



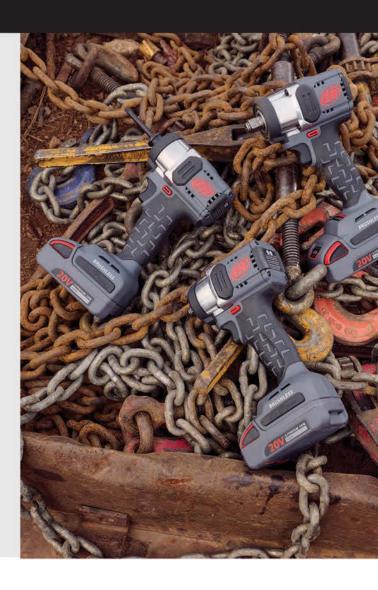
INTRODUCING OUR NEWEST MEMBERS

Cordless Productivity. Countless Possibilities.

TO THE FAMILY

From the brand you trust for precise, high-performance fastening tools – Ingersoll Rand® grows its IQV20™ system with the W3111 1/4" Impact Driver, W3131 3/8" Impact Wrench, and W3151 1/2" Impact Wrench.

Brushless motors deliver best-in-class breakaway torque to quickly complete demanding applications. A compact form factor with 5.3" tip-to-tail length and weight under 2.3 lbs. provides excellent control and maneuverability in tight workspaces. These Cordless Compact Impact Wrenches include a 3-year limited warranty and are compatible with all IQV20TM batteries.



IQV20™ 1/4", 1/2" & 3/8"

CORDLESS COMPACT IMPACT WRENCHES

- Patented 360° shadowless LED light ring to fully eliminate shadows
- 3 speed options with variable speed trigger to cover a wide range of applications
- Up to 450 ft-lbs of breakaway torque







Model	Description
W3111	20V 1/4" Hex Compact Impact Driver
W3111-K22	20V 1/4" Hex Compact Impact Driver – 2 Battery Kit
W3131	20V 3/8" Compact Impact Wrench
W3131-K22	20V 3/8" Compact Impact Wrench – 2 Battery Kit
W3151	20V 1/2" Compact Impact Wrench
W3151-K22	20V 1/2" Compact Impact Wrench – 2 Battery Kit



FEATURES







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Save your heavy duty customers time by keeping up with the tools they need.

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OFFICIAL WEBSITE OF PROFESSIONAL DISTRIBUTOR



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GUEST BLOG:

Did you know quality control can help you save money throughout your business and improve your customer service? VEHICLESERVICEPROS.COM/53058857



Endeavor Business Media acquires automotive research firm IMR Inc.—a perfect complement to Endeavor's Vehicle Repair Group. VEHICLESERVICEPROS.COM/53060079







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EMILY MARKHAM EDITOR Emily@ VechicleServicePros.com

Time for a check-in

Stop what you're doing and take 15 minutes to think about how your business is doing so far this year. Trust me, it's worth it.

id-year check-ins, have you done yours yet? Or maybe a better question is have you ever done a mid-year check-in? I'll admit, I only started doing my own a few years ago, and I'm glad I did. Midyear check-ins are a great way to see how far you've come. Are you meeting the goals you set in the new year? What's something you'd like to improve on moving forward? What's your biggest achievement of the year so far? Answering questions like these can set you on the path to improving your business.

In fact, in this month's Go Sell Something article (Page 34), Alan Sipe breaks down mid-year check-ins and encourages you to look at the 'why' of it - why is your business doing well, why are your profits down, why is this product selling so well but not the other? In answering these questions truthfully, you get to the root of the 'why' and from there you can either make sure to continue what you're doing or figure out how to do better.

"...figuring out why is really important," Sipe notes. "If you know, to the best of your ability, why your revenues are where they are, you stand a much better chance of continuing this run of success instead of just letting the winds of good sales blow as they may."

A simple way to perform your mid-year check-in is by doing a SWOT analysis. In a recent blog from Score.org, Rieva Lesonsky, president and CEO of GrowBiz Media, recommends that small business owners, such as yourselves, conduct a SWOT analysis twice a year to assess your strengths, weaknesses, opportunities, and threats.

Strengths: In this section you should look at where your business is excelling and how it's surpassing the competition. Think about the products that you offer, the customer service you provide, anything you do that positively sets you apart from other mobile tool distributors.

Weaknesses: Understanding and acknowledging your business's weakness is necessary in order to improve. If you find that you struggle with collections look for ways you can improve this skill. Try talking with your district manager or other distributors in your area to get some advice.

Opportunities: These outside factors are chances to grow your business. While doing your SWOT analysis you may even find some new opportunities, such as new products to stock (EV-related, perhaps?), new customers to visit (Farms? Airports?), or maybe new things to try like creating a Facebook page to promote your weekly deals.

Threats: You've heard the saying, "Know your enemy," and whether it's a competing tool truck or supply chain delays, understanding influences that may hurt your business is crucial so you can create a plan to fight back.

Now, go take just 15 minutes to think about how your year is going so far.

PROFESSIONAL The Mobile Distribution Network Connection

Published by Endeavor Business Media, LLC

ENDEAVOR

30 Burton Hills Blvd, Ste 185 Nashville, TN 37215 800-547-7377

Printed in the U.S. Volume 31, Number 5; June 2023

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Article reprints reprints@endeavorb2b.com





Professional Distributor (USPS 017-300), (ISSN 1553-6211 print, ISSN 2150-2080 online) is published 10 times per year in Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct and Dec by Endeavor Business Media, LLC. 1233 Janesville Ave., Fort Atkinson, WI 53538. Periodical postage paid at Fort Atkinson, WI, and additional mailing offices. POSTMASTER: Send address changes to Professional Distributor, PO Box 3257, Northbrook, IL 60065-3257

SUBSCRIPTIONS: Publisher reserves the right to reject non-qualified subscriptions. Subscription prices: U.S. (\$62.50 per year); Canada/Mexico (\$90.00 per year); All other countries (\$131.25 per year). All subscriptions payable in U.S. funds. Send subscription inquiries to *Professional Distributor*, PO Box 3257, Northbrook, IL 60065-3257. Customer service can be reached toll-free at 877-382-9187 or at circ.profdistmag@omeda.com for magazine subscription

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487 IOROUELING DIACHOSTIC TO INFINITY





PRODUCT SPECIFICATIONS AND FEATURES

- Supports CAN/CANFD/Dolp & J2534/D-PDU/RP1210 Code Assist by IDENTIFIED
- OE-Level Bi-directional Functionality
- Supports Smartlink Remote Diagnosis
- Auto Detects Vin

- Supports X-431 Fix Repair Information by American
- Topology Module Mapping Overview
- New Pin Detection Function

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



Welcome to Sneak Peek!

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



ABLE TO ACCESS HARD-TO-REACH SPOTS

The Solder-It 3-Position Adjustable Butane Torch, No. PRO-15, is a soldering iron, hot air blower, and butane torch all in one. It's ideal for soldering, heat shrinking, and plastic cutting. With its three-position adjustable head, users can easily adjust the head's angle to access a variety of hardto-reach spots. The butane torch also features a fold-out stand for handsfree work, a rubber-coated ergonomic grip, a safety lock, and a quick removeable tip design. It comes with eight soldering iron tips, a heat-deflecting tip, a hot knife tip, and a protective cap.

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



VERSATILE HANDSFREE WORKLIGHT

The NextLED Rechargeable Neck Work **Light**, No. NT-6633, is a rugged and versatile handsfree worklight. Its flexible gooseneck design and magnetic base allow for easy positioning. The rechargeable light comes with a type-C cable for quick charging and can withstand splashing water and drops up to 6'. The adjustable brightness with memory and COB LED provides 15 to 150 lm of light.

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



CONVENIENT INDUSTRIAL-GRADE SIDE ZIP

The Southern Cross Zip Ladies from Steel Blue Boots is a 6" high ankle boot with a convenient industrial-grade side zip, allowing users to tie their laces for an ideal fit, yet use the zipper for quick on and off. The safety boot is made from nubuck colored leather that is ethically and environmentally sourced. The low-cut scalloped collar and padded tongue assist ease of movement and feature an on-trend animal print and bright colors. Available in whole sizes from five to 11 and half sizes from six-and-a-half to nine-and-a-half.

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



PROVIDES INTERIOR AND EXTERIOR CHARGING STATUS

The DeWalt ToughSystem 2.0 20V MAX **Dual Port Charger** is a sealed charging box designed to protect, store, and charge DeWalt batteries. Featuring two ports for simultaneous charging and two USB ports for powering personal electronics, the durable storage box helps keep batteries safe in harsh jobsite conditions. Additionally, it offers a quick view of the battery charge levels with interior and exterior LED status indicators and is engineered with an internal fan to create airflow to help prevent overheating while charging.

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



SIZES RANGE FROM 1/16" TO 1/2"

The Cornwell Quality Tools TEMPEST Drill Bits are designed to easily drill complete holes or enlarge existing holes through hardened steel, stainless steel, aluminum, and grade 8 bolts. Due to their serrated cutting/step drill edge geometry, the bits run cooler with less friction. Additionally, while their stepped tip prevents the bit from walking on rounded surfaces, their three shank design eliminates slippage. Sizes range from 1/16" to 1/2". They are made from heat treated M2 high-speed steel and are made in the U.S.A.

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Watch this product in action here: VehicleServicePros.com/53058331



SUPPORTS 10 OBD-II MODES

The Mac Tools Pro Code Reader, No. ET1100, features OE-level U.S. vehicle coverage as well as Asian and European coverage from 1996 and newer. It supports 10 OBD-II modes and CAN protocols, is able to print reports via USB and can graph, record, and playback diagnostic data with live streams. It also has a 2.8" TFT color screen and a multilingual menu and code definitions in English, Spanish, and French.

