized safety cuffs.

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## X-431 Pro

### PROFESSIONAL SCAN TOOL

LIGHTNING FAST

OFFERING A WIRED EXPERIENCE IN A NON WIRED DEVICE

**BRAND NEW!**



- Featuring the latest in a Tablet and 4 core processor running an open Android™ operating system
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- Install third party apps and software!
- Ultra fast Wi-Fi updates
- Auto-ID all available vehicle systems and modules
- Class-1 Bluetooth 4.0 connector for a wired OBD II experience in a wireless device
- Complete OBD1 set of connectors in a hard plastic case



## Spot-cools unconditioned spaces

The Go Fan Yourself Z-Chill Fan and Diffuser System spot-cools unconditioned spaces within a facility. The Z-Chill provides the ability to distribute tempered air to enhance comfort, prevent heat stress and increase employee productivity levels. Applications include shops where comfort and energy are required with a minimum 20' ceiling height.

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**AAPEX Booth #1255**

# DELIGHTFULLY SOUND-FREE



Model# RS7580H-603

MSRP: \$4250\*

SEMA Booth #16621



**HUSH** *Quiet*<sup>™</sup>  
**ROTARY-SCREW AIR COMPRESSOR**

Engineered for high performance, efficiency and reliability, BendPak's Hush-Quiet RS7580H-603 rotary screw air compressor can meet the compressed air demands of high volume tire shops, general maintenance and fleet shops, vehicle body and paint facilities or busy automotive dealerships. Our exclusive Hush-Quiet technology makes it the perfect compressor to install in noise conscious service areas.

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For more info visit [www.bendpak.com/hushquiet](http://www.bendpak.com/hushquiet) or call 1-805-933-9970

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# QUICKJACK™



## QUICKJACK IS BACK FOR SEMA 2016. IMPROVED DESIGN! NEW MODELS!

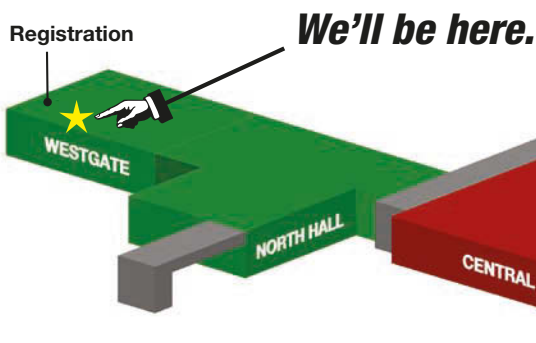


SEMA Booth #16621

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Las Vegas Convention Center



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**NOVEMBER 1-4**  
**WESTGATE**  
**Booth No.16621**



## Recover hazardous dusts

The Tiger-Vac AVSD Dust Extraction/Vacuum Sanding Kit System, also known as the AVSD-40L (4W) HEPA SK, was designed for recovering designated dry substances and hazardous dusts such as asbestos, lead, silica and mold. The air-operated, static dissipating extractor features a HEPA filter, stainless steel SAE 430 body and recovery tank, and is mounted on a cart for easy maneuverability. The kit is ready to use and includes disposable filter bags.



Circle 101 on card, or enter at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)

## Measures up to 1,000V AC/DC voltage

The Klein Tools Auto Ranging TRMS Digital Multimeter, No. MM700, measures up to 1,000V AC/DC voltage, 10A AC/DC current and 40MΩ resistance, temperature, capacitance, frequency, duty cycle and continuity. It also has a low impedance (LoZ) mode for identifying and eliminating ghost or stray voltages. The MM700 is rated CAT IV 600V for safety, rated IP42 for water and dust ingress protection, and is built to withstand a 6.6' drop.



Circle 102 on card, or enter at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)

## Provides quick socket release

The Monster 1/2" Drive Click Style Torque Wrench, No. MST30004, has a torque range of 30-250 ft/lbs and is factory calibrated for accuracy within CW +/-3 percent at 10,000 cycles. Its 36-tooth pear head provides quick socket release, according to the company. Designed with a laser-etched scale for easy reading and a recessed switch plate for smooth actuation, its chrome-molybdenum ratchet gear and fully heat-treated handle provides high durability, long cycling life and stable accuracy. This tool is also available in the following sizes: 1/4" (No. MST30002), 3/8" (No. MST30003) and 3/4" (No. MST30005).

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# GET IN. GET OUT. GET DONE.

## NEW AIR IMPACT WRENCHES AVAILABLE IN 3/8", 1/2", AND 3/4" DRIVE SIZES



THE STRENGTH AND SPEED YOU'VE COME TO EXPECT WITH THE POWER TO GET IT DONE.™  
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[www.gearwrench.com](http://www.gearwrench.com)

**GEARWRENCH**  
GET IT DONE®

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SEMA Booth #10508 / 10509

## New Products



### Remove plastic body fasteners and retaining clips

The OTC Three-Piece Push Pin/Body Clip Pliers Set, No. 2497, can remove plastic body fasteners and retaining clips in nearly any location. Each pliers in the set offers different angled jaws, including straight, 45-degree and 90-degree to make obscure areas easier to access while providing leverage to remove clips quickly. The tools' design lifts the center pin and pulls body clips without damaging the anchors, eliminating the need to provide replacement clips. The set comes with an OTC lifetime warranty.

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### Four high-resolution cameras

The Pinnacle Automotive Systems 3D Wheel Aligner, No. T75, comes with a tablet remote standard and is equipped with the company's Golden Eye drive-on camera. The T75 utilizes 3-D technology, which is provided by four high-resolution cameras. A lower 19" LCD allows users to view the alignment screens while under the vehicle. Annual database updates are provided free for three years and can be downloaded from the web. The T75 can be installed within 60 minutes and no in-shop calibration is required.

Circle 106 on card, or enter at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)



### Cut through steel and stainless steel

The Walter Surface Technologies Redesigned Zip Wheel is an abrasive disc made with the company's proprietary grain blend, to increase cutting speed through steel and stainless steel. The disc is more rigid than previous models, which allows for more consistent, straighter cuts. It also is constructed with a reinforced rib design on each side for cooler cutting. According to the company, the disc lasts longer and produces less dust.

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## MINI-DUCTOR<sup>®</sup> VENOM<sup>™</sup>

EXPERIENCE INVISIBLE HEAT<sup>®</sup>

The Mini-Ductor<sup>®</sup> Venom<sup>™</sup> releases metals from corrosion and thread lock compounds without the dangers of open flame.



- > Angled Design with Trigger
- > Two Year Warranty
- > Coil Twist Lock<sup>™</sup>
- > User Controlled LED Switch
- > Fault Override Delay



[www.theinductor.com](http://www.theinductor.com)

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SEMA Booth #10753

# THAT'S HIM, HE FIXED MY CAR

POWERED  
BY BOSCH

FASTEST  
TO THE FIX

ON-TOOL  
& ONLINE REPAIR  
INFORMATION

EASY  
TO USE

VEHICLE  
COVERAGE



## ***FIX CARS FASTER THAN THE USUAL SUSPECTS***



The OTC Encore diagnostic system with Identifix® works fastest from code-to-fix, has best-in-class coverage, is easy to use and is the ultimate repair suite.

***Learn more, request a demo or enter to win an Encore every day through December 31, 2016 at [otctools.com/PTENEncore](http://otctools.com/PTENEncore).***

Circle 109 on card, or enter at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)

# New Products

## Scan tool and scope/graphing meter

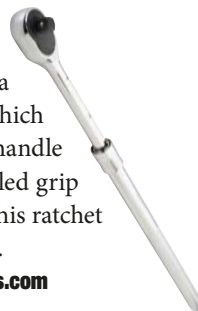
The Snap-on MODIS Edge is a combination full-function scan tool and scope/graphing meter with a five-second boot-up and the new Instant ID feature that automatically reads the VIN upon connection to the vehicle. The 9' lighted OBD cable assists connecting to vehicles, and the SMX operating system and quick links provide access to common procedures, such as oil specs and service interval resets. The 8" color touchscreen and four-way thumb pad allows for quick navigation. The Vehicle System Report, for 2008 and newer vehicles, displays a complete view of diagnostic results. Guided Components Tests show how to test, where to connect and what results to look for. MODIS Edge can also display up to eight live data parameters and provides an extended Wi-Fi range.



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## Low-profile head for tight areas

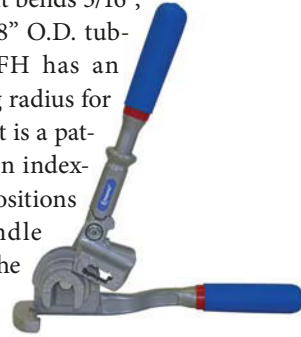
The E-Z Red 1" Drive Extendable Ratchet, No. MR1X, features a low-profile head for tight areas and a reversible 24-tooth ratchet, which provides a 15-degree swing arc. The overall length is 25", but the handle extends to 40" for extra reach when needed. A full chrome knurled grip provides a firm and slip-resistant feel. With a steel construction, this ratchet exceeds ANSI standards. A repair head kit (No. RK1X) is available.



Circle 111 on card, or enter at "e-inquiry" on VehicleServicePros.com

## Features a compact design made of die-cast aluminum

The Cornwell Tubing Bender, No. TC470FH, features a compact design made of die-cast aluminum to help it fit into tight spaces. It bends 3/16", 1/4", 5/16" and 3/8" O.D. tubing. The TC470FH has an optimum bending radius for each tubing size. It is a patented, quick-action indexing lever that repositions a two-stage handle midway through the bend when both handles begin to meet. This feature allows easy fabrication of bends up to 180 degrees with reduced effort, better control and no crossing of handles. The handles have a cushioned grip for stability and added comfort.



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**NEW** **Ken-Tool**  
WHEREVER TIRES ARE CHANGED™

**2.5 tons of force!**

**SHARK FIN™**

**DUAL WHEEL SEPARATION BAG**

*The first wheel separation solution for steel, aluminum and chrome wheels!*

**No metal on metal contact!**

Shark Fin™ inflates to separate stuck or frozen wheels without damaging the wheel!

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- Works on 15" to 24.5" dual and single wheels and tires on trucks & trailers
- Kevlar inner inflation bag is industrial grade and nearly puncture proof
- 90 psi max pushing pressure – 150 psi maximum rated pressure

WATCH THE SHARK FIN™ VIDEO

34555

**RUST HOG™**

**HUB CLEANING TOOL**

*Quickly blast away rust and corrosion from wheel mounting surfaces with your 1/2" drive impact gun!*

**Fast, safe, and affordable!**

*Eliminates the risks of wheel offs, improper torque, and balancing issues!*

**30167 4 Pc. Rust Hog™ Set**

- Includes: Aluminum driver tool and 3 abrasive pads

**30168 5 Pc. Rust Hog™ Replacement Pad Set**

- Includes: 5 replacement pads

WATCH THE RUST HOG VIDEO

Before After

Watch our videos at [www.youtube.com/KenToolVideoMedia](http://www.youtube.com/KenToolVideoMedia) & [www.kentool.com](http://www.kentool.com)

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# Portable. Quick. Safe.

Fastest way to get your car in the air.

**\*FREE SHIPPING**

**MSRP \$1125<sup>00</sup>**



**Model BL-3500SLX**  
3,500 lb. Capacity

# **NEW & IMPROVED**

**MSRP \$1340<sup>00</sup>**



**Model BL-5000SLX**  
5,000 lb. Capacity

**MSRP \$1490<sup>00</sup>**



**Model BL-7000SLX**  
7,000 lb. Capacity



**SEMA Booth #16621**

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See it on YouTube



**SUV & LIGHT TRUCK ADAPTER SET**



Optional for BL-5000SLX & BL-7000SLX

The truly portable QuickJack™ is convenient to use and lightning fast allowing technicians to easily move the lift wherever it's needed. The QuickJack eliminates the need to bend over, kneel or squat when working on vehicles. A lowered height of just 3" means it goes where other jacks don't and an optional 12-volt power supply allows you to use it practically anywhere. Sturdy lock bars, a remote pendant control and adjustable rubber contact pads make it the perfect lifting system. Available in 3,500-lb. / 5,000-lb. or 7,000-lb. capacity.

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**NEW**



# KEEP 'EM STRAIGHT

**MRP \$12,780**  
(Aligner Only)

**MRP \$14,780**

- PRICE INCLUDES:
- ✓ \*FREE SHIPPING!
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  - ✓ FREE ON-SITE TRAINING!

SEMA Booth #16621

(Lift sold separately)

## INTRODUCING THE ALL NEW 3D IMAGING WHEEL ALIGNER

### ADVANCED IMAGING TECHNOLOGY THAT DELIVERS FAST AND ACCURATE ALIGNMENTS

The model 3DP4100 Target 3DPro™ is an extremely accurate wheel alignment system thanks to advanced imaging technology that delivers fast, industry-standard alignments. It streamlines the entire alignment process delivering critical readings in less than two minutes. With minimal investment and reduced training, the Ranger Target 3DPro aligner expands your service potential and sends more profit to your bottom line.



MODEL 3DP4100

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Call **1-800-253-2363** or Visit [bendpak.com/3DAligner](http://bendpak.com/3DAligner)

\*Free shipping on all Ranger Products to most areas in the 48 contiguous states.  
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### Produces 1,050 lm

The **Larson Explosion Proof LED Drop Light**, No.EHL-LED-7W-GCR100, provides cooler operation and higher performance than standard incandescent drop lights, according to the company. The light is approved for Class 1 Division 1 and 2 locations. The handheld LED drop light features aluminum and steel construction, a molded rubber bumper guard, a 10-watt LED bulb and a general use cord reel equipped with 100' of cord. The LED bulb produces 1,050 lm and has a 50,000-hour life rating. The housing features an aluminum lamp cage for added durability and an integral aluminum hook provides easy hanging for hands-free operation. The included reel is constructed of durable steel, has a powdercoated finish and includes a ball stop, a ratchet with a lock-out feature and a four-roller guide arm.

**Circle 116 on card, or enter at "e-inquiry" on VehicleServicePros.com**



### Biodegradable waterborne vapor corrosion inhibitor

The **Cortec EcoAir VpCI-337 Fogger** is a biodegradable waterborne vapor corrosion inhibitor used to protect metal parts and internal void spaces with a thin, environmentally friendly self-healing film. Vapor phase Corrosion Inhibitors (VpCIs) in the fluid migrate and protect metal surfaces, resulting in time and cost savings and using a minimum amount of product. VpCI-337 is contained in an easy-to-use spray can powered by compressed air.

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## New Products

### Features a contoured, wrap-around frame

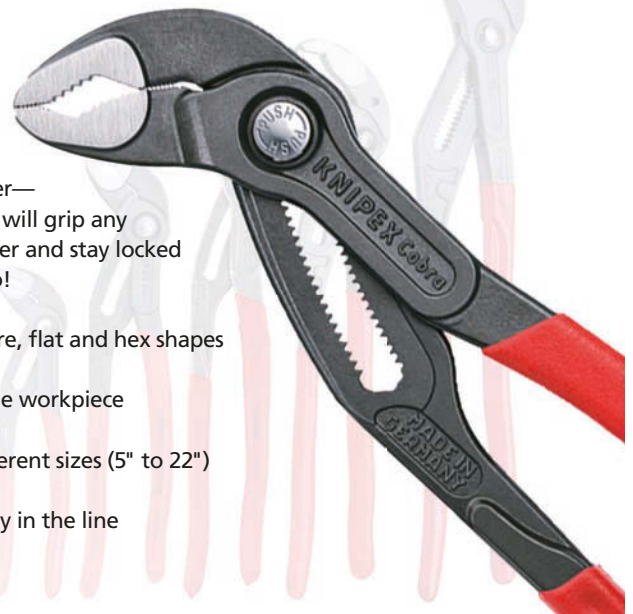
**Honeywell Uvex Acadia safety eyewear** features a contoured, wrap-around frame, several premium comfort features and both a range of lens tints and Uvex anti-fog lens coating.

