

PTEN

The Independent Tool Authority



MST8019ORNG WORK TABLE by Monster Mobile



Details on the
cover products
and other
new tools
Page 10



▲ Heavy duty
slide hammer



▲ Offers nine
total resets



▲ Sleek, modern,
and lightweight



EXCLUSIVE:
2019 PTEN
Innovation
Awards Winners
Page 28

**Category
Spotlight:**
Tire & Wheel Service
Page 68



**LEGACY
MATTERS:
7 SIZES
23 PRODUCTS
4 HANDLE TYPES
35 YEARS OF
PUSH-BUTTON
EXPERIENCE**



KNIPEX – Tools Designed With Your Hand in Mind

Here's something you won't find in competitive push-button pliers today—quality and breadth of line. With 23 different products in seven sizes, KNIPEX delivers push-button perfection for nearly every application.

Copying might be a form of flattery, but there really is no viable "copy" of the Cobra line of push-button pliers. Accept no substitutes. Professionals prefer the original Cobras.

Lock into the legacy—KNIPEX locking push-button pliers.
See a video of this tool: <https://goo.gl/wia8MN>

©2019 KNIPEX  facebook.com/knipex.us

Circle 15 on card, or enter at "e-inquiry" on VehicleServicePros.com

AVAILABLE IN SEVEN SIZES

**From 5"
to 22"**



KNIPEX Quality – Made in Germany

X-431 THROTTLE

The **X-431 Throttle** is a full comprehensive diagnostic tool, which includes a charging base. It is based on the Android™ 7.1 System, which supports dual band WiFi (2.4 Ghz & 5Ghz) Communication. It has wide Coverage on most models, strong diagnostic capabilities, accurate detection data, IP 65 Rated.



NEW 2 HOUR QUICK CHARGE TECHNOLOGY



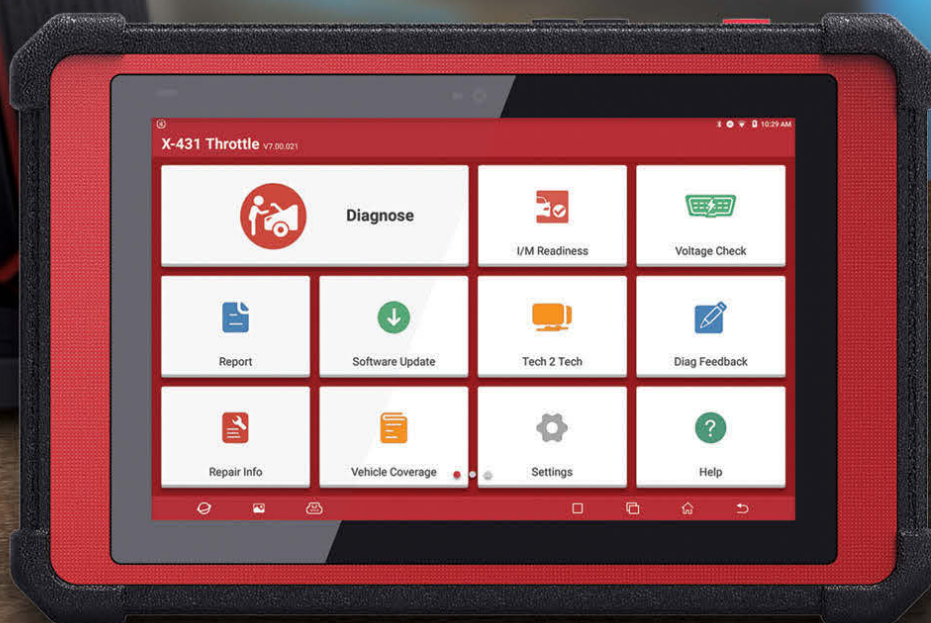
WILL SUPPORT LAUNCH'S NEW ADAS



13 MP REAR CAMERA



NEW HIGHER RESOLUTION AND BRIGHTER DISPLAY



Circle 16 on card, or enter at "e-inquiry" on VehicleServicePros.com

AUGUST CONTENTS

EXCLUSIVE

28 2019 PTEN INNOVATION AWARDS WINNERS

After reviewing the entries, our panel of judges provided feedback to determine the top products for the 20th annual PTEN Innovation Awards. Find product details on all the tool and equipment winners.

FEATURES

10 FEATURED NEW PRODUCTS

Check out the new tools from Monster Mobile, Launch Tech, MechTech Innovations, and Kershaw. Then, read about all the other new products, beginning on page 12.

38 TOOL BRIEFING

The well-documented diagnostic worksheet.

60 TOOL REVIEWS

Our review panel gives feedback on the following tools:

- Mighty Seven 1/2" Drive EZ Grease Mini Impact Wrench, No. NC-4650HB
- Robinair LD7 Premium Refrigerant Leak Detector
- AIRCAT 3/8" Drive Long Reach Ratchet, No. 808-15
- Mueller-Kueps Wheel Weight Pliers, No. 282 240



22



41



67



32



60



69



74

DEPARTMENTS

8 EDITOR'S NOTE

On the lookout for invention

64 DIAGNOSTIC DISCOURSE

Programming: Where did it start, and what options are available to today's technicians?

68 CATEGORY SPOTLIGHT

This month we feature information and user tips on Tire and Wheel Service. In addition to product details, this section features links to product video demos, reviews, and more.

73 MARKETPLACE

74 BIG-TIME BOXES

Owner: Curtis Detweiler

Shop: Redz Auto Body

Location: East McKeesport, Pennsylvania.

ON OUR COVER



The Monster Mobile Heavy Duty Work Table, No. MST8019ORNG

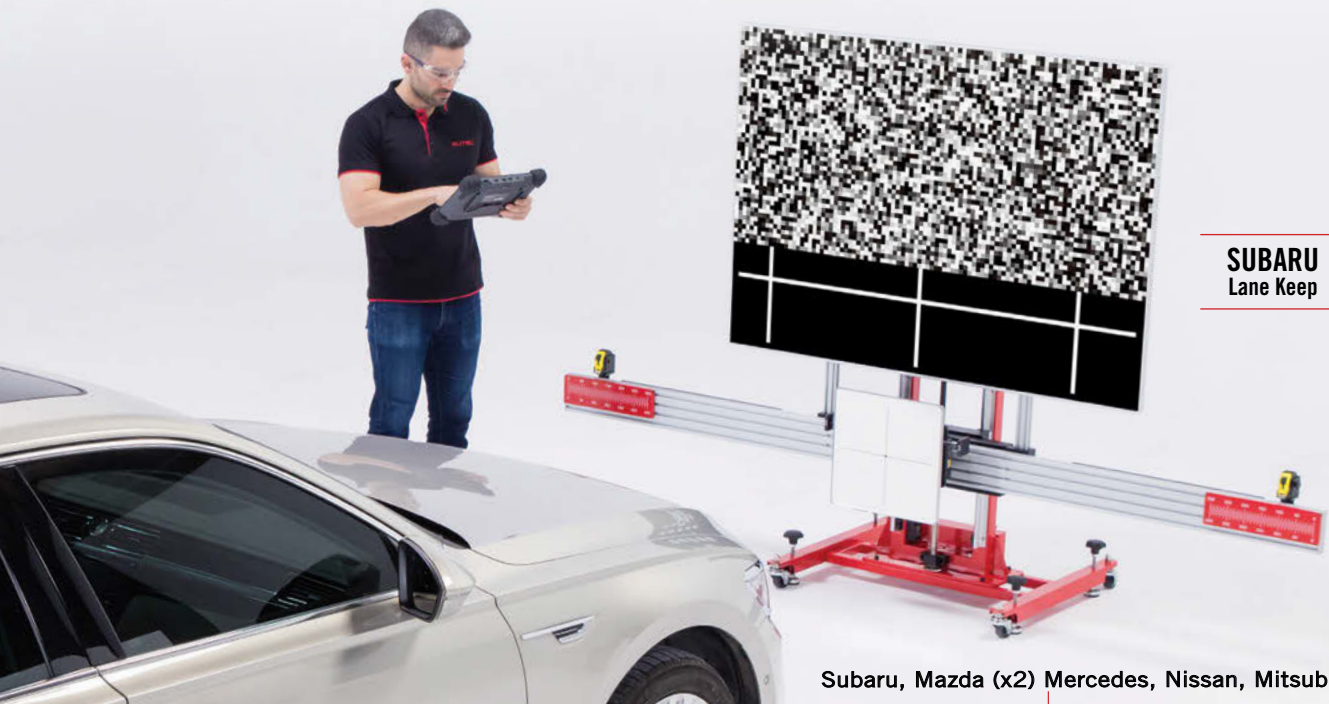
IN THE NEXT ISSUE

We're gearing up for PTEN's 8th annual Great Prize Giveaway. Stay tuned for your chance to win tool and equipment prizes. Find all the details in the September issue.



ADAS CALIBRATION **AUTEL** NEW COVERAGE

SOFTWARE / TARGETS



SUBARU
Lane Keep

Subaru, Mazda (x2) Mercedes, Nissan, Mitsubishi

6 NEW LDW TARGETS

PACKAGE PART# **LDWTARGET2**



GRAPHIC INSTRUCTION NEW CALIBRATION SOFTWARE

Coverage Included FREE with Active Software Subscription

Circle 17 on card, or
enter at "e-inquiry" on
VehicleServicePros.com



YouTube
TRAINING
VIDEOS
@AutelTools



<https://www.youtube.com/auteltools>



Phone: (855) 288-3587 • USSUPPORT@AUTEL.COM
AUTEL.COM • MAXITPMS.COM • MAXISYSADAS.COM
© 2019 Autel Intelligent Technology Corp., Ltd., All Rights Reserved



Follow Us @AutelTools
f t i YouTube

AUTEL

NOW ONLINE AT VEHICLESERVICEPROS.com

NEWS



AAPEXEDU 2019 TO INCLUDE 10 SESSIONS

The sessions, geared toward automotive service professionals, auto parts retailers, and warehouse distributors, will help them prepare

for the future while also enhancing the service they provide to today's customers. To read more, visit: VehicleServicePros.com/21090700

ASK THE EXPERT



How do we select the appropriate type of air compressor? This isn't an exact science, and the answer isn't black and white, but a few helpful questions will point us in the right direction. To read more, visit:

VehicleServicePros.com/21078977

TECH TIP



The technology at the center of any portable evaporative cooler is the evaporative media that allows water to interact with the air. To read more, visit:

VehicleServicePros.com/21090239

VIDEO



The Kukko Tools Universal Puller Set, No. K-204-V-210-1, is designed for removing bearings, gears, inner races, pitman arms, and more. To watch the video demonstration, visit:

VehicleServicePros.com/21090096

FEATURED PRODUCTS



Pro Folding Hex Key Set Klein Tools

VehicleServicePros.com/21091662



7-pc Plastic Pry Bar Set CTA Manufacturing

VehicleServicePros.com/21091583



SVS II Deluxe Valve Refacer Kwik-Way Products

VehicleServicePros.com/21091453



Look for this logo in PTEN to identify where you can email to provide feedback and contact us.

Professional Tool & Equipment News
PTEN
The Independent Tool Authority

Published by Endeavor Business Media, LLC

ENDEAVOR
BUSINESS MEDIA

1233 Janesville Ave
Fort Atkinson, WI 53538
920-563-6388 • 800-547-7377

Printed in the U.S. Volume 30, Number 7; August 2019

VICE PRESIDENT/GROUP PUBLISHER – TRANSPORTATION Larry M. Greenberger
LMG@VehicleServicePros.com

PUBLISHER Kylie Hirko
630-253-4034 Kylie@VehicleServicePros.com

EDITOR Sara Scullin
800-547-7377 x1394 Sara@VehicleServicePros.com

MANAGING EDITOR David Brierley
800-547-7377 x1566 David@VehicleServicePros.com

ASSISTANT EDITOR Tyler Fussner
920-234-6232 Tyler@VehicleServicePros.com

ASSISTANT EDITOR Emily Markham
920-234-6359 Emily@VehicleServicePros.com

ASSISTANT EDITOR Kayla Oschmann
800-547-7377 x1764 Kayla@VehicleServicePros.com

MULTIMEDIA ACCOUNT EXECUTIVE Cortni Jones
800-547-7377 x1391 CJones@EndeavorB2B.com

MULTIMEDIA ACCOUNT EXECUTIVE Diane Braden
800-547-7377 x1364 DBraden@EndeavorB2B.com

MULTIMEDIA ACCOUNT EXECUTIVE Mattie Gorman
800-547-7377 x1636 MGorman@EndeavorB2B.com

INSIDE SALES Kimberly Brown
815-242-7319 KBrown@EndeavorB2B.com

PRODUCTION MANAGER Connie Wolf
800-547-7377 x1679 CWolf@EndeavorB2B.com

ART DIRECTOR Eric Van Egeren

LIST RENTAL REP Michael Costantino
402-836-6266 Michael.Costantino@infogroup.com

LIST RENTAL REP Kevin Collopy
402-836-6265 Kevin.Collopy@infogroup.com

AUDIENCE DEVELOPMENT MANAGER Debbie Dumke

ENDEAVOR BUSINESS MEDIA

CEO – Chris Ferrell

CRO – Scott Bieda

COO – Patrick Rains

CTO – Eric Kammerzelt

CMO – June Griffin

VP, Accounting – Angela Mitchell

Director of Finance – Jessica Klug

VP/Group Publisher, Transportation – Larry Greenberger

VP, Production Operations – Curt Pordes

General Counsel – Tracy Kane

Subscription Customer Service

877-382-9187; 847-559-7598

Circ.ProfDistmag@omeda.com

PO Box 3257 • Northbrook IL 60065-3257

Article reprints • Brett Pettilo

Wright's Media 877-652-5295, ext. 118

bpettilo@wrightsmedia.com



Professional Tool & Equipment News (USPS 012-426, ISSN 1081-4485 print; ISSN 2150-2072) is published ten times a year in February, March, April, May, June, July, August, September, October, and December by Endeavor Business Media, LLC, 1233 Janesville Avenue, Fort Atkinson, WI 53538. Periodicals postage paid at Fort Atkinson, WI 53538 and additional mailing offices. POSTMASTER: Send address changes to Professional Tool & Equipment News, PO Box 3257, Northbrook, IL 60065-3257. Canada Post PM40612608. Return undeliverable Canadian addresses to: Professional Tool & Equipment News, PO Box 25542, London, ON N6C 6B2.

Subscriptions: Individual subscriptions are available without charge in the U.S. to qualified subscribers. Publisher reserves the right to reject non-qualified subscriptions. Subscription prices: U.S. \$47 per year, \$91 two year; Canada/Mexico \$69 per year, \$128 two year; All other countries \$101 per year, \$191 two year. All subscriptions payable in U.S. funds, drawn on U.S. bank. Canadian GST#842773848. Back issue \$10 prepaid, if available. Printed in the USA. Copyright 2019 Endeavor Business Media, LLC.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recordings or any information storage or retrieval system, without permission from the publisher.

Endeavor Business Media, LLC does not assume and hereby disclaims any liability to any person or company for any loss or damage caused by errors or omissions in the material herein, regardless of whether such errors result from negligence, accident or any other cause whatsoever. The views and opinions in the articles herein are not to be taken as official expressions of the publishers, unless so stated. The publishers do not warrant, either expressly or by implication, the factual accuracy of the articles herein, nor do they so warrant any views or opinions offered by the authors of said articles.

f
FACEBOOK
facebook.com/VehicleServicePros

t
TWITTER
[@VehicleSrvcsPros](https://twitter.com/VehicleSrvcsPros)

in
LINKEDIN
linkedin.com/company/VehicleServicePros

AUTEL MAXISYS

PRE-SCAN & POST-SCAN

DIAGNOSTIC REPORTS

ADAS

MODULE IDENTIFICATION
ICON PINPOINTS MODULES REQUIRING ADAS CALIBRATION



CREATE EFFICIENT REPAIR PLAN FROM THE START

Saved By RO and VIN • Single Button Report • Wireless Print or Email • E-Signature For Insurance Approval



Circle 18 on card, or enter at "e-inquiry" on VehicleServicePros.com



NOW AVAILABLE ON ALL MAXISYS 908 TABLETS



Phone: (855) 288-3587 • USSUPPORT@AUTEL.COM
AUTEL.COM • MAXITPMS.COM • MAXISYSADAS.COM
© 2019 Autel Intelligent Technology Corp., Ltd., All Rights Reserved



Follow Us @AutelTools
f t i YouTube

AUTEL



On the lookout for invention

The results are in. See which tools pulled top marks in the 2019 Innovation Awards.

By Sara Scullin, Editor
Sara@VehicleServicePros.com

Which tool have you used in the last year where you thought to yourself, "This is a game-changer"? Which tool do you believe has yet to be invented?

In this month's Big-Time Boxes column (Page 74), Curtis Detweiler, owner of Redz Auto Body in East McKeesport, Pennsylvania, houses a great many tools in his 60-foot long, L-shaped Snap-on Mr. Big toolbox, including PDR tools, diagnostic products, metric and standard auto body tools, and mechanical tools. In addition, each one of the stainless steel top boxes has a built-in power supply to ensure his amped-up arsenal is always ready to go.

As vehicles change, a technician's collection of tools grows — for reasons of necessity as much as convenience. But what makes a tool truly *inventive*? Sometimes a new product or update is a clear departure from what was used in the past. For example, today's shop owners are beginning to use thermal imaging devices to detect heat signatures in vehicles as part of the diagnosis process. You wouldn't have seen this just a few years back.

At other times, the devil's in the details. Whatever the tool's innovation, be it a new socket design, lighter weight protective gear, or expanded software capabilities, these details can still offer a significant improvement when it comes to time saved, energy put forth, and dollars earned.

This explains why each year *PTEN* celebrates new and innovative products for shops with its Innovation Awards. We are always looking for the 'What's next' ... big and (seemingly) small innovations in the aftermarket.

In previous issues (May and June) we

published all of this year's nominees. Now, the scores have been tallied and the results are in, and I'm excited to share with you the winners for 2019.

The Innovation Awards are no small feat. This year our editorial team took receipt of nearly 150 entries across 31 categories, solutions ranging from ADAS to welding, and everything in between. In this list, there's truly something for everyone.

Each entry was a product either introduced to the automotive aftermarket or significantly updated within the last year. Each product is evaluated by a panel of judges made up of technicians and shop owners across the country on their ability to make vehicle diagnosis and repair easier and more efficient, and shops — like yours — more productive.

Award-winning companies will accept their Innovation Award in person at the Automotive Aftermarket Expo (AAPEX) in Las Vegas at the *PTEN* booth in November. Be sure to look for more coverage of the 2019 *PTEN* Innovation Awards and the AAPEX show this fall.

If you're attending the show, stop at the *PTEN* booth to say hello, and tell us which products have made a difference to your business this past year. Even if you won't be in Vegas, drop us a line. We'd love to hear from you. **PTEN**

For more products visit the VehicleServicePros.com online product guide, which is updated daily with details on new tools and equipment. To search, visit: **VehicleServicePros.com/directory**



David Brierley
Managing Editor



Tyler Fussner
Assistant Editor



Emily Markham
Assistant Editor



Kayla Oschmann
Assistant Editor



Barry Hoyland
Contributing Editor

PTEN Editorial Advisory Board

Technicians

John Harris,
Brooks-Huff Goodyear, Timonium MD

Eric Moore,
DeMary Trucks, Columbus, OH

Lou Fort,
K.A.R.S. Inc., Huntingburg, IN

Shop Owners

Phil Fournier,
Phil's Auto Clinic, Hemet, CA

JD Goad,
Goad's Body Shop, Lexington, VA

Edwin Hazzard,
Southeast Mobile Tech, Goose Creek, SC

Barry Hoyland,
VSSCA, Camarillo, CA

Pete Rudloff,
Pete's Garage Inc., Newark, DE

Equipment Manufacturers

Chad Schley,
Schley Products/SP Tools

Jim O'Hara,
Clare Automotive



A revolution in extraction sockets.



BOLTBITER™

Extraction Sockets

Bolt Biter reinvents extraction with a bi-directional design that tightens and loosens damaged fasteners using tapered gripping flutes instead of cutting blades. Bolt Biter grips rusted and rounded fasteners instead of cutting into them for a 10x longer life than the competition under impact power, all backed by our Lifetime Warranty. Master sets include "minus-sized" sockets designed to fit fasteners rounded well beneath their original size. Forge Ahead with GEARWRENCH.



Bi-directional design lets you re-use those hard-to-replace specialty fasteners



© 2018 Apex Tool Group, LLC - ATG-4240

www.gearwrench.com

Circle 19 on card, or enter at "e-inquiry"
on VehicleServicePros.com



FEATURED NEW PRODUCTS

Offers nine total resets

The **Launch Tech USA Millennium Master** offers nine total resets on a 5" color touch-screen with thumb pad navigation. The nine resets include: TPMS reset with relearn database, injector coding, immobilizer, battery reset, EPB, SAS reset, DPF regen, oil reset, and brake bleed. The diagnostic tool is based on Android OS and offers full coverage on domestic, Asian, and European vehicles (1996 and newer OBDII). It supports auto VIN detection and connection, and can share diagnostic reports via email.

Circle 20 on card, or enter at "e-inquiry" on VehicleServicePros.com



Heavy duty slide hammer

The **MechTech Innovations Bearing Bulldog** is a precision, heavy duty slide hammer that eliminates the need for torches, pneumatic tools, and the chance of damaging customer cars. The Bearing Bulldog weighs 32 lbs and can remove bearing assemblies within seconds. The tool is designed and manufactured in North America and has a limited lifetime warranty.

Circle 21 on card, or enter at "e-inquiry" on VehicleServicePros.com



Sleek, modern, and lightweight

The **Kershaw Decibel Knife** is sci-fi-inspired with its sleek, modern, and linear design. The knife is emphasized by dark matte gray, titanium carbo nitride coating on both its blade and handle. The blade is stainless steel, weighs 2.7 oz, and the tip is positioned downward making it ideal to open everyday items. The knife can be opened one-handed using the thumb stud, and has a reversible pocket clip.

Circle 22 on card, or enter at "e-inquiry" on VehicleServicePros.com



Kicking 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.



Keeps parts and tools within reach

The **Monster Mobile Heavy Duty Work Table, No. MST8019ORNG-HD**, features a screwdriver and pry bar holder on the side to leave more space on the work tray. The top tray has three smaller compartment for parts and is also designed to house working air tools with a cutout for the air hose, making it easier to store in between uses. The work table is adjustable from 34" to 47.75" to accommodate different size vehicles and holds up to 220 lbs. It also features a 1" deep drawer below the work tray with a non-slip rubber bottom to keep tools in place, and four large swivel casters.

Circle 23 on card, or enter at "e-inquiry" on VehicleServicePros.com

REPROGRAMMING REVOLUTIONIZED!

RAP² REMOTE ASSIST PROGRAM



"It's the only system that has worked as advertised, for a small shop that doesn't do programming every day, it's critical for it to work right the first time."

R. Jones | November 12, 2018

Now equipped with **BMW** and **Mercedes-Benz** capabilities!

Our **RAP²** certified technicians provide remote assistance for **J2534 programming** across **Asian, Domestic** and **European** vehicles with guaranteed success!

- ✓ **Finish the Job Correctly!**
- ✓ **Keep the Vehicle in Your Shop.**
- ✓ **Increase Customer Satisfaction.**
- ✓ **Increase Profits!**

Experience peace of mind while focusing on the work you know best. Get your **RAP²** today!



844.235.3761

DrewTech.com/PTEN

©2019 Drew Technologies, Inc. Patent(s) pending. 071219-1

CARDAQ³ PLUS

The most complete,
comprehensive J2534
device you can buy!

Program and diagnose
vehicles using a single device
with dealer software.



For more information, visit
DrewTech.com/PTEN today!