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

FEATURES VOICE CONTROL AND FACIAL RECOGNITION

The TEXA USA Axone Voice is a handsfree multi-environment diagnostic tool with voice control, a function developed in collaboration with Microsoft and designed to support technicians through all diagnostic steps. Users simply just need to say, "Hey TEXA" and the command needed. It also uses facial recognition to securely iden-

tify users by unlocking a series of exclusive functions to easily access diagnostic authentication procedures required by manufacturers, that require regular confirmation. The Axone Voice is equipped with a 13.3" capacitive screen with 2560 by 1600 resolution and is protected by Gorilla Glass. Additionally, its Windows 10 Enterprise operating system is powered by an Intel Core i5 processor.

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

STRONG YET LIGHT ENOUGH TO WEAR EVERYDAY

The **Groove Life Zeus Ring** is a solid black ring with a step-edge design. The Zeus anti-stretch inner-molded band adds form and strength to medical-grade silicone, making it strong and durable yet light enough to wear everyday.

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

EXTRA WIDE BASE FOR STABILITY

The ATD Tools 1/2-Ton Hydraulic Telescope Transmission Jack, No. 7429,

For more information, click on "PD e-inquiry" on







FEATURES A POLYCARBONATE LENS

The Streamlight Waypoint 400 is a rechargeable pistol-grip spotlight that offers up to 1,400 lm of ultra-bright white light with 400,000 candela and a beam distance of 1,265m for enhanced down-range lighting capability. The portable light can be used as either a handheld light, or, with its integrated stand, as a handsfree light to illuminate an area. The light has a run-time of three and a half hours on high and up to 84 hours on low, and fully charges in four hours. It features a polycarbonate lens and is O-ring sealed. With a trigger-style switch for momentary or constant-on operation, the light has a cushioned grip handle that eliminates user hand fatigue.

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



INCLUDES BOTH A HIGH AND A LOW PRESSURE GAUGE

The ARES Master Engine and Transmission Oil Pressure Test Set. No. 81000, includes 14 thread connection adapters, a 72" hose, and both a high and a low pressure gauge. The high pressure gauge reads from 0-400 psi, and the low pressure gauge reads from 0-100 psi. Both gauges also include a hanging hook. Features several NPT to NPT and metric to NPT adapters with various straight and elbow variations, as well as an additional BSPT to NPT adapter and a 72" long hose for easy maneuverability. The kit offers ideal coverage for automotive service.

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



REMOVES HARD-TO-REACH **02 SENSORS**

The OEMTOOLS 7-pc Sensor Socket Set. No. 27189 helps with the removal of hard-toreach oxygen sensors, oil pressure switches, oil pressure sending units, and thermal sensor switches. This set fits most vehicles and includes 7/8" offset extended oxygen sensor, 7/8" offset oxygen sensor socket, 7/8" vacuum switch socket, 7/8" oxygen sensor socket, 1-1/16" deep oil switch socket, 1-3/16" oil sender unit socket, and 1-1/16" GM thermal sensor switch socket. It can also be used for oil pressure switches, oil pressure sending units, and thermal sensor switches. For greater durability, the set is made from chrome vanadium and comes in a blow molded case.

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



FEATURES A 3.5" LCD DISPLAY

The **GEDORE Cleaning Borescope**, No. KL-0870-10 K, features a cleaning nozzle to enable technicians to clean components such as air conditioner evaporators. The cleaning nozzle and camera are mounted at a 90 degree angle to the cable/hose to access hard-to-reach places. The small lens with LED illumination delivers highresolution images to the 3.5" LCD display. The unit includes an 8GB micro SD card and a 3.7V lithium-polymer battery (1650mAh). It operates up to 116 psi on standard shop air and includes a 250ml container for cleaning fluids.

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



OPERATES ON 110V POWER

The Cool Boss COOLBREEZE CB-12 and **CB-14 Portable Evaporative Air Coolers** are the smallest units in the Cool Boss lineup. Both units operate on 110V power and feature three-speed controls on soft-touch LED control panels. The CB-12 uses a 12" fan to cool an area up to 650 sq. ft. and is rated to produce up to 1,565 cfm airflow. The CB-14 has a 14" fan that pulls more air at idle and reduces engine drag at higher rpms for better performance, energy efficiency, and economy. It can cool an area up to 850 sq. ft. and is rated to deliver up to 2,300 cfm airflow.

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



HAS 18 LOCKING HEIGHT POSITIONS

The ideal FP14KAC-X 14,000 lbs Four-Post Commerical Alignment Lift from Tuxedo **Distributors** is designed for cars, SUVs, and trucks. Safety features include both narrow and wide runway mounting positions, an extended rise height, and a hydraulic/ mechanical cable lift system with slack cable safety devices. It also offers 18 locking height positions, full-width rear wheel slip plates, two turntable positions with spacer covers, a single-point pneumatic lock release, and includes self-chocking ramps and wheel stops. The lift has an overall length of 252-1/2" (with ramp), overall width of 142" (with power unit), and an overall height of 92-1/2".

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

360-DEGREE SHADOWLESS LED

The Ingersoll Rand W3111 IQV20 1/4" Compact Impact Driver delivers up to 4,200 in-lbs of breakaway torque with its brushless motor. With a total length of 5.2" and weight under 2.3 lbs, the W3111 provides ideal control and maneuverability in tight workspaces. The tool has a 1/4" hex drive with a quick release collet for use with impact rated bits, a fastening torque up to 3,400 in-lbs, and a free speed of 2,800 rpm. It also features an overmolded ergonomic grip for comfort, a patented 360-degree shadowless LED ring to illuminate the fastener from all sides, and three speed options with a variable speed trigger to cover a wide range of applications.

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

IDEAL FOR LOW-RESISTANCE TESTING

The MT03A Milliohm and Motor Tester from Pico Technology offers resistance testing of all windings on a three-phase motor in under a minute, producing highly accurate results that can automatically compensate for temperature using the included sensor, says the company. With its earth-bond testing, the MT03A has widespread applications, including fuel pumps, air-conditioning motors, regeneration pumps, and more.

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



WITHOUT IQUITY

The Thraxus Elite Safety Eyewear from Radians are available with or without IQuity, Radians' intelligent anti-scratch, anti-fog technology. The Elite eyewear are engineered with a patented edge design and cyclonic venting. To provide a custom fit, Elite also features three-position ratcheting temples with a wire core that allows for more adjustability. Thraxus Elite IQuity incorporates even more features to offer ANSI Z87.1+ high impact protection, D4 dust, and D3 liquid splash protection.

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



pico

Do YOU stock it?

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

A Adjustable DuoFocus beam

The Performance Tool 350+LM Firepoint X Li-ion Duo-Light, No. W2677, features a heavy duty design with improved thermal efficiency. The duo-light includes a side-emitting worklight for a wide flood beam of light. With an adjustable DuoFocus beam, the flashlight is able to go from a spot to flood flight. The light is housed in anodized tactical aluminum and includes a Li-ion battery. The flashlight emits 196 lm on high with a 2.5 hour run-time, the worklight emits 375 lm and has a 1.5 hour run-time.

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

C For timing service and repair

The CTA Manufacturing BMW/MINI Timing Chain Tool Kit - N12, N14, and N16, No. 3770, features specialty tools required to perform timing service and repair, including camshaft locking blocks, flywheel locking pin, timing chain tension block, and upper chain tension locks. With the kit, users are able to accurately locate TDC for servicing and repairing the head gasket and timing chain. The tools service R55-R61 models 2007 to 2016 (Cooper, Paceman, and Countryman).

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







B Offers full-system vehicle diagnostics

The Launch Tech X-431 Torque 5 is a tri-function device that serves as the VCI for OBD diagnostics in addition to a digital multimeter and a two-channel oscilloscope. The bidirectional Torque 5 also includes extensive coverage of European, Asian, and Domestic vehicles, with pre-installed software modules for ADAS, battery testing, immobilizer diagnostics, CodeAssist by Identifix, and more. The Android 10-based scan tool features a 10.1" color display, 4GB ram and 128GB ROM large storage, and is equipped with a highendurance battery. It also supports CANFDDOIP diagnostic protocol and full-system fault diagnosis, with functions such as read DTCs, clear DTCs, read data stream, special function, actuation test, coding, matching, and more.

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

D Offers nine locked and unlocked positions

The GEARWRENCH 120XP Locking Flex Head Ratchet is designed to access hard-to-reach fasteners. The locking flex head allows for nine locked and unlocked positions for adjustable angled access that provides the ideal balance of use. The double-stacked pawls engage a 60-tooth gear to give 120 positions that deliver a 3-degree swing arc to turn fasteners in tighter confines. Additionally, the 120XP Locking Flex Head Ratchets exceed ASME torque performance requirements and provide extended reliability when used in high-torque applications.

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

E Prevents damage to the belt

The Lisle Corporation Stretch Belt Installer for Double Pulleys, No. 59350, is designed to install the main stretch belt on extra-deep double pulleys. Works on 2011 and newer Ford 3.5L EcoBoost and 3.7L engines, as well as 2019 and newer GM 5.3L and 6.2L engines. Inside of the tool is engineered to fit securely on the front side of the pulley. The tool holds the belt on the pulley as the engine is rotated clockwise to install the belt. It helps prevent damage to the belt or pulley during installation.