Uvex Acadia can be used both indoors and outdoors. Acadia lenses are available with Hardcoat lens coating or Uvextreme Plus anti-fog lens coating, for fog-free vision. Available in black or brown frames, Uvex Acadia is offered in eight lens tints: clear, gray, amber, SCT reflect 50, red mirror, blue mirror, espresso and orange mirror.

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## GRIPS AND GRIPS AND GRIPS



Shape doesn't matter—the KNIPEX COBRA® will grip any fastener shape tighter and stay locked on until you let it go!

- Grips round, square, flat and hex shapes
- Stays locked on the workpiece
- Available in 7 different sizes (5" to 22")
- Up to 4¾" capacity in the line

**KNIPEX – Tools Designed With Your Hand in Mind**

Water pump pliers for every application. The original push-button pliers with the thin head that fits easily into tight spots. German-engineered and precision manufactured. *Pliers...it's all we do.*

**See a video of this tool:** <http://plie.rs/cobra-us>



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**TOOLS & EQUIPMENT SECTION  
BOOTH 10144**

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KNIPEX Quality – Made in Germany

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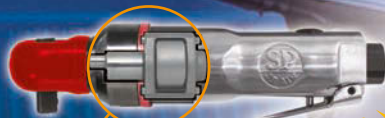
**SEMA Booth #10144**



# The Best Air Ratchets in the Market!

MADE IN JAPAN

**SP-1764 (1/4")**  
**SP-1765 (3/8")**  
**SUPER FAST MINI**  
**IMPACT RATCHET**



**500rpm/55ft.-lbs.**



Single Dog Clutch

**IMPACT MECHANISM**  
**PATENTED**



For a SP-1765 Demo Video Scan the QR Code.

**SP-7260 (1/4")**  
**SP-7265 (3/8")**  
**SP-7265W (3/8" Wobble Drive)**  
**SEALED FLAT HEAD**  
**MINI RATCHET**



Reverse Lever  
• One-handed operation.

Air Regulator

360° Exhaust Sleeve

**PATENTED**  
Sealed Flat Ratchet Mechanism

Sealed Flat Head  
For Long Life



**SP-7786 (3/8")**  
**SP-7787 (1/2")**  
**HEAVY-DUTY**  
**SEALED FLAT HEAD**  
**RATCHET**



Reverse Lever  
• One-handed operation.

360° Exhaust Sleeve



SP AIR USA, Inc.  
U.S.A. CONTACT

Toll Free 855-438-5313

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SEMA Booth #10271

## POWER YOU CAN DEPEND ON.

**JUMP**  
*n Carry*



The no questions asked jump starter – Jump-N-Carry – built its reputation on its ability to bring the power every time it is called on for service. Every aspect of a Jump-N-Carry is designed to deliver extreme jump starting power, from its Clore PROFORMER battery to its heavy-duty cables and clamps. So that it can start what doesn't want to be started. Each time, every time.

For information on *Jump-N-Carry* jump starters, visit [www.jumpstarter.com](http://www.jumpstarter.com).

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AAPEX Booth #847

## New Products



### Provides supply of clean DC power for vehicle programming

The OTC 70-Amp Power Supply/Car Battery Charger, No. 700A, for flash reprogramming, is a device that connects to the vehicle's battery and outputs a designated supply of clean DC power. The 700A features a constant voltage output selectable from 13V to 14.8V DC, with variable charge rates of 4/20/70 amps. With fully automatic operation for 12V batteries, this tool works with regular automotive, deep-cycle, AGM and gel cell battery types. The unit provides a digital volts and amps display and has a manual mode with digital timer. The 700A comes with an extra-long 9' power line cord with 20A plug, extended reach heavy gauge 9' output cables and heavy duty clamps with replaceable jaws. **Circle 122 on card, or enter at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)**

### Makes heat visible to reveal problems

The Snap-on Tools Diagnostic Thermal Imager, No. EETH300, uses infrared technology to make heat "visible" and reveal problems anywhere on a vehicle, such as brakes, heaters, A/C, engine performance, electrical and bearings. This technology includes detailed thermal images made up of 4,800 distinct temperature zones, an exclusive database of guided tests, automotive applications and reference images to help interpret results and automatic scaling to show the temperature of everything in the image. The thermal image reveals heat sources, shows extreme temperatures up to 840 degrees F and has the ability to save and store images.





# Giotto®

A *factory-level diagnostics scan tool* for all service professionals who demand the **BEST!**

## TOUCH SAVVY USER-INTERFACE

Giotto® features a new and improved user-interface, adding larger touch-based controls to speed up navigation. Includes advanced features such as:

- *Automated vehicle selection process*
- *Created complex formulas to create your own outputs*

## WIRELESS HARDWARE

Now you can have the speed of a cabled solution while operating wirelessly. With our WIFI wireless, we leap past traditional Bluetooth®-based devices in speed and range. What's more, we maintain the compact hardware our customers love.

## COVERAGE, COVERAGE, COVERAGE

It's not just the breadth of coverage that's important—it's also the depth of coverage. With our enhanced expansions, you have access to ABS, airbag, enhanced powertrain, instrument cluster, transmission, and dozens of other body and chassis controllers.

## COMPARE YOUR NEEDS TO OUR SOLUTIONS:

- *52 vehicle manufacturers spanning '96-'15*
- *Bi-directional controls and system tests*
- *Reset adaptations and calibrations*
- *Wireless WIFI hardware*
- *Remote technical support*
- *Automated software updates*
- *Annual update costs 50-450 USD*



**Factory-Level  
Ferrari / Maserati  
Available**  
(Clutch Set / Read and  
Service Reset)

**WiFi**  
**NOW  
AVAILABLE!**

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**[www.autoenginuity.com](http://www.autoenginuity.com)**

**AAPEX Booth #1376**

# Loosens Frozen Metal Parts



## It Works!

Based on Kano's scientific discoveries, AeroKroil creeps into millionth inch spaces, dissolves rust and lubricates to quickly loosen frozen metal parts, free rusted bolts, free frozen shafts ... serving 480 of the Fortune 500 - Since 1939.

Guaranteed to meet your expectations or your money back

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**2 King Size Cans for \$14.50**  
 Plus \$5.95 S&H - Delivered to your door  
 Call 1-877-347-9407 and ask for the  
**KROIL WORKS Deal**, or go to  
[www.kanolabs.com/pten](http://www.kanolabs.com/pten)

**KANO LABORATORIES.COM**

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## New Products

### Available for Windows and iOS platforms

The AutoEnginuity Giotto Version 14.3 is available for Windows and iOS platforms. It allows users to read a vehicle's diagnostic trouble codes, live vehicle sensors and IM240 system test results to quickly determine what service the vehicle requires. AutoEnginuity offers manufacturer-specific options for BMW, Ford, GM, Chrysler, Toyota, Nissan, Hyundai, Kia, Land Rover, Jaguar, Honda, Subaru, Porsche, Mitsubishi, Isuzu, Audi/VW and Mazda group vehicles. It also offers expanded Ferrari/Maserati coverage to include several new models, adds dozens of new controllers and improved existing coverage. Version 14.3 has a focus on Audi/VW, BMW/MINI and Mercedes Benz coverage.



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### Three-position joint

The Snap-on Combination Slip Joint Pliers, No. 47ACF, feature a three-position joint to allow for use on many applications and provide a wider spread. The pliers measure more than 8" in length and provide techs with a strong grip, allowing up to a 57 percent increase in pulling power over previous models, the company says. A long, contoured vinyl handle offers improved leverage and control.



### Made of durable plastic

The K Tool International Combination Wedge Tool, No. KTI70038, is made of durable plastic and is 8.5" long by 1" wide and 1" thick. The combination wedge tool is designed for installing stereos, removing door cover clips, working on vehicle trim and dashboard work. This tool includes a one-year warranty.

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### Handles up to 750 lbs of tools

The OEM Automotive Tools Professional Series Tool Carts feature injection molded corner bumpers to protect vehicles and other objects. Gas struts glide the lid open, and hold it securely in place. Raise and release latches prevent the drawers from opening while the tool cart is in motion. The tool cart has four large 5" by 2" swivel casters, with two locking casters and a side handle for easily loaded drawers. The drawers feature EVA liners to keep tools from sliding and marring. This tool cart can handle up to 750 lbs of tools and has 9,660 cu. in. of storage space. The top five drawers are 2-7/8" deep and the bottom drawer is 4-7/8" deep. Available in true black (No. 24966), royal blue (No. 24967), orange (No. 24630), cherry red (No. 24968) and bright green (No. 24969).



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# THE DIFFERENCE



ALL OF OUR PRODUCTS ARE

# BUILT TO

DESIGNED, MANUFACTURED, AND TESTED

# KEEP YOU

IN THE USA TO ENSURE THE HIGHEST

# WORKING

QUALITY PROFESSIONAL SHOP EQUIPMENT

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AAPEX Booth #30018





## Load capacity of 1,000 lbs per caster

The SK Hand Tool 40" 6 Drawer Mobile Work Center, No. 56401, is part of the SK Tool Box line. With 4,657 sq. in. of space, the all-aluminum cart provides a load capacity of 1,000 lbs per caster and each drawer has a rating of 250 lbs with full extension ball bearing slide. It comes with premium non-slip drawer liners and measures 40" wide by 42.75" high by 24" deep.

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## Designed to handle most light duty pulling jobs

Presented by Chief, the Globaljig Quick Pull Scissor Lift Bench is designed to handle most sheet metal and other light-duty pulling jobs right in the bay – keeping the frame bench free for larger jobs. The mid-rise Quick Pull bench lifts a vehicle to a working height up to 4' 5". The compact Quick Pull has a lowered height of 4", so no access ramps are needed — simply drive over the bench, swing out the lift arms, raise the car and get to work. When the job requires a light duty or medium duty pull, the Quick Pull has a 5-ton pulling tower, complete with chain, foot pump, clamp and safety cable. The Globaljig Quick Pull bench has a 5,500-lb capacity and offers adjustable height sill clamps, articulating arms with adjustable rubber lift pads and extended-height rubber lift pads.

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## Make quick work of lubrication tasks

Lincoln's 12-volt PowerLuber is designed to simplify and speed up the lubrication process. This versatile tool is suitable for a range of maintenance and industrial applications requiring a cordless lubricant delivery system.

### 12-volt PowerLuber advantages:

- Lithium-ion battery for maximum power and efficiency
- Ergonomic design is balanced, lighter-weight and comfortable to grip
- Three-point base keeps tool upright for easy handling
- Built-in LED light illuminates the work area
- Delivers grease at up to 8,000 psi (551 bar)
- Narrower tool fits in tight areas
- Provides effortless, uniform lubricant delivery
- Backed by a five-year warranty



**Model 1262**  
12V Li-ion kit with one battery, charger and carrying case

**Model 1264**  
12V Li-ion kit with two batteries, charger and carrying case

Find out more at [PowerLuber.com](http://PowerLuber.com) or call 800-435-9599

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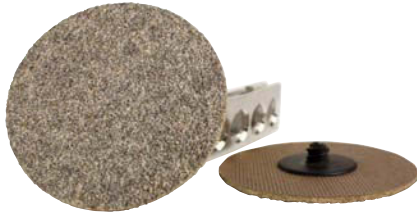
# SKF



## Offered in both SAE and metric sizes

The Stark Professional Tool lines of interchangeable torque wrench heads are designed to complement the R2 Revolution head. The lines will consist of U-bottom open ends (including a thin design) along with square drive applications across all product lines. All tools are true one-piece designs, meaning no welds providing both quality and value to the customers. The product lines are offered in both SAE and metric sizes.

Circle 131 on card, or enter at "e-inquiry" on VehicleServicePros.com



## Quickly remove corrosion

The Rex-Cut Abrasives Quick Change Disc Max is designed to quickly remove corrosion on aluminum and stainless steel, as well as rust on steel. It grinds, cleans and finishes in one action, according to the company. Engineered to provide a superior finish, aluminum oxide grain is embedded throughout the disc in layers of non-woven cotton. This construction also allows for a very consistent finish throughout life of the disc. These discs are made in the U.S.A and available in 2" and 3" diameter sizes. Grit and bond combinations are A24 Medium or A36, A54, A80 and A120 in either medium or flexible.

**Circle 133 on card, or enter at "e-inquiry" on VehicleServicePros.com**



## Organize and protect small tools

Expanded Technologies dual density utility mats are designed to organize and protect small tools and parts. They are offered with a peel-and-stick backing for extra hold or non-slip backing to move them easily. Every mat is made with a durable, dual density non-slip material for a secure and gentle working environment on any size surface. A variety of stock sizes and styles are offered that are ideal for any work surface, including desks, workbenches and pushcarts. Custom sizes, colors and designs are available, and a company logo can be added.

**Circle 134 on card, or enter at "e-inquiry" on VehicleServicePros.com**

## Accuracy within 2 percent

The NEBO Tools Tempra Laser-Guided IR Thermometer with spot light measures infrared waves radiating from the surface of any object. With an accuracy within 2 percent, the Tempra measures from -4 to 716 degrees F and has adjustable emissivity for various surface materials. The Tempra also features a powerful LED spotlight with adjustable zoom that lights up what's being measured.

**Circle 135 on card, or enter at "e-inquiry" on VehicleServicePros.com**



## 14.4-Volt, Lithium-Ion Grease Gun

## Improve productivity in the shop, field and factory

**Alemite 14.4-Volt, Lithium-Ion Grease Gun benefits:**

- Glass-fiber-reinforced nylon housing provides superior impact and wear resistance
- Loads easily, primes quickly
- Includes tube guide and charge indicator
- 10,000 psi; 5.6 oz/min output
- 3X the recharge life of Ni-Cd
- Proven design powers through heavy loads

[www.alemite.com](http://www.alemite.com) | 800-822-4579

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**AAPEX Booth #4619**



## PREMIUM WORKSHOP EQUIPMENT

SAFER - SMARTER - STRONGER

- Brake Testing Technology
- Suspension Testing Technology
- Lifting Technology
- Performance Measurement Technology
- Headlight Testing Technology
- Diagnostic Technology
- Service & Installation

MAHA at SEMA  
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Meet Slick from 

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"e-inquiry" on VehicleServicePros.com

SEMA Booth #15307

## New Products

### Updated model, system and functionality capability

The C.A.S of New England G-Scan 2 2016 Software Update is now available to download for users that have a current subscription. The 70 pages of release notes cover updated model, system and functionality capability on Asian, European and domestic vehicles. The G-Scan 2 features the integration of an optional five-channel digital scope plus J2534 programming, a 7" sun-readable LCD screen, screen capture, memo function, fast graphing and smart update. Options include the 'piggy back' oscilloscope, and complete adapter package, as well.

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### Submersible and sealed against dust

Panasonic Toughpads, Nos. FZ-F1 and FZ-N1, are lightweight, rugged handheld tablets featuring a drop rating of 6'. The devices are fully sealed against dust and are submersible in up to 3.3' of water for 30 minutes, meeting IP65 and IP67 certification requirements. The 4.7" Android and Windows devices feature a quad-core Qualcomm Snapdragon processor and angled rear barcode reader for scanning items. Other features include a glove enabled, multi-touch, sunlight viewable display with a rain sensing mode that delivers accurate operation, even in inclement weather. A broad selection of accessories will be available for the Toughpad FZ-F1 and FZ-N1, including a vehicle dock, hand strap, single and multiple device cradles, multi-battery charger, passive and active stylus options and an extended life battery.