Circle 24 on card, or enter at
"e-inquiry" on VehicleServicePros.com





Safe for auto, truck, farm, marine, and small engines

Bar's Leaks Super Leak Fix, No. 1305, is a multi-system formula that seals, stops, and prevents leaks in all engine, transmission, power steering, hydraulic, and gear systems. Super Leak Fix is safe for auto, truck, farm, marine, and small engines running on gasoline and diesel fuels. Seal-renewing additives in Super Leak Fix restore flexibility to stop seal and gasket leaks caused by normal wear and age without clogging filters or harming the system. Super Leak Fix is effective for small leaks (add fluid once per month), medium leaks (add fluid once per week), and preventive maintenance. Both a spout and fill hose are included to make installation easier and faster.

Circle 25 on card, or enter at "e-inquiry" on VehicleServicePros.com



Easy-to-read laser etched dual scale

The **Martin Click-Type Micrometer Adjustable Torque Wrenches** are designed to offer an accuracy of +/- 3 percent CW and +/- 5 percent CCW. The torque wrenches feature an aluminum knurled handle and an easy-to-read laser etched dual scale (ft-lb and Nm). Available sizes include 1/2" drive (30 to 250 ft-lb), 3/4" drive (100 to 600 ft-lb), and 1" drive (200 to 1000 ft-lb).

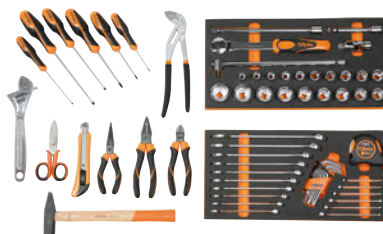
Circle 28 on card, or enter at "e-inquiry" on VehicleServicePros.com



Comfortable, single-handed grip

The **Mighty Seven Mini Air Die Grinder** is designed to provide easy access in confined and hard-to-reach areas during operation. The operating free speed is rated at 25,000 rpm and a sound output of 80dBA. With a weight at under 1 lb, the mini design offers low vibration to reduce user fatigue during extended use. The grinder has a single handed sized grip and an overall length of 4-11/16". It also has an added safety lever to prevent premature startup and is backed by a three-year warranty.

Circle 26 on card, or enter at "e-inquiry" on VehicleServicePros.com



Fits mobile toolbox

Beta Tools' C41H Tool Trolley and 5941VU/M Tool Kit are designed to fit and organize an assortment of tools. The mobile, sheet metal toolbox with removable top case is available to fit the 64-pc universal tool kit. The tool kit includes two foam trays. One tray contains a 1/2" drive metric socket set with the 920/55, a 1/2" reversible ratchet, two extensions, a 1/2" sliding t-handle, and universal joint. The second tray has a metric combination wrench set (sizes 6-19, and 21-22), a 5m tape measure, and metric hex key set. Additional tools in the kit include a 6-pc screwdriver set, 3-pc plier set, electricians' scissors, utility knife, 10" adjustable wrench, and 10" slip joint pliers.

Circle 29 on card, or enter at "e-inquiry" on VehicleServicePros.com

OEM-specific bike coverage

The **Snap-on P1000 Diagnostic Scan Tool** offers comprehensive OEM-specific bike coverage for nine domestic, Asian, and European makes as far back as 2000, including Harley-Davidson, BMW, Victory, Indian, Ducati, Yamaha, Honda, Kawasaki, and Suzuki. The P1000 offers fault codes to identify the problem, live data graphing to pinpoint the issue, and functional tests to accelerate maintenance tasks such as brake bleeding, service light reset, compression tests, and fuel tank drain. The P1000 has a robust tablet-inspired design with a large, full-color 5.6" LCD touchscreen. The steady-charge system charges the lithium battery directly from the bike's diagnostic port.

Circle 27 on card, or enter at "e-inquiry" on VehicleServicePros.com



Offers up to a 990 degrees F max heat output

The **DeWalt 20V MAX Cordless Heat Gun**, No. DCE530, features up to a 990 degrees F max heat output with two temperature settings, high and low. The heat gun has a specialty lock-on and off feature allowing for hands-free operation as needed. The nozzle size is universal to the standard heat gun, allowing it to be used with attachments from corded and competitive units. It weighs 1.17 lbs without a battery and comes with a three-year limited warranty, two-year free service contract, and 90-day money-back guarantee.

Circle 30 on card, or enter at "e-inquiry" on VehicleServicePros.com



TOO HOT TOO COOL!



Price: \$64.95 + s.h.
(Sugg. Retail)
Sizes: 5 - 13, Whole sizes only.

**Not for shop use or to be worn as work footwear.*



HOT ROD



OCTANE COOL GRAY



Price: \$105.00 + s.h.
(Sugg. Retail)
Sizes: 7 - 10.5, 11, 12 & 13

**Not for shop use or to be worn as work footwear.*

FOR MORE INFORMATION OR TO ORDER PLEASE CONTACT YOUR PARTICIPATING SNAP-ON FRANCHISEE.

Circle 31 on card, or enter at "e-inquiry" on VehicleServicePros.com



**OFFICIAL
LICENSED
PRODUCT**

Snap-on and Wrench "S" are trademarks of Snap-on Incorporated and used under license. All other marks are trademarks of their respective holders. ©2019 Snap-on Incorporated. Printed in U.S.A.
www.snapon.com

Snap-on®

NEW PRODUCTS

Enables easy maneuvering on the jobsite

The **Klein Tools Tradesman Pro Tool Master Rolling Tool Bag**, No. 55473RTB, enables professionals to easily transport tools and materials through harsh job site conditions with rugged 8" wheels. The rolling tool bag features a hard top allowing for stacking of additional materials and is contoured to safely hold cell phones, beverages, or small parts. It holds 250 lbs and is water-resistant. The lid closes shut with a metal latch.



Circle 32 on card, or enter at "e-inquiry" on VehicleServicePros.com



Clears deposits from valves and combustion chambers

The **BG Hybrid Performance Service Kit** is designed to remove carbon from the HEV fuel system and engine. The service kit clears deposits from valves and combustion chambers, cleans oil deposits and micro passageways in today's gasoline engines, and improves spark plug life.

Circle 33 on card, or enter at "e-inquiry" on VehicleServicePros.com

LINCOLN

mityvac

Our best-selling products can qualify you to earn \$250 in VISA gift cards

Purchase any one or more from among our impressive selection of 19 Lincoln and Mityvac products from July 1 to September 30, 2019 to qualify for VISA gift cards in amounts ranging from \$10 to \$50 per item (up to \$250 in total).



Fits most lug nut wrenches

The **Ascot Locking Lug Key Set** is designed to remove locking lug nuts on wheels, and includes lug keys for a variety of lug styles. Each key is made from heavy duty, heat-treated chrome vanadium steel. The double hex-head design fits most lug wrenches, and the thin sockets and extra-long lug keys help prevent nicks, scratches, and damage to the wheel. The 16-pc set comes with both SAE and metric pieces that can be used on spline, star, hex, and fluted hex fasteners. For easy storage and organization, the keys come inside a blow molded case with an application guide included on the inner lid. Included hex pieces: 11mm, 12mm, 14mm, 15mm, 16mm, 17mm, 18mm, 19mm, 20mm. Included sockets: (2) 5/8", 41/64", 45/64", (2) 15/32", 19/32", (2) 11/16", 3/4", 7/16", 5/8", (2) 1/2", 13/16", 9/16".

Circle 35 on card, or enter at "e-inquiry" on VehicleServicePros.com

Visit bit.ly/Q3promo

for additional information and claim form

Circle 34 on card, or enter at "e-inquiry" on VehicleServicePros.com

DIAGNOSTICS WITH>> THE EXPERTS



SUPPORTED MODELS

BMW	MAZDA
CHRYSLER	MERCEDES-BENZ
DODGE	MINI
FORD	MITSUBISHI
GM	NISSAN
HONDA/ACURA	PORSCHE
HYUNDAI/KIA	SUBARU
INFINITI	TOYOTA/LEXUS/SCION
JAGUAR	VOLVO
JEEP	VW/AUDI
LAND ROVER	



The diagnostic platform you'll need tomorrow, available today!

Quickly **diagnose** and **program** vehicles across **Asian, Domestic, and European** makes with the full support of AutologicLive behind you!

☒ **It's more than just a diagnostic tool:**

By investing in **DrivePRO®**, your repair shop gains **unlimited access** to our team of **OEM-trained master technicians!**



**AutologicLive
Support**



**Enhanced
Diagnostics**



**Flash Programming
and Coding**

To learn more about **DrivePRO**, contact our sales team today!



sales-us@autologic.com



(877) 945-6442



AUTOLOGIC

AN OPUS COMPANY

us.autologic.com

©2019 Autologic. 040919-1



Circle 36 on card, or enter at
"e-inquiry" on VehicleServicePros.com

**Same Solid TPMS Tool
New and Exciting Features!**



Simply plug in and decode the VIN for faster, more accurate TPMS Diagnostics and Service!

- ✓ Fastest Relearns
- ✓ Best OBD coverage
- ✓ Best DTC detection
- ✓ Wireless updating
- ✓ Placard changing
- ✓ Exclusive TIA Inside

**Start the
process at
the OBDII port
where all
diagnostics
begin**



**Relearns
completed
as fast as
one minute!**



**Program
Replacement
Sensors**



**DIRECT
Wi-Fi Updating
Only on the Tech400Pro!**



**bartecusa.com
[855] 877-9732**

**Circle 37 on card, or enter at
"e-inquiry" on VehicleServicePros.com**

NEW PRODUCTS

Designed to clean almost any surface

The **Wurth Top Gun Cleaning Gun**, No. 0891703140, is designed to clean almost any surface. Equipped with a ball-bearing drive, the Top Gun Cleaning Gun uses a combination of air pressure mixed with a variety of your preferred Wurth chemical products to deliver a vortex spray. The air and cleaning agent supply can also be manually adjusted with a simple turn of the dial that can completely shut off the chemical output to instantly turn your Top Gun into an air dryer.

Circle 38 on card, or enter at "e-inquiry" on VehicleServicePros.com



Accurately measures temperature on pipes as large as 6" in diameter

The **Ritchie Engineering Co. Yellow Jacket Adjustable Temperature Probe Strap**, No. 67031, allows the user to accurately measure temperatures from -40 degrees F to 266 degrees F on pipes as large as 6" in diameter. The unit is for use with P51Titan and ManTooth families of digital manifolds. With a 6' cable length, the adjustable temperature probe's reach can provide measurements for many applications. It is made in the U.S.A. and backed by a one-year warranty.

Circle 40 on card, or enter at "e-inquiry" on VehicleServicePros.com



Ability to set inlet pressure and distance

The **SATAjet 5000 B Spray Gun** is versatile in terms of application, distance, and inlet pressure. The spray gun allows painters to set the inlet pressure between 7-29 psi and to spray with a distance between 4" to 8.5", depending on material, ambient conditions, and personal preferences. The SATAjet 5000 B is available in nozzle sizes from 1.0 to 2.2 and is finished with a pearl-odized surface that is corrosion-resistant and easy to clean.

Circle 39 on card, or enter at "e-inquiry" on VehicleServicePros.com



For shallow, semi-deep, and deep sockets

The **Hansen Global 3 Row Socket Trays** are designed to accommodate shallow, semi-deep, and deep sockets all in one holder. Each post has a pad-printed socket size on it for easy identification. The trays are available in a 3/8" drive metric tray that holds 6-20mm (total of 45 sockets), 3/8" drive fractional tray that holds 1/4-1" (total of 39 sockets), 1/4" drive metric tray that holds 4-15mm (total of 42 sockets), 1/4" drive fractional tray that holds 1/8-5/8" (total of 39 sockets), and a four-pack that includes one of each tray.

Circle 41 on card, or enter at "e-inquiry" on VehicleServicePros.com



**FREE
TRIAL**

**7
DAYS**

Waveforms. Resources. Best Practices. Training Videos. Discussions. **Solutions.**

With the exponential rise of vehicle technology challenging the service industry, technicians are voicing concerns about the quality of tooling, training, and available information. **DIAG.NET** is an online community that provides features and services to help technicians thrive in the automotive, collision, medium-duty, and heavy-duty service markets.

Invest in Yourself. Elevate the Industry. Join the Network.



Circle 42 on card, or enter at "e-inquiry" on
VehicleServicePros.com

pten.ad.diag.net

071519-1



Allows access to tensioners to relieve pressure on belts

The **Cal-Van Tools Serpentine Belt Tool**, No. 738, is designed to make serpentine belt installations easier. This belt tool is designed to allow access to tensioners to relieve the pressure on belts for easy removal and installation, even in hard-to-reach areas. The tool features integrated hex heads in the handles (16mm, 6-pt, and 12-pt), and the set includes 3/8" and 1/2" drive adapters, socket adapters (13mm, 14mm, 15mm, 16mm, and 18mm), and crow's foot wrench adapters (13mm, 14mm, and 15mm).

Circle 43 on card, or enter at "e-inquiry" on VehicleServicePros.com



Offers an adjustable angled extension

The **CTA 19-pc Master Oil Funnel System Kit**, No. 7900, is designed to cover most European, Asian, and domestic vehicles currently on the road today. An assortment of different color adapters makes finding and selecting the correct one for the job easy. All adapters connect to a 2L funnel and an adjustable angled extension, which features two grip seals at the connection end for secure fitment. The adjustable angled extension also allows access in hard-to-reach applications. The kit provides fast oil filling without spillage or waste. Adapters and extension are packaged in an easy-to-clean blow mold carrying case.

Circle 46 on card, or enter at "e-inquiry" on VehicleServicePros.com

250-lb weight capacity

The **Milwaukee Tool PACKOUT Dolly** is constructed with impact resistant polymer and has a 250-lb weight capacity. The dolly provides users with a convenient way to transport their tools and equipment throughout the job site. Its smooth roll wheels allow the dolly to roll with a heavy load, while a QUICKSTOP Loading Lever enables users to hold the dolly in place when loading and unloading.

Circle 44 on card, or enter at "e-inquiry" on VehicleServicePros.com



Optimized for basecoats

The **DeVilbiss Automotive Refinishing Premium Three-Gun Painter's Kit** features the DV1 Basecoat spray gun and the DGi Pod Digital Gauge. The DV1 Basecoat spray gun is optimized to spray challenging basecoats, while the DGi Pro Pod Digital Gauge provides painters easy-to-read inlet pressures for optimal gun performance and color matching. The kit also includes the TEKNA Primer and Clearcoat spray guns, all the air caps and fluid tips associated with these guns, a 24 oz DeKups sample kit, a gun cleaning kit, an aluminum gravity cup, and three DPC-43 adapters.

Circle 47 on card, or enter at "e-inquiry" on VehicleServicePros.com



Safe on enamel and painted surfaces

The **Flitz Speedi Seal** is a premium-grade ceramic coating with nano technology designed to give a fast super shine. Speedi Seal is safe on enamel and painted surfaces, clearcoat, gelcoat, lacquer, polyurethane, fiberglass, plexiglass, eisenglass, acrylics, and plastics. It is water-based, environmentally friendly, streak-free, and does not smear. The seal is designed to protect up to six months.

Circle 45 on card, or enter at "e-inquiry" on VehicleServicePros.com



Works on small to medium single piston brake calipers

The **Lang Tools Small Brake Caliper Press**, No. 277, is designed to work on small to medium single piston brake calipers with a size range of 1" to 3". The caliper press has a centrally located Acme threaded screw that provides extra durability, speed, and ease of use. When using the caliper press, pressure is applied in a parallel manner to distribute the force evenly. It is made in the U.S.A.

Circle 48 on card, or enter at "e-inquiry" on VehicleServicePros.com

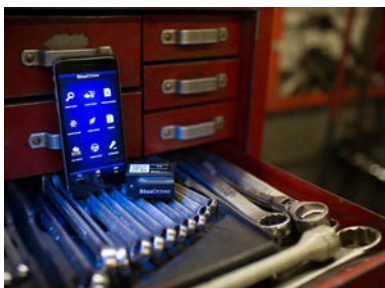


Compatible with SAE J2534-1 and J2534-1 standards

The **Launch Tech USA J-Box 3 Reflash Module** is compatible with both SAE J2534-1 and J2534-1 reprogramming standards. The pass-through device supports all popular vehicles sold in the U.S. It is compatible with Windows operation systems XP, 7, 8, and 10. The J-Box 3 has a two-year warranty.

Circle 49 on card, or enter at "e-inquiry" on VehicleServicePros.com





Diagnostics on over 20 makes

The **BlueDriver Professional Scan Tool** is designed to turn Android and iOS devices into an OBD-II scan tool. The BlueDriver reads and clears codes including check engine codes, ABS, airbag, climate control, transmission, and more. It then provides test results, such as misfire counts, for on-board diagnostic system monitors. BlueDriver features diagnostics on over 20 makes and repair reports powered by Identifix to help quickly pinpoint possible causes.

Circle 50 on card, or enter at "e-inquiry" on VehicleServicePros.com



Features a 4.5mm diameter camera probe

The **Oasis Scientific Vividia D3245 USB Digital 2-Way Articulating Borescope** features a 4.5mm diameter camera probe and a 1.5 meter long insertion tube. The D3245 can be bent in two directions at a maximum angle of 180 degrees. The insertion tube has metal braided outside layers and the bending part is made with stainless steel. With a USB connection, one can connect the Vividia D3245 to a Windows PC (Windows XP, 7, 8, and 10), MacBook, or android devices. With an additional Vividia VA-B2 AirBox wireless converter, the D3245 can be used with iPhones and iPads. Users can easily take pictures and videos with the free software.

Circle 53 on card, or enter at "e-inquiry" on VehicleServicePros.com

Evaporates quickly without residue

The **Penray Professional Contact Cleaner**, No. 7017, is designed to remove harmful deposits and debris from electronic components in a variety of applications, including printed circuit boards, tape heads, and PC electronics. The cleaner effectively removes oil, dirt, condensation, and other residue, and is safe to use on most materials found in electronics, including plastics, metal, and rubber. It evaporates quickly and leaves no residue after application. It is 50-state VOC compliant and manufactured in the U.S.A.

Circle 51 on card, or enter at "e-inquiry" on VehicleServicePros.com



Instant jump start for most single-battery applications

The **NOCO Boost XL Jump Starter**, No. GB50, is designed to instantly jump start most single-battery applications, up to 30 times on a single charge. It is ideal for a wide range of vehicles including small diesel cars, trucks, and engines up to 7.0L gas and 4.5L diesel. The jump starter protects against reverse polarity, sparks, over-charging, over-current, open-circuits, and overheating. It also recharges any USB device such as smartphones and tablets, and has an ultra-bright dual LED flashlight for visibility with seven modes including SOS and emergency strobe.

Circle 54 on card, or enter at "e-inquiry" on VehicleServicePros.com



Performs DPF regens, resets, and related emission system commands

The **Universal DPF Regen Tool**, developed as a collaboration between **Redline Emissions Products** and **Diesel Laptops**, performs DPF regens, resets, and related emission system commands for all makes on-highway diesel engines. It also performs DEF system tests and resets maintenance lights for engine oil, transmission oil, and others. The package includes a digital refractometer to test DEF and a 12-month premium subscription to TruckFaultCodes.com, as well as IT and diesel technician support from Diesel Laptops, free upgrades and support for 24 months, and online training software with an in-classroom training voucher.

Circle 52 on card, or enter at "e-inquiry" on VehicleServicePros.com



Powder coated steel construction

The **Titan Professional Tools' 5 Ton Hydraulic Cable Crimper** features powder coated steel construction and a crimping force of 45kN. The hexagon cable crimper includes nine hardened-steel die sets ranging from 4-70 mm² and has a crimping stroke of 12mm. The tool also has vinyl-dipped grips for non-slip use and a on/off retractor knob.

Circle 55 on card, or enter at "e-inquiry" on VehicleServicePros.com

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.

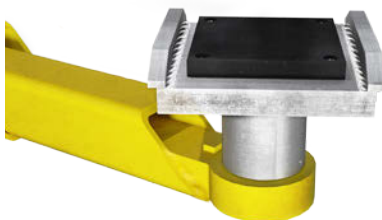
Guaranteed to meet your expectations or your money back

Trial Offer
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/ptn

KANO LABORATORIES.COM

Circle 56 on card, or enter at
 "e-inquiry" on VehicleServicePros.com

NEW PRODUCTS



Holds chassis frame in place

The **BendPak Wide Frame Cradle Pads** are designed to attach to the arms of any BendPak two-post lift equipped with 60mm diameter fastener pegs. The Wide Frame Cradle Pads straddle the vehicle's chassis frame, holding it firmly in place to prevent any movement. The cradle pads are an ALI certified two-post lift accessory.

Circle 57 on card, or enter at "e-inquiry" on
VehicleServicePros.com



Designed for diagnostic and electrical troubleshooting

The **Electronic Specialties 10-pc Back Probe Kit**, No. 804, features an assortment of the company's back probes designed for diagnostic and electrical troubleshooting. Each probe connects to industry standard 4mm banana plugs. The kit includes two flexible back probe pins, two spoon probe backprobers, four mini back probes/wire piercers, and two mini alligator clips. The kit comes in a hard storage case.

Circle 59 on card, or enter at "e-inquiry" on
VehicleServicePros.com

Has an operating range of 4.5V to 16V

The **Clore Automotive 12V Digital Battery and Electrical System Tester**, No. BA6, from SOLAR is designed to offer a testing solution for 12V batteries and systems, has an operating range of 4.5V to 16V, and is compatible with a variety of battery types. The BA6 tests 12V batteries from 100-1200 cold cranking amps and is optimized to test six distinct battery types including conventional flooded acid, AGM flat plate, AGM spiral wound, gel cell and start-stop AGM, and enhanced flooded batteries. The tester also has safety features such as reverse polarity and overvoltage protection.

Circle 58 on card, or enter at "e-inquiry" on
VehicleServicePros.com



Flexible from -50 degrees F to 200 degrees F

The **BluBird Patriot Hose**, No. BLBPP3850, offers the strength and durability of a rubber hose and the lightweight and ease of a hybrid hose. The Patriot Hose remains flexible from -50 degrees F to up to 200 degrees F and has a maximum working pressure of 300 psi. It is braided polyester, not just spiraled, and lays flat. It also doesn't kink under pressure and is easy to clean. The hose is available in 3/8" and 50' length, and in 1/2" and 25', 50', and 100' lengths.

Circle 60 on card, or enter at "e-inquiry" on
VehicleServicePros.com





AAPEXedu DRIVES YOU

You never stop rising to new challenges to keep your customers moving safely to their destinations, and education at AAPEX 2019 has evolved to keep you ahead of the curve. This year, choose from highly relevant, comprehensive **AAPEXedu** sessions designed for your action-packed schedule. Over three days, you'll explore emerging technology, trade and regulation policies that will impact automotive aftermarket professionals, how to win in the new retail frontier, and much more. You'll also gain the latest insights on technology through fast-track sessions at **Let's Tech** and hands-on training in **Mobility Garage - Products and Training for Tomorrow**. Attend AAPEX 2019 for the education that drives your business ahead of the competition.

LEARN MORE | AAPEXSHOW.COM

aapecx
ahead of the curve

NOVEMBER 5-7, 2019
LAS VEGAS, NV | SANDS EXPO
#AAPEX19

Circle 61 on card, or enter at "e-inquiry" on VehicleServicePros.com

Rely on Reelcraft



NEW!
LED Light
Cord Reels
Series LG



**Compact Hose
and Cord Reels**
Fits in a 1' x 1' space
Series 3000



NEW!



**Heavy-Duty
100' Power
Cord Reels**
Series L 70000

REELCRAFT®

www.reelcraft.com 800-444-3134

Circle 62 on card, or enter at
"e-inquiry" on VehicleServicePros.com

NEW PRODUCTS

8-channel high-speed automotive oscilloscope

The **Pico Technology PicoScope 4823** is an 8-channel high-speed automotive oscilloscope that is ideal for those involved in advanced diagnostics, training or vehicle design. The eight channels allow multiple sensors, actuators, and CAN/CAN FD signals to be monitored at the same time at up to 80MS/s. It is ready-configured for automotive probes and includes over 150 guided tests, plus access to comparisons in the Pico waveform library.