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

F Features a 2" jaw opening

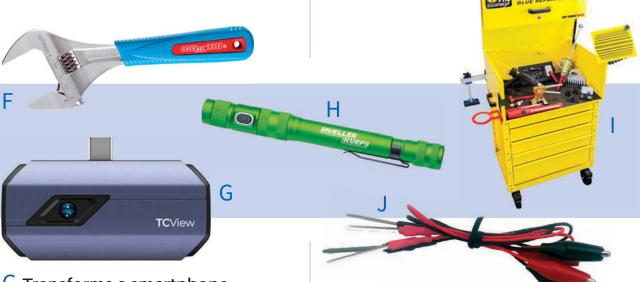
The Channellock 10" WIDEAZZ Adjustable Wrench, No. 10WCB, features a wide 2" jaw opening to support large sized nuts and bolts. The combination of a smart and comfortable tapered handle design with Code Blue grips, a four-thread knurl, and minimal head width improves performance in confined spaces. Additionally, the tool offers laser engraved measurement scales, is made from rugged chrome vanadium steel, and has a chrome finish for rust prevention. The Channellock adjustable wrenches are made in Spain.

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

Equipped with both cold and hot glue pulling options

The Dent Fix Equipment GLUEMAX Glue Repair Station, No. DF-GM/DXE, is a pulling station equipped with both cold and hot glue pulling options to repair damage in automotive steel and aluminum panels while preserving OEM coatings and interior integrity. The station can be used for application from heavy duty glue GPR pulls to cosmetic PDR corrections. With an enclosed and lock-able cart, the GLUEMAX Glue Repair Station protects its tools from the shop environment.

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



G Transforms a smartphone into an IR thermal camera

The **TOPDON TC001** is a portable camera that turns an Android smartphone/tablet or Windows laptop into an infrared (IR) thermal imager. Simply download the accompanying app and plug the TC001 in the device's USB-C port. Offering image rotation, enhancement, and an ultra-high IR camera resolution of 256 x 192, the device provides users with ideal image quality to assist in diagnosing a wide variety of issues within a vehicle. With the ability to pinpoint hurdles ranging from electrical components not properly working, accessory belts failing, drivetrain and suspension diagnostics, exhaust system leaks, heating and cooling surface issues, and more, the device helps to streamline diagnostics and troubleshooting.

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

H Has a 3x zoom lens

The Mueller-Kueps LED Penlight, No. 904 980, features a 3x zoom lens for wide or narrow beams. With a 40m beam spread and ability to emit up 260 lm, the penlight is ideal for under the hood or under the vehicle applications. It's also rechargeable via USB, has a red/ green charge indicator, and is made of aircraft aluminum.

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

Additional foot of lead wire

The **Thexton Extended Back Probe Spoons**, No. 914X, are designed to access electrical circuits from the rear of the connector to prevent piercing wires and possibly damaging the circuit. The 914X is ideal when space is limited for back probing. The additional foot of lead wire offers flexibility and assures a good connection with the voltmeter. Made in the U.S.A.

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



BLUNDSTONE

Work Series Chelsea Boot

Ideal for users who work long days on hard concrete floors.



APPLICATION

The Blundstone Work Series Chelsea Boot 491, is ideal for users who work long days on hard concrete floors. The XRD material provides added comfort and stability, and the kick guard provides protection without the bulk of a toe cap, making it ideal for saving users from damaging cuts and scuffs in a critical contact zone.

ORIGIN

Blundstone is a 153-year-old brand with a long history of designing boots to keep users both safe and comfortable in the workforce.

FEATURES AND BENEFITS

- Resistant to slips, oil, acid, and electrical hazards.
- Protects against heat up to 284 degrees F.
- Polyurethane midsole for comfort.
- Premium full grain leather.
- Available in men's and women's sizes.



SELLING POINTS

- Patented SPS Max comfort system with XRD material in the heel strike zone for increased impact protection.
- Kick guard toe for leather protection.
- Pull-on, kick-off convenience.
- Steel shank for maximum torsional stability.

STORAGE AND DISPLAY

The 491 comes one pair per shoebox. We recommend carrying only left or right boots in full U.S. sizes nine through 12 on the truck. This will allow the distributor to fit approximately 90 percent of customers while only needing two full boxes of product.

MANUFACTURING SPECS

Headquartered in Hobart, Tasmania, Blundstone is a 100 percent Australian privatelyowned family company. The 491 is comprised of a premium full grain leather upper, a polyurethane midsole for comfort, and a thermoplastic polyurethane outsole. One pair weighs 4 lbs.



SUGGESTED RETAIL PRICE



FOR MORE INFORMATION

Contact U.S. Work and Safety Manager, Fernando Nazco. Office: 800-437-2526 Cell: 908-447-8580 fernando@libonatico.com

MATCO TOOLS ForceFlex Safety Glasses

For any automotive repair that requires vision protection.



APPLICATION

Whether working underneath a vehicle, changing a tire, or outside towing a damaged car, Matco's ForceFlex Safety Glasses provide impact-resistant vision protection and are both durable and comfortable.

MANUFACTURING SPECS

The Matco ForceFlex Safety Glasses are lightweight and made with a polycarbonate substructure to provide maximum durability. The safety glasses feature step-up options often found in higher-grade glasses including flexible arms, rubber nose pads, and T-axis options providing zero distortion across the entire lens. Intrablock UV protection also provides 99.9 percent UVA, UVB, and UVC protection.

To watch a video demonstration of this product, visit:
VehicleServicePros.com/53057216
VEHICLESERVICEPROS

SELLING POINTS

- Provides high-performance vision protection.
- Adjusts to any head size, enabling one pair to be worn securely and comfortably by many technicians.
- Resists scratches and are durable to hold up in the shop.
- Several frame and lens choices are available to meet a variety of style preferences and safety applications, including the multipatented, flexible technician safety glass design with green frames and clear lenses, No. FFSGTCLR.

ORIGIN

End users often do not wear safety glasses because they are not comfortable or stylish. The ForceFlex Safety Glasses provide high-performance vision protection that meet ANSI Z87.1+ and CSA Z94.3 safety eyewear standards.

FEATURES AND BENEFITS

- Adjustability: Patented frames are designed to automatically adjust to any head size.
- Comfort: Custom-fitting frames eliminate pressure points behind the ears and at the temples and nose. Plus, the soft nose pads provide maximum grip and comfort.
- Protection: Energy-absorbing elastomers allow for impact protection, including ANSI Z87.1+ and CSA Z94.3.

STORAGE AND DISPLAY

The safety glasses come one per unit.





DEWALT POWERSTACK 20V Max 5Ah Battery

Ideal for any automotive application that requires high continuous power.



APPLICATION

The DeWalt POWERSTACK 20V Max 5Ah Battery is ideal for any automotive application that requires high continuous power, such as grinding, surface preparation, impact wrenches, drills, and more.

SELLING POINTS

- Fifty percent more power versus DeWalt standard 5Ah battery (DCB205).
- · Fifty percent more work per charge of usable energy versus DeWalt standard 5Ah battery (DCB205).
- Two times the lifespan compared to charge cycles of DeWalt standard 5Ah battery (DCB205).
- Compatible with any 20V DeWalt tool or charger.

FEATURES AND BENEFITS

- · Low-impedance pouch cells deliver higher peak and continuous power.
- Low-resistance laser and welded contacts.
- Advanced battery management system ensures reliability for double lifespan.

ORIGIN

The POWERSTACK 20V Max 5Ah Battery was designed to create a better solution to cylindrical cell ergonomics, create more efficiency with energy movement in the battery reducing the occurrence of hot packing, and provide more available power to create higher peaks and continuous power output.

MANUFACTURING SPECS

available. For placement on the truck, consider storing it next to other DeWalt tools, demoing it

on a power tool, or placing it on shelves at eye

· Country of origin: China

level to entice interaction.

- · Gross weight: 1.750 lbs
- · Volume: .107 cub





BETATOOLS

1547/C6 Universal Ball Bearing Extractor

Easily removes damaged ball bearings.



APPLICATION

The Beta Tools 1547/C6 Universal Ball Bearing Extractor easily extracts damaged ball bearings. Efficiently remove damaged bearings in hard-to-reach areas where an internal or external puller can't gain access.

SELLING POINTS

- · Minimizes downtime
- · Quick assembly
- Organized storage case

To watch a video demonstration of this product, visit: VehicleServicePros.com/53059641

VEHICLESERVICEPROS

STORAGE AND DISPLAY

This complete set comes in a metal foampadded case for easy storage in a cabinet or drawer.

FEATURES AND BENEFITS

- Foam-padded case for easy transport and organized storage
- Easily adjust the pullers to cover bearings ranging in size from 1 1/16" to 5"
- Manual puller with hex end for a wrench or socket removal

ORIGIN

The engineers behind Beta Manufacturing created this convenient kit to improve the effiency and safety of ball-bearing extractions.

MANUFACTURING SPECS

- Made in Taiwan
- Heat-treated steel to HRC 36-44
- Weighs 7 lbs





FOR MORE INFORMATION

Contact Beta Tools' customer service at 717-449-5044 or customerservice@ betatoolsusa.com.



HEAVY Hitters

Tackling heavy duty vehicles takes bigger, and oftentimes more expensive, tools and equipment. This makes it even more imperative to know what to stock on your truck when serving heavy duty shops.

By Carol Badaracco Padgett, Contributing Editor and Kayla Nadler, Associate Editor

t takes unswerving skill to service a vehicle that, when fully loaded, weighs almost as much as a Tiger tank. And it's a job that's best accomplished using the most innovative heavy duty tools and equipment available.

With a route comprised mostly of heavy duty shops, independent tool distributor Angelica Platero knows a thing or two about what these technicians need.

She also understands that technicians working on heavy duty vehicles require not only more torque and bigger sizes, but when they need the tool, they need it now.

"Oftentimes, the technicians won't pay attention to the price of the tool because they need it," Platero says. "They have to fix the vehicle to keep their fleets moving."

Platero has been selling tools for eight years now in southern California,

five with a flag and the past three years as an independent. Although she loves her job now, she admits it hasn't always been smooth sailing.

"When I got into the business, I didn't know anything about it," she says. "Selling to heavy duty shops wasn't easy, but I needed to make money, so I had to go the extra mile."