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### Revolves 360 degrees

The Shuter RFO Revolving Tower Hanging Bin, No. RFO-690, can revolve 360 degrees. Offering 90 storage bins and a square-shaped, perforated plate on the side for hanging small tools, the storage device measures 449mm wide by 518.3mm deep by 1,280mm high. The RFO-690 is one of six models offered, which range in size and capacity.

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### Recover conductive and explosive dust

The Tiger-Vac SS-IT Dust Extraction/Vacuum Sanding Kit, known also as the SS-IT (85L) EX SK HEPA Wet (Water) Mix, was designed for recovering conductive and explosive dust in a liquid immersion bath. The air-operated immersion separator is explosion-proof and dust ignition-proof, is constructed of stainless steel and features a heavy duty powdercoated cart. The kit, meant for use with water only, has less than 10 ohms of resistivity, is equipped with a coalescing filter element for moisture removal, a HEPA filter and a liquid level indicator. The detachable recover tank, which has a recovery capacity of 22 lbs of dust in 7.9 gallons of water, makes it easy to dispose of recovered material.

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## New Products

### Stroke length of 13/16"

The Zipp Air Split Type Lockbolt Tool, No. ZT2420HSN-3, provides access to hard-to-reach areas. It has a lightweight pistol head, and its hydraulic section is made of forged and heat-treated aluminum alloy. The tool provides a stroke length of 13/16" (20mm).

The 3/16" and 1/4" nosepieces are compatible with Huck and Avdel nose assemblies. It has a maximum capacity of 1/4" lockbolts and includes a utility pouch that can be worn on the shoulder or waist.

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### Add it to the radiator after removing antifreeze

Ceramic Motor Seal from Irontite is designed to permanently seal leaking head gaskets, cracked heads and blocks in aluminum or cast iron. It coats the engine and prevents the formation of rust and water corrosion, and it seals porous castings in the cooling system. Users add it to the radiator after removing antifreeze, and it stops coolant leaks and promotes heat dissipation for added engine power. Ceramic Seal is not compatible with antifreeze. All antifreeze must be removed before treating.



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### Six different stainless steel tools

The Bear & Son Cutlery Bear Jaws line of multi-tools offers the following tools: the 2-1/2" Mini-Bear Jaws Multi-Tool, the 4" Bear Jaws Locking Electrician Multi-Tool with sheath, the 4" Bear Jaws Locking Multi-Tool with sheath, the 1/2" Super Bear Jaws Locking Multi-Tool with sheath, the 4-1/2" Bear Jaws Gardener Multi-Tool with sheath and the 4-1/2" Bear Jaws Sportsman Bird Shears Multi-tool with sheath. Each of the six different stainless steel tools share similar attributes and some distinct differences for specific preferences.



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### Substitute for utility or pocket knives

The Milwaukee Tool Safety Cutter, No. 48-22-1916, is a quick and easy substitute for utility or pocket knives. Well-suited for opening cardboard and corrugate, tape, plastic and shrink wrap, the Safety Cutter features an optimized, recessed blade that stays sharp and allows for more efficient cuts. An ergonomic, nylon handle provides up to five times longer life than other similar cutters on the market, according to the company. For added utility, the front of the tool is designed with a tape piercer, while the back is equipped with a lanyard hole.



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SEMA Booth #50230

## INNOVATIVE NEW PULLING TOOL

### LT855 TEXAS TWISTER AIR HAMMER PULLING KIT

- Now you can convert your air hammer into a pneumatic slide hammer with the Texas Twister
- Simply snap the Texas Twister curved air bit into the collet of your hammer with one of the bits attached and reverse the air hammer handle in your hand now using thumb to push the hammer trigger.
- Feel the 3000 air hammer blows per minute tuning into new pulling power
- One hand operation allows you to hold parts with your other hand
- Safe controlled part removal without parts and fluids crashing to the floor
- Utilize air hammer pulling power where slide hammers won't fit
- Extend the reach of the tool by using the 20" extension
- Use the double ended male 1/2"-20 connector bar to connect the Texas Twister to your current pullers
- **TEXAS TWISTER** - safe, powerful, fast, simple effective air hammer bits you will use every day
- Comes packaged in a custom ballistic black nylon case
- **Patent Pending**



**NEW PRODUCT**

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AAPEX Booth #1155

## New Products

### Protects against oxidation

The Caig Laboratories DeoxIT Grease, No. L260-DNp PLUS, is manufactured in semi-solid form for use as a combination cleaning, deoxidizing, protecting and lubricating preparation. It protects against oxidation (galvanic corrosion) and is free of mineral acids, sulphurs, alkalis and other noxious components aggressive to metals. According to the company, DeoxIT improves performance of electrical contacts and mechanical components that require precise lubrication. The infusion of DeoxIT D-Series D100L into the formulation provides an additional film on the metal surface to dissolve corrosion, improve conductivity and provide a moveable/flexible protective barrier on the metal surface.



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SEMA Booth #10553



### High-volume low-speed fan

The Go Fan Yourself Z-Tech is a high-volume low-speed (HVLS) fan. The Z-Tech provides up to 40,000 sq. ft. of de-stratification coverage and up to a 10-degree evaporative cooling effect. The stepped blade design and 20-plus degree blade pitch maximize air flow, reduce frictional resistance and increase air displacement and thrust. Capable of true reversibility for both cooling and heating, the pitched-hub design eliminates airflow dead zone at the center of the fan, and the ABB controller, with removable pad, maintains the setting. A lifetime warranty is included on the blades, hub and mounting system while a 15-year warranty is offered for the motor, gearbox and controller.

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## Allows for interchangeable threaded bushings

The ProMaxx Rocky D Model ProKit helps users make repairs on the exhaust manifold. According to the company, it is the newest and fastest version of the Rocky exhaust manifold repair kit. It is also compatible with the Ford 4.6L, 5.4L, V8 and 6.8L V-10 and incorporates removable drill bushings. It allows for interchangeable threaded bushings to facilitate stepped drilling to larger drilling and corresponding extractors with higher torque capacities. Even if an extractor fails to release the stud, or fails itself, the technician can move to the company's large ProBushing and machine the stud completely out, leaving only the threads. It can follow with the ProChaser to clean the threads and complete the repair. It is also hard-coated for longer life and repeatable accuracy.



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## Being offered to commemorate the company's 50th anniversary

The E-Z Red Pocket Pen Light and Pocket Spot Light are being offered to commemorate the company's 50th anniversary. The Pocket Spot Light provides a super bright circle of light from a tough and sleek aluminum case, providing 250 lm on high and 120 lm on low. A strong magnetic base and spring loaded pocket clip supply hands-free versatility. Includes three AAA batteries.



The Pocket Pen Light is slim, compact, and tough. Providing 100 lm and constructed of rugged aluminum, this light is water- and impact-resistant. Includes a durable steel clip for reliable pocket transport and two AAA batteries.

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## Includes eight different pieces

The Sonic Tools Screwdriver Set, No. SFS 1/3, offers eight different pieces carefully designed within laser-cut and chemical-resistant foam. Each screwdriver is labeled on the foam. Contents include Phillips sizes 0, 1 and 2, plus slotted sizes 3mm, 4mm, 5.5mm, 6.5mm and 8mm.

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# PicoScope® NVH Kit

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Vehicle noise, vibration and harshness (NVH) are significant reasons for customer dissatisfaction. But quickly identifying the cause of a vibration and finding its location can be a difficult task, even for the most experienced technician.

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[www.picoauto.com](http://www.picoauto.com)

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AAPEX Booth #964

# Exhaust Manifold Repair

The new **Rocky "D" Model** exhaust manifold repair kit can handle the most challenging Ford 6.8L V10 engine.

Now with removable precision hardened bushings, the new **Rocky "D" Model Base and ProKit's** offer even a faster, easier, and hassle free repair. Simply select the appropriate size bushing for the hardest of repairs, or utilize the standard one included. Rocky "D" takes performance success to a higher level than ever before – faster!

- ⦿ Now with Removable Bushings for Stepped Drilling or Extractor-less Repair
- ⦿ Repair Time About 10 Minutes per Stud Versus 90 Minutes.
- ⦿ Limited Lifetime Warranty
- ⦿ Free Technical Support
- ⦿ Thinnest Design – Behind Shock/Spring Tower or Firewall
- ⦿ Up to 70% Reduction in Repair Time
- ⦿ Hard Coated for Longer Life
- ⦿ Compatible with Ford 4.6L, 5.4L, & 6.8L

Base kits start at only \$199.95 (Model C)

Other kits available for GM, Dodge, Isuzu, Ford Diesel and Ford Diesel EGR.

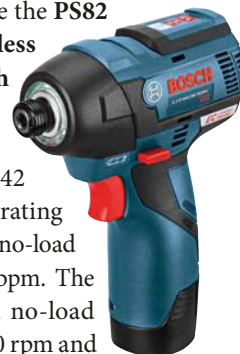
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www.ProMaxxTool.com



## New Products

### Easier charge monitoring

The Bosch PS42 12V Max EC Brushless 1/4" Impact Driver delivers a maximum torque rating of 975 in/lbs and weighs just under 2 lbs, while the PS82 12V Max EC Brushless 3/8" Impact Wrench offers a torque rating of 85 ft/lbs and weighs 2.2 lbs. The Bosch PS42 offers a no-load rpm rating of 0-1,200 rpm and a no-load bpm rating of 0-2,700 bpm. The Bosch PS82 offers a no-load rpm ratings of 0-2,600 rpm and a no-load bpm rating of 0-3,100 bpm. The tools' feature a compact head length of 5.4" for the impact driver and 5.5" for the impact wrench. The PS42 has an optimized impact system to deliver outstanding impact force, fits all standard hex drive bits and accommodates 85 percent of impact driver applications. The PS82 also offers an optimized impact system for efficient impact force and a square drive anvil. Both units include an LED light ring to illuminate the work area and dark locations, as well as a battery gauge indicator for easier charge monitoring.



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AAPEX Booth #655

## INNOVATIVE NEW PRODUCTS

### LT1350 LUG RIPPER II

- Don't torch frozen/damaged lug nuts off just drill out the lug nut/stud threads only in 11 minutes or less
- 16mm Tungsten steel drill bit with 4 carbide cutters allow for speed and durability
- Available **NOW** from your mobile tool dealer/distributor
- **Patent Pending**
- Includes 4 drill guides - 17mm - 11/16"  
19mm - 3/4"  
21mm - 13/16"  
23mm - 7/8"



Tungsten drill bit w/4 carbide cutters up-close



Drills out female/male threads on lug nut/stud only!



SEE HOW IT WORKS



### LT993 BRAKE RE-THREADING KIT

- Compact design male/female combo sockets
- **AWARD WINNING TOOL**
- Re-thread damaged ABS control module fittings on vehicle
- Re-thread damaged brake wheel cylinders on vehicle
- Re-thread damaged brake master cylinder fittings on vehicle
- Re-thread damaged brake line fittings on vehicle
- Works on vehicle where standard alone tap & dies won't fit
- Convenient, fast and easy vehicle applications
- Most common sizes - SAE & Metric - 3/8 - 24  
7/16 - 24  
1/2 - 20  
5/8 - 18  
10mm - 1.0  
12mm - 1.0



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AAPEX Booth #1155

### Super-bright 400 nm violet light LED

The Tracerline VioMAX Plus, No. TP-8650ACS, is a telescopic, true UV leak detection lamp engineered for finding A/C and fluid leaks in tight, cramped areas inaccessible to larger lamps. Its super-bright 400 nm violet light LED offers optimal fluorescent response and contrast, and it works with both universal/ester and PAG A/C dyes, as well as most fluid dyes. It weighs 1.6 oz and measures just 9" in the closed position. It extends to 29" when open. Powered by three 1.5V batteries (which are included), the VioMAX Plus has an LED service life of 100,000 hours.



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part of the global Bartec Group of Companies



**B**artec USA, has a reputation for delivering market first innovation to the automotive service industry. Bartec customers can service more vehicles and be more profitable doing it. Bartec has served the North American market since 2004, and manages Automotive Assembly Plants, OE Dealers and the entire Aftermarket. Our TPMS tool solutions range from simple activation tools to complex automated antenna systems.

### Make more money servicing TPMS!

Bartec USA has the TPMS tool solutions to do just that! Bartec tools assist the pre-inspection step Test Before Touch whereby you can determine why the TPMS light or

MIL is on before work begins. Eliminate the guesswork when you use our tools to retrieve TPMS fault codes [DTC's].

### High Powered TPMS Service

The Tech400Pro is the industry's finest TPMS Diagnostic tool. While the "free tool" manufacturers throw around the word "diagnostic," Bartec makes TPMS diagnostics a reality! The Tech400Pro can detect TPMS fault codes, interpret them, program replacement sensors, walk you through completing the TPMS relearn, and when you're done, print an audit report.



### But there's more!

It doesn't stop there by the way. With the Tech400Pro, you can adjust the TPMS placard level, check passive entry and keyless ignition systems, and you can update the Tech400Pro via a wireless internet connection! ■

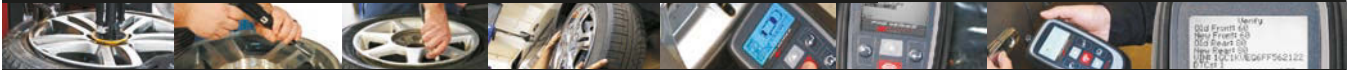


### Try all THAT with a free tool!



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## TPMS Service isn't free!



## Neither are serious TPMS Tools!



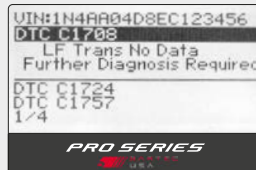
**Purchase the industry leading TPMS Diagnostic tool and do more relearns, adjust the placard pressure, program more sensors, and MAKE MONEY fixing more TPMS vehicles!**



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SEMA Booth #40047

AAPEX Booth #1073

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**SEMA Booth #10521**

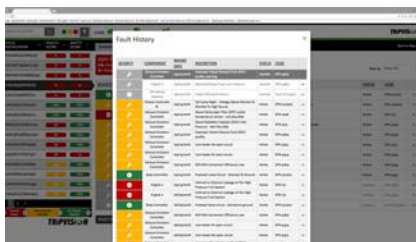
## New Products



### Helps break beads on tires

The Wedgie from AME International is a tire bead wedge used to assist in breaking beads on a variety of tires. It allows for a bead breaker to fit between tire and wheel. The Wedgie's high-impact nylon material prevents metal on metal contact, preserving the wheel from marring. The Wedgie is sold separately and is also available in cases of 16. Suggested use is with an 8-lb soft blow hammer.

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### Covers all heavy duty vehicle makes, models and components

TripVision, from Noregon Systems, is available through major telematics providers and provides a detailed, real-time view into every vehicle in the entire fleet through any internet connected device. Fleet dispatchers are presented with actionable fault information and aggregated health/safety scores and recommendations to easily determine vehicle readiness. All pertinent information is organized in an easy-to-consume format and customizable fault management options can be set to meet the exact needs of any fleet. TripVision covers all heavy duty vehicle makes, models and components.

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### Make the vehicle's engine cooling system perform better

Thoro-Flush Radiator and Engine Cleaner from Irontite is designed to remove rust, grease and sludge to help make the vehicle's engine cooling system perform better. According to the company, regular application of Thoro-Flush to an automobile helps extend the life of the vehicle, reduces the possibility of a clogged heater core, and helps keep the cooling system fluid flowing throughout the vehicle's engine and radiator. It works in 15 minutes, and it can be used on auto and heavy duty truck cooling systems.