Circle 63 on card, or enter at "e-inquiry" on VehicleServicePros.com



Tools for cutting, breaking, scraping bolts and rivets

The **Mayhew 6-pc Non-Turning Pneumatic Tool Set**, No. 32200, is designed for cutting bolts, breaking welds, scraping off undercoating, and cutting heads off of bolts or rivets. Featuring a .401 Parker Shank, each of the tools also consist of four grooves that lock into the retaining balls of a quick release chuck to provide back and forth motion on the same plane while the c-axis remains locked. The tools include a cold chisel, slotted panel cutter, scraper, double cut body ripper, panel cutter, and pipe cutoff.

Circle 65 on card, or enter at "e-inquiry" on VehicleServicePros.com



Designed to use on vehicles with R-134a or R-1234yf A/C systems

The **Robinair R-ID and R-ID Plus Refrigerant Analyzers**, Nos. 16990 and 16995, allow technicians to quickly and accurately determine the refrigerant purity of a vehicle's A/C system. Both refrigerant analyzers are designed for use on vehicles with either R-134a or R-1234yf refrigerant. Powered by an internal lithium ion battery, the R-ID and R-ID Plus measures the percentage of R-1234yf, R-134a, R-12 refrigerants, as well as R-22 and Hydrocarbon contaminants. Each device has a large, easy-to-read color display that shows analysis results and helps technicians to determine the next step of an A/C system service. The R-ID Plus adds an internal printer to print final test results.

Circle 64 on card, or enter at "e-inquiry" on VehicleServicePros.com



Offers 30 different bit sizes and shapes

The **Mueller-Kueps Twin Bit Kit**, No. 514 500, offers 30 different bit sizes and shapes. Both sides of the bit are the same size. The kit includes hex 3-6mm, square 0-3, PH1-3, PZ1-3, and T10-40.

Circle 66 on card, or enter at "e-inquiry" on VehicleServicePros.com

Coming Soon



SEPTEMBER 1, 2019

Register for tools, equipment, and much more!*

SPONSORED BY:



Brought to you by:

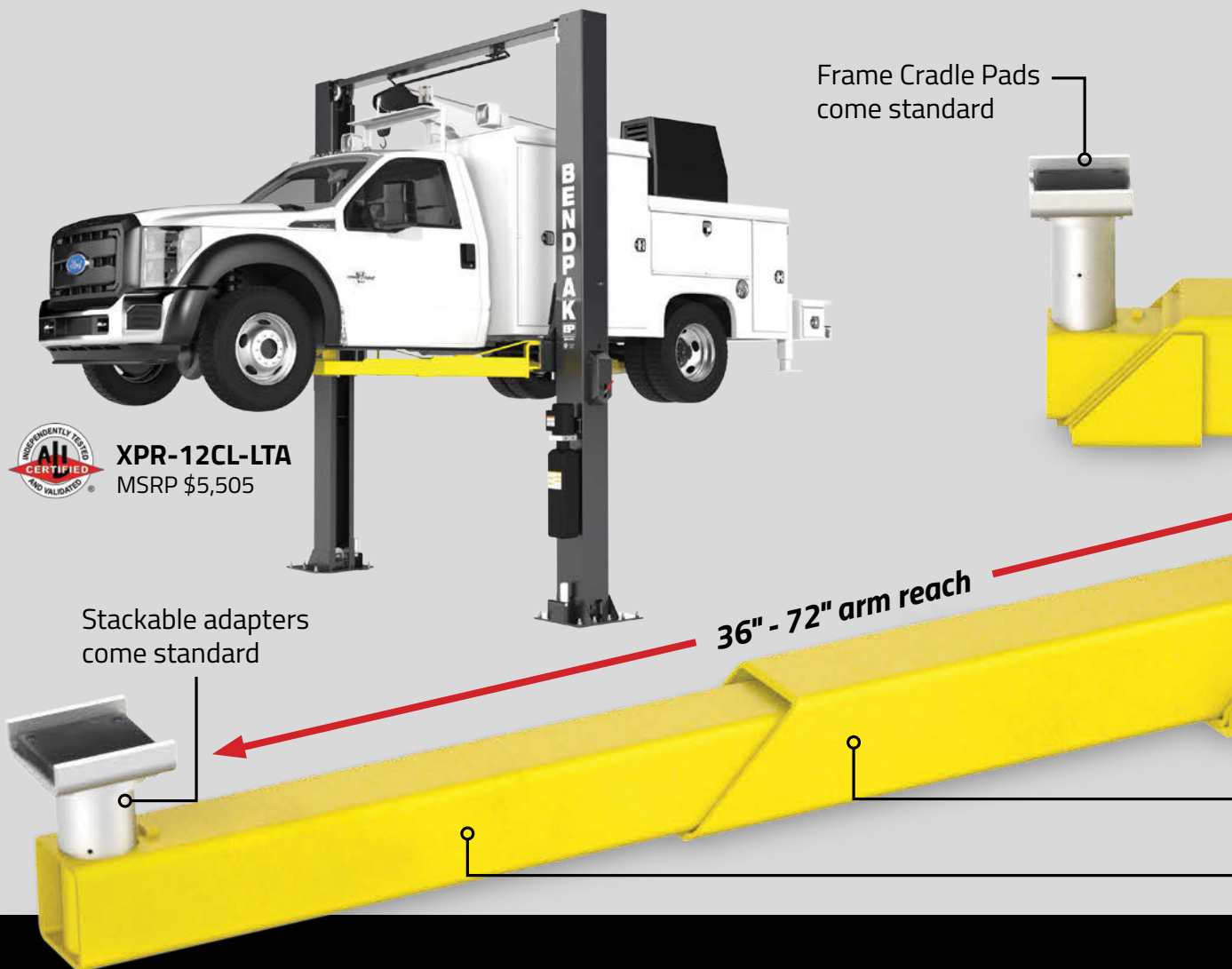
PTEN Professional Tool & Equipment News **FleetMaintenance** **VEHICLESERVICEPROS**.com

*Prizes listed are for example only. Actual prizes will be revealed in the month of September.

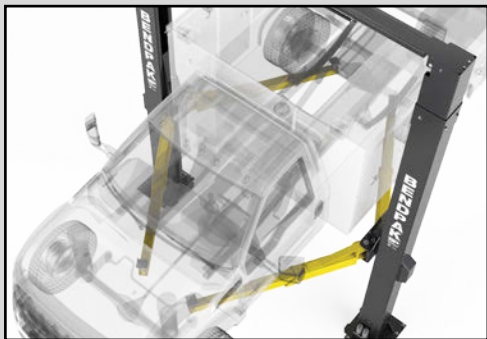
WHEN BALANCING SAFETY AND BENDPAK GOES THE

LONG-REACH ARMS PROVIDE BETTER CENTER-OF-GRAVITY LOADING

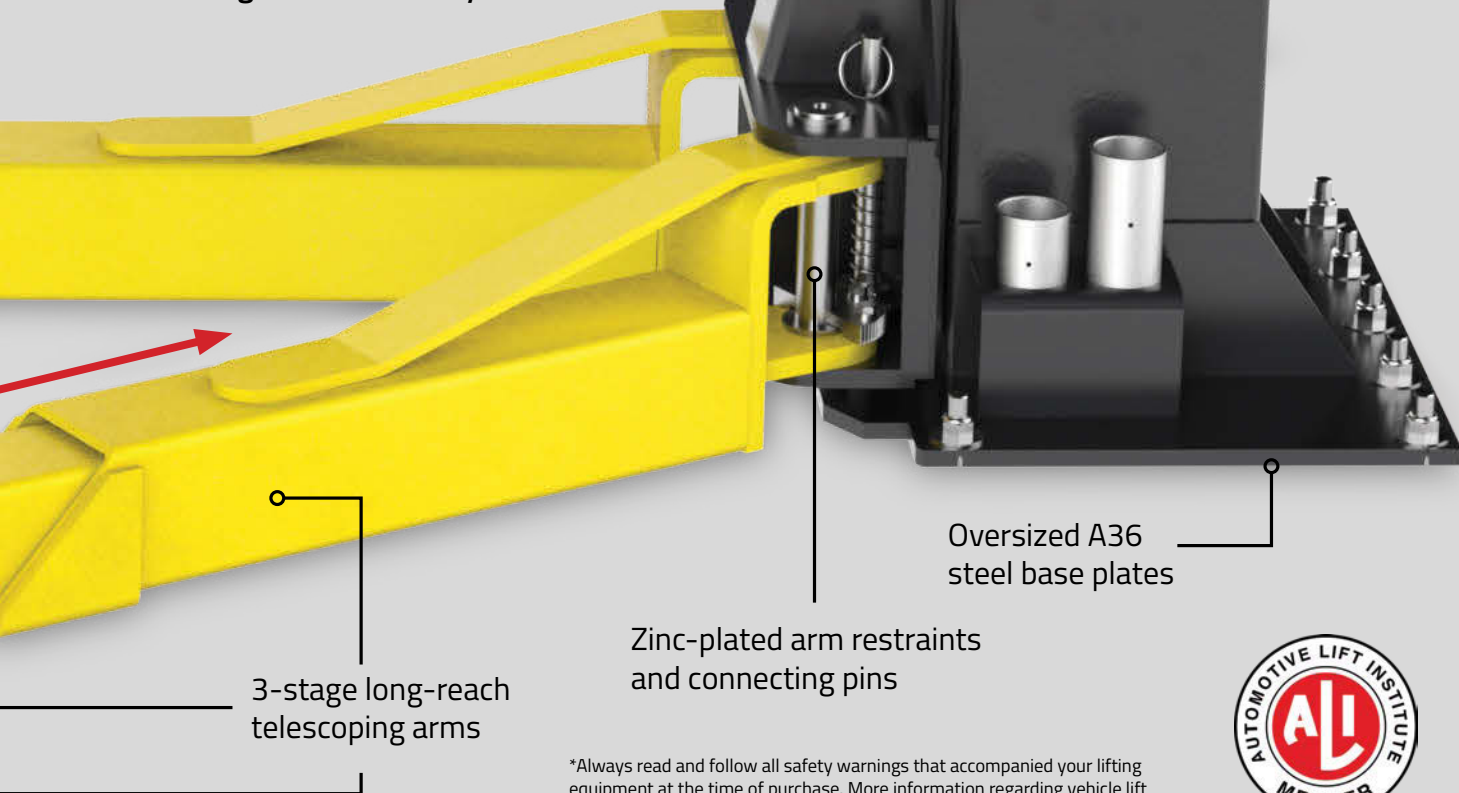
When servicing trucks and vans with extremely long wheelbases, longer-reach arms deliver a more stable lifting solution. The lengthy triple-telescoping arms on BendPak's new **ALI Certified XPR-12CL-LTA** extend to 72" long – that's six feet in length and over one foot longer than almost any other lift or brand in its class. And with rugged BendPak dependability combined with a 16-piece adapter set, you'll realize that balancing safety* and worker productivity has never been so perfectly matched. For more information visit www.bendpak.com/LTA or call **1-800-253-2363**.



ND PRODUCTIVITY, DISTANCE.



- 12,000-lb. lifting capacity
- Dual direct-drive hydraulic cylinders
- Oversized 53" tall carriage for superior strength and durability



*Always read and follow all safety warnings that accompanied your lifting equipment at the time of purchase. More information regarding vehicle lift safety is available directly from BendPak or from the Automotive Lift Institute.



Circle 67 on card, or enter at "e-inquiry" on VehicleServicePros.com

BP BendPak®

NEW PRODUCTS

Available in two lengths

The **Florida Pneumatic AIRCAT 808 Long Reach Series Ratchets** provide access for hard-to-reach fasteners with its extended drive shaft. The ratchets are available in two lengths including 15.3" and 22.5". The 15.3" model is equipped with either a 1/4" or 3/8" anvil. The 22.5" model is available in 3/8" anvil only. The ratchets are made with high grade materials and have additional support bearings to provide reliability. They have a two-year warranty.

Circle 68 on card, or enter at "e-inquiry" on VehicleServicePros.com



Cleans projects of all sizes

The **Snap-on NOZZLEGRP Snap Grip Hose Nozzle with Shut Off** is designed to clean projects of all sizes. It's made with aircraft-grade aluminum, stainless steel, durable plastic, and Santoprene rubber. The hose nozzle features a handle grip that can be locked in either a pistol or in-line position. A simple twist takes the nozzle's water flow from a delicate fan-style to a powerful jet pattern for tough shop grime. The design provides an uninterrupted direct flow path with an on/off lever for quick shut-off without changing the spray pattern.

Circle 69 on card, or enter at "e-inquiry" on VehicleServicePros.com



Designed for more power and greater capacity

The **Renegade TMB 8150 Stretch Automatic Top Load Parts Washer** features dual 5hp heavy duty wash cycle pumps and 17-gal sump capacity. It is also nearly twice as wide as the company's standard TMB 8100 model for a wider wash zone, the company says. Renegade aqueous parts washers clean without solvents to lower environmental impact, increase automation, and reduce labor costs. Automation features include a PLC programmable wash cycle timer and a heater timer.

Circle 70 on card, or enter at "e-inquiry" on VehicleServicePros.com

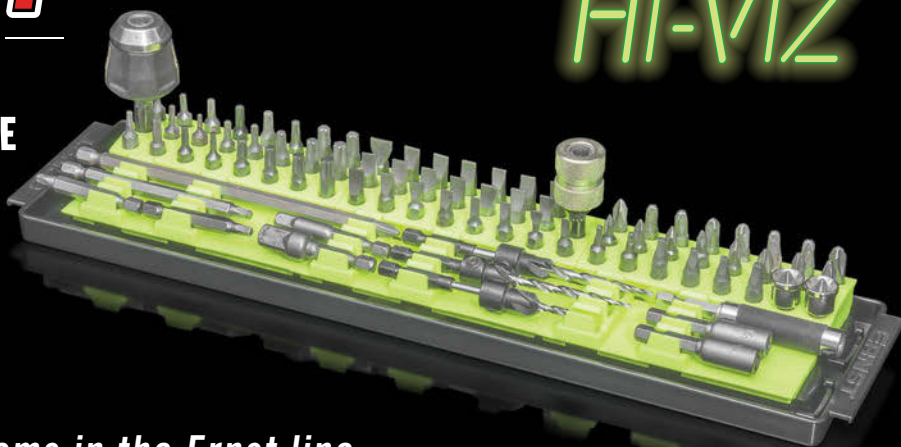
ERNST

MANUFACTURING INC.

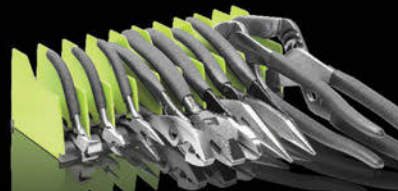
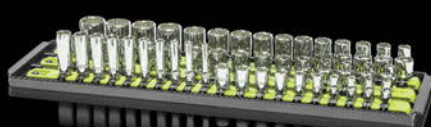
**MADE IN THE USA
LIFETIME GUARANTEE**

*Spot your tools
in an instant!
A wide range of items in the Ernst line
are now available in bold new color.*

HI-VIZ



SEE OUR FULL LINE AT
WWW.ERNSTMFG.COM
(877) 376-7885



Circle 71 on card, or enter at "e-inquiry" on VehicleServicePros.com

Hand sharpened and spring-loaded pliers

The **SK 6-pc Precision Pliers Set** includes six hand sharpened and spring-loaded pliers in six different configurations. The set is ideal for applications where precision is needed, including electronics, carpentry, mechanical applications, plumbing applications, and more. The pliers are constructed of drop forged steel and feature a molded, anti-slip grip handle that is easy to use and clean. The set comes in a zipper case, is made in U.S.A., and has a lifetime warranty.

Circle 72 on card, or enter at “e-inquiry” on VehicleServicePros.com



Prevents rack damage

The **K Tool International (KTI) Wrack Wrench**, No. KT149300, is designed to help reduce time on tie rod repairs and prevent damage to the rack. The KT149300 wrack wrench has a universal design to suit rack end diameters from 25mm-55mm (hex drive, round with two drive flats, and round with no drive flats). The larger size accommodates domestic to import vehicles including light trucks and SUVs. It has a one-year warranty.

Circle 73 on card, or enter at “e-inquiry” on VehicleServicePros.com

Detachable work/flood lights with dual output

The **Alert Stamping Rechargeable COB LED Auto Hood Light**, No. LHR5200, features two detachable work/flood lights with dual brightness levels of 1200 and 600 lm. The hood light has up to a 7-hour run-time, is rain tight, and has a magnetic base that tilts and rotates to where light is needed. It also offers a bracket that extends up to 78” and can stand on flat surfaces. The hood light can be used as a USB power bank to charge devices. It includes a USB-C cord and charger plug.

Circle 74 on card, or enter at “e-inquiry” on VehicleServicePros.com



JENNY. HIDDEN IN PLAIN SIGHT SINCE 1927.

The only time people notice an air compressor is when it's not working. That's why Jenny has basically gone unnoticed since 1927. It's the hazard of offering the most reliable compressors on the market, but we wouldn't have it any other way...nor would our customers.

» *Isn't it time a Jenny was hiding in your shop?*

Jenny



MADE IN THE U.S.A.

JennyProductsInc.com

Circle 75 on card, or enter at “e-inquiry” on VehicleServicePros.com



Every year, the **PTEN** Innovation Awards feature the newest and most innovative products introduced to the automotive aftermarket. For 2019, **PTEN** received 148 submitted product entries in 31 categories. Throughout the next several pages, you'll find product details for the winner in each of those categories. For more information on the complete list of 2019 nominees, with full product details, visit: VehicleServicePros.com/2019IANominees. To view a full list of winners online, visit: VehicleServicePros.com/2019IAWinners.

WINNERS



Big Gator Tools Metric V-DrillGuide

The **Big Gator Tools Metric V-DrillGuide** is designed to allow users to have the precision of a drill press without losing the accuracy. The innovative 90-degree

"V-groove" found on the entire bottom of the drill guide helps ensure perpendicular alignment on round and cornered material. To use this tool, hold the drill guide on the material, clamp, and drill. It can be used on various surfaces. The V-DrillGuide has nine holes that are heat-treated to prevent wearing out. The hole sizes and hole alignment marks are permanently embedded onto the guide. The holes are sizes: 10mm, 10.5mm, 11mm, 11.5mm, 12mm, 12.5mm, 13mm, 13.5mm, and 14mm. All V-DrillGuides carry a lifetime warranty and are 100 percent U.S.A.-made.

CATEGORY: Hand Tools

Circle 76 on card, or enter at "e-inquiry" on VehicleServicePros.com

Milwaukee Tool

M12 FUEL 3" Compact Cut Off Tool

The **Milwaukee M12 FUEL 3" Compact Cut Off Tool** is designed for making fast and accurate cuts through a wide array of materials. This tool features a brushless motor that delivers 20,000 rpm. When paired with Milwaukee's Redlink Intelligence and Redlithium XC4.0 Battery pack, this tool has the cutting performance and speed to tackle various materials without bogging down, the company says. It can make 12" cuts in 26 gauge sheet metal in under 10 seconds, according to the company. With reversible blade rotation, users can control where they eject debris and can optimize the blade for the application at hand. Its in-line design offers improved control in cutting applications and improves line of sight to the material.

CATEGORY: Power Tools

Circle 77 on card, or enter at "e-inquiry" on VehicleServicePros.com



Innovative Products of America

Flow-Thru System with Brush and Venturi

The **Innovative Products of America Flow-Thru System with Brush and Venturi**, No. 8091, features stainless steel and abrasive nylon brush heads, as well as a venturi that attaches to an ergonomic, anodized-aluminum handle with integrated flow-control valve to clean, restore, and apply solvents under pressure. This system offers improved cleaning action in a parts-washing sink or portable cleaning anywhere an air supply is available. This tool is ideal for applications including parts washing, degreasing, on-engine cleaning, fluid evacuation, and more.

CATEGORY: Shop Equipment

Circle 78 on card, or enter at "e-inquiry" on VehicleServicePros.com



Hennessy Industries

Coats HTS Tire Inflation Tool

The **Coats HTS Tire Inflation Tool** is a patent-pending device designed to inject a large volume of air rapidly through the valve stem hole to seal run-flat and low-profile tire assemblies, without any manual manipulation of the tire. According to the company, as run-flat and low-profile tires become more common, the gap that typically exists between the outboard tire bead and rim is reduced or non-existent, creating the need for a device that introduces a large volume of inflation air quickly. This device was co-developed between Coats and Discount Tire, with input from leading tire manufacturers. This tool is designed to reduce a 20 to 30 minute job of sealing these tire assemblies down to three minutes. This tool is available in a stand-alone mobile version or an integrated version for all Coats rim clamp tire changers.

CATEGORY: Tire, Wheel Service

Circle 79 on card, or enter at "e-inquiry" on VehicleServicePros.com





Snap-on Tools

1/2 Ton Air-Assist

Telescopic Transmission Jack

The Snap-on 1/2 Ton Air-Assist Telescopic Transmission Jack, No.

TJA100, allows technicians to safely remove and install transmissions and FWD, RWD, 4WD transfer cases. The TJA100 1/2 Ton Air-Assist Transmission Jack has an easily-adjustable saddle to safely secure the specific load. With a range of 35" to 75", technicians can load/unload transmissions safely at their own center of gravity. The stable 36" heavy duty base and 5" polyurethane swivel casters navigate uneven shop floors. A hands-free pedal controls the first air-assisted stage lifting operation, with a handle pump completing the second stage.

CATEGORY: Jacks & Stands

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



Dent Fix Equipment

Blind Rivet Adapter

The Dent Fix Equipment

Blind Rivet Adapter, No. DF-SPR/BRAD, allows the company's SPR Riveters to install blind rivets. This adapter is compatible with the SPR Riveter (DF-SPR67) and Push Pull Riveter (DF-SPR69). A flexible neck allows for the tool to be positioned into hard-to-reach areas. The adapter allows the setting of blind rivets with diameters from 4.0 to 7.8mm for aluminum and 4.0 to 6.4mm for steel. It has a tensile force of 20 kN.

CATEGORY: Body Shop

Circle 82 on card, or enter at "e-inquiry" on VehicleServicePros.com



WD-40

Specialist Fast-Acting Carb/Throttle Body and Parts Cleaner

The **WD-40 Specialist Fast-Acting Carb/Throttle Body and Parts Cleaner** is an all-in-one cleaner spray for cleaning the carburetor, throttle body, and unpainted metal parts. The product's dual-action cleaning system breaks up tough, baked on carbon deposits and blasts away waste without leaving behind a residue, according to the company. This spray is ideal for both old and new vehicles and equipment.

CATEGORY: Chemicals

Circle 84 on card, or enter at "e-inquiry" on VehicleServicePros.com



SP Tools/Schley Products

Injector Puller Kit

The SP Tools Injector Puller Kit, No.

16400, is designed to remove diesel injectors from 2011 to 2016 GM vehicles equipped with the LML Duramax engine. Over time and with many miles, the injectors become heavily coated with carbon between the tip and cylinder head, causing them to stick together. When using a factory tool, it rocks the injector and causes binding into the head. This may cause damage to the costly injector. The 16400 Duramax Injector Puller lifts the injector 3/4" straight out without rocking the part. This significantly reduces the possibility of damaging the fuel injector or cylinder head and saves valuable time for the technician.