Over time, she learned what tools to stock by simply just asking her customers what they needed.

"The more you know the business, the more you know what to stock your truck with," Platero notes. "I learned from [the technicians]. I'm always asking them questions."

TRENDING TOOLS

Curt Evey, vice president of sales and business development for Milton Industries, says the tools gaining the most traction right now are both timeand headache-savers.

LTI Tools' Shockit Socket – an air hammer powered tool for removing diesel exhaust sensors – is first up on his list.

"The Shockit Socket is designed for very low clearance areas," he describes. "It's kind of like a crow's foot, and the tool can fit into a very tight spot and break the nut loose. There's also knock sensor removal tools on these."

Of a product demonstration he once attended in Chicago, Evey recalls, "They could use our tool and get the socket out in 30 seconds ... without destroying threads."

For Cole Conrad, senior vice president of product management at Milwaukee Tool, a must-use heavy duty tool right now is the M18 Fuel 1" D-Handle Extended Anvil High Torque Impact Wrench w/ One-Key technology.

"It combines three exclusive innovations from Milwaukee, the Powerstate brushless motor. Redlink Plus Intelligence, and Redlithium battery pack, to tackle the most demanding applications," Conrad says.

"Integrated Lug Nut Mode prevents the over-torque of lug nuts by automatically shutting off the tool between

350-450 ft-lbs, while four-mode drive control delivers greater control and versatility by giving users customizable modes for their most common applications," he adds.

SAFE-SHOP OPTIONS

Another innovative tool is one designed to keep technicians themselves running at top performance, according to Marco Ortiz, director of factory sales for Wrenchers.

"Temperature control is a big maintenance requirement when running large vehicle service operations like

fleet and utility services," Ortiz explains. "Too much heat causes heat stress, which can make employees less productive, and worse, have negative health implications."

Cooling the spaces used to perform large vehicle servicing can be tricky, though, and expensive. As Ortiz notes, temperature management accounts for about 30 percent of the total energy costs for large workspaces, making it a significant operational cost.

As such, he says, "One of the trends we're seeing is a rise in the use of portable evaporative coolers in shops of all sizes." Simple to use, Ortiz says shops can just fill them with water or connect a hose, plug them in, and turn them on.

The water evaporation from the cooler chills the air, then the cold air is blown out into the shop by the cooler's fan.

"They're much more cost-effective than installing air conditioning and they can even be [wheeled] outside, so technicians working in outdoor bays also get some relief," he states.

Wrenchers offers Cool Boss coolers that can chill spaces as small as 650 sq. ft. all the way up to 5,625 sq. ft.

While the basic principle of how evaporative coolers work hasn't changed in the last 30 years, Ortiz says that manufacturers have added some fun. modern features.

"Some are available with LED floodlights and built-in speakers with Bluetooth connectivity so technicians can blast cool air and cool tunes well into the night," he shares.

For Conrad at Milwaukee, one of the leading developments in the design of heavy duty equipment and tools is advanced battery technology, and he says it's helping make shops safer, too.

"Historically, pneumatic tools were the primary solutions for heavy duty users, as they could provide the power and performance necessary to get the job done," he says. While now, "the industry has experienced a significant



Platero doesn't have a tool truck. Instead she converted a short bus to run her business.

trend towards the use of heavy duty cordless solutions as both users and distributors realize the cost savings, safety, and portability benefits."

As an example, Conrad points to Milwaukee's cordless technologies in its M12 Fuel and M18 Fuel lineups. "We have been able to eliminate the need for [air] hoses and compressors, ultimately creating a more productive and safe shop. Air hoses all over the shop create tripping hazards for technicians, and increase liability, especially with users operating heavy duty equipment."

Tool distributor Platero can attest to this. Although she still stocks some air tools on her truck, cordless tools are more popular with her customers, with Milwaukee Tool topping her list.

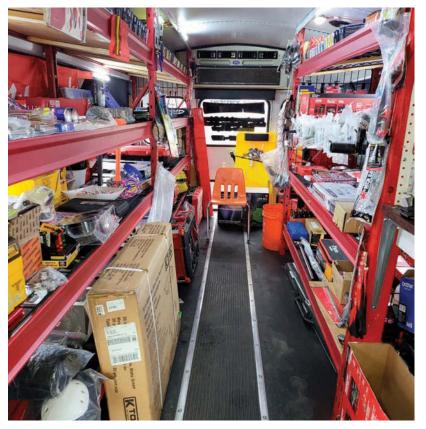


Tools from Milwaukee Tool are a big hit with Platero's customers, especially their cordless tools.

Photo courtesy of Angelica Platero



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



Learning what to stock takes time, says Platero. She will often ask her techs what they need.

TOP CONSIDERATIONS

With many heavy duty tools and equipment options, there's a lot for shop owners and technicians to consider.

What's truly worth the investment right now? For Evey, the answer to the question boils down to ROI.

"On the specialty hand tools side, most of these products have lifetime warranties," he notes. "Take ProMAXX Tool, for example. Each tool they engineer is designed to pay for itself in one to two uses."

Before a shop owner makes a heavy duty purchase, Ortiz suggests they purchase equipment used for servicing and repairing vehicles, such as dynamometers, engine analyzers, tire changers, wheel alignment equipment, and truck lifts, to meet ANSI safety standards.

Ortiz also reminds buyers to think beyond the initial purchase price, "and consider who is going to help coordinate delivery, installation, and service," he suggests. "Evaluate return and warranty policies, as well."

> PRODUCTS TO STOCK



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For those looking to serve heavy duty shops, Platero says not to be afraid. Photo courtesy of Angelica Platero

on her phone researching tools and watching YouTube videos.

Platero finds that most of the time her heavy duty technicians know what tool they need, but there are times when they ask for her advice on which tool will get the job done.

"The guys really trust me," she says. "I'll suggest different options and recommend what they should buy."

For any mobile tool dealer looking to sell to heavy duty shops, Platero says that in the beginning it may be hard but ultimately, they will get more and more comfortable with it.

"Don't be afraid to sell heavy duty," she says. "It takes time. Now that I learned it, I love it. I have a good relationship with [my customers] because they know I can get the tools they need. @

SELLING TIPS

Demoing tools is always essential in the tool selling business. But not only is showing the tool's features and capabilities a nice gesture, showing how the tool has improved over the years takes it to the next level.

Demonstrating differences between old and new technologies is an important aspect of selling, Conrad notes.

As an example, he says, "As the performance gap between pneumatic and cordless heavy duty solutions has been eliminated, it's important to show users their side-by-side performance as a way to demonstrate this advancement in battery-powered technology."

For Milton Industries Evey, training videos are key for mobile tool dealers when selling tools. Manufacturers such as Milton Industries often provide quick how-to videos on their website and/or YouTube channels.

Mobile tool dealer Platero is a big fan of product videos. So much so, that she prefers watching them in her spare time over watching a movie.

"Whenever I get a new tool, I check to see how it works," she says, adding that when she's not selling tools, she's



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Lab scope diagnostics

Gaining a deeper understanding of the 'why' when vehicle problems surface.

By Scott Brown, Techincal Editor



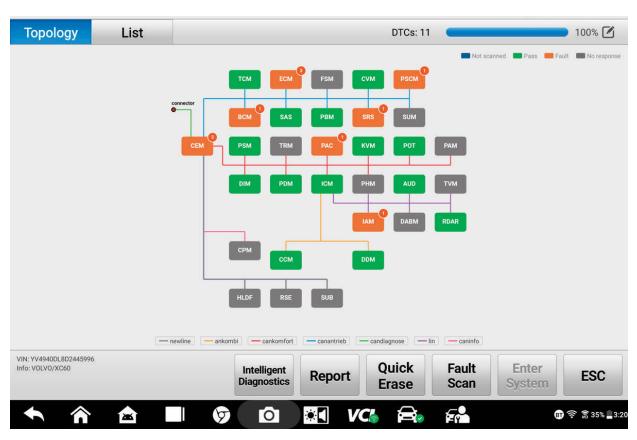


Figure 1 — 2013 Volvo XC60 network topography DTC map Photo courtesy of Scott Brown

utomotive technicians rely on a variety of tools to diagnose and troubleshoot problems surfacing on vehicle systems. Today, we're seeing vehicles with multiple network circuits containing high-speed data communications along with advanced powertrain controls. More than ever one of the most important tools in their arsenal is the lab scope, also known as an oscilloscope. Lab scopes are electronic testing devices that allow technicians to view and analyze electrical signals and their characteristics. In this article, we will discuss real-world examples using lab scopes to troubleshoot and diagnose problems in automotive systems.

There are a few basic knowledge elements one needs to have a decent understanding of if they are going to use the oscilloscope to aid them in troubleshooting and the first and most important question you will want to ask yourself is 'why.' Important metrics:

- Sample rate how often the scope is sampling the signal it is measuring.
- Voltage levels the expected voltage range the scope will need to measure and display.
- Time base the amount of time displayed on the screen. Users need to understand that the time base setting on the scope can influence the sample rate. A slower sample rate

may result in missed measurements of rapid voltage signal changes. Some scopes will allow some flexibility here where you can prioritize the sample rate within limitations. Typically, the more expensive the scope the more capable it is.

Essentially, a decent consumption of electrical circuit education along with lab scope training and network communication knowledge will provide today's technician with the necessary skillset that will enable him or her to be successful today and well into the future.

CASE STUDY NO. 1: THROTTLE ACTUATOR CONTROL (TAC) CHALLENGES

Throttle-by-wire systems have been around for quite some time now and it's likely you've already encountered complaints involving these. We had a 2013 Volvo XC60 that arrived with the following complaint:

Customer states that while driving the vehicle, they went to make a turn and the MIL suddenly came on, at that same point the vehicle seemed hesitant to shift into the next gear. The customer turned the vehicle off and started it up again, MIL light remained on but seemed to be driving normally.