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### Built of sturdy, high-quality plastic

The Shurhold Industries One Bucket System is a 5-gal rope handle bucket that features a soft, 3/4" braided, nylon rope handle for easy lifting and comfortable carrying. Elevated off the bottom of the pail is the removable bucket grate. Dirt and debris fall through the grate, so the wash tool is always in clean water. Brushes can be scrubbed against it to remove grime. It also has two built-in 3-oz measuring cups for accurate proportioning of cleaning products. Built of sturdy, high-quality plastic, the bucket seat/lid snaps onto the bucket rim and keeps both the system and supplies secure. Made in the U.S.A.



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## New Products



### Featuring a translucent polyurethane outer jacket

Water Cannon Monster Pressure Washer hoses are made with a dual-braided construction of steel over polyester and jacketed with translucent polyurethane for high strength, durability and kink resistance. They are equipped with quick-connect fittings for quick and easy setup. The translucent polyurethane outer jacket is non-marking, abrasion resistant, wipes clean with one pass and is designed to fit most gas pressure washers with standard quick connections. Users can choose between 4,500 psi-rated standard size 50' assemblies or, for jobs that require longer reach, 100', 150' and 200' versions are available.

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### Services cars, pickup trucks and vans

The Forward Lift I12PRO two-post lift is designed for servicing cars, pickup trucks and vans. It offers a capacity of 12,000



lbs, and it has three-stage arms equipped with low-profile 4.75" rubber-pad swivel adapters. Combined with the standard adapter extensions (1.75", 3.5" and 5"), the arms can reach the recommended pickup points of most cars, light trucks and vans. The lift can be installed at

one of two width options and is available in four heights. It has been third-party tested and certified by the Automotive Lift Institute (ALI) to meet industry safety and performance standards. The power unit on the I12PRO provides double the torque of other two-post lifts, and operates at a lower rpm to provide longer life.

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### Cool Smoke<sup>®</sup> HP High Pressure Leak Detection System

The Cool Smoke<sup>®</sup> HP is the next generation of diagnostic leak detection for forced induction gasoline and diesel engines. The Cool Smoke<sup>®</sup> HP delivers market-leading ease of use, reliability and greater functionality



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**BOOTH #50139**

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**Coast Products 13-Item Flashlight Prize Package**  
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**Homak Tool Storage Package**  
Prize value: \$3,199  
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**OTC Tool Prize Package**  
Prize value: \$1,960  
VehicleServicePros.com/12249952



**Autologic Assist Solution Package**  
Prize value: \$15,040  
VehicleServicePros.com/12248625



**Gage Bitt GB722 Blind Rivet and Lockbolt Installation Tool**  
Prize value: \$1,000  
VehicleServicePros.com/12236672



**KNIPEX Tools 16-pc Tool Set**  
Prize value: \$1,200  
VehicleServicePros.com/12239628



**ProMax Rocky Pro Kit**  
Prize value: \$595  
VehicleServicePros.com/12223999



**Beta Tools 8-Drawer Bench Top Tool Box**  
Prize value: \$1,725  
VehicleServicePros.com/12230660



**Launch Tech USA X-431 Pro**  
Prize value: \$1,895  
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**Mayhew Tools Specialty Tool Prize Package**  
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**SP Air Impact Tool Prize Package**  
Prize value: \$677  
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**Chicago Pneumatic 8-pc Air Tool Prize Package**  
Prize value: \$1,800  
VehicleServicePros.com/12245624



**OEMTOOLS 41" 10-Drawer Contour Chest and Cabinet Combo**  
Prize value: \$999.98  
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**Monster Tool Package**  
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**Steelman Pro Professional Lighting Package**  
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## Angled to access tight spaces

The Lisle 30 Degree and 80 Degree Push Pin Pliers, Nos. 42420 and 42430, assist in removing plastic push-pin style panel fasteners with center pins. The plier tips are angled so they can be used in tight spaces such as wheel wells. The pliers are designed to prevent damage to the pin or anchor.

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## Heaviest 16 gauge brake

The Woodward-Fab Boss 16 is a 1/16" thickness capacity box and pan brake in a 4' length. The Boss 16 is the heaviest 16 gauge brake available, according to the company, with extra heavy frame and thick fingers that make it ideal for both automotive and industrial use.

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## Set up and disassemble quickly

The ShopSol Folding Heavy Duty Plastic Bins, Nos.

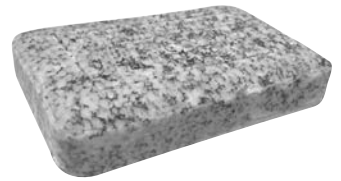
1010267 and 1010268, set up and disassemble in seconds. Useful for many applications, these black baskets can be stored and used around the shop and other areas. The 1010267 model measures 17.9" wide by 12.1" deep by 9.4" high while the 1010268 21.5" wide by 14.7" deep by 24.4" high.

Circle 173 on card, or enter at "e-inquiry" on VehicleServicePros.com

## With a built-in scrubbing pad

The Dura-Block Dura-Scrub soap is a professional soap that offers a built-in scrubbing pad. According to the company, Dura-Scrub Soap scrubs, lathers and exfoliates in one easy process, as well as cleans 10 times more effectively than standard bars of soap.

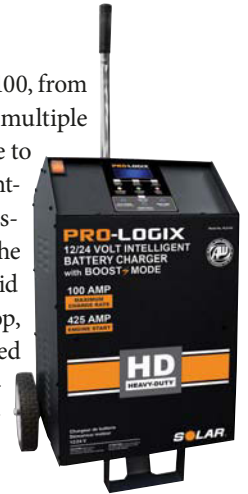
Circle 174 on card, or enter at "e-inquiry" on VehicleServicePros.com



## Multiple charge rates from 15A to 100A

The SOLAR PRO-LOGIX 100 Amp Fleet Wheel Charger, No. PL5100, from Clore Automotive, is a heavy duty 12/24V charger that features multiple charge rates from 15A to 100A to deliver a precise charging routine to vehicles from passenger vehicles to over-the-road trucks with an eight-battery configuration. It also features 425 amp engine starting assistance for vehicles with a low battery. Approved for all-weather use, the PL5100 features the ability to properly charge a wide variety of lead acid battery types, including conventional, AGM, spiral wound, start-stop, deep cycle and marine batteries. The PL5100 adapts its approach based on the needs of each battery or battery pack it services. It also incorporates safety features like over-voltage protection, reverse polarity protection, smart clamp technology and battery fault detection.

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## RT-750LT 750 LUMENS OF BRIGHTNESS

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- Strong magnetic base attaches to ferrous metal areas
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PTEN  
Innovation AWARDS

PEOPLE'S  
CHOICE  
2016



For the third year in a row, we have allowed all of our readers to weigh in on the *PTEN* Innovation Awards. Named the 2016 *PTEN* People's Choice, the following pages feature the top 26 products selected by our readers, per product category, that were originally nominated for the 2016 *PTEN* Innovation Awards.

*PTEN* magazine will be hosting an official awards ceremony to honor *PTEN* Innovation Awards winners and the *PTEN* People's Choice winners during the AAPEX Show on Tuesday, Nov. 1.

**Chicago Pneumatic Tool Co.**

1/2" Angle Impact Wrench, No. CP7737

The **Chicago Pneumatic 1/2" Angle Impact Wrench**, No. CP7737, has a

direct-drive clutch and jumbo hammer that can provide 220 ft/lbs of max torque. At only 3.46" wide and 9.8" long, it offers extended-reach capability in confined and

hard-to-reach spaces. This impact features an

ergonomic handle, full teasing trigger and easy forward/reverse control, and it weighs just 2.5 lbs. The tool

is also available with a 3/8" drive (No. CP7727) that provides a maximum torque of 185 ft/lbs.

**CATEGORY: Air Tools**

Enter 177 at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)



**Bartec USA, LLC**

Tech400Pro

The **Bartec Tech400Pro** TPMS scan tool provides coverage for vehicle relearns and aftermarket sensor programming. The Tech400Pro can program TPMS placard values, allowing technicians to safely and accurately adjust the recommended inflation pressure necessary when plus sizing and up-fitting wheels and tires. The software for the Tech400Pro is updated wirelessly using Wi-Fi and the Bartec cloud-based TPMS database.

Other features include wireless inductive charging and passive entry/keyless start key fob testing. The Tech400Pro offers more OBD-II functionality for TPMS, including diagnostic trouble code (DTC) reading. When the job's done, the all the necessary vehicle data can be downloaded from the tool.

**CATEGORY: Tire, Wheel Service**

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**Chief Automotive Technologies**

Self-Piercing Rivet Gun, No. PNP90

The **Chief Automotive Technologies Self-Piercing Rivet Gun**, No. PNP90, uses a pneumatic-hydraulic design to drive rivets for all common auto body applications, including bonding aluminum and steel body panels. The lightweight riveting gun's

hydraulic pressure intensifier converts air pressure of 87 psi from a standard air compressor to 8,702 psi hydraulic pressure at the rivet gun tip. Its self-piercing capabilities save technicians from having to drill holes for every rivet.

Quick-connect couplings provide a connection to the rivet gun actuator or optional blind rivet actuator. The optional blind rivet actuator enables the gun to apply blind rivets. The PNP90 comes with a rivet clamp and interchangeable attachments for setting and extracting rivets. All components fit in an included carrying case.

**CATEGORY: Body Shop**

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**Rotary Lift**

Extended-Height Two-Post Lift, No. SP012 EH3

The **Rotary Lift Extended-Height Two-Post Lift**, No. SP012 EH3, has an overall height of

more than 16', helping technicians efficiently service even the tallest high-roof cargo vans such as the Ford Transit, Ram ProMaster City, Nissan NV and Mercedes-Benz Sprinter. It features a symmetric design that

keeps the van's center of gravity directly between the columns for maximum stability, an ideal setup for lifting work trucks and vans weighing up to 12,000 lbs. When equipped with Rotary Lift's patent-pending Shockwave technology, it offers a rise and descent faster than previous offerings.

**CATEGORY: Lifts, Jacks and Stands**

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### Innovative Products of America

Relay Bypass Master Kit with Amp Loop, No. 9038A

The **Innovative Products of America Relay Bypass Master Kit with Amp Loop**, No. 9038A, makes

DC motor activation and current monitoring easier than ever before, according to the company. The tool simplifies fuel injection testing and allows all 12V DC motors to be run with the push of a switch. By attaching an amp clamp or lab scope, technicians can monitor the current or amperage readings to judge the health of the DC electric motor to identify if a motor is drawing more current than specified, or if the current load is inconsistent during operation. This set includes six spade relays compatible with most foreign and domestic applications.

**CATEGORY: Electrical Systems**

Enter 181 at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)



### Mayhew Tools

Pro Ratcheting Hose Clamp Pliers, No. 28680

The **Mayhew Tools Pro Ratcheting Hose Clamp Pliers**, No. 28680, feature

a reinforced, flexible 5/64" cable; a pivoting jaw design to fit all hose clamps up to 2"; specialty bi-material hand grips with a snap feature for compact storage; and a ratchet lock with slide guide. Mayhew's pliers allow users to change the cable quickly, and the tool works on a wide range of hose clamps. If necessary, cable replacement is made easy. Replacement cables are available separately.

**CATEGORY: Specialty Tools**

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### Tech-Life Inc.

The Grid

The **Grid** by **Tech-Life** is the first all-in-one power solution for the modern technician's workspace, according to the company. This surge-protecting power station is designed with a flat top so that the technician

can plug in and store up to four chargers from their cordless tools on top of the unit, leaving five outlets free for any on-demand power needs. With the storage space on top, it takes up no more room on the toolbox than the chargers themselves, and helps eliminate the endless struggle to find power outlets that most technicians face every day. With nine power outlets, four 2.1A USB charge ports, surge protection, a 10' power cable and a three-zone power selector system, this power station aims to deliver all of the power a modern technician requires directly to the workspace.

**CATEGORY: Tool Storage**

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### Pico Technology

PicoDiagnostic NVH Kit

The **NVH Kit** from **Pico Technology** works with PicoScopes to quickly identify the source of noise and vibration concerns. Sophisticated software quickly pinpoints the source of the problem and the kit can be enhanced with accessories to also allow on-vehicle driveline balancing, according to the company.

**CATEGORY: Inspection Tools, Lab Scopes**

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### Snap-on Tools

MIG Welder, No. MIG160i

The **Snap-on MIG Welder**, No. MIG160i, offers quick changeover times to weld various material types including steel, stainless steel, aluminum and MIG brazing of high-strength steels. The machine

features a library of pre-programmed settings to coincide with each material type, providing users with optimal parameters for fast setup times. The easy-to-read LCD screen displays material types and welding parameters such as current, voltage, panel thickness, wire speed and wire diameter. A single dual-function knob selects material type and panel thickness, simplifying the setup process. Built-in compensation for condition changes on-the-fly automatically adjust amperage and wire speed.

**CATEGORY: Welding**



### KNIPEX Tools LP

Hose Clamp Pliers for click clamps, No. 85 51 250 C

The **KNIPEX Hose Clamp Pliers for click clamps**, No. 85 51 250 C, opens and closes click clamps quickly and effectively. The tool will not harm the clamps they're compressing, allowing them to be reused multiple times. The swivel tips allow access from multiple angles, and the push button adjustment helps users find the right adjustment position.

**CATEGORY: Hand Tools**

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**Snap-on Diagnostics**  
VERUS Edge, No. EEMS330  
The **Snap-on VERUS Edge**,

No. EEMS330, has a fully-integrated software suite, comprising diagnostics, component tests, expert information resources, a complete repair information system and vehicle data manager. Exclusive resources include SureTrack Real Fixes and verified parts replacement records, Fast-Track Troubleshooter and Guided Component Tests, along with direct access to OEM recalls, campaigns and TSBs. The built-in solid state drive, Internet browser and Wi-Fi facilitate open information access from anywhere in the bay. The thin, lightweight tablet-style device — complete with a touchscreen—boots up in a minute and from ‘ready mode’ in only five seconds. With up to five hours of battery life, it provides techs with OEM-specific coverage for more than 40 domestic, Asian and European makes and dozens of vehicle systems.

**CATEGORY: Scan Tools**

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**General Technologies Corp.**

Ignition System Analyzer, No. GTC505

The **General Technologies Ignition System Analyzer**, No. GTC505, is compatible with all common types of spark ignition systems. The GTC505 can display waveforms in real time, compare readings between cylinders and detect and display dwell angle and primary current ramp time. Additionally, the device can chart burn time, spark plug voltage, dwell/ramp time and rpm for each spark, allowing for the detection of misfires. It displays all this data on its 3.5” color TFT LCD screen. Its rechargeable Li-ion battery provides six hours of continuous use, and it passed the MIL-STD-810 drop test.

**CATEGORY: Engine Service and Repair**

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**Lock Technology**

Brake Re-threading Kit, No. LT993

The **Lock Technology Brake Re-threading Kit**, No. LT993, offers male/female combo sockets with a compact design. The kit allows the user to re-thread damaged ABS control module fittings; re-thread damaged brake wheel cylinders; re-thread damaged brake master cylinder fittings; and re-thread damaged brake line fittings. According to the company, these tools can perform work where standard tap and dies will not fit. The kit offers most common sizes in SAE and metric, including 3/8”-24, 7/16”-24, 1/2”-20; 5/8”-18, 10mm-1.0 and 12mm-1.0.