CATEGORY: Engine Service & Repair

Circle 81 on card, or enter at "e-inquiry" on VehicleServicePros.com

GEARWRENCH

Mobile Work Station

The GEARWRENCH

Mobile Work Station

offers practical functionality and durability with customizable features that allow users to make this station work for them. The Mobile Work Station features industrial grade 6" by 2" wide polyurethane locking casters that support a max capacity of 2,000 lbs. With 11 different-sized drawers, including a full-size top drawer with adjustable partitions, and a lockable side cabinet with adjustable shelf, this storage space is flexible enough to fit any tool. The drawers offer 100-lb capacity ball-bearing locking drawer slides. With a charging tray and power strip with six 120V outlets and two USB ports, users can charge tools and power electronic devices as needed. A spray can shelf and pegboard panel offer additional options for customizable storage of tools, power cords, hoses, and more.

CATEGORY: Tool Boxes & Carts

Circle 83 on card, or enter at "e-inquiry" on VehicleServicePros.com



Matco Tools

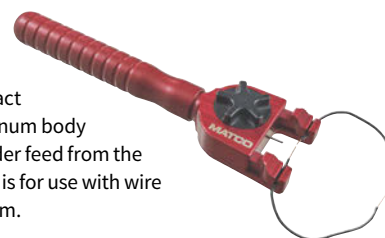
E-Z Solder Clamp

The Matco Tools E-Z Solder

Clamp, No. EZSOLD, is designed to act as a third hand, with a unique aluminum body that holds the wire firmly with a solder feed from the handle, the company says. This tool is for use with wire with a diameter not exceeding 4.5mm.

CATEGORY: Specialty Tools

Circle 85 on card, or enter at "e-inquiry" on VehicleServicePros.com



2019 WINNERS



Cojali Jaltest CV Kit

The **Cojali Jaltest CV Kit** is designed to be an all make and models diagnostic solution that includes commercial vehicle coverage. The tool scans and identifies all of the systems present on the vehicle, regardless of the manufacturer, and all of the information is integrated into one communicator link or interface. The initial screen allows users to triage the fault codes and prioritize repairs. The system provides proprietary fault codes and the specific components associated with that code. Wiring diagrams show the pins on each sensor with the pinouts on the ECM, giving the user enough details to troubleshoot the fault. The kit offers a step-by-step troubleshooting tree that details the process to be carried out to solve the code, linking to live measurements, actions to be carried out, and the values that define the operating range. This tool offers bidirectional controls including DPF regens.

CATEGORY: Heavy Duty Scan Tools

Circle 86 on card, or enter at "e-inquiry" on VehicleServicePros.com



Bosch

HPT 500 Bladder Adapters

The **Bosch HPT 500 Bladder Adapters** are designed for use with Bosch's HPT 500 Heavy Duty Smoke Machine to locate leaks in exhaust, intake, and turbocharging systems in passenger cars and heavy duty exhaust systems. The adapters seal off various-size pipes and hoses when checking for leaks and range in size from 1.5" to 5.9". Multiple bladders can be used to completely seal hoses and pipes so they can be filled with smoke to check for leaks. The HPT 500 is capable of testing an entire system in 15 minutes and can help technicians diagnose leaks faster in exhaust after-treatment systems in medium and heavy duty vehicles.

CATEGORY: Leak Detection

Circle 89 on card, or enter at "e-inquiry" on VehicleServicePros.com

Snap-on Diagnostics

Apollo D8

The **Snap-on Diagnostics Apollo D8** is designed to make Intelligent diagnostics software more accessible to more technicians at all skill levels. Apollo D8 provides users with the information needed to diagnose vehicles and diagnostic trouble codes on one convenient card, helping to simplify the diagnostic process, the company says. Apollo D8 guides users step-by-step directly to the fix, helping save time and make technicians more efficient and productive. "Smart Data" automatically configures the display to show vehicle data parameters relevant to the fault code, while non-related data parameters are filtered out. It also highlights vehicle data that is out of expected range.

CATEGORY: Automotive Scan Tools

Circle 87 on card, or enter at "e-inquiry" on VehicleServicePros.com



Cartek Group

Ze-Ru System

The **Cartek Group Ze-Ru System** is a patent-pending zero runout wheel connection technology for wheel alignment on medium and heavy duty vehicles. The Ze-Ru clamping mechanism rests on a precise surface provided by the flat area of the rim, helping to eliminate play, deflection and movement, and the need for 'runout' detection, as well as making the wheel alignment process more efficient. This system is suitable for a variety of Class 5, 6, 7, and 8 vehicles using different size adapters. This system allows users to obtain wheel alignment ratings in a few minutes, the company says.

CATEGORY: Alignment Equipment

Circle 88 on card, or enter at "e-inquiry" on VehicleServicePros.com



Automotive Test Solutions

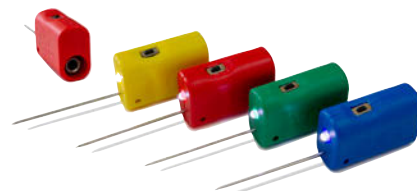
LIGHTBRIGHT Self-Powered Circuit

The **Automotive Test Solutions LIGHTBRIGHT Self-Powered Circuit** uses super bright LEDs that allows users to see the electrical connection point in dimly lit areas and make connections using only one hand in tight areas. The LED is a white light that will not change the color of wiring. The standard banana jack connects to most electronic measuring equipment. The back probe has a replaceable stainless pin. The set includes four colors: yellow, red, green, and blue.

CATEGORY: Electrical

Testing Tools

Circle 90 on card, or enter at "e-inquiry" on VehicleServicePros.com





Lock Technology

Texas Twister Air Hammer

The **Lock Technology Texas Twister Air Hammer**, No. LT855-AH-SK, can be used as a hammer or a puller. It is a double duty air hammer that can be used with the LT855A Texas Twister Air Hammer Pulling Kit. Simply install the included air piston lock into the quick connect chuck in front of the gun to create a pulling force from the rear of the gun. The LT855-AH-SK air hammer is versatile; it can be used from the front or from the rear, and offers 2,500 bpm. This tool is suitable for automotive, aircraft, machine, heavy construction equipment, industrial machine repair, and more.

CATEGORY: Air Tools

Circle 91 on card, or enter at "e-inquiry" on VehicleServicePros.com

Snap-on Tools

Polartek Dual A/C Machine

The **Snap-on Polartek Dual A/C Machine**, No. EEAC334, is designed for recovering, recycling, and recharging vehicle A/C systems. The unit handles both R-134a and R-1234yf refrigerants, with dedicated 30-lb refillable tanks for each to reduce the risk of cross-contamination. This machine features a quick setup software guide and 10" graphic touchscreen for easy navigation. The large status light allows techs to monitor progress while doing other jobs. The unit also offers large wheels for improved portability, vehicle database, an on-board printer, and two sets of 120" service hoses.

CATEGORY: A/C Service

Circle 93 on card, or enter at "e-inquiry" on VehicleServicePros.com



Monster Mobile

Auto-Darkening

Welding Goggles

The Monster Mobile Auto-Darkening Welding

Goggles are lightweight and offer as good or better protection as a traditional welding helmet, while allowing users to fit into more constrictive areas, the company says. The auto-darkening welding goggles help improve productivity by allowing greater access and a better view of the work area with its slim design. The welding goggles and hood give technicians a better view of the weld they are about to make, according to the company.

CATEGORY: Welding

Circle 92 on card, or enter at "e-inquiry" on VehicleServicePros.com



Mitchell 1

Manager SE MessageCenter

The Mitchell 1 Manager SE

MessageCenter is designed for seamless integrated two-way texting inside the Manager SE shop management system, making it easier for shops to connect with their customers before, during, and after the service or repair.

MessageCenter can actively alert shops of unread text messages while working inside the shop management program, so users don't have to leave their Manager SE screen to send a text. MessageCenter also gives shops flexibility to build and use their own text templates for common types of messages about orders, appointments, and revisions, or to write "on-the-fly" text messages to customers when needed.

CATEGORY: Shop Software

Circle 94 on card, or enter at "e-inquiry" on VehicleServicePros.com



Rotary Lift

Heavy Duty Two Post Lift

The **Rotary Lift Heavy Duty Two Post Lift**, No. SPO20, is designed to offer high-capacity lifting, a low-profile stance, wider installation options, and expanded arm reach possibilities. The SPO20 allows shops to raise an entire fleet from passenger cars to Class 5 trucks. This lift can be ordered with Shockwave, a patented lifting speed package, 110V DC power, and accurate spotting with laser guidance.

CATEGORY: Lifts

Circle 95 on card, or enter at "e-inquiry" on VehicleServicePros.com



2019 WINNERS



Macnaught

BOP20 Battery-Operated Pump

The **Macnaught USA BOP20** is a battery-powered pump system for oil applications. Designed to improve shop efficiency and reduce operator fatigue, the BOP20 series is ideal for pumping gear oil from 5-gal containers. Its 18V, 2.0 Ah Li-ion battery delivers up to 40 gallons on a single charge with flow rates up to 1 gallon per minute. The modular pump's flow nozzle enables one-handed operation with on-demand flow control. Featuring a safety lockout carry handle, the BOP20's portable powerhead can be transferred easily across multiple pump stems to reduce setup costs and prevent cross-contamination.

CATEGORY: Oil & Lube

Circle 96 on card, or enter at "e-inquiry" on VehicleServicePros.com

Mac Tools

600 lm Inspection Light

The **Mac Tools 600 lm Inspection Light**, No. MHL600, is designed to ensure that technicians

don't misplace their light. This product taps into a radio frequency to send

a signal to the light so the user can track the light audibly. The user is alerted when the light is misplaced, goes out of range of the docking station, and when the light only

has 10 minutes of charge left. The 600 lm rechargeable light offers two power settings through a front COB providing a 2-1/2 hour run-time on high or up to 6-1/2 hours on low. A 180-degree rotating bracket and hidden hook on the bottom offer two hands-free options.

CATEGORY: Lighting

Circle 98 on card, or enter at "e-inquiry" on VehicleServicePros.com

Matco Tools

Universal Brake Caliper Wind-Back Tool

The **Matco Tools Universal Brake Caliper Wind-Back Tool**, No. BCW6, is a 6-pc

set that allows users to work on clockwise, counter-clockwise, and static/push-back brake calipers with one tool. This tool is designed to be adaptable for use on almost any automotive application. With the included adapter, this tool can be used in conjunction with other sets. This set comes in a durable, blow molded case.

CATEGORY: Brake Service

Circle 100 on card, or enter at "e-inquiry" on VehicleServicePros.com

Bosch

BAT 135 Battery Tester with Integrated Printer

The **Bosch BAT 135 Battery Tester with Integrated Printer** is designed to capture test results for customer records, such as presenting the state of health and state of charge percentage of batteries to help ensure optimal efficiency and usage. Using a micro-load test to demonstrate authentic results, the battery tester assesses 6V and 12V batteries from 40 to 2,000 CCA, including AGM, Gel cell, flooded lead-acid, start/stop EFB, and Commercial SLI batteries. It will also test 12V and 24V charging systems with a diode/ripple test. Test clamps are included and easily detachable for service or replacement.

CATEGORY: Battery Service Equipment

Circle 97 on card, or enter at "e-inquiry" on VehicleServicePros.com



Mitchell 1

ProDemand Driver Assist ADAS Quick Link Feature

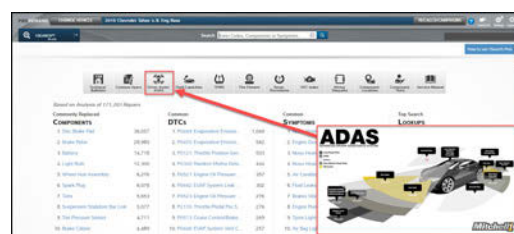
The **Mitchell 1 ProDemand Driver Assist ADAS Quick Link Feature** is designed to allow technicians to see and access all of

the advanced driver assistance systems (ADAS) features and components on a vehicle via the Driver Assist ADAS Quick Link. This repair information makes it quick and easy to diagnose, repair, and calibrate ADAS. Users can select a vehicle, click the Driver Assist ADAS Quick Link button, and get access to a table that consolidates all of the ADAS information for the vehicle in a single location.

ProDemand delivers all of the ADAS features and components, so technicians are able to select the repair and calibration information that they want without needing to perform multiple lookups to find the information separately. ProDemand also identifies the components of an ADAS feature that will require calibration, as well as special tools or scan tools needed to complete the job.

CATEGORY: Repair Information

Circle 99 on card, or enter at "e-inquiry" on VehicleServicePros.com



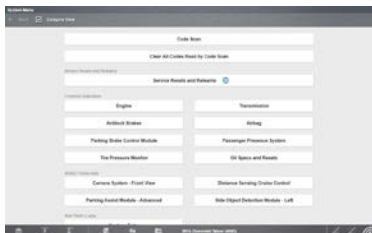


FLIR ONE Pro LT

The **FLIR ONE Pro LT** is a thermal imaging attachment for smartphones. Powered by the FLIR Lepton thermal microcamera core, this product offers patented MSX image enhancement that combines the thermal and high-definition visible camera images to produce crisp, detailed images that are easy to interpret. ONE Pro LT also features the company's MSX and VividIR video signal processing technology to deliver improved thermal image quality and clarity.

The OneFit camera connector allows users to adjust the device to attach to their smartphone through many popular protective cases.

CATEGORY: Inspection Tools, Lab Scopes
Circle 101 on card, or enter at "e-inquiry" on VehicleServicePros.com



Snap-on Diagnostics Software Upgrade Versions 18.2 and 18.4

The **Snap-on Software Upgrade Versions 18.2 and 18.4** offer expanded ADAS content. The software includes new and enhanced vehicle communications systems and new guided component tests targeted to ADAS repair. Snap-on onboard CTM training and guided component tests walk technicians through the process for pinpointing diagnosis for hundreds of advanced driver assistance systems, including adaptive front lighting, adjustable pedal, blind spot detection radar, center display, electronic parking brake, forward collision warning system unit, front and rear cameras, intelligent cruise control, lane departure warning, object detection, parking assist, rain sensors, and steering angle sensor.

CATEGORY: ADAS
Circle 103 on card, or enter at "e-inquiry" on VehicleServicePros.com



TEXA USA

eTRUCK Telematics Device

The **TEXA eTRUCK Telematics Device** is designed for medium and heavy duty vehicles with advanced bidirectional capabilities. This technology allows users to remotely perform advanced emissions resets and forced regenerations without leaving the shop or dispatching a technician. The eTRUCK allows shops to monitor the vehicle system remotely, schedule maintenance, and perform bidirectional capabilities including forced regen, DPF resets, and more.

CATEGORY: Diagnostics
Circle 105 on card, or enter at "e-inquiry" on VehicleServicePros.com

Ullman Devices

Metal Marker

The **Ullman Devices Metal Marker** allows technicians to permanently mark their tools with their name or a unique symbol so they can protect their investment. Using this marker, all technicians need to do is put a stencil on the device, pump the electrolyte, align the Metal Marker with their item, and press the trigger. Within seconds, the item is permanently branded and easily identifiable.

CATEGORY: Safety Equipment & Personal Tools

Circle 102 on card, or enter at "e-inquiry" on VehicleServicePros.com



ToolBox Widget

Wrench Organizer

The **ToolBox Widget Wrench Organizer** is an independent modular tool organizing system for the toolbox. This tool organizer allows users to add or subtract and choose the exact number of holders they need. The widgets can save up to 30 to 40 percent of space to maximize toolbox drawer room, according to the company. Features include a modular design, strong magnets, missing tool indicators, changeable size labels, and a flexible material. Each kit holds 14 wrenches, is 1-3/4" tall, and the magnets have a 5-lb pull each.

CATEGORY: Tool Organizers

Circle 104 on card, or enter at "e-inquiry" on VehicleServicePros.com



Carlyle Tools

Interior Creeper

The **Carlyle Tools Interior Creeper**, No. 815-1337, is

designed for interior car applications to properly position the technician for tasks under the driver or passenger sides. This product is suitable for replacing fuses, cabin air filters, and stop light switches. The 915-1337 offers tool free height adjustment from 15" to 25" in 1" increments, and has protective rubberized corners to prevent damage to the interior of cars. It also offers a removable kneeling pad for use in low height applications. An optional LED light and tray are also available.

CATEGORY: Creepers & Seats

Circle 106 on card, or enter at "e-inquiry" on VehicleServicePros.com





CATEGORY: DIAGNOSTICS

TEXA eTRUCK, the future of remote diagnostics

The emissions warning light the driver has been ignoring all day is now flashing and the truck has entered derate mode. Does this scenario sound familiar? The fleet must make a decision on how best to deal with the emission failure. There are few options: they can send a tow truck and get the vehicle back to the shop or they can send a technician on-site to handle the situation. Both options are costly and require vehicle downtime which will cost even more money. What if the truck is hundreds of miles away from the shop?

There's a solution now that allows technicians and fleet managers to solve these issues and minimize downtime, TEXA eTRUCK lets the workshop force regen and reset emission values being miles away from the vehicle. No need to bring the truck back, no need to send a technician in the field.

The concept of vehicle telematics is not new. In almost all cases telematics has been a passive implementation providing fault codes and limited data but lacking any advanced bi-directional capabilities. Telematics has provided the ability for remote diagnosis and better follow-up on vehicle maintenance by connecting the service center, vehicle owner and the vehicle in real-time. Why stop there? Unrelenting emissions failures have become a problem with limited possible solutions, not to mention that these solutions are costly. Medium-duty and heavy-duty vehicles many times go into derate in one form or another simply because the prerequisites for a passive regen are not met, or the driver has bypassed the regen. There is not a part failure; the vehicle simply needs to have the applicable emissions parameters reset and a forced regen must be performed to put it back in service. Now it can be done remotely, from the comfort of a chair. Imagine the increased vehicle uptime for the fleet with this type of bi-directional functionality.

TEXA USA made it possible in April 2018 when it released an aftermarket telematics device designed for medium and heavy vehicles, with advanced bi-directional capabilities. This technology

ID	Description	License Plate	VIN	Last Connected	Health Status
1	2018 Ford F350 Super Duty	ABC123	1F350GAT88E000001	10/10/2018	Good
2	2017 Ford F350 Super Duty	DEF456	1F350GAT88E000002	10/10/2018	Good
3	2016 Ford F350 Super Duty	GHI789	1F350GAT88E000003	10/10/2018	Good
4	2015 Ford F350 Super Duty	JKL012	1F350GAT88E000004	10/10/2018	Good
5	2014 Ford F350 Super Duty	MNO345	1F350GAT88E000005	10/10/2018	Good
6	2013 Ford F350 Super Duty	PQR678	1F350GAT88E000006	10/10/2018	Good
7	2012 Ford F350 Super Duty	STU901	1F350GAT88E000007	10/10/2018	Good
8	2011 Ford F350 Super Duty	VWX234	1F350GAT88E000008	10/10/2018	Good
9	2010 Ford F350 Super Duty	YZA567	1F350GAT88E000009	10/10/2018	Good
10	2009 Ford F350 Super Duty	BCD890	1F350GAT88E000010	10/10/2018	Good

provides the ability to remotely perform advanced emissions resets and forced regenerations without leaving the shop or dispatching a technician. The TEXA eTRUCK device is a 9 or 16 pin dongle that needs to be connected to the truck and communicates with the driver's phone via Bluetooth. The drivers can see live parameters and information and when in need can let the technician remote in. The online workshop portal displays live parameters, live DTCs and gives the possibility to the technician to know more about the problems that the driver is facing and to assist him right away from the shop with almost zero downtime.

eTRUCK is not only used for emissions problems but also for speed limiters. A truck travelling through different states can possibly cruise at different speeds, thanks to eTRUCK the technician can remote in and adjust the vehicle's speed limiters according to the driver's needs and location.

eTRUCK is a revolution in the truck world, no one before TEXA has ever pushed the boundaries of diagnostics to this level of technology and efficiency. eTRUCK is the most advanced solution for predictive diagnostics and the only remote diagnostic solutions that extend its capabilities from scanning and reading to real-time parameters resets. TEXA lets the workshop take care of their fleets and customers 24/7 from anywhere in the country. ■



TEXA USA
 NorthAmerica@texa.com
 +1 855.200.8392
texausa.com

Circle 107 on card, or enter at "e-inquiry"
 on VehicleServicePros.com



NOW WHAT?

No worries, TEXA has you covered.

eTRUCK lets the workshop force regen and reset emission values being miles away from the vehicle. No need to tow the truck back to the shop, no need to send a technician in the field.

The most advanced solution for predictive diagnostics and the only telematic solution that extend its capabilities from scanning and reading to real-time parameters resets like forced regenerations and speed limiters.

TEXA
e TRUCK®



Contact us for more information:
TEXA USA Inc. | northamerica@texa.com
+1 855.200.8392 | www.texausa.com

Circle 108 on card, or enter at "e-inquiry" on VehicleServicePros.com

TEXA



CATEGORY: REPAIR INFORMATION

Are You Ready to Repair ADAS-equipped Vehicles?

You've probably already seen vehicle features like adaptive cruise control, parking assist sensors and blind spot indicators in your auto repair shop. All of these technologies (and many more) fall into the new category of vehicle systems known as ADAS -- Advanced Driver Assistance Systems. If you haven't encountered ADAS yet, you will soon as the latest generation of vehicles makes its way into the aftermarket for service and repair.

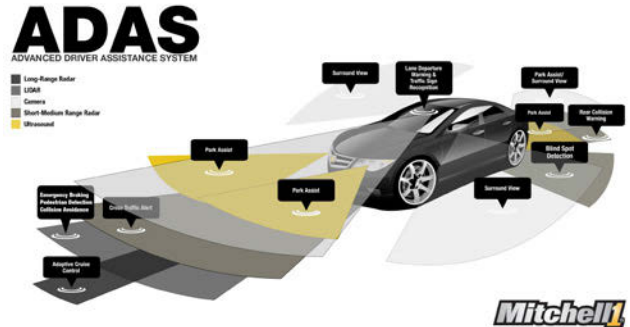
ADAS is a complex system of cameras, radar systems, sensors and control modules. The control modules use a variety of technologies to help interpret the signals received to deliver ADAS features. In addition to the more "common" components like those mentioned above, you might also see more "unusual" ones like a yaw/acceleration sensor, pedestrian impact detection sensor or forward looking radar module. Many of the components are precisely calibrated to ensure the control modules are interpreting the proper information. And it's easier than you might think for them to go "out of calibration."

Impact of ADAS

ADAS is impacting even common jobs that you may have in your bays right now. For example, consider the wheel alignment, usually a pretty straightforward job, right? Well, maybe not always any more. On most vehicles equipped with ADAS features, calibrations will need to be performed after that alignment. Let's say that a 2016 Audi A8 Quattro equipped with Adaptive Cruise Control and Lane Change Assist System comes to your shop needing a four-wheel alignment and adjustment of the rear thrust angle. The ADAS features on this vehicle add 2.2 hours of labor time for calibration to the 1.8 hours already assumed for the alignment.

Calibration routines can vary widely by manufacturer. Some are as easy as printing targets on your own printer and placing them in areas in the shop. Others require targets attached to fixed mounts on an aligner or stand-alone frame with specific level floor specs to ensure the calibration will be accurate. One of the challenges is having enough space in the bay to accommodate these calibrations.

Several feet of unobstructed space are needed around the vehicle: in front, behind and to the sides. Any object in this space could cause an inaccurate or incomplete calibration. For instance, almost 40 feet



from the back bumper to the front camera target is needed to do a front camera calibration on a Honda Odyssey.

What happens if the calibrations are not done correctly? There likely will be no indication – no MIL illuminated, etc. But while the vehicle is driving, the "field of view" can be slightly shifted. With even a 2 degree alteration on a forward-facing radar module, the focus at 60 feet ahead of the car won't even be in the car's same lane. That can lead to potentially deadly consequences from unanticipated behaviors of the adaptive cruise, pedestrian detection and other features.

ADAS Repair Information

Having an auto repair information resource that consolidates all the information related to the ADAS features on a vehicle can help technicians understand, diagnose and repair these complex systems.