The technician started the vehicle and confirmed that it appeared to be operating properly and the MIL was still illuminated.

Upon scanning the vehicle, the following DTCs were recorded within the ECM:

- 0x7E8: P050700 Idle air control (IAC) system RPM higher than expected.
- 0x7E8: U016700 –Lost communication with vehicle immobilizer control module.
- 0x7E8: P061F00 Internal control module throttle actuator controller performance.

Other modules reported faults (**Figure 1**) that didn't seem relevant to the current complaint. The technician proceeded to perform a vehicle inspection looking particularly at the throttle body and air intake systems since the throttle–by–wire systems are closely monitored and any airflow anomalies



Figure 3 — 2013 Volvo XC60 old throttle body key off
Photo courtesy of Scott Brown

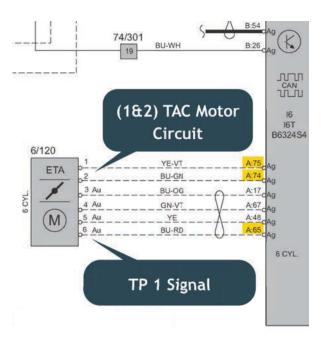


Figure 2 — 2013 Volvo XC60 throttle body wiring
Photo from ALLDATA

can trigger throttle actuator control (TAC) DTCs. After collecting the freeze frame information, the DTCs were cleared, and several road tests were performed where zero faults were observed. The technician then removed the throttle body air inlet for inspection where he found lots of oil and carbon buildup on the throttle plate and bore. Now in most cases, folks might tend to recommend a throttle body cleaning and then place the vehicle back into service. However, we were concerned with the P061F fault and wanted to take a closer look at the power electronic controls within the throttle body assembly. My article from October 2022, Electronic controls: Lateral and longitudinal, covered the fact that manufacturers perform TAC system checks prior to and after vehicle shutdown. These tests are used by the manufacturer to gauge system performance and to validate proper operation prior to the vehicle issuing any powertrain torque output commands. This is all done in



Figure 4 — 2013 Volvo XC60 new throttle body key off
Photo courtesy of Scott Brown

DIAGNOSTIC TECH

the spirit of vehicle safety and oftentimes one can observe this behavior audibly after engine shutdown. Many vehicles will perform this analysis after a power-down cycle by running an operational script on the throttle body. In this case, we wanted to see if the lab scope could help us look deeper into this throttle body. We consulted a wiring diagram (Figure 2) to have a look at throttle body circuits. (*Note: The engine performance diagram* section wasn't immensely helpful here and we ended up finding the best diagram in the cruise control section.) Although the detail for each pin isn't listed, we consulted the signal specifications under the engine control module (ECM) section where we were able to find that the motor control terminals were residing at pins one and two at the throttle body and pins 74 and 75 at the ECM. And TP sensor one was located at pin six at the throttle body and pin 65 at the ECM. Next, we connected the Picoscope as follows:

- Channel 1 TA473 60A current probe around the BU-GN (pin 74) wire
- Channel 3 1:1 voltage probe across pins 74 and 75 so we could monitor the half-bridge controls on the brushed DC motor

Channel 4 – 1:1 voltage probe at pin 65 (TP1) referenced

Next, we configured each channel as follows:

- Channel 1 +/- 10A
- Channel 3 +/- 50V DC
- Channel 4 +/- 5V DC

Our audible senses let us know that there were tests occurring after keying off, so we set the scope to record at the following settings:

- Sweep 2 s/div
- Sample rate 2.5MS/sec

Next, we turned the key to KOEO then hit record on the scope and immediately turned the key to off and stopped the scope near the end of the sweep. The following results were recorded in Figure 3. We looked hard at that signal and really couldn't see anything glaring at us that would have indicated that there was either a mechanical or electrical problem with the throttle body. So based on the mileage and the fact that the throttle body was coked up badly with oil, we recommended a new replacement throttle body. After replacement, we proceeded to perform the same tests as before to see if we could learn anything, which we did...sort of. The primary

HROTTLE ACTUATOR

OMMUTATOR

DC MOTOR



Figure 5 — 2013 Volvo XC60 throttle body DC motor failure Photo courtesy of Scott Brown

difference we observed was that there appeared to be a high-frequency control problem during a specific point in the system's self-test. If you look at Figure 4, you can see what I'm referring to as compared to Figure 3. Now can we hang our hat on this? No, but I can tell you that after disassembling the motor and having a look inside, we were able to determine that we made the right call. The motor commutator and brushes were influenced by the engine motor oil that had migrated through the throttle shafts and caused heavy carbon to build up between the brushes and the commutator contacts. Figure 5 shows this detail. It is my opinion that the low-lying location of the throttle body within the intake tract location makes it more prone to throttle body coking. However, excessive oil could be caused by improper PCV system operation or just poor design. Throttle body service should be carried out on engines with low-mounted throttle bodies more frequently than their counterparts. Nevertheless, this vehicle is back on the road ready to continue delivering service well into the future.

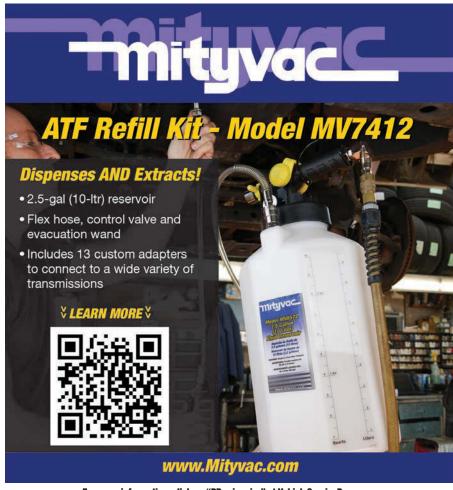
CASE STUDY NO. 2:
MISFIRE ANALYSIS —
SECONDARY IGNITION COIL OVER
PLUG, CASSETTE COIL ASSY.

A 2012 Chevrolet Cruze with the 1.8L arrived with the following complaints: The customer drove the vehicle in and stated that he purchased the vehicle about two weeks ago. The MIL came on while driving home. The DTCs were checked and found a P0171 set. The customer replaced both O2 sensors (aftermarket). The water pump was also replaced. The customer states that the MIL came back on for a P0301. The customer replaced the injector on cylinder one and an ignition coil pack to correct the problem. The customer states that the MIL came back on for P0300. Inspect and advise on repairs. The following DTCs were stored: 0x7E8: PO122 -Throttle/pedal position sensor 'A' circuit low (permanent)

- 0x7E8: P0171 System too lean (bank one) (permanent)
- 0x7E8: P0223 Throttle/pedal position sensor/switch 'B' circuit high (permanent)

- 0x7E8: P0300 Random misfire detected (SES, pending, current, old, permanent, history)
- 0x7E8: P0597 Thermostat heater control circuit/open (pending)
- 0x7E8: P0598 Thermostat heater control circuit low (pending)
- 0x7E8: P0689 ECM/PCM power relay sense circuit low (pending, history)
- 0x7E8: P1682 Driver five line two (pending, current, history)
- 0x7E8: P2078 Intake manifold tuning (IMT) valve position sensor/switch circuit high (pending)

Looking at the misfire history, we could see that No. 4 was contributing to the misfire although a P0304 was not set. Since this motor used a "cassette" style ignition coil assembly, I chose to use the Picoscope secondary ignition leads to establish a clean sample of the KV waveform for each plug wire (**Figure 6**). We also wanted to use a current probe to sample both the ignition coil power supply along the fuel injectors and I found that F9UA was tasked with protecting



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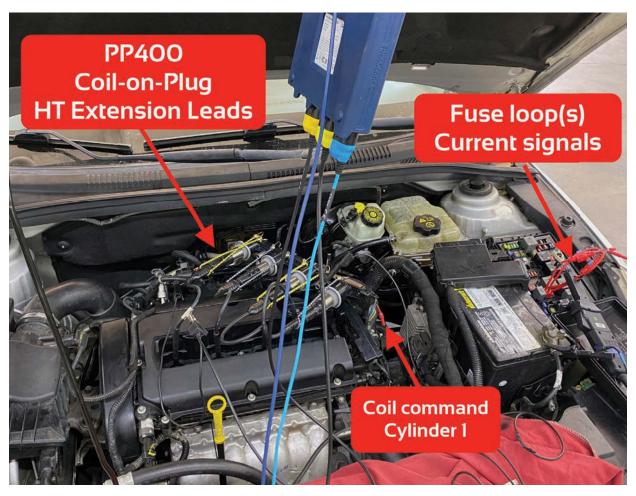


Figure 6 — PicoScope connection for examining misfire Photo courtesy of Scott Brown

both systems via circuit 5291 at the underhood power distribution center and used one of my fuse loops to connect a current probe. Additionally, I back-probed the cylinder one ignition coil ECM command signal as a reference (Circuit 2121). This setup allows one to analyze both ignition and

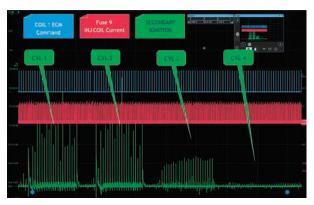


Figure 7 — 2012 Cruze misfire analysis Photo courtesy of Scott Brown

fueling events for each cylinder which is extremely helpful during misfire analysis. As you can see in the scope capture in Figure 7, the current probe allows us to see the activity of two circuits (fuel injectors and ignition coils) within one channel, which is a huge time saver. The reason for this is so we can see whether the coil primary circuit is being driven on the misfiring cylinder and the reason for triggering from coil one is so I can tell which cylinder looks abnormal. My process typically has me sampling each cylinder for a few seconds starting with cylinder one and moving in cylinder numerical order. It's clear that the No. 4 cylinder is misfiring because the secondary output is non-existent. Zooming in on that capture allows us to take a closer look to verify the injector current and secondary current are happening for the suspect cylinder, which it was (Figure 8). With that level of testing out of the way, we were very certain that the ignition coil was causing the misfire. Replacement of the coil pack assembly solved the misfire problem. Since a misfire can be caused by several items including compression, we performed