**CATEGORY: Brake Service**

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**Milwaukee Tool**

M18 FUEL 3/8” Compact Impact Wrench with Friction Ring, No. 2754-22

The **Milwaukee Tool M18 FUEL 3/8” Compact Impact Wrench with Friction Ring**, No. 2754-22, features the company’s Powerstate brushless motor with higher grade magnets than previous models.

The tool’s RedLink Plus Intelligence has been upgraded with better heat management capabilities. The tool offers a four-mode Drive Control that includes an auto shut-off function to stop the tool after it senses one second of impacting, which prevents over-driving fasteners and damaging materials.

The 5.9”, 4-lb impact offers 210 ft/lbs of torque and up to 2,500 rpm. The tool is available as a kit with two high capacity RedLithium XC5.0 2.0 compact battery packs (No. 2754-22CT) and as a bare tool (No. 2754-20).

**CATEGORY: Power Tools**

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**Snap-on Tools**

Wireless Battery System Tester, No. EECS550

The **Snap-on Wireless Battery System Tester**, No. EECS550, allows techs freedom to maneuver around a vehicle with the main module communicating via Bluetooth to the monitoring unit connected directly to the vehicle battery. This capability eliminates the need for a second tech to perform on-screen commands, ensuring greater productivity and shop efficiency. The menu and test results display on an easy-to-read, back-lit screen in eight languages. Engineered with patented conductance technology, the EECS550 detects discharged batteries down to 1V and tests 6, 8, 12 and 24V systems. This unit provides reverse polarity protection, and has an included printer. Unit weighs 3 lbs.

**CATEGORY: Battery Service Equipment**



**Phoenix Systems**

DOT 3/4 Anti-Rust Brake Fluid Treatment  
The **Phoenix Systems DOT 3/4 Anti-Rust Brake Fluid Treatment** is an additive used to reduce premature brake part failure and increase the boiling point of brake fluid. Technicians can add 1 oz of brake fluid treatment to the master cylinder, and within four weeks, the inhibitors will re-coat the brake system from the inside out, neutralize acidity and increase the boiling point.

**CATEGORY: Chemicals**

Enter 188 at “e-inquiry” on VehicleServicePros.com

**Electronic Specialties, Inc.**

Hands On-Line Electrical Training Cards, No. 186

The **Electronic Specialties Hands On-Line Electrical Training Cards**, No. 186, offer technicians a way to learn electrical trouble-

shooting through a hands-on training system where users can apply, solder and install all the parts onto the training cards. Each card becomes a working circuit that users build. The 16 training cards cover topics such as basic circuit construction, measuring resistance in parallel, series circuits, relays, diodes, starting system, brakes and turn signals, and more. These cards



can be used to supplement existing electrical training or as a way to increase troubleshooting proficiency. Dan Sullivan takes users step-by-step through the first 10 cards via YouTube videos. There are more than six hours of video training that applies to automotive, heavy duty, equipment and more.

*CATEGORY: Education and Training*

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**Phoenix Systems**

Coolant + Brake Fluid Test Strip

The **Phoenix Systems Coolant + Brake Fluid Test Strip** is a

double-ended test strip that can diagnose both coolant and brake fluid quality at the same time. Coolant + Brake Fluid combines the company's BrakeStrip and CoolantStrip. BrakeStrip



provides a visual reference for brake fluid copper corrosion levels.

It is recommended for use with all DOT 3, 4 and 5.1 brake fluid and follows MAP guidelines. CoolantStrip follows MAP, ASL and ASTM guidelines for coolant specifications. It also uses an integrated Glycol color metric scale, making it compatible for use with all coolant colors. It provides a visual recommendation for when it is time to correct or replace coolant. Coolant + Brake Fluid come 100 double-ended strips to a bottle.

*CATEGORY: Diagnostic Test Equipment*

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MATTERS**



**COMFORT BY THE NUMBERS**  
You risk a 16% decrease in productivity at temps of 92°F

**SAFETY**

Protect your workforce by cooling work environments with Portacool evaporative coolers. You can count on us to keep your workplace safer, cooler and more productive.

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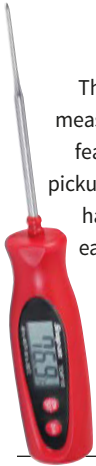
**SEMA Booth #10209**

### Snap-on Tools

Multi-Functional Thermometer, No. TEMP100

The **Snap-on Multi-Functional Thermometer**, No. TEMP100, measures temperatures from -58 degrees F to 400 degrees F and features a magnetic tipped protective sleeve that doubles as a pickup tool. The built-in magnetic pocket clip keeps the TEMP100 handy and offers the ability to mount to ferrous surfaces. The easy-to-read LCD screen displays both Fahrenheit and Celsius and has a "data hold" feature to maintain information. The narrow tip shaft provides faster, more accurate readings than thicker shaft units, according to the company, to verify HVAC system temps and check airflow vent temps.

*CATEGORY: Air Conditioning Service*



### Portacool

Jetstream 270

The **Portacool Jetstream 270** provides intense cooling power with airflow that can be felt up to 100 yards away.

With built-in handles and heavy duty casters, the mobile Jetstream 270 can cool large garages and shops, plus it is equipped with the company's KUUL Comfort evaporative media. The device cools up to 5,625 sq. ft., delivering air at 22,500 cfm and at a velocity of 26 mph. The liquid-level indicator has an automatic pump shut-off, and the large drain allows for easy, effective cleaning. The 90" high by 79" wide by 41" deep unit has a 65-gal reservoir, is made

in the U.S.A. and comes with the Portacool Protect lifetime warranty on evaporative cooler hosing against manufacturing defects as well as a three-year warranty on all electrical components.

*CATEGORY: Shop Equipment*

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### OTC

Hendrickson Suspension Bushing Tool, No. 4246

The **OTC Hendrickson Suspension Bushing Tool**, No. 4246, is designed for rear suspension work on heavy duty vehicles, assisting with pivot and D-pin bushing removal and installation. Because the patented design allows the tool to be mounted to the suspension piece, the weight of the tool does not need to be held in place during operation. It also includes centering adapters that align the tool and reduce the likelihood of bushing damage or improper installation. The included OTC 25-ton cylinder (No. 4106A) helps replace bushings, even if they covered in road dirt and salt.

*CATEGORY: Suspension*

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### SKF/Lincoln Lubrication Systems

Low-Capacity Drains

The **SKF Lincoln Low-Capacity Drains** collect used fluids from lift-mounted vehicles. Available in 8-gal and 18-gal models, these drains are designed for stability and efficiency. The drains adjust to the proper height using an adjustment clamp, and both models have an integrated oil filter drain shelf to eliminate the need for a secondary surface to drain the filter or to set tools. These drains have a durable polyethylene reservoir that prevents damage to vehicles and a splashguard to catch overspray. Casters enable movement and have over-molded steel inserts for long life. Besides a drain spigot, the 18-gal model features a bung port that can be used with a diaphragm pump system, while the 8-gal model has a drain cap.

*CATEGORY: Fluid Exchange*

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### Lisle Corporation

Multi-Application Oil Funnel, No. 19342

The **Lisle Multi-Application Oil Funnel**, No. 19342, helps eliminate oil spills when refilling crankcases, especially those with baffle valve covers. The 1.6-qt, translucent funnel comes with seven different color-coded adapters and a 45-degree elbow to work on many applications and save storage space. The spout should be used as a standard funnel only. The adapters fit crankcases securely, and the tethered lid and cap keep the funnel clean.

*CATEGORY: Oil and Lube*

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### Redline Detection LLC

Dual Purpose Diagnostic Leak Locator, No. 95-0130

The **Redline Detection Dual Purpose Diagnostic Leak Locator**, No. 95-0130, can diagnose all leaks, including low pressure for traditional vehicle EVAP/general repair and variable high pressure for turbo, diesel and heavy duty testing. The compact, durable machine offers variable pressure and variable flow, allowing the technician to adjust as needed to find even minuscule leaks in every type of vehicle. The all-in-one unit tests a complete fuel vapor recovery system, complete exhaust system, complete intake system, turbo and turbo housings, charge air coolers, all boosted engines, diesel particulate filter systems and diesel emission systems — without dyes or contaminants. The tool kit, with multiple adapters and accessories, comes in a durable case.

*CATEGORY: Leak Detection*

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**Rotary Lift**

Tech Light Line Light 4, No. FA5700

The **Rotary Tech Light Line Light 4**, No. FA5700, an LED runway light kit for heavy duty vehicles, helps eliminate bulky access obstructions to vehicle components when lifts are raised. The Line



Light 4 kit includes four long LED light wands that unobtrusively attach to the lift itself, freeing up the technician's hands. The Line Light 4 kit uses more than 600 LEDs — the equivalent of about four 75-watt incandescent bulbs — producing more

than 4,000 total lumens while remaining cool to the touch. The kit's four LED wands range from 50.5" to 56" long and can be connected in series to enable all lights to be controlled by a single switch.

*CATEGORY: Lighting*

Enter 200 at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)

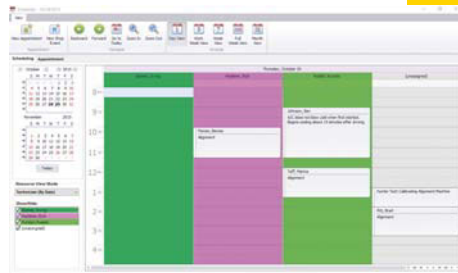
**Mitchell 1**

Manager SE – Scheduler

The **Mitchell 1 Manager SE Scheduler tool** allows

auto repair shops to visually manage their workload and improve workflow by maximizing available resources, including technicians, bays and specialty equipment. Now shops have


the ability to see and control all aspects of their scheduling process with a searchable, sortable and configurable calendar system. Color coding and drag-and-drop functionality make it quick and easy to set customer appointments, schedule equipment and manage the overall calendar. With a few clicks, shops can create orders directly from the calendar, add a canned job to an appointment, schedule non-customer shop events and more.




*CATEGORY: Computers and Software*

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AAPEX Booth #952

**A**s we prepare for **AAPEX and SEMA 2016**, we have got a sneak peek of some products that will be on-hand at these shows. Check out some of the products that will be on display this year.



**Improve cycle times and provide more accurate repairs**

The **asTech remote diagnostic device**, from **Collision Diagnostic Services**, is designed to help repair shops improve cycle times, provide more accurate repairs, and improve customer satisfaction by allowing users to see what can't be seen with the naked eye. The repair technician connects the asTech device to the battery supported vehicle, which communicates via the internet to the OEM factory scan tool, operated by a master technician. The master technician completes the diagnostic scan and sends a full report directly to the shop.

**SEMA Booth No. 16015**

**Circle 204 on card, or enter at "e-inquiry" on VehicleServicePros.com**

**Eliminates the need for permanent install**

The **Master Magnetics Magnetic Paper Towel Holder** offers an adjustable magnetic fixture to keep paper towel rolls, cleaning wipes, sterile glove boxes and other items neatly stored and accessible. This device eliminates the need to permanently install fixtures or use screws and anchors.



**AAPEX Booth No. 1664**

Instead, the **Magnetic Paper Towel Holder** can be repositioned on any flat, ferrous metal surface. With sturdy, black metal housing, the non-scratch liner on each magnetic base prevents scratching or marring of metal surfaces. The 2.625" diameter by 4.625" longer holder offers an adjustable depth knob from 1" to 3" and a 6" roll diameter capacity.

**Circle 205 on card, or enter at "e-inquiry" on VehicleServicePros.com**



**AAPEX Booth No. 1162**

**360-degree rotating magnetic light**

The **Ullman Devices 360-degree Rotating Magnetic Rechargeable Work Light**, No. RT-750LT, features a 10W CREE XPL LED and provides 750 lm. A strong magnetic base attaches to ferrous metal areas and the rotating head to easily position the light beam to the needed angle. The light features a 3.6V 200mAh Samsung Li-ion rechargeable battery and comes with a USB / wall charger.

**Circle 206 on card, or enter at "e-inquiry" on VehicleServicePros.com**

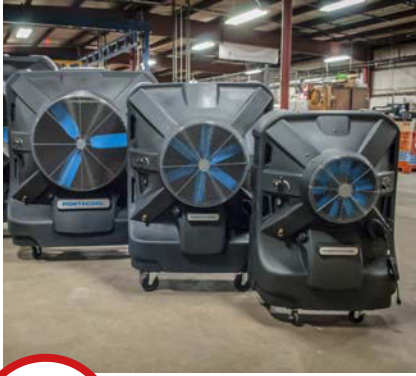
**Heats metallic objects without an open flame**

The **Bolt Buster Heat Induction Tool**, No. BB2X, eliminates the hazards of working with a torch. According to the company, the BB2X has 1,800 watts of power to speed up the heating process and can get a 3/4" nut red hot in seconds. The Bolt Buster heats up anything metallic, without an open flame. Torchless heat induction is a time-saving alternative for removing side moldings, seized or thread locked bolts, nuts, bearings, frozen calipers and more. The BB2X comes with a complete coil kit and full warranty. It is made in the U.S.A.



**SEMA Booth No. 11342**

**Circle 207 on card, or enter at "e-inquiry" on VehicleServicePros.com**



SEMA  
Booth No.  
10209

### Provides airflow for hot working environments

The Portacool Jetstream series of portable evaporative coolers feature designs engineered to generate airflow and provide cooling options for a variety of hot working environments. The Portacool Jetstream 240, 250, 260 and 270 are equipped with KUUL Comfort evaporative media, to provide maximum cooling comfort. Available in four sizes, there is a Jetstream portable evaporative cooler option to cool the garage and shop areas ranging from 1,125 to 5,625 sq. ft. These coolers include features such as the liquid level indicator with automatic pump shut-off, a large drain that allows for easy and effective cleaning, built-in handles and casters for easy mobility. These coolers come with a lifetime warranty on evaporative cooler housing against manufacturing defects, and three-year warranty on all electrical components. Made in the U.S.A. **Circle 208 on card, or enter at "e-inquiry" on VehicleServicePros.com**

### Completely remove burnt in corrosion

The Mueller Kueps Inner Rim Cleaner, No. 433 507, prevents corrosion related distortion of wheel bolt tightening torque and allows the user to completely remove burnt in corrosion. Designed to clean the inner wheel contact surface, it should be used only on the inside of an aluminum rim, particularly the inner area prior to wheel balancing. Due to the porous abrasives and a cup shaped grinding plate, there is minimal dust, and the Velcro adhesive makes it easy to change out. It has been optimized for the latest wheel rims with an enlarged diameter of 75mm.

**Circle 211 on card, or enter at "e-inquiry" on VehicleServicePros.com**



SEMA  
Booth No.  
10323



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The MAHA MAPOWER II 5.5 is a two-post lift with a capacity of up to 12,000 lbs. It is part of the MAPOWER II series. MAHA's redesigned two-post lifts incorporate functions to enhance usability and maintenance operations. The lift's optional Wi-Fi connection enables the lift to communicate with a service provider through the internet independently or on operator request. The option of a second control unit on the opposite column improves efficiency. Each support arm is designed to swing over the floor, not the base plate, allowing a low drive-over height.

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### Choice of 14 models

The Florida Pneumatic AIRCAT 6700 Series Low Vibration Lube Free Orbital and Geared Sanders offer a choice of 14 models in 3/32" and 3/16" orbit options. The double-sealed, lubrication-free motor prevents dust contamination of the air motor and eliminates the need for oiling. The tools have a smooth design throttle lever and ergonomic grip for comfort, and only consume 1.6 cfm on average and 6.2 cfm continuous running under load. Non-vacuum, central vacuum and self-vacuum options are available, while pad options include 3", 5", 6" and 8" hook and loop. The sanders include anti-vibration motors and silencing technology that reduces noise levels to 75-78 dBA. The lightweight, low-profile orbital and geared sanders will be available in January 2017.