For example, ProDemand, the auto repair information software from Mitchell 1, streamlines the search process and delivers all the ADAS information together in a single location. So, techs have a full picture of all ADAS features and the specific components contributing to the operation of those ADAS features. ProDemand also lets techs know at a glance if the components associated with the ADAS feature will require calibration, special tools like targets, or a scan tool to complete the job.

Whatever repair information resources you use in your shop, ADAS-equipped vehicles are coming. Are you ready?

Learn more about the new ADAS Quick Link in ProDemand and get a free demo. ■

Mitchell1
In your shop, at your side

888.490.3526

mitchell1.com

Circle 109 on card, or enter at "e-inquiry"
on VehicleServicePros.com



EFFICIENCY WINS EVERY TIME!

We're very proud to win 2 PTEN Innovation Awards:



ProDemand Driver Assist ADAS Quick Link Feature
Consolidated ADAS information to efficiently diagnose, calibrate and repair these systems



Manager SE MessageCenter
Streamlined 2-way texting from the shop management system to enhance customer communication & engagement

We'll keep working hard to provide innovative auto repair software to help you repair vehicles and run your business at maximum efficiency.

For more information

Call us: 888-490-3526 | Visit us: mitchell1.com
Or find your local Mitchell 1 sales representative:
mitchellrep.com

repair information | shop management | shop marketing

Mitchell1®
In your shop, at your side

The well-documented diagnostic worksheet

A 2002 Ford F-250 presented an elusive P1000 code. Pre- and post-scans told the whole story.

By Barry Hoyland, Contributing Editor

Historically, the mechanical repair segment of the automotive independent aftermarket led the way for the collision industry when it came to adopting strategies and tools to efficiently and effectively repair vehicles. In fact, many collision shops sublet mechanical repairs to either the dealer or independent repair shops.

Over the past few years, the collision industry has taken the lead with a relatively new process when it comes to diagnosing vehicles. With more and more computer technology being used on vehicles today, the collision industry implemented a pre- and post-scan function into the repair process. This approach to repair was initiated by the insurance industry in order to obtain adequate information at the beginning of the repair process. Scans were implemented in order to determine if there were conditions present that could increase the cost of the repair to the point it would become economically unfeasible to do so; if such was the case, the vehicle would be declared a total loss.

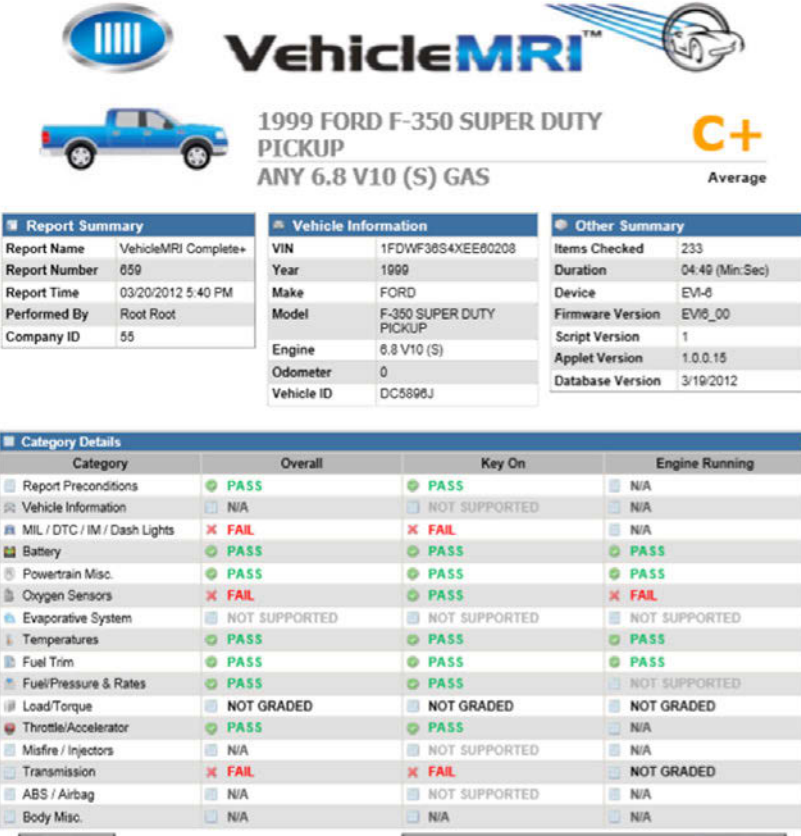
Additionally, the post-scan would reveal if there were still issues present that could cause either an incomplete repair or an unsatisfied customer. If your mechanical repair shop is not performing pre- and post-scan tests, you should consider the benefits of starting the process. As a matter of fact, many, if not most, scan tool manufacturers are making this feature part of their scan tools. Many current scan tool models offer a wireless module that is connected to the vehicle, which is able to scan the vehicle then generate a report that can be sent to the service advisor and/or customer.

Many years ago, in our shop, as part of our diagnostic test process, we instituted a practice of scanning every module on each vehicle before and after repairs. This

allowed us to form a more complete diagnosis, as well as assure the vehicle did not have additional issues once the primary repair was completed. We firmly believe this is one of the reasons we have both an extremely low comeback rate along with very satisfied customers. The results

TOOLS USED:

- Diagnostic scan tool
- Vehicle repair information



VehicleMRI
1999 FORD F-350 SUPER DUTY PICKUP
ANY 6.8 V10 (S) GAS
C+ Average

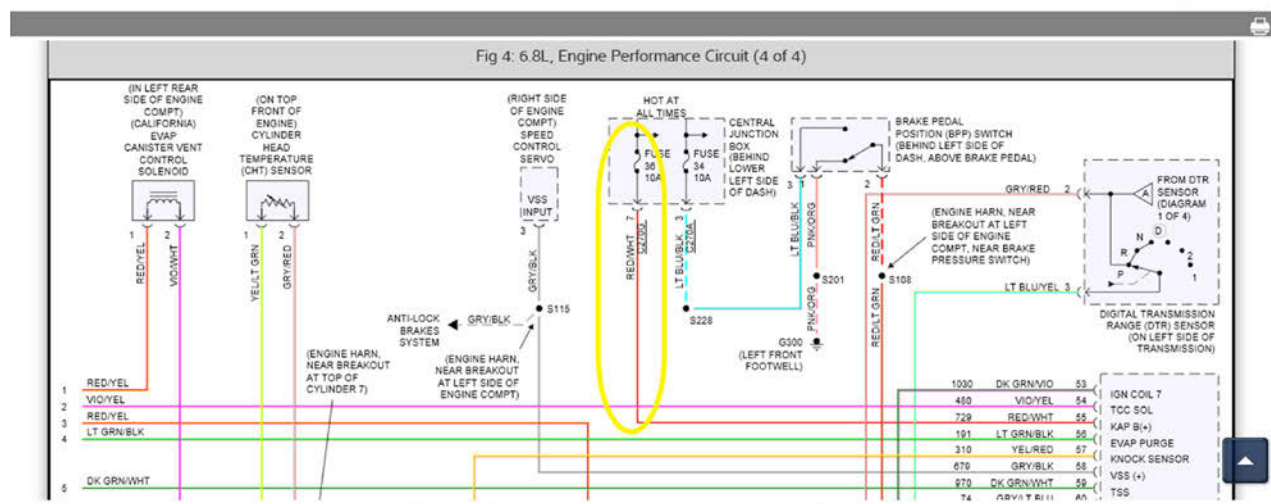
Report Summary		Vehicle Information		Other Summary	
Report Name	VehicleMRI Complete+	VIN	1FDWF36S4XEE0208	Items Checked	233
Report Number	059	Year	1999	Duration	04:49 (Min:Sec)
Report Time	03/20/2012 5:40 PM	Make	FORD	Device	EV1-6
Performed By	Root Root	Model	F-350 SUPER DUTY PICKUP	Firmware Version	EV18_00
Company ID	55	Engine	6.8 V10 (S)	Script Version	1
		Odometer	0	Applet Version	1.0.0.15
		Vehicle ID	DC5896J	Database Version	3/19/2012

Category Details			
Category	Overall	Key On	Engine Running
Report Preconditions	PASS	PASS	N/A
Vehicle Information	N/A	NOT SUPPORTED	N/A
MIL / DTC / IM / Dash Lights	FAIL	FAIL	N/A
Battery	PASS	PASS	PASS
Powertrain Misc.	PASS	PASS	PASS
Oxygen Sensors	FAIL	PASS	FAIL
Evaporative System	NOT SUPPORTED	NOT SUPPORTED	NOT SUPPORTED
Temperatures	PASS	PASS	PASS
Fuel Trim	PASS	PASS	PASS
Fuel Pressure & Rates	PASS	PASS	NOT SUPPORTED
Load/Torque	NOT GRADED	NOT GRADED	NOT GRADED
Throttle/Accelerator	PASS	PASS	N/A
Misfire / Injectors	N/A	NOT SUPPORTED	N/A
Transmission	FAIL	FAIL	NOT GRADED
ABS / Airbag	N/A	NOT SUPPORTED	N/A
Body Misc.	N/A	N/A	N/A

▲ Image of a Vehicle MRI Report from Denso.

of both scans were documented on the technician notes section of our diagnostic worksheet.

In order to see the benefits of a pre- and post-scan process, let's go over some of the reasons a pre-scan, followed by a post-scan, may help you repair vehicles



▲ A Mitchell 1 wiring diagram showing power supply to Keep Alive Power. The area in the yellow circle shows the area where the power tap was installed.

more effectively. We will also provide a case study that created a situation where we would have released a vehicle that still had an issue after we “repaired” the cause of an illuminated check engine light (CEL).

THE PRE-SCAN

Being as the majority of the vehicles that enter your shop having a problem that requires a diagnostic process of at least one computer system are Controller Area Network (CAN) equipped, a complete system scan is necessary. A complete system scan is the backbone of a pre-scan process. Many shops and technicians have a tendency to grab either a code reader or scan tool and obtain codes from the powertrain control module (PCM). This practice is fine and, in many cases, will save you time, *some of the time*.

The fact is, with CAN equipped vehicles, information from other modules is essential in order for everything to work together correctly. Faults in modules other than the PCM may cause either drivability or no start issues, even without the presence of a diagnostic trouble code (DTC) in the PCM.

A complete scan will give you a clear picture of any other modules having issues, which can provide more clues for diagnosing the root cause of a problem,

or if there are problems within other modules that should be addressed. Best practices say to note and repair “U” codes first because module communication codes can prevent you from repairing the vehicle quickly and completely.

Along with scanning all modules, it is critical to have a complete understanding of what conditions need to be met in order to not only trigger a fault code, but what could prevent a fault code from registering. As explained in our case study later in this article, this information is crucial in order to completely repair a vehicle.

As important as fault codes are, you must remember what they actually are. That is, fault codes are just one of the symptoms of a failed system or component, and a point at which to start your diagnostic process. Along with obtaining which, if any, fault codes are present is the need to determine if there are any monitored systems that have either a pending code or have not yet completed the process to determine if there is a problem within the system.

Pending codes should be assessed to see if their presence is due to any conditions that were created by the original issue or fault. Monitors that are incomplete can cause a check engine light to illuminate once that monitor completes

and determines there is a fault present. Incomplete monitors can be caused by either a condition that exists from the original issue, or conditions that are not allowing the requirements to be met that are necessary to run the monitor.

Some common causes for incomplete monitors include ambient air temperature not within the allowed ranges, short drive cycles, low fuel levels, and other faults’ presence, such as misfires, that prevent the monitor from running. Check your vehicle information source to see the conditions that will set a code and the conditions necessary for the monitor to complete.

At a minimum, you should share the results of scans that show issues in other modules, pending codes, and incomplete monitors with your customer. This is important because you always need to remember that the most likely reason the customer brought the vehicle in was for a single symptom – an illuminated check engine light. Any potential cause for the engine light to come on again should be discussed with your customer.

THE POST-SCAN

After repairs have been completed, it is vital to re-scan all modules. Not only do you need to make sure the repaired system is functioning properly, but you



▲ Part of Launch Tech's Roxie detailed pre- or post-scan report, which can be emailed to the service adviser and/or the customer.

Data Stream V46.90

CADILLAC V46.90 > Automatically Search > System Selection > ECM (Engine Control Module)

Name	Value	Standard	Unit
Misfire Monitor Complete	Yes		
Misfire Monitor Enabled	Yes		
Number of DTC(s)	0.00	0.00 - 255.00	
O2S/HO2S Monitor Complete	No		
O2S/HO2S Monitor Enabled	Yes		

4 / 5

End Session Graph Record Saved Data Report Help

▲ When performing pre and post scans, observe the monitor status in order to determine if all monitors are complete.

able to run if there are any misfire codes present. With this information, our concentration shifted to the cause of the misfire, with the assumption that once it was repaired, all of the monitors could run.

While inspecting the ignition components, we found an obviously corroded connector on the ignition coil for cylinder 3. All other coils showed small amounts of corrosion on the boots, and the spark plugs showed extended gaps. We suggested to the customer that we replace the one ignition coil, all the spark plugs, and all the coil boots. These repairs corrected the misfire. We cleared the fault codes and performed a drive cycle. A post-scan revealed a P1000 code.

Looking at the monitors, we found that the HO2S monitor had now completed, but the EVAP system had not yet completed. We returned the vehicle to the customer; we asked them to drive the vehicle for a few days and to return to the shop so that we could see whether or not there were issues with the EVAP system once the monitor was completed.

This is where it gets interesting. When the vehicle returned, we connected our scan tool to the vehicle and found a P1000 code. The vehicle had been driven about 75 miles over the course of a few days, so all monitors should have been completed. We then checked the monitor status and found *none* of the monitors were completed.

We had scanned the truck after our original repair and road test and had confirmed that all the monitors had run, except the EVAP system. We asked the customer if the battery had either been disconnected or jump-started. Either situation could have caused the system to clear codes requiring monitors to be re-run. They said they had no battery issues. Our next step was to perform another drive cycle to see if the monitors would run.

After a twenty minute test drive, we connected the scan tool and again saw a P1000 code and that all monitors were complete except the EVAP system.

In order to make sure there was nothing that could cause the computer memory to clear, I asked the customer

also need to make sure the system that had a problem was not preventing a different system from monitoring its condition. This could create a situation where a check engine light could illuminate if the now able-to-run system monitor detects a fault. This becomes abundantly clear in the following case study.

CASE STUDY: 2002 FORD F-250, 6.8L V10 GASOLINE ENGINE

This vehicle came in with the CEL illuminated and an obvious misfire present. The initial scan showed a P0303 (misfire on cylinder number 3) code and a P1000 (all monitors have not been completed since last clearing) code. No additional codes were present in other systems, there were no pending codes, and the

evaporative emissions control (EVAP) and heated oxygen sensor (HO2S) monitors were incomplete.

Since a P1000 code was present and an EVAP monitor is typically one of the last to run, we did not concentrate on the EVAP system at that time. The fact that the HO2S monitor had not completed led us to look further into what could stop that particular monitor from running, especially due to the fact that having either incomplete or incorrect data from oxygen sensors can directly affect cylinder operation.

We went to Mitchell 1 and found that in order for the EVAP monitor to run, it required the HO2S monitor to complete and pass its system test beforehand. Additionally, the HO2S monitor is not

to wait another few minutes so we could check the computer again. Here is where we found that our technician had made a mistake; he connected the scan tool with the engine running right after the road test, without cycling the key. When we connected the scan tool after the engine had been off for a while, we found the computer had reset.

We then returned to Mitchell 1 and found the wiring diagram for the computer's keep-alive memory. Tracing the circuit, we found where someone had used a splice tap to obtain power for an

aftermarket device. At some later date, the aftermarket device was removed but the tap, which had damaged the wire, was not repaired. This meant that when the engine was running, the computer had power to run the monitors; once the key was turned off, the keep-alive, or retained, power to the computer was not present, which cleared the computer's memory.

We repaired the wire and road tested the vehicle, then subsequently retested the vehicle after all the monitors had a chance to complete. We found that

the P1000 code was no longer present and there were no current or pending codes.

In a case like this, a lack of power allowing the computer memory to erase is not necessarily a huge issue. Conversely, it will cause untold diagnostic challenges down the road. In most states that require smog checks, incomplete monitors cause a vehicle to fail a test.

This is one example of how performing both a pre- and post-scan can assure vehicles are completely repaired. **PTEN**

RELATED TOOLS FOR THIS REPAIR



Autel

MaxiSYS MS906TS Tablet

Circle 110 on card, or enter at "e-inquiry" on VehicleServicePros.com



Audatex

Vehicle Health Check

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



Bosch

Software version 3.7 for ADS 325 and ADS 625

Circle 112 on card, or enter at "e-inquiry" on VehicleServicePros.com



Drew Technologies

DriveCRASH

Circle 113 on card, or enter at "e-inquiry" on VehicleServicePros.com



CarMD

Pro Scan Tool

Circle 114 on card, or enter at "e-inquiry" on VehicleServicePros.com

Selecting the right puller

You're working on a customer's vehicle and once all the nuts and bolts are off, the part's still stuck. It could be a ball joint, wheel bearing or even a brake drum or rotor. What are your options? You can grab a pry bar, a hammer or whatever else is in the shop. Or you can grab a puller, break the parts loose and get the job done faster.

To find the right puller:

- What are you trying to pull? Are you trying to pull a shaft out of something, pull something out of a hole or pull something off a shaft? This will help you determine if you need a push-puller, jaw-type puller, slide hammer or one with internal or external-internal adapters.
- Determine the reach and spread you need. This will make sure your puller is long enough and the jaws, if applicable, open wide enough to exert enough force to pull the object.
- Estimate the force required. Normally, if you account for reach and spread, OTC's pullers will have enough force. When in doubt, always use the next larger size to account for frozen or rusted parts.

Now that you've determined what you're trying to pull, find a corresponding puller to finish the job.

- If you're pulling something off a shaft, you can use a jaw-type, push-puller, slide hammer or bearing puller with attachment.
 - This includes removing a gear, bearing, wheel or pulley
- If your job includes pulling something out of a hole, look for internal pulling attachments coupled with a slide hammer or a push-puller.
 - This option helps remove internal bearing cups, retainers or oil seals that are press-fitted

- When you need to pull a shaft out of something, look for threaded adapters, internal or external, for use with slide hammers or a push-puller.

- Typically you need these pullers when removing a transmission shaft or pinion shaft from a bore or housing.

Regardless of puller selected, always keep the tool clean and frequently lubricate the forcing screw fully to extend the tool's life. With tons of force, we can't stress safety enough when using pullers. Before using any puller, be sure to read through OTC Puller Information to understand more about OTC Pullers safety advisements, proper usage, and general information. OTC Puller Information can be found at https://www.otctools.com/sites/default/files/otc_puller_safety_guidelines.pdf. ■



Circle 115 on card, or enter at "e-inquiry" on
VehicleServicePros.com

otctools.com

800-533-6127

Bosch Automotive Service Solutions

28635 Mound Road
Warren, MI 48092 USA



OWATONNA TOOL COMPANY FOR THE LONG HAUL

Pullers, bearing splitters and adapters since 1925

HEAVY-DUTY SPECIALTY PULLER TOOLS

Scan the code with your smartphone
camera or compatible QR reader to
learn more about each tool



4532 7-TON MULTI-PURPOSE BEARING & PULLER SET



4518 5-TON BAR-TYPE PULLER/BEARING SEPARATOR SET



4517 7-TON BAR-TYPE PULLER/BEARING SEPARATOR SET



4579 9-WAY SLIDE HAMMER PULLER SET



4581 BLIND BEARING PULLER SET



6627 GRIP WRENCH ADAPTERS



4536 A/C CLUTCH PULLEY PULLER SET



4534 MULTIPURPOSE BEARING AND PULLEY PULLER SET



6541 PULLING HOOK



otcspecialtypullertools.com

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

QUESTIONS?
800 533 6127

Think you know Harbor Freight?

Harbor Freight Tools, long known for DIY tools at rock bottom prices, is now offering a full assortment of tool truck quality tools for professional automotive technicians at a fraction of tool truck prices.

We've introduced our new line of professional **ICON** hand tools and tool storage cabinets with engineering, features, performance and durability that rivals Snap-on — at an affordable price. All of our **ICON** hand tools and storage cabinets come with a lifetime warranty. Today, when you visit one of our 1,000 stores nationwide, you'll find a wide assortment of tools for any job, from occasional use around the house to intense daily use in the shop or on the jobsite—always at an unbeatable price.

So if you think you know Harbor Freight, come on in, check out **ICON** and see for yourself. ■

HARBOR FREIGHT
QUALITY TOOLS AT RIDICULOUSLY LOW PRICES

Circle 117 on card, or enter at "e-inquiry"
on VehicleServicePros.com

HarborFreight.com

ICON™

SEMA
SHOW
#15307
Westgate Hall

TOOL TRUCK QUALITY UNBEATABLE PRICES



AVAILABLE ONLY AT

HARBOR FREIGHT
QUALITY TOOLS LOWEST PRICES

INTRODUCING PROFESSIONAL TOOLS FOR THE MASTER TECHNICIAN

ICON
Hand Tools & Storage

DAYTONA
Floor Jacks

ZURICH
Automotive Diagnostics

EARTHQUAKE XT
Impact Wrenches

VULCAN
Welding

HERCULES
Power Tools

CHIEF
Air Tools

black widow
Paint Spray Guns

FORTRESS
Air Compressors

AMES
INSTRUMENTS
Electrical Meters

10% OFF

ANY ITEM, NO EXCLUSIONS

VALID NOW THRU 9/15/19



38597972

Limit 1 - coupon per customer per day. Save 10% off on any 1 item purchased. Cannot be used with other discount, coupon or any of the following items: Inside Trak Club membership, Extended Service Plan, gift card, open box item, or 3 Day Parking Lot Sale item. Not valid on prior purchases. Non-transferable. Original coupon must be presented. Valid now thru 9/15/19.

1,000+ STORES NATIONWIDE • HARBORFREIGHT.COM

Circle 118 on card, or enter at "e-inquiry" on VehicleServicePros.com

Flexzilla® Air Compressors

Bring Quiet Back to the Workplace

Let's face it, standard air compressors are LOUD. You can try to minimize the noise by placing the compressor in a far corner of your shop or rigging up some sort of muffler, but these options rarely work. The impact of this inescapable noise on your productivity and health can add up.

NOISE interferes with workplace communication and efficiency. If you can't hear what other people are saying or what other noises your equipment is making, then you can't be as accurate or productive while you're working. Shop noise also increases health risks such as hearing loss and muscle tension. Fortunately, mechanics and operators have a new choice for delivering air to their tools.

Flexzilla® Pro 10 HP stationary air compressor with Quiet Technology™

All Flexzilla® air compressors feature Quiet Technology™, which uses large, low-RPM pumps and motors to reduce high frequency noise levels while increasing CFM output. Flexzilla stationary air compressors also add the Silencer™, a patent pending noise suppression system that also reduces low frequency noise levels. The combination of these technologies makes Flexzilla air compressors the quietest two-stage compressors on the market, operating at noise levels similar to a normal conversation.

CFM performance that rivals rotary screw air compressors, without the added cost

Why not just get a rotary screw compressor? These industrial compressors are quiet, but they can be expensive to install and maintain. If you don't have the three-phase power connection



Large, low-rpm two-stage pumps and single-phase motors provide high CFM output, low noise levels, and long-lasting durability. Silencer™ noise suppression uses baffles to reduce low frequency noise. It also filters incoming air and keeps your air system free of contamination.

Circle 119 on card, or enter at "e-inquiry" on VehicleServicePros.com



Flexzilla Pro stationary compressors are available in 7.5 HP, 80 Gallon (model FXS07V080V1), 10 HP, 80 Gallon (model FXS10V080V1), or 10 HP, 120 Gallon (model FXS10V120V1) configurations.

rotary screw units require, you could be looking at \$10,000 or more in electrician bills. The 10 HP Flexzilla Pro air compressor delivers comparable CFM performance – up to 39 CFM – and is the only 10 HP two-stage compressor with a single-phase connection. Models are also available for various voltages of three-phase power.