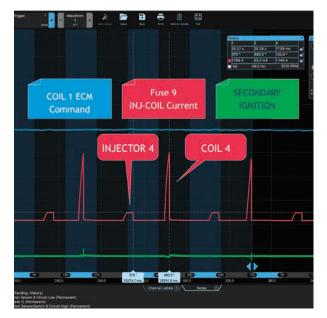
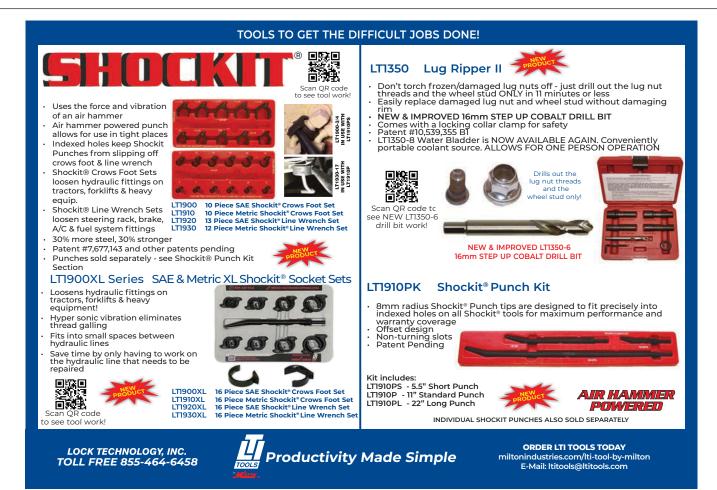


Figure 8 — 2012 Cruze misfire analysis zoom Photo courtesy of Scott Brown

a preliminary "ear-test" of the relative compression prior to deploying the scope and used it to quickly assess the ignition and fuel injector's operation. The ignition coil that we removed from the vehicle appeared to be a genuine OEM product, but a few markings were different from the new OEM unit we sourced. It's very possible that the coil pack assembly the customer sourced could have been counterfeit, but that's a discussion for another day.

CASE STUDY NO. 3: INTERMITTENT BLOWER MOTOR OPERATION

A 2010 Toyota Tacoma arrived with a complaint that the blower motor didn't want to work sometimes and when it was in failure mode, the client stated that he could tap on the area below the glovebox and the blower would work. When we went to check the operation, we found that the blower would work every time we asked it to perform. So, after performing a visual inspection of the blower motor connections we decided to take a quick look at the blower motor current to see if we could gain any knowledge as to why it was intermittent. Figure 9



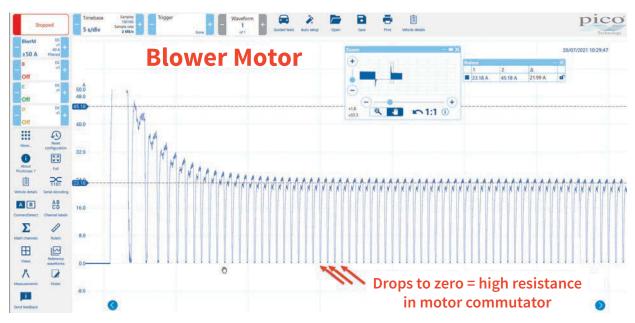


Figure 9 — 2010 Tacoma defective blower on startup Photo courtesy of Scott Brown



Figure 10 — Defective blower 2010 Tacoma Photo courtesy of Scott Brown

provides a major clue supporting the client's statement. The zero amperage spikes answer the 'why' question because the blower motor has such a high resistance at that section of the motor commutator that when it stops and lands on that section, we don't have any electromotive force to "push" the blower motor to begin working. For a closer look, I zoomed in on **Figure 10**. As you can see the scope and a current probe were quick and highly effective in identifying a defective blower motor. And the bottom line is that the scope allowed me to definitively determine why the issue was intermittent. Although these are just a few examples of how powerful the lab scope can be, there are far more uses and practical applications. But beware, it is equally important to know when you need to use the scope because a few basic tests can sometimes lead you to a conclusion without you needing to pick up your lab scope. 😵



SCOTT BROWN is an ASE Master Certified L1 Technician and has over 37 years of professional service industry experience. He is an independent shop owner in Southern California and is engaged at various levels within the industry. He has a

deep understanding of the challenges technicians experience at the service level and is continuously striving to move the industry forward through education and networking. Brown found Diagnostic Network (diag.net) after 22 years of service at iATN, where he is retired as company president in 2018.

sbrown@vehicleservicepros.com

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PTEN DISTRIBUTOR MOTOR AGE ABRN BUSINESSE



Just add tools

When this Mac Tools distributor started out, he bought a used, yet fully furnished tool truck that was move-in ready.

By Kayla Nadler, Associate Editor

fter talking to a friend in the mobile tool distributor business, Bryce Hinton became interested in the career. Although he wasn't very familiar with tools in the automotive industry, when a route opened in his area, he decided to jump on it.

Now five years later, the Mac Tools distributor with a route in Greenville, South Carolina, is still enjoying his career change, noting his favorite thing aside from talking to different people every day is the freedom.

"It's the first time I've ever owned my own business and it has been great," he says.

And as Hinton can attest, being your own boss is no easy feat.

"I'm not a technician and have never been, but I've learned a lot in the last five years," he says. "You make it how you want it. You got to work hard and hustle."

MOVE-IN READY

In 2018 when Hinton bought his 2011 Freightliner MT45 all he had to do was move in. Having already been used as a tool truck, there wasn't much for Hinton to do.

"I maybe just added a couple of shelves but that's about it," he says.

Some of his favorite features include the number of drawers available, having a diesel heater (and not propane), and being able to stock two toolboxes, if needed.

"Drawers help me carry more tools," Hinton says. Items such as drill bits, extractors, chisels, punches, picks, and specialty sockets all fit in the drawers and can still be displayed nicely. Plus, it gives customers the chance to look around more, Hinton notes.

With two dedicated spaces to display toolboxes, Hinton makes sure to always keep at least one toolbox onboard. To do so, he'll often store a couple of toolboxes at his house for quick availability.

Then with the second open space, he can choose to have another box or roll in his custom-built cart with adequate shelving to display more tools.





TOOL ORGANIZATION

This tool distributor's truck is "more or less" organized by type of tool than by brand.

"I'll be honest, I'm not the most organized," he admits, "but I do try to categorize by tool type."

On the ceiling, Hinton displays hand tools, including ratchets, screwdrivers, and pliers.

He also has a section for cordless tools and another for air tools. Cordless tools are most popular with his customers. So much so, it's essential for him to always keep stock of cordless ratchets as well as 1/2" and 3/8" impacts.

"Definitely want to keep those on the truck," he says.

The other high-selling items on his truck would have to be the beef jerky and candy that he displays by his desk. "They [help] to bring more customers onto the truck," he adds.

IN WITH HIS CUSTOMERS

After five years, Hinton has built reputable relationships with his customers to where he doesn't even need to step foot into shops anymore. When he pulls up, the technicians come out to him.

Hinton wouldn't describe himself as being pushy. He's more of a laid back, likable kind of guy.

"I just try to be as friendly as I can," he says.

As for the future, Hinton plans to "keep doing what I'm doing" and although he likes his truck, he says he eventually needs to get a bigger one.

















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How to keep the "good" going

While doing your mid-year check-in it's important to understand why things are going well or not so well, so you can either keep it up or make improvements where needed.

By Alan Sipe, Contributing Editor

o here we are mid-year 2023. How do you like your year so far? Are sales where you want them? Are your profits where you need them? Are you enjoying your business? Yes, no, maybe so?

Let's work on these questions and understand the value of your answers.

If sales are good but profits are not, what's causing this? If sales are not where you want them then let's figure out what's going on. With a small investment of your time, about one hour or so, we can figure out what's happening this year so far.

UNDERSTANDING WHY

Starting with the good news first. You're having a good or great year and your sales revenue is rocking and rolling. Good news, but why? Is it the economy? Have you had a new major dealership open or expand in your territory? Did a competitor go out of business? Is it your good looks? (Probably not...) Is it your sales skills? Are you more organized this year? Do you enter each shop with a plan and a sales goal? Are you giving better presentations? Feature, advantage, benefit, trial close followed by a good professional final close?

No one wants to kick a gift horse in the mouth, and I'm happy your revenue is good, but figuring out why is really important. If you know, to the best of your ability, why your revenues are where they are, you stand a much better chance of continuing this run of success instead of just letting the winds of good sales blow as they may. What happens when one of your major dealers closes? What happens when that jobber who went out of business is replaced? Will you still be riding the wave of success?

If you honestly answer the hard question, why are my sales good, you can develop a plan to continue on this rewarding path.

Let's say a major competitor got out of the business and their territory has not been refilled. If that's the case, focus hard on getting as many of their customers on your credit books as you can. Do what it takes to welcome them as new customers because when brand X refills that territory, and they will, you don't want those new customers running back to them.

IMPROVING YOUR NET PROFIT

If your top-line revenue is good but your net profit is not you need to really analyze this issue. A weak margin means you're basically working for practically nothing. The old saying, "Good sales revenue covers a lot of ills but when the top line hiccups the bottom-line crashes."