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SEMA  
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10379

# Recognizing and addressing GDI ISSUES

While Gas Direct Injection has improved since the early adoption of this technology, carbon buildup can still be an issue shops must address.

By Barry Hoyland, Contributing Editor



▲ The BG VIA Vehicle Injection Apparatus allows technicians to deliver the necessary additives or cleaners to the fuel injection system - including both PFI and GDI applications. The difference is the type of cleaner added to the system, based on company recommendations.

**L**ess than 10 short years ago, the technology which is most widely known as Gas Direct Injection (GDI) was being used on under 5 percent of the cars being built. Due to stronger requirements to meet CAFE (Corporate Average Fuel Economy) standards mandating vehicle manufacturers improve fuel economy of their entire fleet, its use in 2015 went up to approximately 45 percent of gasoline-powered vehicles in the U.S. The utilization of GDI is expected to approach 70 percent over the next few years.

▲ The BG Air Intake System Cleaning Tool, No. 9209, an attachment used on the BG VIA apparatus, finely atomizes BG GDI Intake Valve Cleaner for safe, effective cleanup.

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With any new technology, there can be growing pains where early systems can have issues that later changes overcome. In the case of GDI, improvements to the systems have not only overcome many early problems, but have also improved the effectiveness of the system and further increased fuel economy.

In order to understand GDI and the differences in diagnosing drivability concerns with it versus traditional fuel injection systems, it is important to be familiar with the basics of a GDI system.

## TOOLS USED:

- Scan tool
- Fuel pressure tester
- Vacuum gauge
- Lab scope with pressure transducer
- Borescope
- Combustion and fuel system cleaners
- Approved solvents for carbon cleaning

Traditional late-model Port Fuel Injection (PFI) systems utilize a pulse width modulated low-pressure fuel pump (typically under 50 psi) without a fuel return system that prevents hot fuel returning to the tank. Fuel injectors receive this fuel through a common fuel rail, and then distribute fuel into the intake port where it mixes with air while being delivered to each cylinder through its intake valve.

Most GDI systems use a pulse width modulated low-pressure pump just like a PFI system. The difference with GDI is that the low-pressure system delivers fuel to a camshaft-driven high-pressure pump where the fuel pressures can be increased to as high as 3,000 psi. This fuel is then delivered to injectors that are placed directly into the combustion chamber. The high-pressure fuel is mixed with air in the combustion chamber rather than the intake manifold thereby atomizing it better, allowing more complete combustion as well as improved fuel economy. This process allows for a leaner overall air/fuel mixture that is burned without creating excessive emissions.

Newer versions of GDI systems are relatively free of trouble, while some of the earlier versions had significant issues. Most of the problems with GDI stem from carbon buildup in the intake system. There are a few notable instances of other issues with GDI systems, mostly related to the high-pressure pump. We will be discussing some of the common issues and how to best utilize the necessary tools to diagnose the problem. The primary symptom of GDI system issues tends to be rough idle after starting.

## VEHICLE AFFECTED:

All vehicles with gas direct injection (GDI)





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## 1 DUPLICATE THE CUSTOMERS CONCERN

As always, the first step in diagnosing a vehicle is confirming the condition exists in the conditions the customer states the issue occurs. By doing this, you will also be able to confirm you have completely and correctly repaired the vehicle.

## 2 SCAN THE VEHICLE

Scan the vehicle to check for any fault codes. Note any codes that are present as well as any freeze frame data. It is also a great idea to see if all the monitors have been completed and to check the results through Mode \$06 in your scan tool to determine if any of the monitors are close to failing or if they are within the normal range. Monitors that are close to failing can assist you in diagnosing intermittent issues. You may also be able to use Mode \$06 to detect which cylinder or cylinders are misfiring.

Observing data PIDs such as coolant, intake air and fuel temperatures can give clues to possible issues. Coolant temps that are too high can be signs of internal engine issues that may cause symptoms similar to what was experienced. Fuel or air temp PIDs that are not normal can also assist in your diagnosis.

As with any diagnosis, both short and long fuel trim values can contribute valuable clues to determine how the engine management system is adjusting the fuel mixture to the engine.

## 3 OBTAIN VEHICLE INFORMATION

After confirming the issue exists and when it occurs, you are equipped with enough data to utilize your information resources, such as Mitchell 1 ProDemand, to determine if any TSBs are available. Since GDI implementation is relatively new, there are many relevant TSBs ranging from mechanical or electronic component replacement to reprogramming PCM strategies.

An example of mechanical failure on some of the early VW GDI applications is the camshaft lobe that drove the high-pressure fuel pump would wear prematurely due to extra pressure from

the pump. The symptom of this is lower-than-expected fuel pressure on the high-pressure side with the PCM commanding higher-than-normal pressure. The repair of this issue was to replace the camshaft and high-pressure pump.

Another mechanical failure example includes the high-pressure pump leaking fuel into the crankcase. The symptom of a leaking pump is fuel in the crankcase. The TSB recommends replacing the pump and completing two successive oil changes to remove excess fuel from the crankcase.

Using your vehicle information system can not only help you discover a common issue quickly, but also to determine the recommended repair for the failed component(s).

## 4 PERFORM ADDITIONAL DIAGNOSTIC TESTS

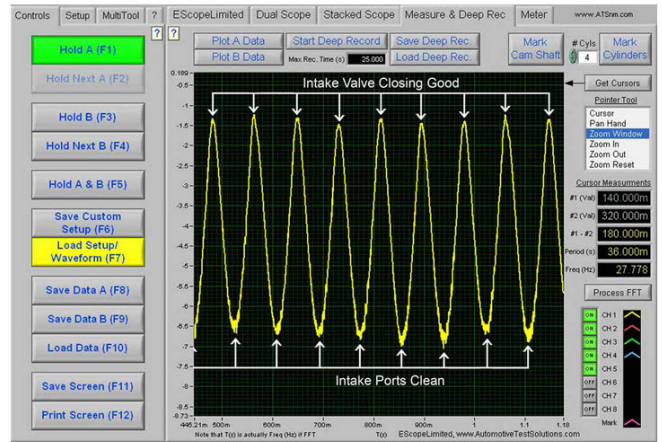
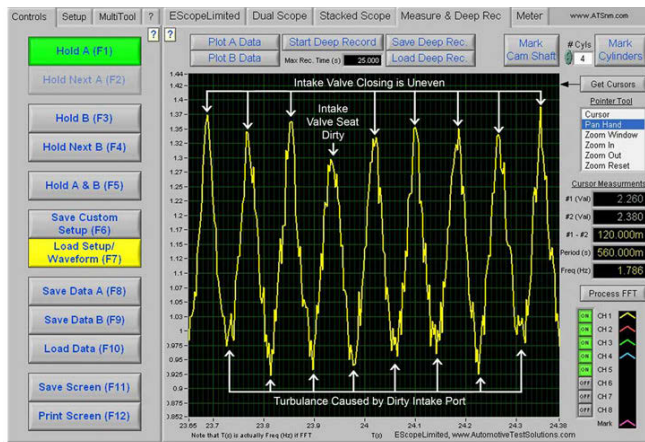
Once you have determined if there are any DTCs and/or TSBs, it is time to utilize some other necessary tools.

GDI systems require the low-pressure system be capable of delivering the correct volume of fuel at the correct pressure to the high-pressure pump. One of the first tests you should perform is a pressure and volume test on the low-pressure system. We use the Mityvac MV5545 fuel system tester to complete this test. This kit has a fuel pressure gauge as well as a flow meter to test the volume of fuel being delivered. Keep in mind it is necessary to use your scan tool to command the pump to operate at 100 percent.

Due to the extremely high fuel pump pressure, GDI high-pressure tests cannot be performed with a mechanical tester, you must observe the fuel pressure PID using your scan tool.

Another useful test is to use your vacuum gauge to measure engine vacuum at an intake manifold vacuum source. Engine vacuum is not only an indicator of the mechanical condition of the engine, but results of vacuum testing may lead you to find carbon deposits causing rough idle symptoms.

Carbon buildup on intake valves in GDI systems are caused by a couple of things. On most GDI systems no fuel is injected into the intake system, so blow-by →



▲ This screenshot from a lab scope shows the cranking vacuum using a transducer before (left) and after (right) the intake was cleaned.

gases and oil residue are not “washed” from the back of intake valves. Heat from EGR systems, or heat generated from exhaust valve timing, may bake the residue into hard carbon deposits. The carbon deposits then create turbulence in the air flow entering the engine through the intake valve and can cause an uneven mix of the air and fuel. If the carbon deposits are significant, a vacuum gauge will show both a lower-than-expected reading and may show slight pulsations of the needle.

A more precise tool to perform this test is a lab scope and a pressure transducer. Since you are able to set the time of the waveform, you can see the vacuum pulsations more easily with the lab scope. Connect the transducer to a manifold vacuum source and to your lab scope. Disable the fuel pump and/or the ignition and crank the engine. The waveform will show uneven amounts of vacuum as well as some “hash lines” indicating turbulence in the intake system.

## 5 DETERMINE THE EXTENT OF CARBON

One of the best ways to determine how severe the carbon issues are, and therefore the best way to repair the issue, is to use a borescope.

Using the borescope to look inside the cylinders through the spark plug hole may not show much carbon. Typically, most carbonization issues occur in the intake valve, while the tops of the pistons remain fairly clean.

Accessing the back of the intake valve to observe how much carbon is built up

on the valve stem and back of the valve usually involves removing the intake plenum, then inserting your borescope into the intake valve area. If significant carbon is detected, there are a few different options available to remove it.

## 6 REMOVE THE CARBON

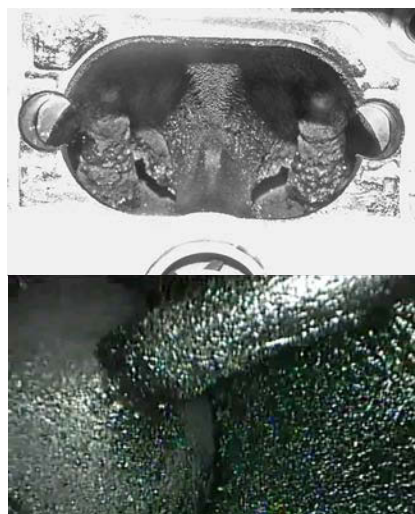
The best way to remove carbon is to follow the vehicle manufacturers’ recommended procedure, which can usually be found by looking at TSBs or service campaigns in your vehicle information source.

There are both induction and fuel injection cleaners available to the aftermarket. Cleaners can be a chemical additive or a chemical that is introduced to either the fuel system or intake system. Fuel system cleaners are commonly known as fuel

injection cleaners and work well to clean fuel injectors as well as intake ports and valves on PFI systems engines. However, even though fuel system cleaners will work to clean fuel injectors on GDI systems, they will not help clean carbon deposits in areas where fuel does not reach. Intake system cleaners, more widely referred to as induction cleaners, are introduced into the intake manifold or throttle body where they can be distributed throughout the air induction system and reach areas where a fuel additive could not get to on a GDI engine, such as the back of the intake valves.

Some of the established de-carbon methods include using approved solvents and delivering them through the intake system using an apparatus to dispense these fluids, such as the OTC 7448 or 7448A Fuel Injection Cleaner Canisters.

We have had years of success using BG Products, such as the BG Fuel Injection



▲ Examples of major (top image) and minor (bottom image) intake valve carbon buildup, taken with a borescope.

Images provided by: Automotive Test Solutions



▲ Accessing the back of the intake valve to observe how much carbon is built up on the valve stem and back of the valve usually involves removing the intake plenum then inserting a borescope, like the ATS IC Inspection Camera, into the intake valve area.

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## Video



To watch a short video showing carbon buildup in a direct injection port, using the ATS Borescope, visit [VehicleServicePros.com/12262725](http://VehicleServicePros.com/12262725)

System Cleaner and BG Air Intake System Cleaner delivered to the injection and induction systems, using the BG VIA Vehicle Injection Apparatus. This process has worked well on PFI applications. Addressing the demand for quality induction and combustion system cleaners for GDI systems, BG recently introduced products to effectively clean carbon deposits on GDI systems with their BG Fuel Injection & Combustion Chamber Cleaner and BG GDI Intake Valve Cleaner, which are also delivered to the system with the company's BG VIA Vehicle Injection Apparatus.

Other methods include closing each intake valve in turn and using a pick and brush to loosen the carbon through the intake port, then vacuum the material from the intake area.

Extreme cases of carbon may be cleaned by using a media blaster loaded with walnut shell material through the intake ports and vacuuming the residue.

Care should be taken in any cleaning method to assure hard carbon deposits are removed completely so they are not sucked into the engine or the turbo charger (if equipped), where they can cause significant damage.

## 7 PREVENTING FUTURE ISSUES

You can assist your customer in preventing future carbon issues by convincing them to perform regularly

scheduled oil changes with the correct oil. It may not be a good idea to use aftermarket air filters that use oil as the oil may leave a residue in the intake port that may turn into carbon. Regular maintenance of the PCV system will also reduce the possibility of carbon deposits. Most vehicle manufacturers also recommend the use of Top Tier fuels in GDI system vehicles. Another way to assist in keeping carbon in check, especially in cold or humid climates, is to drive the vehicle on trips long enough to warm up completely and burn off moisture in the crankcase.

All in all, GDI looks to be the future of fuel injection, and there will be improvements that will take care of issues like carbonization. Some of the newest technology includes using a port fuel injector to assist with cleaning the intake port combined with a GDI injector to get the best of both worlds. **P TEN**

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AAPEX Booth #1550

# Top 10 Tools



## Tools to complete the mission

Randy Begin's mission is to restore the integrity and respect of the automotive industry one repair shop at a time. He uses these tools to progress toward those goals.

*By Josh Smith, Contributing Editor*

**TECHNICIAN:** Randy Begin

**LOCATION:** San Diego, Calif.

**SHOP:** Mission Hills Automotive and Cass Street Automotive

Randy Begin is the owner of Mission Hills Automotive and Cass Street Automotive, both located in San Diego, Calif. He is an ASE Certified Master Technician, and is L1 and L2 Certified, in addition to being a California certified smog inspector. He says his mission is to restore the integrity and respect of the automotive industry by taking over and improving automotive repair shops one at a time.



Want to show off YOUR Top 10 Tools?  
For more information, email  
[Editor@VehicleServicePros.com](mailto:Editor@VehicleServicePros.com).

**1** Begin says he never leaves home without this necessity. "Too many uses to list, plus if you have a good one, the magnet on the other end is a life saver," he says. "Sometimes the simplest tools are the most important."

**2** Describing it as a must for anyone servicing or repairing VW and Audi vehicles, Begin says this tool is simple to use, comprehensive and can scan every module on vehicles. Plus it prints out a report. "It saves all coding data on the first pass, so if you change a part that requires coding, you have the information," he explains.

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**3** Begin likes that this hoist can be mounted flush so that any vehicle with more than 1/2" ride height can be aligned and serviced, adding the equipment opens up many profit avenues. "The number of factory lowered vehicles is only going to increase due to the fact lower is more efficient," Begin notes. "Plus with this rack you can go after the high-end alignment business. Combine that with all air suspension vehicles that are super low when collapsed, this rack is a money-maker."

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**4** This camera has a Wi-Fi hotspot that transmits to a phone. Begin mounts the device to a suspect area of the vehicle by using the camera's suction cup, and then he watches suspension movement, front end vibrations, drive train shifting and more in real time. Begin cautions safety, adding its best to watch this video from the passenger seat while someone else drives.