Assembled in the USA

Flexzilla air compressors are assembled in the USA with U.S. and global components. The tanks are made in the USA with U.S. steel.

Industry-leading features and warranty

All Flexzilla Pro stationary compressors come with an automatic tank drain, a continuous-run feature, and exclusive 6-year parts warranty. Learn more at flexzilla.com/quiet. ■

FLEXZILLA®

PREMIUM HOSES, TOOLS & EQUIPMENT

flexzilla.com

800-645-8258

Legacy Manufacturing Company

6509 Partners Avenue

Marion, IA 52302

The color CHARTREUSE as applied to the air compressor is a trademark owned by Weems Industries, Inc. © 2019 Legacy Manufacturing Company. All Rights Reserved.

TELL YOUR OLD AIR COMPRESSOR TO SHUT UP.



LARGE, LOW-RPM
PUMPS & MOTORS

UP TO 10 HP ON
SINGLE-PHASE POWER
Model FXS10V080V1 shown.

SILENCER™
NOISE SUPPRESSION
Patent Pending

EXCLUSIVE 6-YEAR
PARTS WARRANTY

FLEXZILLA® BRINGS QUIET BACK TO THE WORKPLACE.

Quiet Technology™ with Silencer™ noise suppression lets Flexzilla Pro air compressors operate at noise levels no louder than a normal conversation. Plus, they come with Flexzilla features you expect like an automatic tank drain, continuous run for big air jobs, and Cool Flow Technology™ for long life.

Hear the difference for
yourself at flexzilla.com/quiet.

FLEXZILLA®

PREMIUM HOSES, TOOLS & EQUIPMENT



The color CHARTREUSE as applied to the air compressor and gloves is a trademark owned by Weems Industries, Inc.
© 2019 Legacy Manufacturing Company. All Rights Reserved.

Circle 120 on card, or enter at "e-inquiry" on VehicleServicePros.com

HOW DO YOU SEMA?

SEMA
SHOW
TRADE ONLY

The best place to take advantage of cross-selling opportunities and create add-on profits will be at the Las Vegas Convention Center, November 5–8, 2019.

Register to Attend at
SEMASHOW.COM

Circle 124 on card, or enter at "e-inquiry" on VehicleServicePros.com

**INTELLIGENTLY ENGINEERED.
METICULOUSLY MANUFACTURED.**



TWO-POST



FOUR-POST



ALIGNMENT



MOBILE COLUMN



LOW / MID-RISE



PARKING

It's no wonder **BendPak** is accepted worldwide as **The Benchmark of Quality™**.
Circle 122 on card, or enter at "e-inquiry" on VehicleServicePros.com



1-800-253-2363 ■ www.BendPak.com

© 2019 BendPak Inc. All rights reserved.

BP BendPak®

HEAVYWEIGHT LIFTING



SINGLE HYDRAULIC CYLINDER



OPTIONAL ROLLING JACKS



SUPERSIZED CABLE SHEAVES



HDS-27
MSRP \$15,665
***FREE SHIPPING**

BendPak's heavy-duty truck lifts are a whole new breed of rugged.

They're engineered to make light work out of heavy lifting.

They work better, are built to last and feature upgrades that increase safety, durability and productivity. The four-post HDS series generously provides models with 18,000 to 40,000-lb. lifting capacities. Each lift features extra-wide runways to accommodate a wide variety of vehicle configurations.

PCL-18B-4
MSRP \$25,140
Set of 4

***FREE SHIPPING**



PCL-18B-6
MSRP \$37,490
Set of 6

***FREE SHIPPING**

BendPak's mobile column lifts provide time-saving features that keep your work bays productive and profits soaring. No other system on the market matches these lifts for safety, flexibility and ease-of-use. With a lifting capacity up to 144,000 lbs. per set of eight columns, never before has a mobile lift series delivered so much power and versatility for both indoor and outdoor applications.



FULL MOBILITY



SIMPLE OPERATION



ADJUSTABLE WHEEL FORKS

Circle 123 on card, or enter at "e-inquiry"
on VehicleServicePros.com

1-800-253-2363 | www.BendPak.com

*Free shipping on BendPak products to the 48 contiguous states.

BP BendPak

© 2019 BendPak Inc. BendPak is a registered trademark.

Collision-Repair Ready MS908 Tablets

Pre- and Post- Scan reports are now available on the entire line of Autel's MaxiSYS MS908 series tablets. Initially, available only on the MS906TS, the collision-repair ready software, documents for insurance adjusters and customers, the vehicle's pre-repair and post-repair condition. The Pre- and Post- Scan reporting feature is included in the July 9, 2019 software release, which is free to all users with MS908 Elite, MS908SP, MS908S, MS908CV, MS908P, and MS908 tablets that have active software subscriptions. Subscriptions can be renewed through authorized Autel dealers.

The Pre- and Post- Scan report feature is easy to use and has been integrated into the MaxiSYS interface, seamlessly incorporating the reports into the diagnostic procedure. Most vehicle manufacturers have issued position statements directing technician to perform Pre- and Post Scans on all vehicles.

To generate the Pre-Scan report the technician connects the tablet to the vehicle and establishes communication by either selecting AutoVin or by identifying the vehicle manually and selecting vehicle make, model, and year, a pop-up window displays requesting the entry of a Repair Order (RO). Input the RO number and press OK.



NOW AVAILABLE ON THE
MS908SP, MS908S, MS908 ELITE, MS908CV, MS908P & MS908

Selecting the Pre-Scan icon will initiate an AutoSCAN of the vehicle, whereby all available systems will be scanned for faults. As a module is scanned, the number of data trouble codes (DTCs) found will be noted in red. Modules related to any Advanced Driver Awareness System (ADAS) will be identified with an ADAS icon. ADAS devices including camera and radar units may require calibrating after vehicle repairs, even if the ADAS system was not directly involved. Photos of any visible vehicle damages can be taken with the MaxiSYS tablet and attached to the reports. The dated reports, that can be customized with repair shop logo and contact information, can then be printed or emailed directly to the insurance company for review.

Pre-SCAN reports allow the technician to create and submit pre-repair diagnostic reports for expedited insurance carrier approval of repair estimates, and to help avoid additional insurance authorizations.

Once all repair costs are approved by the insurance company, the technician can create a more efficient repair plan from the start before any repair work has begun. After repairs have been completed, the technician can generate a Post-Scan report of the vehicle by either selecting the vehicle via the Vehicle History application or by entering the RO used for the Pre-Scan report. An icon will display labeled Post-SCAN. In addition to confirming that all pre-repair faults have been resolved, the Post-Scan is also instrumental in detecting if additional DTCs have been generated during repair. The Post-SCAN and Pre-SCAN reports will now be combined in a single report file that can be saved to the repair shop system, then easily printed or emailed to insurance carriers or the customer. This shop branded and extensively detailed report process is ensuring a higher level of customer safety is easily provided when repairing today's vehicles or the vehicles of the future. ■

AUTEL DIAGNOSTIC INTELLIGENCE

Autel is a manufacturer of advanced diagnostic scan tools and ADAS calibration tool packages for the automotive aftermarket.

(855) 288-3587

USsupport@autel.com

autel.com

AUTEL®

**Circle 121 on card, or enter at "e-inquiry"
on VehicleServicePros.com**

Bar's Leaks Super Transmission Fix

Drawing on more than 70 years of experience and knowledge as America's best-selling stop leak brand, Bar's Leaks introduces Super Transmission Fix™, the industry's first transmission treatment to repair all transmission types. This unique synthetic-blend treatment eliminates slipping, jerking, rough shifting, shudder and transmission fluid leaks.

Super Transmission Fix (P/N 1416) is formulated with seal conditioners to stop and prevent leaks, anti-wear agents to improve metal-on-metal friction properties and advanced detergents to remove sludge and varnish. There's also a performance booster to renew worn bands, control fluid degradation and reduce noise in older and high-mileage transmissions.

Super Transmission Fix renews transmission fluid and restores older and high-mileage transmission performance. It can be used in

cars, light-duty and heavy-duty trucks powered by automatic (step, overdrive, 2WD, 4WD, AWD), continually variable (CVT), dual clutch (DCT), electronically controlled (ECT), manual (stick shift) and transaxle (front/all-wheel drive) transmissions. It addresses fluid leaks, slipping and hesitation, whining, and other fluid-related problems.

Bar's Leaks is offering a \$5 rebate on Super Transmission Fix through the end of 2019. To take advantage of the rebate, customers should visit autocarerewards.com within 30 days of their purchase. ■



Circle 125 on card, or enter at "e-inquiry" on VehicleServicePros.com



P.O. Box 187
Holly, MI 48442
1-800-345-6572

barsleaks.com



Super Transmission Fix

Bar's Leaks Super Transmission Fix is a synthetic-blend treatment for the transmission fluid, seals, metal surfaces, bands and clutch plates. Global domestic / import formulation can be used in all automatic, manual, CVT & DCT transmissions.

- Seal Conditioner stops current and prevents future leaks by protecting and reconditioning seals.
- Extreme Pressure / Anti-wear Agents provide better metal-to-metal friction properties to stop slipping, jerking, hard shifting, shutter and shudder, improving shift feel giving better driving comfort.
- Cleaning Detergents include dispersant and antioxidants to remove sludge and varnish from metal parts.
- Performance Additive Booster renews worn bands, controls fluid degradation caused by high temperatures, reduces noise, and prolongs the useful life of your transmission.
- Helps with small leaks (if you need to add fluid 1x per month), medium leaks (if you need to add fluid 1x per week), slipping/hesitation, rough/hard shifting, noise/whining, transmission light and other fluid related problems.

www.barsleaks.com



Part# 1416

Circle 127 on card, or enter at "e-inquiry" on VehicleServicePros.com



More Power, Half the Noise

The AIRCAT line represents the most significant advances in the performance of pneumatic power tools. AIRCAT's tool line has substantially reduced noise level while retaining more power and torque. AIRCAT also incorporates a patented, ergonomically engineered, handle design to relieve stress and fatigue. Most AIRCAT tools feature our patented tuned exhaust muffler that allows discharged air to pass without developing back pressure, thus retaining more power, while significantly reducing noise.

AIRCAT's commitment to product innovation, quality, service, and continued development in the AIRCAT, NITROCAT and VIBROTHERM DRIVE brands are what makes AIRCAT a market leader in the pneumatic tool industry.

Market leader in Innovation and New Product Development

- Reversible die grinder
- Reversible cut-off tool
- Composite tire buffer design
- Long reach extended ratchets

aircat.com

Circle 126 on card, or enter at "e-inquiry" on VehicleServicePros.com

Patented Technology

- Quiet Exhaust Technology
- VIBROTHERM DRIVE TOOLS: Featuring the first new patented impact hammer mechanism in over 30 years
- Patented double sealed motor in AIRCAT Sanders-Oil Free Design
- Patented gun style impact grip
- Patented Spindle locks on grinders

Market Leading Performance and Durability

Exceptional Warranties

(2 years/3 Years on Vibrotherm Drive tools)

AIRCAT®

NEW!

Innovative Tools

VIBROTHERM
by AIRCAT DRIVE™
Impact Wrench Series

LOW VIBRATION - LOW NOISE
SHORTER LENGTH
50% MORE LIFE! - PATENT PENDING

1059-VXL 3/8" Compact Impact
1058-VXL 1/2" Compact Impact
700 ft-lb Loosening Torque

1178-VXL 1/2" Impact
1300 ft-lb Loosening Torque

1778-VXL 3/4" Impact
1700 ft-lb Loosening Torque



808 Long Reach Ratchet Series

- 808-15 3/8" 30 ft-lb Maximum torque (15.3" Long)
- 808-15-25 1/4" 30 ft-lb Maximum torque (15.3" Long)
- 808-22 3/8" 65 ft-lb Maximum torque (22.5" Long)



809 Sealed Flat Head Ratchet Series

- 809-SH 3/8" 60 ft-lb Maximum torque
- 809-SH-5 1/2" 60 ft-lb Maximum torque

www.AIRCAT.com

Circle 128 on card, or enter at "e-inquiry" on VehicleServicePros.com

Adjust to Any Workpiece on the Fly, Even in Tight Spaces

For mechanics looking to turn a two-person job into a one-person job, the KNIPEX S-Type Swedish Pipe Wrench with rapid adjustment is an essential addition to your toolbox.

With a unique push-button design, the S-Type Pipe Wrench allows for easy and precise adjustments of the gripping width directly on the workpiece. The slim, s-shape head style provides a three-point contact



grip that securely handles round, square, hex and flat workpieces without slipping. The wrench's jaws have offset teeth in opposite directions for a superior grip that works great with the self-locking ability of the tool. Unlike normal pipe wrenches, the handles of the S-Type Pipe Wrench can be opened and compressed onto a workpiece for maximum grip, and the handles don't need to be opened as wide to grip larger workpieces. The wrench is also designed so that there is no unintentional shifting of the pliers. A pinch guard protects against blood blisters, as well as finger and hand pinching. Other features for the KNIPEX S-Type Swedish Pipe Wrench with rapid adjustment include self-locking action, requiring less effort for the user.

The KNIPEX S-Type Swedish Pipe Wrench is available in three sizes: 13", 16 1/2" and 22". From head to handle, the wrench is made of chrome vanadium electric steel for greater durability and longer service life. The KNIPEX S-Type Swedish Pipe Wrench is also forged and multi-stage oil hardened. The handles of the S-Type Pipe Wrenches are also plastic dipped for added user comfort. ■

KNIPEX Quality – Made in Germany

BIG BROTHER IS HERE! THE NEW 10" COBOLT XL.

Part Number: 71 01 250

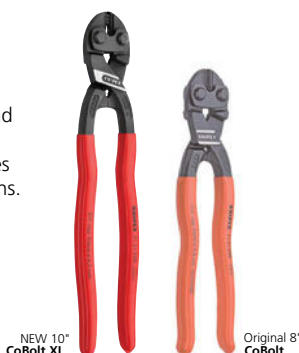
KNIPEX – Tools Designed With Your Hand in Mind

The question we hear the most is, "Can you make the CoBolt bolt cutter longer?" Yes, we can and we did!

Introducing the new 10" CoBolt XL Bolt Cutter! This powerful tool will cut hard materials with less effort and hand force than before. Laser-etched cutting edges reduce slippage of material. Available with straight blades or with a notch for easier cutting of larger cross-sections. This tool has been designed to make your cutting jobs easier and with less effort.

See a video of this tool: bit.ly/coboltxl

©2019 KNIPEX facebook.com/knipex.us



knipex-tools.com

Circle 130 on card, or enter at "e-inquiry" on VehicleServicePros.com

NEW Versatile, High-Powered Flashlight from COAST

COAST's TX14R is a top-of-the-line rechargeable LED flashlight built to excel both in-the-shop and during roadside emergency situations.

The bright, 900-lumen light combines COAST's Long-Range Optic with a slide focus to go from a perfect flood beam with no hot spots to a long-range spot beam capable of covering up to 1,381 feet. With two brightness modes and a strobe mode, the light casts a perfect beam for up close work, seeing objects at a distance, or getting people's attention.

With COAST's Flex Charge Dual Power system, the TX14R allows for an amazing number of powering and charging options. The light uses either lithium or alkaline batteries, and a micro USB provides recharging capabilities with the lithium battery pack either in or out of the light. The TX14R lithium pack also features a USB plug to charge phones or accessories.

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



The light features an anti-roll bezel, a beam lock system that locks on your desired level of focus, and will run for over 4 hours on high.

As with all COAST products, the TX14R has a lifetime warranty against defects and is tested and rated to ANSI/FL1 standards. The light has been tested drop proof up to 3 meters on a concrete surface. The TX14R is rated at IPX4-level water resistance, which means that it is weatherproof and can stand up to a driving rain. ■

COAST
coastportland.com

Coast Products
8033 NE Holman
Portland, OR 97218
1-800-426-5858

ENGINEERED FOR COPS UNBEATABLE FOR SHOPS

WITH THE **LONGEST** BATTERY RUN TIME
ON THE MARKET.



COAST

TRUSTED TOUGH.

TX14R
RECHARGEABLE
Flashlight



COASTPORTLAND.COM

Circle 132 on card, or enter at "e-inquiry" on VehicleServicePros.com

Wheel Alignment on ADAS

Advanced Driver Assistance Systems (ADAS) is changing the landscape of the automotive world. Lane departure warning, collision avoidance braking systems, auto adaptive cruise control and fully autonomous driving systems are all using ADAS derivatives. ADAS uses numerous cameras, sensors and inputs and can take over the vehicle to correct the steering, braking or accelerator to stay safe on the road.

A majority of OEMs require a thrust angle wheel alignment before or during the calibration of ADAS. In order to find out if ADAS requires a wheel alignment, every shop should have quick access to OEM repair information and also seek out automotive diagnostic reading and reset tools as part of their wheel alignment bay.

There are a lot of questions with ADAS and even more misinformation, hype and incorrect advice being passed around. The correct answers are found by seeking out OEM repair information. Every shop needs to invest in a source to get the correct answers fast in a quickly emerging ADAS landscape. ■

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



cemb-usa.com
678-717-1050

Introducing the new DWA1000ADAS Wheel Alignment System

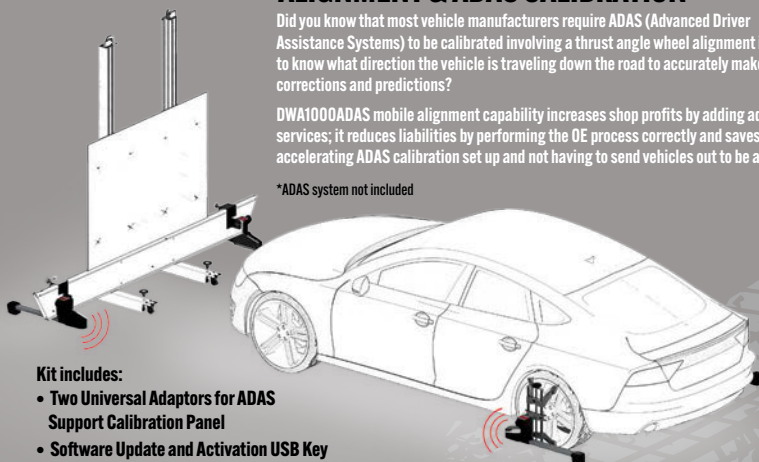
Add alignment service and time savings profitability to your ADAS capability.

ALIGNMENT & ADAS CALIBRATION

Did you know that most vehicle manufacturers require ADAS (Advanced Driver Assistance Systems) to be calibrated involving a thrust angle wheel alignment in order to know what direction the vehicle is traveling down the road to accurately make safety corrections and predictions?

DWA1000ADAS mobile alignment capability increases shop profits by adding additional services; it reduces liabilities by performing the OE process correctly and saves time by accelerating ADAS calibration set up and not having to send vehicles out to be aligned.

*ADAS system not included



Kit includes:

- Two Universal Adaptors for ADAS Support Calibration Panel
- Software Update and Activation USB Key



Turn your 2-post lift into a profitable alignment service bay today!

Includes all items necessary to begin offering wheel alignments. (2 post lift not included)

www.cemb-usa.com
(678) 717-1050



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

It's time to free up your diesel technician

New: ProMAXX Bullit®

Diesel repair shops are struggling to find enough technicians to service the number of jobs they receive. Not only are these shops missing out on an ample amount of additional income, but the fleets and consumers that require the maintenance are suffering from extended downtime as their truck sits immobile.

Introducing ProMAXX® Bullit.

Born and tested with real diesel technicians in the United States, the Bullit was engineered to address broken exhaust manifold mounting bolts in over the road tractor, construction, agricultural, and marine heavy-duty diesel engines with just one device. This new ProMAXX ProKit was built to service Caterpillar, Cummins, Detroit Diesel, International, John Deere, Kubota, Volvo and more.

promaxxtool.com

724-941-0941



ProMAXX® designed and incorporated precision ProBushing™ carriages that hold ProMAXX® machine grade tooling, giving technicians a means to replicate the manifold mounting bolt pattern in seconds. An included spanner type wrench locks the carriage into place allowing the technician to make the repair fast and hassle free.

The Bullit eliminates any repair risk and eliminates the guess work of what has always been an extremely time-consuming and costly exhaust manifold repair, fast, ProMAXX Fast!



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

ProMAXX® just raised the bar....again!

BULLIT®

- Precision engineered to any exhaust HD diesel manifold mounting bolt pattern set for repair.
- Locking ProBushing carriage allows multiple engine applications from just one device.
- Machine grade tooling bit packages cut through hardest steel including titanium, boron, and high strength steel. At Rc55, twice the typical cutting capability of most drill bits.
- Free Technical Support.
- Limited Lifetime Warranty.



Only from ProMAXX®

ProMAXX Tool offers unrivaled, unlimited customer support to all of our customers.

Productive Solutions for Challenging Repairs.

Circle 136 on card, or enter at "e-inquiry" on VehicleServicePros.com

LT855A 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 air hammer. Reverse the air hammer handle in your hand now using your thumb to push the hammer trigger. Feel the 3000 air hammer blows per minute turning 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 on the floor.

NOW AVAILABLE: LT855A-18 Texas Twister Vise Grip Adaptor. Use this dedicated double ended male puller connector to connect any 7/16-14 thread vise grip to the Texas Twister. Now you can get the most out of your vise grips.

Use the axle crow foot and pry bar sealer puller to easily remove the most stubborn axles and inner axle seals.

Use the flat blade puller for removing frozen distributors, pulley wheels and speed sensors without damaging them.

The J shaped hammer bit is used to hammer bolts/studs, engine, transmission mounts from the back side.

Circle 137 on card, or enter at "e-inquiry" on VehicleServicePros.com

Use the double ended male 1/2-20, 5/8-18 or 3/4-16 puller connectors to connect the Texas Twister to your current pullers.

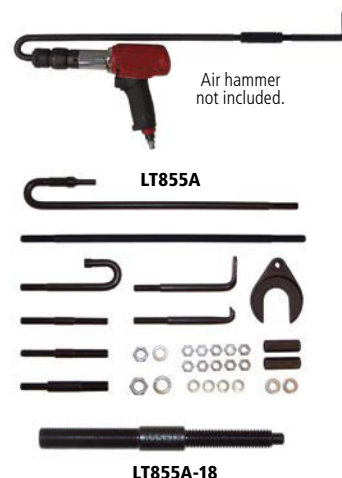
Extend the reach of the tool by using the 20" straight extension bar.

NO MORE SLIDE HAMMERS. Now you can use 21st century air hammer pulling power to get the job done.

TEXAS TWISTER -- safe, powerful, fast, simple effective air hammer bits you will use every day. ■



Patent #
7,036,211



FROZEN/DAMAGED LUG NUT PROBLEMS?

LT1350 LUG RIPPER II

PATENT PENDING

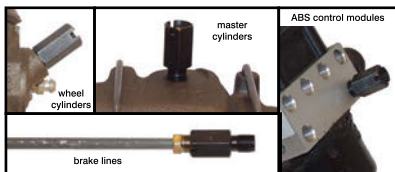
- Don't torch frozen/damaged lug nuts off just drill out the lug nut/stud threads only in 11 minutes or less
- 16mm Tungsten steel drill bit with 4 carbide cutters allow for speed & durability
- **Available from your local mobile tool dealer**
- Includes 4 drill guides - 17mm - 11/16" 21mm - 13/16" 19mm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



RE-THREAD BRAKE FITTINGS

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

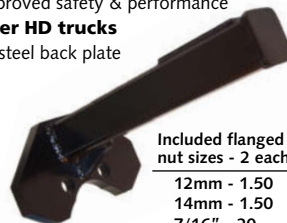


Includes
SAE & Metric
3/8 - 24
7/16 - 24
1/2 - 20
5/8 - 18
10mm - 1.0
12mm - 1.0

GOT A FROZEN HUB?