As an old-time sales manager, my first thought and real net margin killer is discounting. This is a slippery slope and once you get into the habit of cutting your prices to get the sale it becomes easier and easier. Sure, as a mobile jobber, your prices may be high compared to Amazon, eBay, or even some of the big-box stores but there always was and always will be

someplace where your customers can get many of their tools for less. However, none of the brick-and-mortar competitors offer the personalized service that you do – free delivery, specialty tools, professional quality tools, great credit terms, and an excellent no-hassle warranty. So be sure to continuously remind your customers how valuable your services are, how much you appreciate their business, and when a customer says your prices are high just say, "Sure they are, and here's why..." Then fill in the gap with all the great personal services and great products you provide.

Another way to look at your margin problem is to look at what you are promoting during your sales presentations. Yes, promoting the inexpensive or heavily discounted product your brand has on special this month may be an easy sale. However, using your valuable selling time on promoting low-margin products may not be the best for your take-home pay. Of course, you may want to mention the latest product promotion but invest your major selling time in more profitable items such as tool storage, EV battery and powertrain lift tables, exhaust analyzers, or other high-margin items.

Plan your sales presentations around profit instead of ease and your net will improve nicely.

Other profit killers to review are poor truck maintenance which causes down days for repairs, not taking advantage of supplier/wholesaler buying promotions, and overpaying for



insurance and incidentals. By the way, just because you buy a product from your brand or a WD on special does not mean you must sell it at a discount.

IT'S ALL IN THE NUMBERS

As I've mentioned many times before, sales are a matter of numbers. The more prospective customer interactions you have the better your results will be. Even if your sales skills leave a lot to be desired, if you ask enough people to buy something your sales will be there. As you get better at asking for the order your sales will grow even more.

So, look back over the first half of the year. How many selling opportunities have you given yourself? Are your interactions going up, staying flat, or going down? Sometimes there is a tendency to slack off a bit when sales are going well. The problem with

this is that when your sales do slow down it's twice as hard to get back on the ball.

What about your closing ratio? What percentage of your major presentations do you close successfully? If you're getting a shot at a good number of major presentations but not closing the deal, it's not the product's fault; it's not your company's fault. Close harder and close better. The old saying, "Don't press your luck" is totally counterintuitive to sales. When your luck is running on high PUSH HARDER. It won't last forever. Make your calls and ask for the order.

A great way to analyze your results is to take a moment after each stop or at least at the end of the day and ask yourself three questions - what went well, what didn't go so well, and what will I do tomorrow to improve?

Remember to answer these honestly. These questions are the ones a good field sales manager would ask their salesperson on a training visit. You can be your own sales manager when you ask and answer those hard questions every day.

Now go sell something.





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

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

DRIVING SALES

Hand and Specialty Tools

Hand and Specialty Tools

While your customers are balancing the price of the tool and its quality, help them sort through their choices by showing them any additional features the tool offers, such as having an ergonomic handle, that it comes with replaceable tips, or that they can access tight spaces and/or corners. Here are some of the latest hand and specialty tools we think your customers will enjoy.



4-DEGREE ARC SWING

The Milwaukee Tool 3/8" Drive 9" Flex Head Ratchet has a 4-degree arc swing that provides technicians the adaptability to work in spaces with different angles. The ratchet head can be locked into nine unique positions or left unlocked for free movement during use. The slim profile head and flush directional and locking levers offer accessibility in tight spaces. The allchrome finish makes cleaning the flex head ratchet easy. Also available in 12". ■

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



REPAIRS WHEEL STUDS **SAFELY AND CHIP-FREE**

The GEDORE Thread Reset Tool, No. 3435644, is designed to repair wheel studs safely and chip free. The tool can be used universally on wheel bolts with M12 x 1.5 and M14 x 1.5. According to the company, repairs are done in just 30 seconds and will not weaken the thread. The thread becomes chipless by rolling (forming, pressing, embossing) back to its original geometry. No material is removed and the strength of the wheel bolts are fully retained. Use with a standard hex socket with a reversible ratchet.

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



HAS 10 ADJUSTABLE **POSITIONS**

The KNIPEX 4" Pliers Wrench XS, No. 8604 100, is a compact tool at just 4", with a jaw capacity of 3/4". Designed with smooth jaws that will not mar surfaces, the Pliers Wrench XS is ideal for gripping, holding, pressing, and bending applications. With one-handed adjustment, users can quickly and easily slide through 10 adjustment positions to find the right fit on the workpiece. Its texturized handles, compact design, and slim head allow easy access to confined areas such as for under the dashboard, under seats, and more.

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

CUSTOMER REVIEW: As expected, KNIPEX uses high-quality materials. They're easily adjustable and the jaws remain parallel when opening and closing. They are the perfect size for hard-to-reach fasteners. 🔲 🧰



PUSH BUTTON FOR EASY ADJUSTMENTS

Designed to meet the ever-changing demands of America's trades pros, Channellock SpeedGrip Tongue and Groove Pliers combine the dependability of the company's original Tongue & Groove Pliers with an innovative push button for fast and easy adjustments that lock into place. Forged from high-carbon U.S. steel and featuring laser heat-treated crosshatch teeth, SpeedGrip Pliers are built for maximum strength and grip 2.5 times better than traditional tongue and groove-style pliers, says the company.

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IDEAL FOR EXHAUST WORK, BODY WORK, AND **DASHBOARDS**

The EZRED 8" S-Shaped Quarter Stick,

No. 4SS8, features a compact design to allow easy access inside tight corners. The tool is forged from chrome vanadium steel, and is ideal for exhaust work, body work, dashboards, motorcycles, inside fan cowls, and other hard-to-reach areas. With a 1/4" square socket and magnetic bit drive, the tool works for most generalpurpose fastener-driving, and requires only 5 degrees to move fasteners.

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ELIMINATES BEARING AND HUB DAMAGE

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

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



QUICKLY REMOVES SCHRADER VALVES

The OEMTOOLS 2-pc Tire Valve Core Tool Set, No. 22589, is designed to quickly remove Schrader valves from cars, trucks, motorcycles, bicycles, and more. The set includes two tools: 2" and 5" slotted Schrader tool blades. To use, simply insert the slotted blade into the valve stem and unscrew the air valve core. The 5" blade can access dually Schrader core stems as well. Both tools feature tough impact and solvent-resistant acetate handles. ■

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



FEATURES AN ERGONOMIC DESIGN

The CTA Tools BMW Fuel Injector Puller Tool, No. 3766, is designed to help technicians efficiently service BMW engines by ensuring a secure grip on the injector while removing it without causing damage to the engine or surrounding components. Its ergonomic design and its high-quality construction provide durability and longlasting performance. The tool is compatible with B38 (1.5L), B48 (2.0L), and B58 (3.0L) engines, as well as a wide range of BMW models, including F22, F23, F30, F31, F32, F33, F34, F36, F39, F44, G01, G02, G05, G06, G07, G11, G14, G15, G16, G20, G22, G23, G29, G30, I12, and MINI with applicable engines.

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



FORGED FROM ONE-PIECE STEEL CONSTRUCTION

The Mac Tools Anti-Vibe Hi-Vis Ball Peen Hammers are ideal for metal shaping and driving applications. Forged from one-piece steel construction, the ball peen hammers offer added durability. They also feature a tuning fork design to isolate vibration and bi-material grip construction to help reduce shock. Additionally, the handle provides a textured grip for slip-resistance and increased comfort. The hi-vis hammers are available in sets and as individuals.

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



STRAIGHTENS TUBING UP TO 3/8"

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

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DRIVING SALES

Hand and Specialty Tools



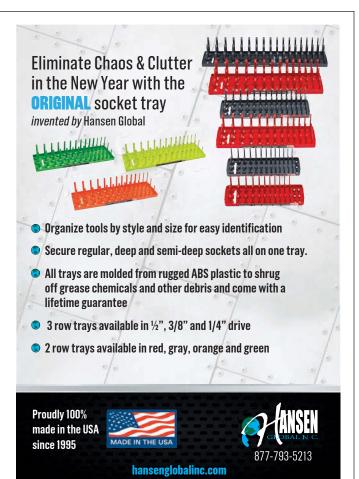
FEATURES A SPRING **RATCHET LOCKING MECHANISM**

The Lang Tools 2-pc Internal/ **External Retaining Ring Pliers** Set, No. 1487, features a spring ratchet locking mechanism that securely holds against snap ring tension, a thumb release allow-

ing for smooth and controlled tension release, and a cushion grip for comfort. The internal ring size ranges from 3-1/16" to 6-1/4", and the external ring size ranges from 3-1/2" to 6-1/2". The pliers set includes two sets of replaceable tips (size .120") that come in straight, bent 45-degree, and bent 90-degree angles. ■

> For more information, click on "PD e-inquiry" on VehicleSérvicePros.com





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PROVIDES A NON-SLIP GRIP

The Mayhew Tools 7-pc Torx Screwdriver Set, No. 27031T, features ergonomic tri-lobular handles and high-alloy steel blades with a durable black oxide finish. The tools

temper process and all tips are precision machined to industry specifications. The set includes three 3" blade screwdrivers (SD-TORX T10, SD-TORX T15, and SD-TORX T20), three 4" blade screwdrivers (SD-TORX T25, SD-TORX T27, and SD-TORX T30), and a 5" blade (SD-TORX T40). The set also comes in a custom molded tray, designed to fit inside tool drawers. Made in the U.S.A.

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OFFERS NINE **LOCKED AND UNLOCKED POSITIONS**





Flex Head Ratchet is designed to access hard-

to-reach fasteners. The locking flex head allows for nine locked and unlocked positions for adjustable angled access that provides the ideal balance of use. The double-stacked pawls engage a 60-tooth gear to give 120 positions that deliver a 3-degree swing arc to turn fasteners in tighter confines. Additionally, the 120XP Locking Flex Head Ratchets exceed ASME torque performance requirements and provide extended reliability when used in hightorque applications.