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**5** "It connects to a laptop and allows easy inspection, but, more importantly, easy recording and emailing to customers," Begins explains, calling this inspection camera a requirement for shops that want to keep customers informed.

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**6** Begin concedes this information source is not a traditional tool. "But if you are not using it, you are missing out on a wealth of information and other people's experiences," he says.

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**7** The welder identifies and sets the machine up for whatever power source is available at that time. "Simply switch the included plugs and go from 110(V) to 230/220(V) in a snap," says Begin. "Welds more thickness than any shop should tie into."

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**8** These tools are "a blessing" for Begin, adding the wrenches are time-savers and assist productivity in many ways. "With cars trying to cram more into less space, the GearWrench is the latest must-have hand tool for the line tech of the 21st century," he says.

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**9** "I am a tech from the (19)80s, and I owned every possible air tool available. They were time-savers on steroids," Begin recalls. "Now, with the advent of Li-ion battery power and longevity, the handheld 3/8" battery-powered ratchet is a must." Not relying on air hoses or lubing air tools every day is an added benefit to using the cordless ratchet.

**10** "The air compressor is one of the loudest noises in the shop, but not anymore," Begin says. "With screw type compressors, you can work right next to the unit running at full output and have a normal conversation. Wow, the new technicians today really have it good."

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1



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## Cal-Van Tools Amp Hound 2

The reviewer says this tool is great for helping save technicians valuable time.

by Mike Schmidt, Managing Editor



### PRODUCT DESCRIPTION:

The Cal-Van Tools Amp Hound 2, an amp meter for fused circuits, offers real-time readings of current and amps in a fused circuit without removing the fuse. By touching the probes to the top of a fuse, users get a reading. It works on Mini-LP and Micro-Fuse fuse types, as well as with mini, standard and maxi fuse types. A tone alerts users when the tool is touching the fuse, making underdash work simpler. When troubleshooting components, the user can go to the fuse box to check current/ampage instead of the component itself. The fuse adapters lock onto the fuse for hands-free control.

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**T**he Cal-Van Tools Amp Hound 2 is a tool that will save technicians time.

An amp meter for fused circuits, the Amp Hound 2 offers its users real-time readings of current and amps without the need for them to remove the fuse. When Barry Hoyland, owner of Vehicle Service Solutions of California, tested the tool on a number of vehicles, he came away quite impressed by the Amp Hound 2's performance and capabilities.

Hoyland commends the Cal-Van offering for its ability to allow him to connect directly to a fuse, relay or battery in order to read circuit draw in amps, without having to perform the math necessary to convert voltage to amps. He employed the Amp Hound 2 to test for a parasitic battery drain on a 2011 GMC Sierra, and he also used it for testing several component issues, including an A/C blower and window motors on various vehicles.

"This tool saves time and provides the ability to check if a component is drawing too many amps, a circuit has a parasitic drain, or if there is excessive resistance in a circuit," says Hoyland.

According to Hoyland, the Amp Hound 2 arrived in a carrying pouch complete with fuse adapters and cords for connecting directly to a circuit. A user manual was also included, in addition to instructions on how to use the tool printed on the back of the unit Hound 2.

"The Amp Hound 2 includes an easy-to-follow instruction manual on the use of the tool," Hoyland says. "The manual has appropriate safety precautions as well as comprehensive instructions for both novices and experts in automotive amperage testing."

For updated versions, Hoyland says providing a set of alligator clips with the Amp Hound 2 would improve

the functionality of the tool for more technicians.

In terms of set-up, all Hoyland says he needed to do to get the Amp Hound 2 up and running was unwrap the tool and the fuse adapters that were included with it. He quickly found that it was easy to use, and he also noticed and appreciated both the tool's compact size and that all of the necessary fuse connectors were available in one kit.

Overall, Hoyland thought highly of the tool for a number of reasons. One significant one, he says, is that the fuse connectors included with Amp Hound 2 allow a technician to easily connect a lab scope to a circuit for waveform analysis without the need to install jumper connections.

"And, since you are able to connect directly to a fuse, it saves time," he adds. **PTEN**

## TraXion BigFoot ProGear Roll Seat

A roll seat at the right height like this one is a necessity for this reviewer, who doesn't use overhead lifts in his shop.

by Vesna Brajkovic, Assistant Editor



**I**n shops that don't use overhead lifts, a seat at the right height is the difference between a technician working comfortably or having to spend hours sitting on his or her knees to work on vehicles.

For Eric Moore, owner of DeMary Truck in Columbus, Ohio, the TraXion Bigfoot ProGear roll seat is at the optimal high to sit and work on the vehicles in his shop, which are raised up via floor jacks 18" to 23" on average. At that height the vehicle's axle is about waist high, making it too high for technicians to work on the axle sitting on the floor, and too low to stand and work.

Because of this the ProGear Bigfoot was mainly used for brake- and battery-related jobs, and it saw a lot of use when replacing caliper pads and rotors on the Mitsubishi-Fuso trucks DeMary Truck often services.

Moore said the seat is very sturdy, and rolls seamlessly under any type of weight from the technician.

Moore's shop floor has some cracking and pitted concrete which caught the wheel of the Bigfoot seat, but, as Moore says, "anything less than a pneumatic tire will always get caught that way." He says his other mechanic seats in the shop, which have little casters, do much worse combatting the pitted concrete.

There is some assembly required before using the Bigfoot roll seat, and

it comes with a round plastic tray, called the Spinning Gear Tray, that spins 360 degrees and sits on the lower frame of the seat.

For Moore, the removable Spinning Gear Tray feature needed some improvement to work in his shop. He suggests a more secure, trimmed back tray, so the tray wouldn't get caught on work boots, which he saw happen occasionally. Ideally, he would rather have a clip or spring-loaded bearing with a lip so it can still be removed.

"While [the tray is] a nice feature, and very usable, our environment didn't support it," Moore said. "The tray is not secured to the chassis, so it was knocked off a lot, and eventually we just removed it. One of our guys put it on his tool cart and uses it for a parts tray. We considered putting a couple screws through it into the chassis to secure it, but that takes

away from the design for it to be able to spin 360 degrees."

Aside from the suggested changes to the tray, Moore confirmed the TraXion Bigfoot ProGear roll seat was a "good product" and "very simple and easy to use." **PTEN**

*Manufacturer's note: TraXion Engineered Products values the feedback from technician reviews. In the PTEN review of our Bigfoot ProGear Roll Seat we understand the reviewer's frustration with the tray, and have redesigned the tray. The tray is now removeable with carry handles, and fits within the frame. The updated tray will be available in early November 2016.*

### PRODUCT DESCRIPTION:

The TraXion BigFoot ProGear Roll Seat features large 4" Speed Casters to provide excellent mobility on most shop floors, and an upholstered seat padded for extra comfort. The large Spinning Gear Tray spins making it easy for technicians to locate tools and parts, and is also removable and portable so users can take the tray along to the tool bench, load it with the tools and then head back to the seat to work. The deep well center accommodates cans or other tall items, and the tray spins for easy access to all of its contents. The seat has a non-porous material for easy cleanup.

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## SABER 700-lm COB LED Rechargeable Tube Light

The bright light produced by this unit helps these reviewers work efficiently under the hood.

by Josh Smith, Contributing Editor

**W**hen working under the hood, a technician must be able to see in order to be productive. According to Eric Moore and Phil Fournier, the SABER COB LED Rechargeable Tube Light projects ample brilliant light where it's needed most.

"It is very bright, and bright lights help pinpoint problems faster than hunting for problems that could have been illuminated with more light," says Moore, co-owner of DeMary Truck in Columbus, Ohio.

"The light is incredibly bright with a reasonably long battery life," adds Fournier, owner of Phil's Auto Clinic

### PRODUCT DESCRIPTION:

The SABER 700-lm COB LED Rechargeable Tube Light, No. ATD-80377, is bright and durable. The SMD LED top light provides an additional 50-lm flashlight function. This light is designed to hold up in tough shop conditions because of its heavy duty, rubberized handle and impact-resistant, ergonomic housing. It is IP54 rated for dust and water resistance, and it features two removable swivel hooks with strong magnets to allow hands-free use. The Li-ion rechargeable battery provides three hours of continuous runtime with consistent light output.

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in Hemet, Calif. "It is the best light for broad under-hood lighting that I have ever used, in a very compact setup."

The only setup required is fully charging the light. Then, Moore says, it's very easy to use, noting the device utilizes a single-button on/off switch which toggles the light between pinpoint, low and high settings.

In addition to the charger and a single-page instruction sheet, the light comes with two clips with magnetic backs as well as swivel hooks that allow the light to be hung in the work area.

"The previous lights we tested did not have any mounts, but were plenty bright," Moore says. "This one has it all."

Fournier also appreciated the mounting options, noting he used the tool to troubleshoot modules or wiring deep in the engine compartment where he could not see the wiring colors. He also used it to light up a BAS module located in a difficult-to-see fender area, as well as

troubleshooting cooling fan connectors in a poorly lit location. "It also worked great for doing a valve adjustment on a Honda Odyssey minivan," he adds.

"For an old guy like me with bad eyes, the brightness is both necessary and very helpful," Fournier says. "I like the fact it also can be used as a flashlight with a beam on the end as well as the side – though I mostly used the side lighting."

Impressed that the battery life lasts nearly five hours when fully charged, Moore points out that the SABER Tube Light can be used with the AC adapter plugged in, too.

While the magnetic mounts held up well, the plastic clips eventually became loose and Moore used a small dab of epoxy to keep them in place. He suggests adding a Velcro strap as a possible improvement. Replacement clips are also available from the manufacturer.

Other than this improvement, Fournier says he was impressed by the SABER COB LED Rechargeable Tube Light, overall.

"I was a little worried about durability," he explains. "But so far the light has been dropped several times and is holding up okay." **PTEN**



## Noregon Systems JPRO Professional

The reviewer says this tool offers a number of capabilities and helps technicians do their jobs more efficiently.

by Mike Schmidt, Managing Editor



### PRODUCT DESCRIPTION:

Noregon Systems subscription-based JPRO Professional software with the 2016 v2 update includes the Next Step feature, which allows users to read and diagnose an entire truck in one pass, in under one minute, from one screen by providing technicians over 44,000 OE level fault codes and detailed repair information. With an emphasis on easy-to-understand graphical interface, vehicle systems are listed and can easily be seen in one location on one screen, and FMI assistance has been added to easily find, read and understand FMI definitions. Improved functionality was also placed on Cummins and Detroit Diesel engines, as well as heavy duty emissions fault support. Users now have the ability to read and clear HDOBD and emission faults. Additional features such as fuel injector calibration and increased bi-directional capabilities are also included with this version.

Circle 230 on card, or enter at "e-inquiry" on [VehicleServicePros.com](http://VehicleServicePros.com)

**T**he word "fast" is used early and often when Travis Whitehead talks about Noregon JPRO Professional diagnostic software.

The service manager at Greensboro, NC-based McCarthy Tire Service says he greatly appreciates that JPRO works on a wide range of heavy duty vehicles, and it allows him to obtain access to troubleshooting codes for any sub-system on that vehicle quickly and easily.

"This tool does it all, it's all rolled into one, and it gives you everything you need to know in a matter of seconds after you plug it in," Whitehead says. "It's really fast."

According to the service manager, he and others at McCarthy Tire Service conduct quite a bit of preventive maintenance service work and alignment work on vehicles. In addition, he uses JPRO for brake work, wheel-end work,

resetting dashboard lights, exhaust gas recirculation diagnostic testing and other diagnostic work.

The facility sees a number of fairly large carriers, many of which run International ProStar product and Freightliner Cascadia vehicles. JPRO, he says, serves as a convenient means to provide him with the requisite information he needs to advise clients on what they should do with their vehicles.

JPRO was developed to service a wide range of fleet sizes, from smaller independent facilities to larger dealerships.

"It is a great tool for a shop that's servicing medium-sized fleets," adds Whitehead, also noting that the setup of the tool is quite fast as well. "This tool, when you hook it up, is a one-stop shop. It connects to (the) VCM that truck has, and it gives you feedback from every message center."

Another significant benefit of using JPRO, continues Whitehead, is it allows for him to print out a report and give it to his customers. This allows for those customers to see a "snapshot" of the vehicle to determine whether or not they immediately want a problem addressed.

"It's also really user-friendly," he adds. "It's just plug and go."

While Whitehead can perform manual diesel particulate filter regenerations on certain vehicles using JPRO, he says he wishes it allowed for him to do so on every vehicle that enters McCarthy Tire Service.

Overall, Whitehead thinks quite highly of the latest version of Noregon's JPRO Professional diagnostic software.

"It pretty much does what I expect it to do," says Whitehead. "It's lived up to its expectations, and so far I have no complaints. The biggest thing is its fast. That's what amazes me, is just how fast you can utilize it." **PTEN**

# Category Spotlight

Shop Equipment and Tool Storage

In addition to product details on a specific category, this section now features a number of different resources on this subject. Use the key below to determine what type of content you're reading.

 PRODUCT

 VIDEO

 ARTICLE

 ASK THE EXPERTS

 TECH TIPS

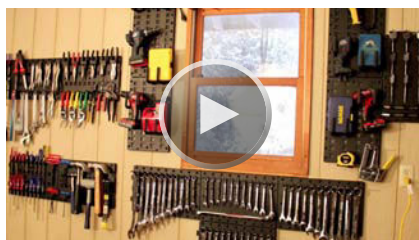


## RECESSED HANDLES AND HIDDEN FASTENERS

The **Borroughs Automotive Workstation** features lower cabinets with modern aesthetics, including recessed handles and hidden fasteners. Additionally, it offers tool drawers consisting of heavy duty steel construction, with a capacity of 400 lbs. The upper cabinets boast a soft close feature, allowing them to be lifted with one hand. Other components include lift control cabinets, reel cabinets, shelf cabinets and more.

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## VIDEO: HANSEN GLOBAL TOOLHANGER



**To watch a video demo of this product, go to: [VehicleServicePros.com/12196479](http://VehicleServicePros.com/12196479)**

## HOW ONE SHOP TACKLED THE PROBLEM OF TRYING TO ORGANIZE SPECIALTY TOOLS

Technicians at Bitterroot Motors in Missoula, Mont., were seeing red—that is, red plastic totes full of specialty tools. For every new car model, the Ford dealership receives one of these cases full of specialty tools from the manufacturer, and about 100 cases had piled up. The more tools the dealership received, the harder it got to keep track of them. Technicians would use a tool then leave it on their bench or put it in their own toolbox. Or they would put it back in the red case but leave the case where they were working. This inefficiency was costing many hours as techs searched for tools, in some cases, only to find that the tool they needed was missing.

"Our techs were constantly looking for tools," recalls Chuck Pummill, Bitterroot's technical service manager. To help dealers like Bitterroot, Ford asked Vidmar to develop an inventory control system that keeps all of these specialty tools in one place and easy to track. Called "Rotunda," it consists of four Vidmar cabinets with a total of 52 tool drawers, plus overhead cabinets for bulk storage. A master index leads the tech to the appropriate drawer, where a laminate liner indicates the tool's location with a picture of the tool and the tool number.

Dealerships have different options for how to keep track of who is using what tool. Some keep the cabinets in the parts department and require techs to check the tools out. Bitterroot has found it more efficient to furnish techs with a set of personalized dog tags, which they place in the drawer when they remove a tool.

Bitterroot was one of about 50 or so Ford dealerships to have the Rotunda system in place at the beginning of 2006.