LT830A HUB SHOCKER

- Safely remove all frozen hubs instantly without damaging axle
- Universal fit mounts to all axle bolted hubs - 5, 6 & 8 lug hubs
- Mounts to two studs using supplied flanged nuts in seconds
- Use w/5 lb. hammer to knock frozen hubs out of axles
- Flanged nuts included for improved safety & performance
- **Ideal for Dodge and other HD trucks**
- Two mounting holes in 3/4" steel back plate



GET TO DIFFICULT & HARD TO REACH AREAS

LT-840 AIR HAMMER WRENCH DRIVER

- Use your air hammer to drive your wrenches in difficult and hard to reach areas
- Use on crank pulley bolts, fan clutches, and any inaccessible bolt or fastener
- New and improved with **no welding**
- **Fully machined from bar stock steel**
- Long reach - 19 1/2"
- Fits any wrench



We Make Good Ideas

LOCK TECHNOLOGY, INC.
Toll Free 800-421-7241
www.lttools.com
lttools@lttools.com

Circle 138 on card, or enter at "e-inquiry" on VehicleServicePros.com



P TEN

ONLINE RESOURCES AVAILABLE 24/7

TOOLS

TECH TIPS

EQUIPMENT

DEMO VIDEOS

VEHICLESERVICEPROS.com

Mighty Seven 1/2" Drive EZ Grease Mini Impact Wrench, No. NC-4650HB

The reviewer liked this tool's compact size to get to stubborn bolts.

by Kayla Oschmann, Assistant Editor

THE REVIEW:

A power tool that can get into tight spots to remove bolts and loosen fasteners can be a big help for busy technicians. Jeff Buckley, owner and master technician at My Father's Shop Certified Automotive Repair in Midlothian, Texas, reviewed the 1/2" Drive EZ Grease Mini Impact Wrench from Mighty Seven and noted a number of key features, including its compact size and unique grease delivery system.

"It's truly a compact unit. The head of the unit is just a little bit bigger than the palm of my hand," Buckley says. In the shop, Buckley found that his favorite use for the impact wrench was for removing bolts found on the back of caliper mounting brackets, as the space on the backside is very limited. He liked that he was able to "take them right off and access them easily."

He also found the tool handy for suspension work, saying, "If you're working on the back and you're trying to get the shock bolts from the bottom, there are a lot of times you have a very limited space, so with this reduced head it's an extremely useful tool."

This shop owner also liked the easy ability to adjust speed options for forward and reverse. The back of the tool provides three speeds for each direction that can be moved within thumb's reach.

Buckley said what makes the 1/2" Drive EZ Grease Mini Impact Wrench so unique is the way Mighty Seven developed a new way to lubricate the tool.

"It comes with a packet of grease and a little syringe," he says. "There is a hole on the front of the anvil, and all you do is fill the syringe up with the grease and inject the grease into the hole. That lubricates the front; you turn [the anvil] a couple of times, and it's ready to go."

He notes this offers a distinct advantage, as the method and location of grease-delivery keeps maintenance top-of-mind. Most power tools are lubricated using a special tip attached to a grease gun to deliver the grease.

"The majority of [technicians] don't

do that," Buckley says. "You'll be using your impact and it wears out and won't take nuts off. They give it to the tool dealer to be reconditioned."

He adds, in this way the lubrication method on the mini impact wrench could cut out some of the time and effort spent sending tools out to be reconditioned.

With 650 ft-lbs of torque, this compact impact has the power needed to remove bolts.

"You don't have to worry about breaking the bolts," he notes. "It's a mid-range power tool ... not necessarily a tool to take tires on or off or an everyday, all-day tool, but it's a great optional tool for smaller spaces, and noise is not a big issue."

Overall, Buckley enjoyed having the impact wrench at his shop and said that it's going right into his toolbox. **PTEN**

To view Buckley's video review of this product, visit: VehicleServicePros.com/21088018

PRODUCT DESCRIPTION:

The Mighty Seven 1/2" Drive EZ Grease Mini Impact Wrench, No. NC-4650HB, features the company's patented EZ grease system that is designed to extend the life and power of the tool. The design provides tool owners with a time-saving and effective method of self-maintenance. The mini impact wrench operates at 90 psi and can reach a maximum reverse torque of 650 ft-lbs in five seconds. The EZ Grease system is available in three other tools, and all are backed by a three-year warranty.

Circle 139 on card, or enter at "e-inquiry" on VehicleServicePros.com



Robinair LD7 Premium Refrigerant Leak Detector

With its UV lighting and ability to service both R-1234yf and R-134a refrigerants, this master technician claims the LD7 eliminates the need for multiple tools.

by Tyler Fussner, Assistant Editor



PRODUCT DESCRIPTION:

The Robinair LD7 Premium Refrigerant Leak Detector senses the most common refrigerants used today, including R-134a and R-1234yf. Two detection modes display proximity to leaks by either a bar graph or line graph. Audible chimes and visual graphs are designed to help technicians locate leaks faster. Both modes allow for system sweeps, showing technicians when they get closer to a leak. An integrated UV LED light helps locate leaks when using UV dye for an all-in-one leak detection tool with a 10-year sensor life.

Circle 140 on card, or enter at “e-inquiry” on VehicleServicePros.com

THE REVIEW:

Jeff Buckley, owner and master technician at My Father’s Shop Certified Automotive Repair in Midlothian, Texas, reviewed the Robinair LD7 Premium Refrigerant Leak Detector when servicing refrigerants.

The LD7 comes packaged in a box, and within that, a solid carrying case. The case is lined with a foam molding, securing the tool and providing safe storage. Setup only requires the installation of batteries. The provided manual shows the features of the tool, and also explains to the user how to test and adjust. The LD7 comes with replacement filters and a test vial.

Buckley mentioned the first thing he noticed about the tool was that the grip is “extremely comfortable.” The flexible wand is long enough to reach far behind the hoses while keeping

the display in front of the user, Buckley says. At the end of the wand is a pin-point tip to ensure accuracy.

The LD7 is easy to use, Buckley says. When the tool is turned on, it takes about 20 seconds to warm up; the color display and an audible notification alerts the user when the tool is ready for use. Buckley enjoyed the built-in UV LED light that eliminated the need for an additional tool, although he claims it could be brighter. The additional white light also helped to illuminate the work area and to detect leaks.

The multiple options of graphical and audible notification for leak detection “show exactly where the leak is,” Buckley says. When in manual mode, a line graph will indicate a leak’s location through the display of a rising line when

the wand’s pin-point tip is alongside a leak. The line will hold flat atop the graph while the wand’s tip is alongside a leak; the line on the graph drops back down to display a flat line across the bottom of the graph when the wand’s tip is no longer near the leak. Having the option to mute the audible notification was also a favored feature of Buckley’s.

Buckley was appreciative of the tool’s dual-purpose functionality in its ability to service both R-1234yf and R-134a refrigerants. He notes if the leak sensor tip was not tightly secured, the tool would stop testing and alert him to tighten the sensor or indicate that a filter was plugged. Altogether, Buckley was impressed with this tool and says he will be adding it to his toolbox. **PTEN**

To view Buckley’s video review of this product, visit: VehicleServicePros.com/21085331

AIRCAT 3/8" Drive Long Reach Ratchet, No. 808-15

The reviewer was impressed by how well-balanced the tool is regardless of its long reach.

by Emily Markham,
Assistant Editor

PRODUCT DESCRIPTION:

The Florida Pneumatic AIRCAT 808 Long Reach Series Ratchets provide access for hard-to-reach fasteners with an extended drive shaft. The ratchets are available in two lengths including 15.3" and 22.5". The 15.3" model is equipped with either a 1/4" (808-15-25) or 3/8" (808-15) anvil. The 22.5" model is available in 3/8" (808-22) anvil only. The ratchets are made with high-grade materials and have additional support bearings to provide reliability. They have a two-year warranty.

Circle 141 on card, or enter at "e-inquiry" on VehicleServicePros.com

THE REVIEW:

Any tool that helps technicians get at those hard-to-reach places is worthy of keeping around the shop. Reviewer Jeff Buckley, owner and master technician at My Father's Shop Certified Automotive Repair in Midlothian, Texas, couldn't agree more.

Buckley reviewed the AIRCAT 3/8" Drive Long Reach Ratchet, No. 808-15, saying, "This is a really nice tool. It's going to come in handy."

When he removed the ratchet from its box, the first thing he noticed was how comfortably the handle fit in the palm of his hand.

The long reach ratchet offers 30 ft-lbs torque and is 15" long, enabling it to reach further down into those tight spaces.

"Even though we have this long extension on it ... it still feels well-balanced," Buckley says. "It doesn't feel bulky."

Buckley tested the ratchet around

the shop on maintenance jobs. When using the tool for engine work, he had no issues reaching around all the parts and components under the hood. He was impressed by how nicely the ratchet extended down to the compressor bolts and was pleased to not have to lean all the way across the engine to reach the bolts underneath the cowl.

"It just pops [the bolts] right off," Buckley says.

The long reach ratchet comes with an air connector and a manual, although Buckley states that the manual was "not really needed." The easy-to-use tool required no additional set-up other than installing the air connection.

As far as improvements go, Buckley had two suggestions. First – reconsider the round shaft so the tool can't roll out of reach, and second – "bump the

torque up a little" in order to help get those stubborn bolts loose.

Regardless of these suggestions, Buckley says that AIRCAT's Long Reach Ratchet has a home in his toolbox. **PTEN**

To view Buckley's video review of this product, visit: VehicleServicePros.com/21088017



Mueller-Kueps Wheel Weight Pliers, No. 282 240

The reviewer liked the quickness and simplicity of this tool when removing stick-on wheel weights.

by Kayla Oschmann, Assistant Editor

PRODUCT DESCRIPTION:

The Mueller-Kueps Wheel Weight Pliers, No. 282 240, are designed to remove sticky wheel weights from aluminum rims. Thin edges grip the wheel weight without damaging the aluminum, leaving no scratches or notches in the metal. The pliers will never touch the wheel, as the weights lean on their own tape, the company says. Wheel weights can be easily removed and trashed using the spring-loaded handle. The rubber coated grip provides a comfortable handle. This tool is made in Germany.

Circle 142 on card, or enter at “e-inquiry” on VehicleServicePros.com

THE REVIEW:

For technician Randy Kaiser at Rost Motor, Inc. in Mason, Iowa, the Mueller-Kueps Wheel Weight Pliers helped save a little time. He found that to use the tool, he just had to grab the wheel weights and give them a twist.

“Instead of having to dig and pry to remove old wheel weights and possibly causing damage to an expensive wheel in the process, you simply grab the weight, give it a little twist, and it pops right off,” Kaiser says.

Rost Motor is a new car dealership that works on all vehicle brands, in addition to four wheelers and motorcycles. Mounting and balancing new tires is a routine job in the shop, as well as rebalancing tires.

While Kaiser found the Mueller-Kueps Wheel Weight Pliers, No. 282 240, to be a timesaver, he also notes it is a quality product and easy to use.

“[The pliers] are extremely well made; it appears as though they will last a long time, and they do exactly what they are designed to do,” he says. “They will save a lot of time removing stick-on weights without having to worry about damaging the rims.”



The tool is ready to be used right from the box, and doesn’t require setup or a manual.

“Setup is simple,” Kaiser says. “Take the pliers out of the box and plastic bag, and you’re ready to go. There are no accessories, and none are needed. It’s self-explanatory, and a very simple operation.”

Kaiser notes that the tool works like other wheel weight pliers, however the difference is with the jaws, which Kaiser says are “specially designed to grab stick-on weights.”

“I previously used traditional [wheel weight pliers] and they didn’t work for stick-on weights, only for clamp-on weights,” he adds.

In the past, Kaiser would have used a plastic scraper to remove the stick-on weights, and then used glue remover to take off any additional adhesive still left on. He says the Mueller-Kueps Wheel Weight Pliers would even take the adhe-

sive off most of the time.

At the dealership, Kaiser and his team of technicians use stick-on weights for vehicles with chrome or aluminum wheels where the wheel lips are too big for normal weights, and when customers don’t want to see the weights on their tires.

When describing the features of the tool, Kaiser was most impressed with the quality of the product.

“The craftsmanship is exquisite,” he says. “The handles and jaws are heavy duty. The handles also have a nice cushioned rubber covering on them and are spring loaded so that they automatically open up to dispose of the weight that you removed; [they] are then ready for the next weight.”

Kaiser concludes that these wheel weight pliers were the first that he has seen for such an application, and he was glad to try them out. **PTEN**



Programming for the future

The practice of recording information before and following a repair is not new, but the methods and technology to do so have improved over time.

By **Scott Weaver**, *Contributing Editor*
gonzosae@aol.com

Computers and data signals are now the norm in vehicles, and communication between a vehicle's electronic pathways and mechanical components must be maintained and upgraded from time to time. It's not like your phone's apps, which seem to require an upgrade every time you turn around. For vehicles, new situations arise and new procedures are developed that need to be entered into the vehicle's matrix. That, of course, is the reason for updates to vehicle software.

When we talk about "programming" it is usually associated with the replacement of a computer or component in the vehicle. Other times, the update may have to do with a TSB. Some programming is only required if you've made some major changes, such as replacing the transmission.

So, how does one enter new updates and information? Is this something a DIYer can do, or is this something that needs to be handled professionally? First, let's discuss where all of this began.

THE BEGINNING OF THE ELECTRONIC AGE

The first vehicle manufactured in the U.S., with what we might consider a true computerized system, would have been the 1979 Cadillac. Looking back, it was a rather crude attempt at the sophisticated systems we have today. Nevertheless, this model did use a TPS and a 'revolution counter' (today, we would refer to it as a crank sensor). Still, the '79 Cadillac lacked an interface point where a technician could gain access to the computer signals. Basically, there was no ALDL port.

Even before the 1979 Cadillac model, import vehicle manufacturers (which tended to have about a 10-year head start in technology changes compared with domestic models) had introduced the 1974 Type 4 Volkswagen with an

electronic injection system. This vehicle had no service port either, and like the Cadillac, most diagnostic work was based on reading the three basic electrical principle players – amps, volts, and ohms – at various test points or connections.

THE CHIP AND THE CAR

By the early 1980s, the first aluminum boxes were prevalent in nearly every vehicle. The ECM age was upon us. These early systems were more of a 'look and tell' monitoring system. The check engine light was introduced, as well as the service ports for the technician. Back then the ECM could be disconnected and tossed in the trunk to be forgotten about, because it only watched for trouble and did not evaluate or correct faults. It still left the vehicle with a moderately responsive engine and transmission system. But that was about to change.

At one time, the microchip was the mainstay of vehicle electronics. Again, this chip in comparison to today's systems was rather simple in its operation. The basic rhythmic patterns of the four-stroke engine could be mapped out on a chip, which allowed timing and fuel to be compensated at various engine loads and speed requirements. These chips became the basis for the first 'updates' regarding engine performance.

As time went on, the need for a more in-depth system of checks and balances

for the emissions – as well as security – was on the horizon. Things for the technician were about to change again.

A NEW ERA OF PROGRAMMING

By the time the industry broke away from a physical chip in the vehicle, the modern technician was well on their way to relocating their wrenches one drawer lower to make room for the scanner. These sophisticated machines became the linchpin of programming, reflashing, downloading, and upgrading the software on a vehicle's computer.

At first the upgrades were on discs, and you merely transferred the data from the disc to your scanner and then entered it into the vehicle. Over time, this changed to pulling the needed information from manufacturers' websites.

DIAGNOSTIC OPTIONS

Today, reprogramming choices are once again on the rise. We've moved from programming a single chip and snail mailing the replacement chip to the repair shop (as I've done in the past), to instantly receiving manufacturer data via the internet. The method has changed, as have basic requirements for shops to do this type of procedure. Now technicians must upgrade scanners, as well as a vehicle's internal information. It's not uncommon to arrive at the shop in the morning and turn on the scanner only to find it needs an hour of solid downtime to load the latest software.

Technology changes so often that it might be a good idea for some shops to investigate alternatives for their programming needs. Partnering with a mobile technician that specializes in keeping his or her scanners up to date or

AUTEL MAXISYS

WORK SMARTER NOT HARDER



DIAGNOSTIC INTELLIGENCE

AUTEL UPDATES PROVIDE LATEST OE-LEVEL COVERAGE FOR US/ASIAN/EUROPEAN VEHICLES (1996+) INCLUDING SUPERCARS



COLLISION
AFFORDABLE DIAGNOSTICS
+ COMPLETE TPMS + SERVICE

ADAS
CALIBRATION + DIAGNOSTICS
+ MAINTENANCE SERVICE

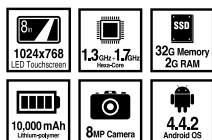
ADVANCED ANALYSIS
DIAGNOSTICS + PROGRAMMING
+ MAINTENANCE SERVICE

KEY PROGRAM
IMMO + KEY PROGRAMMING
+ SERVICE

HEAVY DUTY
BI-DIRECTIONAL DIAGNOSTICS
+ PROGRAMMING + SERVICE

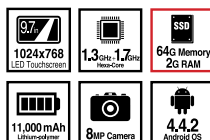
MAXISYS MS906TS

- Bi-Directional Control
- **Most Affordable Pre/PostSCAN**
- **Complete TPMS Service**
- 1YR FREE Software/1YR Warranty



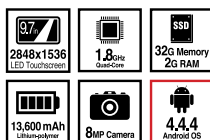
MAXISYS MS908S

- Bi-Directional Control
- Advanced Coding & Adaptations
- **ADAS Application Upgrade Ready**
- 1YR FREE Software/1YR Warranty



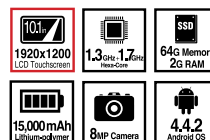
MAXISYS ELITE

- Bi-Directional Control
- Advanced Coding & Adaptations
- **ADAS Application Upgrade Ready**
- **2YR FREE Software/2YR Warranty**
- **Docking/Charging Station / 2 VCIs**



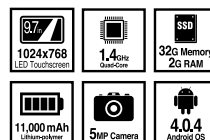
MAXIIM IM608

- Bi-Directional Control
- Advanced Coding/ECU Coding
- **MaxiFlash JVC/ECU Programmer**
- 1YR FREE Software/1YR Warranty
- **XP400 Key Programmer**



MAXISYS MS908CV

- Bi-Directional Control
- Advanced Coding & Adaptations
- **Heavy Duty Class 1 - Class 9**
- 1YR FREE Software/1YR Warranty
- **New Deutsch 6-Pin & 9-Pin Probe Set**



Circle 143 on card, or enter at "e-inquiry" on VehicleServicePros.com



Phone: (855) 288-3587 • USSUPPORT@AUTEL.COM
AUTEL.COM • MAXITPMS.COM • MAXISYSADAS.COM
 © 2019 Autel Intelligent Technology Corp., Ltd., All Rights Reserved



Follow Us @AutelTools
 f t i y

AUTEL

using a remote access programming service may be better solutions for some, not to mention a more cost-effective way to deal with the issue of constantly updating your software and scanners.

Outsourcing programming might make sense for some shops, based on their physical location and/or lack of the needed equipment. These days mobile programming technology is a great option. These technicians keep up with the various changes from manufacturers, in addition to keeping scanners up-to-date. The one-time cost of hiring a mobile technician might be the answer for those shops that don't get into programming and reflashing very often.

Another great option is remote access programming. RAP by Drew Technologies is one product that comes to mind. With RAP, the car does not have to leave the service bay while the remote technician (who could be in another state) does the reflash for you. All you have to do is turn the key on or off as dictated by the procedures.

Finally, some shop owners might find their best option is to take this work to the dealer. Dealerships generally have the ability to reflash all of their production vehicles – and at a fairly competitive price. Keep in mind, in some cases a tow charge will have to be included if the vehicle can't be started until the programming is completed.

SHOP UPDATES

Updates are not just for the car or the technician; the shop needs updates, too. Computers are sensitive pieces of equipment and require the utmost care to properly maintain signals as data is being passed from the internet to the vehicle. A battery maintainer is another important piece of equipment, as it is required to hold the battery at the optimum level. The battery maintainer is not a battery charger, but a very precise level of controlled battery input to reduce any ripple effect that could cause a spike or sudden drop in the battery level.

Know that a solid internet connection is a must. A lot of programming instructions state that any loss of power

or internet signal could wipe out the PCM once and for all, with no retrievable outcome in the end. This also means it's best to keep prying hands away from the equipment while the procedure is being performed.

You should also keep your training methods up to date. Knowing what you're doing, and that you're doing it proficiently, is of paramount importance. Read, watch videos, attend classes, and observe other technicians performing the task. All will help make your experience in programming a success.

WHAT DO THE EXPERTS SAY?

I asked Drew Technologies Product Manager, Glen Eaton, and the VP of Autologic Diagnostics, Kevin FitzPatrick, a few questions regarding the future of programming, and where we as technicians and shop owners can expect changes and new developments in the technology. Here's what they had to say.

Programming Affordability

Cost is a factor in every situation. It helps to have some sense of what a shop can expect to spend on equipment and programming. Autologic's Kevin FitzPatrick says, "Equipment and capability costs rise as the repair facility becomes increasingly service ready to properly diagnose, repair, and program multiple vehicle makes. For most shops, it isn't feasible to own and maintain every factory scan tool, as the upfront and recurring costs can become overwhelming and payback diminishes."

The Autologic Drive solution offers a high degree of capabilities across multiple vehicle makes – domestic, Asian, and European brands. FitzPatrick says it is reasonable to expect to invest at least \$10,000 upfront on equipment and services.

"The shop needs to remember that this investment is a profit center for them to increase car count and ROI dollars," he says. "Even if a programming event costs the shop \$125, the shop should be marking up the programming as it would a replacement part on a vehicle, thus increasing profitability."

Remote Access Programming

With the relation to cost and availability, I've heard some great things about remote accessing, but I've also heard of limited coverage. The question is, is there a shortage of coverage, or is the coverage for remote accessing continually growing and expanding?

Drew Technologies' Glen Eaton explained it this way: "Coverage is mainly determined by legislative mandates put on the OEs to provide capabilities to the aftermarket, and then if the OE decides to provide more than the mandate. For example, the mandate for providing emissions related calibrations thru SAE J2534 has an effective model year start year of 2004, but many OEs have released capabilities that go back as far as 1996. For the more recent Right to Repair Act, the effective model year for providing dealership level diagnostics, programming, and service information is 2018, yet some OEs have released information going back to the mid-1990s."

Specific to remote coverage, Eaton says there are other issues that must still be overcome, such as OE application conflicts, as well as ensuring that the delivery method in which the OE provides the data is stable in a remote assist program environment.

"For locksmith and some security processes, there are limitations for remote programming due to the current requirements of the SDRM process, but we expect this to be overcome in the near future through changes to that process," Eaton says.

Programming via Satellite Directly to the Vehicle

I asked Eaton if he thought the bulk of programming and updates will be handled directly from the factory to the vehicle via satellite in the future, bypassing the need for the technician to input the data.

"This is an ongoing debate," Eaton says. "Over-the-air programming is being done today, but [mainly affects] non-critical components of the vehicle like infotainment features. Once you get into safety and drivability, OEs have not

gone to that level for obvious safety and even liability reasons. Beyond that, never say never."

Older Vehicle Programming

I've also noticed that a number of aftermarket scanners have come up with ways to reflash older models (10 to 20 years old) and are slowly gaining more information on the newer models. As vehicles age with time and new technology is added, these older models may still have an affordable advantage over the newer models. I asked FitzPatrick whether his company is working towards more coverage on vehicles coming out of warranty and updating their scanners to handle more information, or even surpass the standard manufacturer's practices.

"Autologic is always investing heavily into [the] development of software and capabilities," FitzPatrick says. "Scan tool capabilities are constantly improving across all lines and diagnostic software

is becoming somewhat of a commodity. Today's repair facility generally has multiple diagnostic platforms that are very competent, but they often lack the diagnostic expertise of the OEM and the programming coverage of the OEM. Without access to that knowledge base, many repair facilities lose a lot of time and money misdiagnosing vehicles."