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

REPLACES SPIN-ON OIL FILTERS

The Lisle Corporation 10-pc Filter Wrench and Socket Set, No. 62250, is designed for replacing spin-on oil filters and canister style fuel and oil filters on popular domestic and import vehicles. The set offers cast aluminum end cap wrenches and low-profile, six-point,

cold-heated steel sockets. End cap wrench sizes include: 64mm 14 flutes, 73mm 14 flutes, 74mm 14 flutes, 74.5mm 14 flutes, 84mm 14 flutes, and 86.5mm 16 flutes. Socket sizes include: 24mm, 27mm, 32mm, and 36mm. Use with a 22mm socket or wrench on end caps and 3/8" square drive on sockets. I

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FEATURES A THREE-POINT JAW DESIGN

The Tool Aid Sharktooth Sway Bar Pliers,

No. 13570, feature a three-point jaw design intend-

ed for use on sway bar links as well as stripped and rounded

fasteners. The 7" length and thin profile allows for easy access in hard-to-reach areas.

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



CAPABLE OF FASTENING ROUNDED OFF BOLTS

The Matco Tools 5-pc Reversible Double Box Flex Ratcheting Wrench Set, No. SRWFXLM52T, is designed to make quick

work, even in tight spaces. The 90-tooth ratcheting wrench requires just 4 degrees of movement and its long-length body provides access into narrow and deep spaces while the flexible box end design allows the user to gain the ideal angle for the job. The box-end can open and fasten rounded off bolts as well as 6-point, 12-point, TORX, square, and spline. The metric ratcheting wrench set includes sizes: 8mm by 10mm, 12mm by 14mm, 13mm by 15mm, 16mm by 18mm, and 17mm by 19mm.

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ACCOMMODATES AWG20 TO AWG12

The **OTC Angled Wire Stripping Tool**, No. 5950D, features stripping dies on the angled tip, above the pivot point. The patented angle design gives users the right angle to strip or cut wires in toughto-reach places. It also allows for a better view for tasks done in tight spaces, such as for wiring service under the dash, inside panels, and in the engine compartment. Accommodates AWG20 to AWG12.

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

INCLUDES A VARIETY OF SIZES

The SP Tools USA 12-pc Screwdriver Set with EVA Foam Tray, No. SP34003G, is designed to fit into techni-



cians' toolboxes by utilizing its EVA foam holding trays. The set includes a variety of sizes from stubby for confined workspaces with limited access to extra long for increased torque and extended reach. The handles are made from polypropylene and the shafts are made from SVCM steel, offering extra strength and durability to get the job done effortlessly. Precision made magnetic tips ensure ideal fastener control. EVA foam housing measures 22.5" by 10.5" by 1.25".

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

DESIGNED TO REDUCE FATIGUE

The Vessel Ball Grip Ratchet Screwdriver with 10-pc Bit Set and Bit Belt, No. 2200MBH120K01, features a bit size of 1-3/16" and offers a smooth operation with its 36-teeth gear design. The ratchet mechanism has a forward, reverse, and stationary positions on the dial. The Ball Grip ratchet style is designed to reduce fatigue when using to insert a lot of screws. The kit includes a SL#6, T10, T15, T20, T25, T30, SQ2, PH1, PH2, and PH3 bit. The ratchet screwdriver can also be used as a stubby screwdriver and the Impact Torsion bits can be used with power tools. ■

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6 sales pitch techniques to better connect with customers

There are several actions to take that will help improve your sales pitch technique to sell more effectively, such as being prepared for objections and knowing your products inside and out.

By Brett Farmiloe, Contributing Editor



Photo courtesy of Matt Fanslow

o help you better connect with customers through sales, we asked CEOs and business leaders for their best insights. There are several actions to take that will help improve your sales pitch technique to sell more effectively while connecting with your customers.

1. PREPARE FOR OBJECTIONS

Entrepreneurs who want to sell must get ready for objections. Objections are part of sales and knowing everyone has them helps an entrepreneur better prepare, manage, and dig into the deep desires of the potential client. Objections include, "I don't have time/ money/priority." Once entrepreneurs identify what objections someone has, they can ask further questions to connect and understand someone's pains and desires. Knowing that discussing objections is part of the sales process, an entrepreneur can better prepare to engage in a deeper conversation.

-LIBBY ROTHSCHILD, Dietitian Boss

2. BE CONCISE BUT GET YOUR POINT ACROSS

You should always strive to keep your pitches simple, specific, and short, which saves the customer time and preserves your energy. Focus only on points that you think are relevant, specifically highlighting what a product can do for the customer. The goal is to

grab their attention, keep it, and convert it into a sale. You can do this if you provide as much detail as you can in as short a time as possible.

-CAREY WILBUR, Charter Capital

3. KNOW YOUR PRODUCTS **AND PROCESSES**

The more you know about your products, the more confidence a customer will have in purchasing from you, so you should be able to explain what your product is for, and how it can benefit customers. You also need to be able to answer questions about how it works, what it's made of, what the return policies are, and so on. Demonstrating familiarity with your products and processes builds the trust you can convert into a sale.

-STEPHANIE SCHULL, Kegelbell

4. UNDERSTAND AND **COMMUNICATE YOUR VALUE**

Remember that customers always have a choice between you and your competitors. If you're unable to successfully communicate your value to customers, you're not giving them any reason to choose you over someone else. Formulate a value proposition that can help you quickly and concisely pitch your services to customers. This will give them the reason they're looking for and go with your business.

-ROD CULLUM, Cullum Homes

5. HAVE A CUSTOMER-CENTRIC MESSAGE

Your customers are coming to you for a reason, and you need to listen to them to sell them on a product, service, or even yourself. Every step of the way, I demonstrate to my clients that I'm listening to them and taking their preferences into consideration. Don't make the pitch about you and your business, make it about the customer. They will appreciate this approach more than you know.

-LILY YU, Oak Springs Realt

6. OVERCOME OBJECTIONS BY **TELLING CUSTOMER STORIES**

There's no better sales tool in your belt than positive stories from your other customers. Along with that, I like to verbalize objections the prospective customer might be thinking of but haven't said yet. Once I do that, I can segue into how a current customer had that same concern, and this is how we overcame that, or here's their ROI from our service as of today. Being honest and forthright goes a long way to garnering their trust,

which is the most important element of a new business relationship.

-DAVE RIETSEMA, Matchr

This article originally appeared on score.org.



BRETT FARMILOE is the founder and CEO of Markitors, a digital marketing company that connects small businesses to

customers through organic search. He enjoys converting insights from small business owners into high-quality articles for brands.

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A degree to sell

This independent tool distributor has a master's degree in business, along with 40 years' worth of teaching marketing classes.

By Emily Markham, Editor

ast time we caught up with Art Richardson was over 14 vears ago. Back then he was working for a flag, but since 2017, he's been flying solo as a part of the GEARWRENCH Street Team.

The Rhode Island-based independent is still hitting a variety of independent shops, heavy duty shops, auto body shops, trailer and snowplow businesses, and so on. However, after more than 20 years of selling tools, Richardson knows it's not the type of accounts you sell to that matters, but the type of people.

"I look for very loyal customers," he says. "People that will give me top-ofmind awareness and people that will prefer me...I look at the character of the customer I'm dealing with and then I'll try to build my stop around them."

Unfortunately, Richardson knows it's impossible to help everyone. He's aware he needs to budget his time wisely, as well as say no to customers when he knows it's in their best interest.

CLASS IS IN SESSION

With a master's degree in business, 40 years of teaching marketing classes at Bryant University, and as the previous owner of a chain of auto parts stores, Richardson has quite a business background. His experience helps him to break things down for his customers

What's your story?

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

into ratios and numbers and show them how a lot of the little things add up.

Regardless of his experience though, Richardson still faces the same challenges many other mobiles do, such as competing with online retailers. He notes that because the younger techs have grown up with computers, that's where many of them turn when they need to buy tools.

"Usually, they're of the opinion that, 'When it breaks, I'll just buy another one. If they won't warranty it, I'm still saving money," Richardson says.

He explains that what they don't realize is every time that tool breaks and needs replacing, the initial savings that came from buying online melts away, but if they bought from a distributor instead, they would have been better taken care of.

TOOLS OF THE TRADE

As someone who's been selling in this industry, both parts and tools, for many years, Richardson has amassed vast knowledge on how to make the sale. If you're someone who's just starting out, he advises finding each shops' "godfather."

"Take care of him," Richardson says. "Then he can tell you about the new hire. He can tell you about who's really having problems paying his bill. He'll tell you who's really a lousy tech and is going to get fired, but it's got to be a certain guy. He's worth it because he can save you a lot of grief."

Apart from finding someone who can give you the inside scoop, one of the most important things you can do, he notes, is ask questions, listen to the



Richardson joined the GEARWRENCH Street Team back in 2017 and loves working as an independent distributor. Photo courtesy of Art Richardson

answers, and then take those answers and form them into a sales presentation.

"The greatest attribute a salesperson can have," Richardson says, "is the ability to listen." @





Favorite music 70's rock



Favorite hobby Season tickets to college footbal



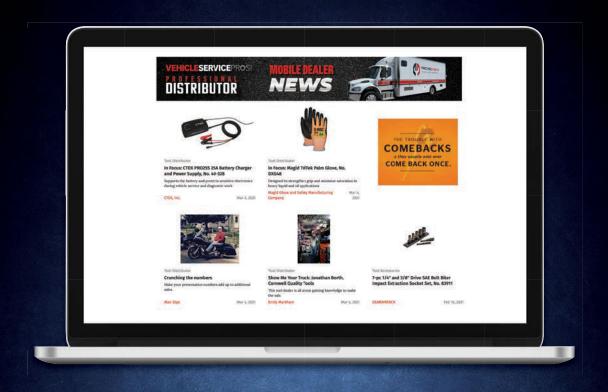
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