Pummill credits it with a big savings in time and money. "The Vidmar drawer system is absolutely wonderful," he says. "The techs love it, and the time wasted looking for special service tools has been reduced tenfold."

Moreover, with the dog tag system, individuals are accountable for every tool they remove from the cabinets, and the drawer system makes it very easy and quick to do a tool inventory.

"Now it is very rare that we can't find something quickly," Pummill says.

*Information provided by: [Stanley Vidmar](http://StanleyVidmar.com)*



## LOW OPERATING TEMPERATURE

The **BendPak Hush-Quiet 7.5hp Rotary-Screw Air Compressor, No. RS7580H-603**, is designed to meet the compressed air demands of high-volume tire shops, general maintenance and fleet shops, vehicle body and paint facilities or automotive dealerships. The compressor's lower operating temperature enables it to function continuously. Standard features include variable speed drive controls with timed shutdown, access doors to ease service, a spin-on oil filter, a heavy duty inlet filter, an asymmetric rotary screw with oil injection, a spin-on oil separator and an air-cooled after-cooler.

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## KEEPS TOOLS EASILY ACCESSIBLE

The **Mayhew Tools Countertop Displays** feature premium quality product and turn driven assortments designed for an array of selling environments. These displays are designed to keep the tools easily accessible. Each base consists of an outer plastic shell with a foam core that holds each tool tightly for upright display. The company offers a wide variety of sets from the 102-pc Punch and Chisel display, to more individualized displays, such as displays for the screw extractors or inspection tools.

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## TRAPS 99.97 PERCENT OF DUST

The **DeWalt 20V MAX 1/2 Gallon Wet/Dry Hand Vacuum**, No. DCV517, has a filter that traps 99.97 percent of dust as small as 0.3 microns, according to the company. A membrane coating minimizes dust penetration through the filter and allows the cartridge to be rinsed after use. This vacuum features a tank capacity of 0.5 gallons as well as a flexible hose attachment. This 2.5' hose is extendable up to 5' and accepts DeWalt vacuum accessories with the addition of the Universal AirLock Adaptor. The DCV517 also has a gripped handle for comfort. Powered by the DeWalt 20V MAX battery system, the vacuum offers a significant run-time improvement over previous models.

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## STORE CORDLESS TOOLS IN OR ON TOOLBOX

The **Killer Tools Cordless Tool Garage**, No. ART55, allows users to store cordless tools in or on the side of a toolbox. According to the company, powerful magnets hold the unit to any steel surface without falling.

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## OUTPUT OF UP TO 5,300 LM

The **Streamlight Portable Scene Light** has an increased output of 5,300 lm and now features a red low-battery warning indicator. Featuring a narrow footprint and a telescoping extension pole, the updated model can be used in wide, open places or tight, confined work areas. Powered by a 12V, 14.4 Ah lead-acid battery, the light uses six C4 LEDs and wide-pattern parabolic reflectors to provide two selectable beam widths and three levels of light intensity. The light features a rotating head that can be extended on a telescoping pole to an overall height of 72", supported by stabilizing legs that can be quickly deployed and locked to provide balance on uneven surfaces. The light also features a 90-degree swivel neck, enabling users to precisely aim the beam.

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  - 2 EA. 5 Flip Out Bin unit
  - 2 EA. 4 Flip Out bin unit
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  - 2 EA. Ultra Bin #240
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## QUICK RELEASE SELF-LATCHING DRAWER PULL

The **Extreme Tools RX Series** toolboxes offers the company's patented, Quick Release self-latching drawer pull. It features a heavy duty latch system which keeps drawers closed. The box's latch is also designed to last and doesn't pull away from the drawer front, or bend/break if the drawer is slammed. It's also easy to use, as it requires just lifting the handle and pulling. When users push the drawer shut, the latches engage and the drawer stays closed.



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## VIDEO: FIREADE PERSONAL FIRE EXTINGUISHMENT SYSTEM



To watch a video demo of this product, go to: [VehicleServicePros.com/12226956](http://VehicleServicePros.com/12226956)

## WHAT ARE SOME OF THE IMPORTANT THINGS TO CONSIDER WHEN LOOKING FOR A STORAGE SOLUTION?

Some of the important factors to consider when shopping for tool storage are:

- Total storage available, i.e. cubic inches and square inches (or cubes and squares as it is more commonly referred to in the industry)
- Load capacity of the drawers
- Warranty
- Build quality
- Flexibility and customization ability, i.e. ability to expand in the future (as well as available accessories and drawer and color options)



Mac Tools storage offers its customers a wide range of storage options with high capacity drawers. The company's storage units are manufactured in the U.S., are built to last and backed with a lifetime warranty. Mac Tools also offers several accessories and options to expand the storage as its customers' storage needs grow. One example is the company's newly launched MB7530. This is Mac Tools' first ever 30" deep tool box, and it is 75" wide. This new design was developed by and for Mac customers. The width allows the box to fit in any traditional bay, but have a total of 47,000 cubic inches of storage space due to the new depth.

This box can be customized for customers' needs with made-to-order paint options, as well as a butcher block top and stainless steel top.

Information provided by: Mac Tools

## DURABLE OIL-FREE PUMP PROVIDES MAINTENANCE-FREE OPERATION

The **Campbell Hausfeld Quiet Compressors** are available in a 6-gal "pancake" model or an 8-gal horizontal wheeled model. They are designed to take on a wealth of jobs, including inflation, stapling or fastening, nailing and painting. The 8-gal model can also be used for bolting and tightening. The user-friendly design allows for easy monitoring and adjustment of air pressure. A durable oil-free pump provides maintenance-free operation. The DC060500 and the DC080500 are both 1hp units that offers a maximum psi of 125.

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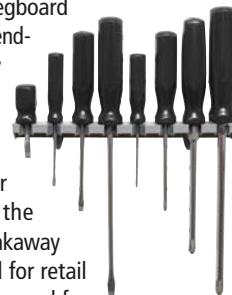
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## HOLDS EIGHT COMMON TOOLS

The **Ernst Manufacturing Vslot**, No. 5350, is a screwdriver organizer that can hold eight common tools. The storage device is designed for use on all common pegboard sizes, and the patent-pending "V" slot securely holds a wide variety of tools. When hung, tools tilt at a slight five-degree angle for added stability on the wall. The device's breakaway hang tab can be used for retail display and can be removed for organizers to mount side by side. The Vslot is 10" by 2.4" by 1.4", is made in the U.S.A. and comes with a lifetime guarantee.

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AAPEX Booth #1661

## VIDEO: THE GRID FROM TECH-LIFE



To watch a video demo of this product, go to: [VehicleServicePros.com/12196719](http://VehicleServicePros.com/12196719)

## RUNS OFF COMPRESSED AIR

The **Clayton Brakewasher BCE-520**, manufactured in the U.S.A, features brass fitting and stainless steel fasteners, and is built to last. The recirculating pump requires no electricity and runs off normal shop compressed air. The system is environmentally friendly – all filters can be disposed of as solid waste, and the used solution can be drained into sanitary sewer. The BCE-520 system includes 1L TNT organic, biodegradable cleaner and rust inhibitor; an Ultra Filter Cartridge; a Splash Pad filter; a Primary Micro Filter 6-Pack; and an Oil Magnet.

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## ADDED PROTECTION FOR EPIQ SERIES STORAGE SYSTEMS

The **Snap-on Electronic Controlled Keyless Operation (ECKO) Remote Locking System** takes security to the next level, adding factory installed protection on EPIQ Series tool storage. With a key fob, technicians can secure tool storage units from up to 75'. Lock status is indicated with audio feedback; one beep signals lock; two beeps signals unlocked. The system includes two pocket-sized key fobs and two keys. Fobs can be paired to multiple units or one unit can pair with two different fobs. Installing third-party security systems compromises tool storage warranties for Snap-on products, but factory installed ECKO Remote Lock protection ensures warranty and security.

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## VIDEO: NEW PIG GRIPPY ABSORBENT MAT



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AAPEX Booth #6522



## WHAT SHOULD I CONSIDER WHEN LOOKING TO BUY A PORTABLE EVAPORATIVE COOLER FOR OUR SHOP?

Look at the size of the space you need to cool. Consider the square footage and begin to narrow your choices

from there. Determine if you require a certain number of speeds and how much air velocity (cfm) you want to have. You'll need good access to a water source when running the cooler. Portable evaporative coolers typically come with a hose connection for automatic water refill when needed. That should help when it comes to the need for refilling, although manual refills are always an option. Lastly, consider the functions you prefer for easy operation. Are hands greasy where you'll need easy-flip switches? Or, do you prefer electronic control panels? Some of the larger evaporative coolers come with unique bells and whistles that could make your day-to-day use easier.

*Information provided by: Portacool*



## FOUR-CORNER POST CONSTRUCTION

The **Beta Tools C39 Roller Cabinet** offers seven drawers with aluminum drawer fronts that lift in order to open the drawers. The four-corner post construction provides a static load capacity of 2,200 lbs. Bottle Trays on the sides and back provide a place to keep spray bottles near the work area. The molded top features built-in tool holders and provides a convenient worktop. The roller cabinet also includes an integrated paper towel roll dispenser on the side.

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## MOST EFFICIENT FAN SPEED WITH MINIMAL USER INPUT

The **Big Ass Fans Powerfoil X3.0** industrial ceiling fan includes SmartSense control technology for comfort and automatic energy savings. The Powerfoil X3.0 produces 15 percent more airflow than the company's Powerfoil X2.0. SmartSense, featuring summer and winter modes, which maximize the investment by selecting the most efficient and beneficial fan speed with minimal user input. The Powerfoil X3.0 fan is available in diameters of 8' to 24' (2.4m to 7.3m) and includes a non-prorated 15-year warranty with factory-certified installation.



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## INCLUDES EVA FOAM DRAWER LINERS

The **Homak 41" RS Series Tool Box** helps its users work more efficiently and safely by ensuring tools are kept well organized and easily accessible. The box includes full-length aluminum drawer pulls with black plastic end caps, features removable 390mm ball bearing glides in every drawer, includes EVA foam drawer liners, and is available in five colors (lime green, orange, black, blue and yellow). These units come with a five-year warranty.



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## PROVIDE 175 PSI AND DISPLACE BETWEEN 9.1 AND 43.6 CFM

The **Jenny Products electric two-stage, vertical-tank stationary air compressors** provide 175 psi and displace between 9.1 and 43.6 cfm. Each compressor uses a heavy duty, two-stage cast-iron pump and powdercoated, ASME certified tank. A large flywheel provides for extra-cooling and easier startup, while special unloading valves further assist the motor in starting. A directional air shroud helps reduce pump temperatures, and a thermal-overload protection feature prevents the motor from drawing too much current and overheating. The two-stage vertical-tank stationary line is powered by a one-phase or three-phase electric motor providing between 2hp and 10hp. Tank sizes include 60, 80 and 120 gallons.



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## RECESSED DRAWER HANDLES

The **Matco Tools Heavy Duty Service Cart, No. MSC4**, offers a patented bumper system to protect vehicles and other objects in shops. With recessed drawer handles that hide the drawer pulls behind the leg bumpers, this cart uses two gas pistons to automatically open and stay at the proper angle when unlocked. The 39.5" high by 20" deep by 33.75" cart has two 3" deep drawers, one 4" and one 5", plus a 5" deep top tray and 3" deep bottom tray. The unit comes with 5" by 2" casters, which all swivel and two lock. The cart has a weight capacity of 500 lbs and is available in five colors.



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## Every Toolbox Needs...



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## PROVIDE CONSISTENT AND EFFICIENT HOT WATER

The **Mi-T-M HAE Series Pressure Washers** feature all-electric, belt-driven equipment that come standard with heat exchanger cartridges to provide consistent and efficient hot water.



The HAE Series Pressure Washers are hard-wired to a heat exchanger and feature an industrial 6hp or 8hp electric motor, triplex piston general pump, stainless-steel and brass unloader, external downstream detergent injector and stainless-steel base and frame with rubber isolators. The cartridge design and heat exchanger supplies a 120 to 130 degree F

temperature rise within three to five minutes. Features include an adjustable thermostat, stainless-steel coils in aluminum casings and powdercoated steel frame.

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## PROTECTING PERSONNEL FROM INJURY CAUSED BY FALLS

**BayNets sliding net systems** add an enhanced level of safety to any vehicle service center by protecting personnel from injury caused by accidental tripping, slipping or walking into an open work pit.



The high strength net cover opens from either end of a bay, is easy to install, operate and maintain. BayNets are custom sized and configured to work with raised or lowered drain pans, jacks and similar service pit hardware. Pit cover installation complies with OSHA safe walking-working surface requirements. BayNets is easily adaptable to rail, bus and virtually all commercial fleet maintenance facilities.

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## AVAILABLE IN TWO POWDERCOAT PAINT FINISHES

The **Monster 56" Toolbox Two-Piece Combo** includes a seven-drawer top chest and eight-drawer roller cabinet.

Designed with removable 460mm ball bearing drawers that glide safely and hold up to 100 lbs, the toolbox offers full-extension gas struts to support the tilt compartment lid for easy opening and stability while opened. The unit has four 6" by 2" roller-casters, two fixed and two swivel with locking levers, and a heavy duty push handle. The lockable cabinet and the HMC high security tubular locking system with keys keep tools secure. It is available in two 3.2 mil epoxy-polyester powdercoat paint finishes: Matte Black (No. MST5615MBG) and Monster Green (No. MST5615C).



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# Big-Time Boxes

READERS OFFER A PROUD LOOK AT THEIR AWESOME TOOL STORAGE SYSTEMS.



▲ Marc Mellgren's top-and-bottom Mac Macsimizer measures 13' long by 69" high by 27" deep.



## Double the cabinet space

Additional space provides access to a total of 21 drawers and 12 shelves.

by Josh Smith, Contributing Editor

**M**arc Mellgren has come across toolbox setups with a cabinet or two. But he says you rarely see a box with four cabinets – like the one he has.

The technician at Crystal Lake Automotive in Lakeville, Minn., has had his top-and-bottom Mac Tools Macsimizer for 18 years. The box – which measures 13' long by 69" high by 27" deep – boasts 21 drawers, including six additional drawers and 12 shelves located within his bevy of cabinets.

"I wanted the big storage, that's why I added on the four closets instead of buying a triple-bank," Mellgren says, noting he installed two cabinets right away and then affixed two more a couple years later.

Mellgren, who has been a tech for 25 years — the last 22 at Crystal Lake Automotive — has one shelf dedicated for paperwork. Also, plastic cases for ball joint presses and fuel pressure gauge sets store

better in the closets than they would in the main part of the box or on the floor. "It opens up extra drawer space," he says.

The toolbox was easy to configure with adjustable drawers and shelving. He keeps frequently used tools like sockets, extensions and ratchets in the top drawer for easy, everyday access.

"The way I've got it set up, is pretty much the way it's going to stay," Mellgren explains. "It took me a little while to figure out how I wanted it. Once I got it there, it pretty much stays there."

About six years ago, Mellgren mounted a radio inside the box, adding speakers on top, as well as a refrigerator.

Because his shop works on all makes and models, and even performs body work, Mellgren added a pair of Mac Tools carts, which both measure 43" high by 36" wide by 20" deep. One has six drawers and one has three drawers with an open bottom. Both have slide-away top shelves on them.



▲ Mellgren has two black Mac Tools tool carts, which provide additional storage as well as mobility.

"I've always had carts, but I got these two about a year ago," Mellgren says, explaining the units add extra storage space and mobility from job to job. "I'm not always in my stalls. I may have to go over to the body shop and do a wire harness or I may have to go across the shop and do an alignment or something. So I'll just pack my tools up on there and head across the shop." **PTEN**



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