Both Eaton and FitzPatrick agree there is no turning back from the days when you could go into a parts store and have an ECM checked or even programmed like we did in the 80s and 90s.

"The industry is moving forward as it embraces technology, and remote access and programming is the future," FitzPatrick says.

Programming and reflashing today's vehicles is a growing business. How involved you choose to become depends on your shop and the needs of your customers. My advice: Don't skimp on it. Learn it, know it, and make it a part of your shop. **P TEN**

PRODUCTS TO STOCK



Bosch
ADS 325 Scan Tool

Circle 144 on card, or enter at
"e-inquiry" on VehicleServicePros.com



Autel
MaxiIM IM608 and IM508 Key
Programming Tablets

Circle 145 on card, or enter at
"e-inquiry" on VehicleServicePros.com



Drew Technologies
RAP 2

Circle 146 on card, or enter at
"e-inquiry" on VehicleServicePros.com



Autologic Diagnostics
DrivePro

Circle 147 on card, or enter at
"e-inquiry" on VehicleServicePros.com

AUTEL
AUTOMOTIVE INTELLIGENCE

WORK SMARTER NOT HARDER

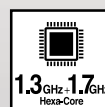
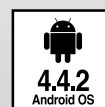


MS908S



MS908SP

DIAGNOSTIC INTELLIGENCE



**POWERFUL HARDWARE
SMARTER SOFTWARE**



Phone: (855) 288-3587 • USSUPPORT@AUTEL.COM
AUTEL.COM • MAXITPMS.COM • MAXISYSADAS.COM

© 2019 Autel Intelligent Technology Corp., Ltd.
All Rights Reserved

Circle 148 on card, or enter at
"e-inquiry" on VehicleServicePros.com



CONTAINS DEBRIS AND PROTECTS TIRES

The **Branick Industries Tire Safety Cage**, No. 2264, is designed for working on large tires. The 2264 will hold tires up to 29" wide and 59" in diameter. Its strapped, six bar design with slotted side panels helps keep both large and small debris contained in the event of a tire failure. Side pass-through ports allow the tire technician to remain protected while attaching an air hose. All Branick safety cages meet OSHA standards and are made in the U.S.A.

Circle 149 on card, or enter at "e-inquiry" on VehicleServicePros.com



REMOVES AND INSTALLS WHEELS

The **Lisle Wheel Stud Pilot Pin Master Set**, No. 14150, removes and installs wheels on vehicles with lug bolts. The set features four pairs of Metric threaded wheel stud pilot pins, allowing the technician to hang the wheel without having to balance the wheel on the small lip of the hub. This helps prevent the wheel from falling and causing damage or injury. The set includes two each of 12mm x 1.25, 12mm x 1.5, 14mm x 1.25, and 14mm x 1.5 threaded pins.

Circle 152 on card, or enter at "e-inquiry" on VehicleServicePros.com

MEASURES AND ANALYZES TREAD DEPTH

The **Rotary TreadScan 2700** is designed to quickly and accurately measure and analyze tire tread. This measurement instantly tells technicians if the tires should be replaced or require further vehicle inspection, such as suspension or alignment. The base product includes a robust drive-over tread scanner and a mobile cabinet with computer and printer. The scanner is constructed of tough galvanized steel for durability. It has adjustable ramps to accommodate vehicles up to 16,000 lbs. This unit can also be integrated with Rotary alignment equipment. In this configuration, the tread scanner is installed on the front of the alignment rack, and the software can be installed in the computer used for alignments to eliminate the need for another computer, printer, and cabinet.

Circle 150 on card, or enter at "e-inquiry" on VehicleServicePros.com



DESIGNED FOR SHOPS WITH LIMITED FLOOR SPACE

The **QSP Portable Heavy Duty Alignment Kit**, No. CS-650, is designed to accommodate rolling compensation. The kit is customizable to the length required by the shop's system and can be portable or permanently bolted to the floor. The component sections lock together; all components weigh less than 60 lbs each. The kit includes roll back bridges and offers an optional storage cart with a durable stainless top. Turnplates are sold separately.

Circle 153 on card, or enter at "e-inquiry" on VehicleServicePros.com



ACCOMMODATES LARGE TIRES

The **Snap-on Heavy Duty Tilt Back Tire Changer**, No. EEW331A, tilts back to help speed setup. The tire changer offers pneumatic bead assist mounts for low profile truck tires. It is designed to be user-friendly and versatile, and is ideal for high-volume shops servicing OEM cars, SUVs, and trucks, and most custom wheels.



The tilt-back tower speeds setup and accommodates larger tires with up to 16" rim widths and 26" diameters. The changer's Pneumatic Bead Assist arm, bead setting jets, and full suite of accessories assist in removing and installing both low-profile and truck tires. A comprehensive plastic protection package helps to prevent accidental rim damage.

Circle 151 on card, or enter at "e-inquiry" on VehicleServicePros.com



DESIGNED FOR WHEEL LUGS ON TRUCKS AND BUSES

The **Central Tools Preset HD Tire Torque Wrench 475 ft-lb**, No. 96475, is designed for wheel lugs on many trucks and buses. The torque wrench has both 3/4" and 1" square drives to accommodate various sockets. The wrench also reverses by flipping the tool over and inserting the square drive into the other side of the head. This eliminates extra components in the ratchet head and provides for the same accuracy in both right- and left-handed directions. A textured vinyl grip provides positive handling. This wrench is made in the U.S.A.

Circle 154 on card, or enter at "e-inquiry" on VehicleServicePros.com

FREE UPDATES FOR LIFE

The **31 Inc. Smart Sensor Elite TPMS Tool** is designed for simplicity and ease of use with the advanced features of a high end TPMS tool. Notable features include: color display, easy-to-follow menus, built-in relearn procedures, placard adjusting, built-in OBD-II, wireless updating, VIN code scanning, optional Bluetooth OBD-II, and more. Updates from Smart Sensor are free for life, and the tool is backed by the company's 24/7 TPMS network support.

Circle 155 on card, or enter at "e-inquiry" on VehicleServicePros.com



DESIGNED FOR FAST SETUP

The **Atlas Automotive Equipment Compact Wheel Aligner**, No. ATEWA40, features CCD technology to carry out precise wheel alignment and is designed for those shops that maybe never offered computerized wheel alignment before. Using a 'hang-on' clamp design, setup is fast. A comprehensive vehicle database provides the necessary data and readings, and adjustments can be seen live on-screen as they happen. All necessary accessories are included, such as PC, printer, turn plates, and calibration kit.

Circle 156 on card, or enter at "e-inquiry" on VehicleServicePros.com

AUTOMATICALLY INFLATES UP TO FOUR TIRES SIMULTANEOUSLY

The **PCL Air Technology NEXUS-6 Generator and Inflator** offers the operator the ability to automatically inflate up to four tires simultaneously to 95 percent nitrogen purity using digital inflation technology. Nexus incorporates modern design, faster inflation times, high-quality valves and fittings, and 90mm castors for more stability. The benefits for the tire customer due to nitrogen's properties (compared to air) include enhanced handling, improved fuel efficiency, extended tire life, and increased safety.

Circle 157 on card, or enter at "e-inquiry" on VehicleServicePros.com



portasol®

Professional Technician and Service Repair Tool Specialists

Model # SP-1K

SuperPro 125

- 7 tip multi kit
- Click-to-ignite
- 1 hour run time
- Ready to melt solder less than 30 seconds from ignition
- Flameless combustion (solder & hot air modes)



SuperPro 125 fitted with: Hot air blower & deflector, 1/32" (1.0mm) df tip, 3/32" (2.4mm) df tip, 1/8" (3.2mm) df tip, 3/16" (4.8mm) df tip, hot knife, flame tip, cleaning sponge, storage case and instructions.

Model # HP820

Torch 820

- Adjustable flame length up to 4 1/2 inches
- Welded stainless steel head protects the burner
- 30 minute run time
- Temperature up 2,462°F (1350°C)
- Powerful broad wind resistant flame
- 2,797 BTU/h flame power adjustable
- Flame adjustment button
- 10 second refill plus a gas viewing window
- Click-to-ignite
- Safety button



Portasol offer a 1 year warranty on all our products, for more information call Sandy Allen, National Sales Manager, 1-541-953-0679

Circle 158 on card, or enter at "e-inquiry" on VehicleServicePros.com

AMGO® Hydraulics

Professional High Quality Car lifts & Competitive Pricing

AMGO is Your Choice



AMGO is Looking for

Distributors & Installation partners all across the country

Call us to become a partner:

803-505-6410 • www.amgohyd.com

Circle 159 on card, or enter at "e-inquiry" on VehicleServicePros.com

CLEANS HUB AND STUD SIMULTANEOUSLY

The **ESCO Stud Klean**, No. 50170, is designed to clean both the hub and stud at the same time with an internal stainless steel stud cleaning system. The Stud Klean rids the rim, wheel face, studs, and brake drum of any debris or contaminants that would affect the overall tire/wheel process. Its highly dense abrasive cleaning pad is long-lasting and can clean over 800 wheels with one tool, the company says. To use, simply place the Stud Klean onto a 1/2" impact gun (air or electric) in the shop and begin. One size fits most application for automotive, SUV, and light trucks.

Circle 160 on card, or enter at "e-inquiry" on VehicleServicePros.com



PROPERLY INFLATES TIRES WITH A LARGE GAP BETWEEN THE TIRE BEAD AND WHEEL

The **OTC Tire Bead Seater**, No. 5713, is a time-saving tool for technicians looking to properly inflate a new or used tire mounted on a wheel with a large gap between the tire bead and wheel. The air trigger expels a burst of compressed air from within the ASME certified 13-gal tank that inflates the tire to seat it on the wheel rim. This allows the tire to be inflated to the recommended pressure through the tire valve. The OTC Tire Bead Seater can be used on a variety of wheel configurations and will even allow seating of a tire with a gap as large as 5".

Circle 161 on card, or enter at "e-inquiry" on VehicleServicePros.com





ALLOWS FOR QUICK REMOVAL OF STICK-ON WHEEL WEIGHTS

The **Ascot Heavy Duty Adhesive Wheel Weight Removal Tool** allows for quick and easy removal of stick-on wheel weights. The tool is light in weight and easy to use with adjustable jaws for different types and sizes of wheel weights. To prevent damage to the rims, the jaws have a plastic cover that protect the rims from being scratched. Replacement plastic tips for the tool are available separately.

Circle 162 on card, or enter at "e-inquiry" on VehicleServicePros.com



TAP INTO THE COMBINED KNOWLEDGE OF 80,000 AUTO SERVICE PROFESSIONALS

No matter where or how you work.
If you repair and service vehicles,
iATN can help you do your job better

JOIN FOR FREE TODAY
iatn.net

Circle 163 on card, or enter at "e-inquiry" on VehicleServicePros.com

LOCKING MOUNT AND DEMOUNT HEAD OFFSET

The **John Bean T2545T Swing Arm Tire Changer** features a compact design and is ideal for handling passenger cars, light trucks, and high-performance wheel and tire assemblies. The T2545T offers a locking mount and demount head offset, and bead breaker control. The heavy duty pneumatic valves are easy to operate and offer intuitive functionality. The electric motor generates 885 ft-lbs of torque to the turntable to mount stiff, difficult tires.

Circle 164 on card, or enter at "e-inquiry" on VehicleServicePros.com



FOR SERVICING MERCEDES BENZ VEHICLES

The **CTA Mercedes Lug Bolt Socket**, No. 4218, is designed to safely remove lug bolts when servicing Mercedes Benz vehicles. The socket's special 17mm x 6-point "flower" design makes it easier to remove lug bolts without any damage. The socket is 85mm long and has a protective plastic sleeve to prevent scratching the wheels.

Circle 165 on card, or enter at "e-inquiry" on VehicleServicePros.com



VARIABLE SPEED CONTROLS FOR RAISING AND LOWERING WHEEL ASSEMBLIES

The **Quality Stainless Products Tire and Wheel Lift**, No. LM-350, is designed with an off-center column for access to lug nuts, wheel balancers, and tire changers. Dual rollers allow for independent rear dual wheel rotation. The LM-350 offers variable speed controls for raising and lowering wheel assemblies. Features include measurements of 38" W x 42" L x 61" H, a weight of 300 lbs, a lifting capacity of 350 lbs, a six-second raise time, an attached tool tray, and a maximum roller height of 41". Made in the U.S.A.

Circle 166 on card, or enter at "e-inquiry" on VehicleServicePros.com



ENABLES AUTO-INPUT OF WHEEL DISTANCE AND DIAMETER

The **Atlas Automotive Equipment Platinum Heavy Duty Wheel Balancer**, No. ATEPWBT310, features an automatic gauge that enables auto-input of wheel distance and diameter while automatically displaying the relative balancing program required (clip-on or stick-on weights), meaning no errors will occur due to manual weight type selection. The wheel balancer includes a 17" monitor, a 40mm shaft that can handle both car and truck wheels, and a pneumatic lift to assist technicians in lifting the wheel to the balancing shaft. The ATEPWBT310 also features programs for unbalance corrections.

Circle 167 on card, or enter at "e-inquiry" on VehicleServicePros.com

COMPATIBLE WITH NEARLY ALL OEM TPMS SYSTEMS

The **Wurth Dual Frequency Programmable Sensors** are universal sensors that work with both 315MHz and 433MHz frequencies. The sensors replace and program old or faulty TPMS sensors with ease and are compatible with nearly all OEM TPMS systems. There are two sensors: one rubber valve snap-in sensor (No. 0879024054) and one aluminum clamp-in sensor (No. 0879024056). Both are used with Wurth TPMS Sensor Programming Tool (No. 087902405).

Circle 168 on card, or enter at "e-inquiry" on VehicleServicePros.com



THEXTON

THX852 CIRCUIT ENERGIZER

- Portability-Can be used with most all 12 Volt power sources.
- Isolates component from the rest of the circuit.
- Factory correct terminals

THX838A PORTABLE TRAILER LIGHT TESTER

- Portability-Can be used with most all 12 Volt power sources.
- Tests-left and right turn signals, taillights, and brake lights.
- Can also test electric brakes, reverse lights, and auxiliary lights if combined with THX839 7 blade to 4 flat adapter.

THX815 HEATCORE BACK FLUSH WITH AIR ASSIST

- Fits 1/2", 5/8", and 3/4" heater hoses
- Tool uses standard garden hose for water and 1/8 NPT for shop air fitting.
- NEW: 1/4 NPT air adapter included
- Basic garden hose hook-up cleans cooling system & heater cores

SPECIALTY TOOLS, TESTERS & DIAGNOSTIC EQUIPMENT SINCE 1907
CONTACT US AT THEXTON.COM OR BY PHONE (800) 328-6277

Circle 169 on card, or enter at "e-inquiry" on VehicleServicePros.com



EVERY DEGREE MATTERS

COMFORTABLE EMPLOYEES ARE PRODUCTIVE EMPLOYEES

"Without my Portacool evaporative cooler running, I can't work in the near 100° temperatures in the shop."
Shannon Aikau,
Lead Builder and Bike Shop Manager,
Count's Kustoms

PACJS250

DISCOVER THE EVAPORATIVE COOLER RIGHT FOR YOU VISIT PORTACOO.COM

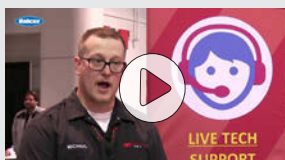
MADE IN USA

PORTACOO.
WHEN COMFORT COUNTS™

Circle 170 on card, or enter at "e-inquiry" on VehicleServicePros.com

MORE FROM THIS CATEGORY ONLINE

VIDEO



BARTEC TECH1000 TPMS TOOL

In this video, Bartec demonstrates its Tech1000 TPMS tool. To watch the video, visit:

VEHICLESERVICEPROS.COM/21074896.

ASK THE EXPERT



SHOULD TECHNICIANS USE CLAMP-IN OR SNAP-IN TPMS SENSORS?

There are two main styles of TPMS sensors that are offered in OE and the aftermarket that are part of the valve stem assembly, including clamp-in and snap-in style sensors.

To read the full article, visit: VEHICLESERVICEPROS.COM/21025314

Affordable Professional Auto Borescopes

- 0 to 180° bend back to view at any angle
- Durable waterproof and oil-proof metal probes
- Store and share videos and pictures

4.5mm Diesel Engine Borescope
Vividia D3145
USB
Articulating



Dealers wanted

360° Joystick articulation 6mm Vividia ME-610 Borescope

Oasis Scientific, Inc.

www.oasisscientific.com
info@OasisScientific.com
Phone: 864-469-0919

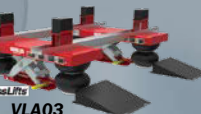
Circle 171 on card, or enter at "e-inquiry" on VehicleServicePros.com

BossLifts™ by hercules™

Lifts That Last

End of Summer Sale!

Move vehicles with ease and enjoy discounts up to **10%** on our popular pit lifts until 9/30/19.



Visit www.bosslifts.com for details; supplies are limited.

www.bosslifts.com | www.herkules.us | 1.800.444.4351
Herkules Equipment Corporation is ISO:9001 certified

Circle 176 on card, or enter at "e-inquiry" on VehicleServicePros.com

EXTENDED REACH CUTTERS

Drill through holes in pipe or tubing in a single pass using Blair Extended Reach Sheet Metal Hole Cutters. Available individually or in a kit.



Blair

Blair Equipment Co.
www.blairequipment.com
800-426-7818

MADE in U.S.A.

Circle 172 on card, or enter at "e-inquiry" on VehicleServicePros.com

Every Toolbox Needs...

WALTON

Tap Extractors & Tap Extensions

Available as sets or individual pieces.

TAP EXTRACTORS

- Remove broken taps simply and safely – no drilling, lasers, damaged threads, scrapped parts or repair inserts.
- Available in every tap size, both inch and metric.

TAP EXTENSIONS

- Extend the reach of regular-length taps and allow tapping in deep holes and awkward locations.
- Square and round sockets conform to leading tap sizes.
- Suitable for both machine- and hand-tapping.

WALTON COMPANY



MADE IN U.S.A.

Tapping into good ideas for over 110 years.

www.WaltonTools.com

(860) 523-5231
sales@waltontools.com

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

Call Kimberly Brown at: (815) 242-7319

Email: KBrown@VehicleServicePros.com

IPA INNOVATIVE PRODUCTS OF AMERICA®
FUTURE NOW. Manufacturer of Innovative Tools & Equipment

SHOWN IN STAINLESS STEEL
Also Available in Brass (#8090B)

#8090S PROFESSIONAL INJECTOR SEAT CLEANING KIT

Specially Designed to Clean Injector Seats and Bores on Most Light, Medium & Heavy-Duty Diesel Motors

- Removes rust, carbon and debris from seats & cups without damage
- Driver handle features a spring-loaded, quick-lock coupler



#8050-53 AIR COMB® FILTER & RADIATOR CLEANER

90° Multi-Port Air Gun

- Available in 4 sizes: 12", 24", 36" & 48"
- Focused, high-pressure output
- Great for all air filters, radiators and condensers

5X
The Air Volume

#7899 GATOR JAWS®

Most Versatile Filter Pliers for Cars, Trucks & Heavy-Duty Equipment

- Works on oil, fuel and hydraulic filters, fuel sending units and more



IPA
FUTURE NOW.
845-679-4500
WWW.IPATools.COM

Use All the Tools of the Trade!



Professional Tool & Equipment News offers a wide variety of classified opportunities just waiting for you!

Contact Kimberly Brown for more information:
815.242.7319

kbrown@vehicleservicepros.com

WE WANT YOUR HAND TOOL IDEAS!

- LTI Tools has an awards and royalty program for your new hand tool ideas.
- We offer you international distribution.
- If you have a new product or idea, please call, write or e-mail LTI Tools.

Lock Technology, Inc.
Toll Free 800-421-7241
www.ltitools.com
ltitools@ltitools.com



IT PAYS TO ADVERTISE

Contact Kimberly Brown:
1-815.242.7319
kbrown@vehicleservicepros.com

TURN YOUR TOOL IDEA INTO MONEY

LISLE CORPORATION CURRENTLY PAYS ROYALTIES TO OVER 120 INDIVIDUALS.

Lisle has been in business for over 110 years and for over 40 years have been working with individuals on an award or royalty basis. If you have an original tool idea which others may need, we have a procedure to evaluate your idea.



Respond now to request an idea disclosure packet.

P.O. Box 89 • Clarinda, IA 51632-0089
712-542-5101 • Fax 712-542-6591
www.lislecorp.com/about/program



Organized to perfection

A shop owner shares his “ungodly big” toolbox setup.

by Stefanie Von Rueden, Contributing Editor

Curtis Detweiler is the owner of Redz Auto Body, and he bought his 60’ long Snap-on Mr. Big Toolbox about six months ago to provide more space for his tools.

“I’m not sure what made me want to upgrade,” Detweiler jokes. “I’ve got an issue.”

His upgraded toolbox attracts a lot of attention due to its massive size. The toolbox is set up in an L-shape in Detweiler’s mechanic’s bay and features lockers on each side, four hutches, and two top boxes. He also recently added an additional top piece. Each of the stainless steel top boxes has a built-in power supply.

Detweiler keeps his toolbox meticulously organized in what he calls a “borderline OCD” schematic. He keeps sockets and ratchets in one drawer, pliers in

OWNER:

Curtis Detweiler

Redz Auto Body
East McKeesport, Pennsylvania

another, diagnostic tools kept together, and cordless tools kept together. The tools he uses most often are stored in the top drawer of the center cabinet, where he has quick and easy access to them. “That’s one advantage to having such a big toolbox,” he says. “Everything pretty much has its own place.”

For Detweiler, the deciding factor for choosing this toolbox over other options was the number of storage areas.

“I like the efficiency of having multiple areas in the box for selected tools, such as PDR tools, diagnostic tools, met-



▲ The L-shaped, 60’ long Snap-on Mr. Big Toolbox unit at Redz Auto Body in East McKeesport, Pennsylvania, is made up of two lockers, four hutches, and two top boxes.

ric and standard auto body tools, and mechanical tools.”

“My favorite part of the box is the computer area,” he adds. “I have three monitors set up, and that’s where I do all of my ordering, diagnostic materials, and that kind of stuff. I like the simple ease of being able to access everything I need right there.”

“The toolbox tends to get a lot of attention,” Detweiler says. “It’s just ungodly big. When you walk into the shop it’s the first thing that sticks out to you. I get a lot of reactions to my toolbox.” **PTEN**

Want to see more photos of Detweiler’s box?
Visit: VehicleServicePros.com/21089755



Want to show off YOUR Big-Time Box?
For more information, email
Editor@VehicleServicePros.com.

Homak



24" DEEP

100/200 LBS*
DRAWER CAPACITIES

**CONSTRUCTED FROM
18 GAUGE STEEL**

LIFT LATCH
DRAWER PULLS

**UV PROTECTIVE
FINISH**



NON-SLIP
PVC DRAWER LINER



54"



41"



36"



27"

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

Check out all of our tool storage solutions at our website.

800-874-6625 www.Homak.com





INNOVATIVE TOOLS. BETTER VALUE. QUALITY RESULTS.

COOL AND COMFORTABLE COURTESY OF OEMTOOLS™

OUR SHOP FANS, MISTING FANS, AND EVAPORATIVE COOLERS BEAT THE SUMMER HEAT – FOR THE SHOP, GARAGE, AND WAREHOUSE, OR FOR THE PORCH AND PATIO. WITH AN ARRAY OF OPTIONS, WE HAVE THE SIZE AND POWER YOU NEED TO COOL YOUR SPACE.



Find our full line of Portable Fans and Evaporative Coolers
online and at better distributors.

OEM-TOOLS.COM

Circle 175 on card, or enter at "e-inquiry" on VehicleServicePros.com