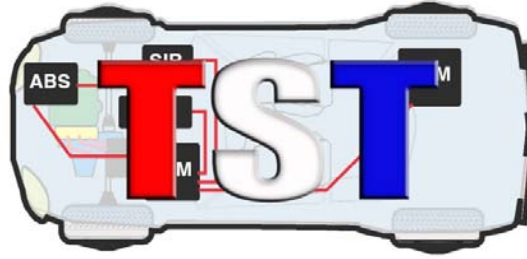


March 2013



Technicians Service Training

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CONUNDRUM** *P. 1 - 7*

**Technicians' Choice
Awards 2012** *P. 9 - 18*

Upcoming Seminars:

**Saturday March 23, 2013
TST Big Event**

Instructors
John Thorton,
Dave Decourcey and
Pete Meier as Keynote
Speaker

May 13, 14, 15, 16 2013
Instructor Jim Morton

TST Round Table Webcast
3rd and/or 4th week at 8 pm
EST

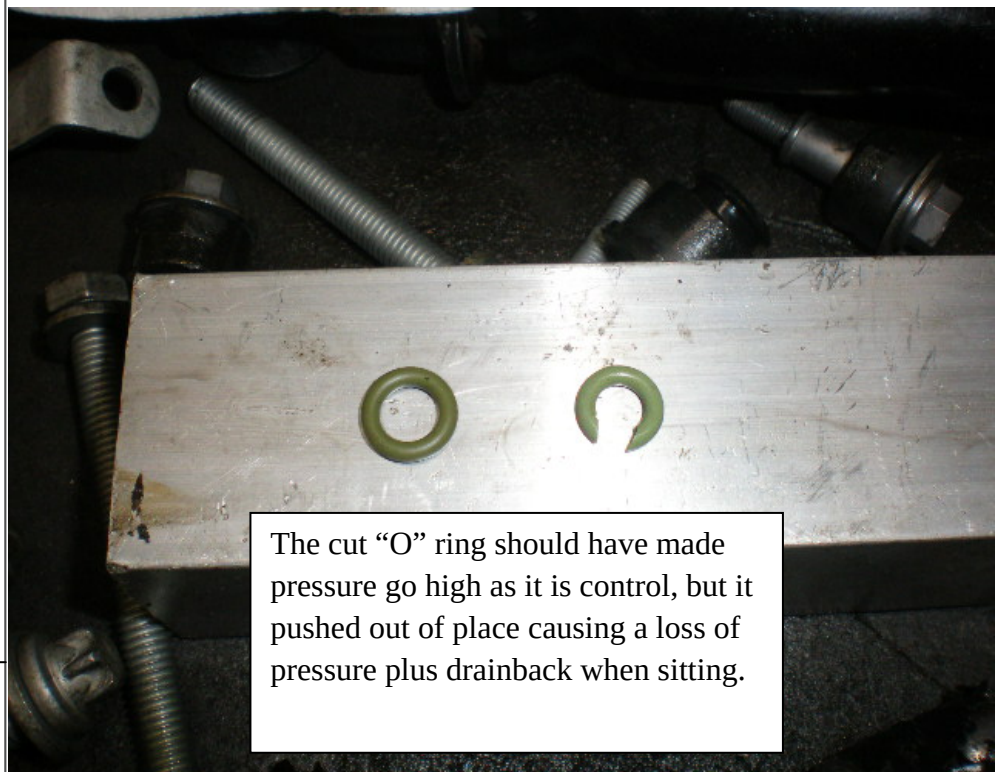
Ongoing FREE Webcasts

Editor

"G" Jerry Truglia

BMW 750I OIL PRESSURE CONUNDRUM

A friend of mine called me for some help as he was overloaded. The first car was a 2006 BMW 750i with 115,000 mi and a low oil pressure problem. This vehicle had originally come in as a new customer with a dealer diagnosis of bad valve guide seals for an excessive oil burning problem – a common problem with this engine family. The shop had R & R'd the heads and replaced the seals.



The cut "O" ring should have made pressure go high as it is control, but it pushed out of place causing a loss of pressure plus drainback when sitting.

(Con't on page 3)

*Technicians Service Training***11 Lupi Plaza****Mahopac, NY 10541****Phone:** (845) 628-6928**Fax:** (845) 628-9109**Email:****Info@tstseminars.org**

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Information contained in this newsletter is intended for use by professional auto repair technicians familiar with approved vehicle repair procedures. The authors are not responsible for physical injury or property damage resulting from the incorrect application of information or procedures outlined in this volume.

Currently there are **TST chapters in Connecticut, Massachusetts, New Jersey, New York** and membership continues to grow. For more information you can call

TST headquarters at:

(845) 628-6928



Technicians Service Training



What is TST?

TST is a group of dedicated technicians and instructors committed to the continuing education of our fellow technicians. We provide once a month training seminars to technicians at a reasonable price. TST brings our members nationally known instructors and state of the art training.

Our Goal & Mission Statement

- *Keep our fellow technicians up to date with the latest technology.*
- *Provide training seminars for a reasonable price.*
- *Deliver information that the technician can use now.*
- *Keep technicians informed of information affecting our industry.*
- *Increase consumer awareness of what a good technician is.*

Why join TST?

TST membership includes special pricing on weekday night seminars and the occasional full Saturday seminar. With a \$75.00 yearly membership, the monthly seminars are only \$65.00. TST classes are NOT sales or product seminars. The instructors that TST brings in are all “hands-on” industry experts with up to date, cutting edge knowledge that you can use in your shop the next day. That’s 65 dollars for a seminar in which you are able to learn something useful, for fixing those tough jobs that we all see on a regular basis. Our instructors are masters at making the complex understandable. Membership also includes a Monthly Newsletter full of real world technical articles, diagnostic case studies, and solutions to the kinds of problems you see in your bays each week.

The following are some of TST’s regular instructors:

Bernie Thompson of ATS

John Thornton of Autotrain Inc.

Wayne Colonna of ATSG

Jorge Menchu the “Labscope Guru,” AES Wave

John Anello of Auto Tech On Wheels

Mark Warren of Motor Magazine

Bob Pattengale of Bosch

Peter Meier of Motor Age Magazine

Ken Zanders of Illinois Air Team

Jerry “G” Truglia of A.T.T.S. Inc.

BMW 750I OIL PRESSURE CONUNDRUM (con't from p. 1)

After the engine was reassembled the customer stated that the low oil pressure light was “still coming on after driving for a while”. This symptom had never been mentioned before. The shop found 60 lbs pressure on a cold start with a gradual decline to 10 lbs, where the light would come on. A service bulletin mentioned an oil pump pressure control valve that gets worn and causes these symptoms. There were deposits matching the valve in the pan, so the pump was replaced – THE PROBLEM WAS STILL THERE!!! This is where I came in. I tested pressure, and sure enough it was going to 10 lbs. I removed valve covers and tested the oil galleys with air. A big leak was heard from low in the front timing cover, so the cover was removed. When the pressure test was conducted again, the noise was still lower, so the pan was removed. I found a leak where the oil pump pressure control line enters the pump from the block and I thought I had solved the problem.

Just to be sure I tested the oil pump and the new one in a bucket of oil with a drill. The original pump was leaking from the same circuit, but from a pipe the is actually part of the pump. The new pump pumped more and since individual pump parts weren't available, the pump diagnosis was correct. To be sure I installed the pump with no pan and used a drill to spin it with the pick up in oil. And it pumped lots of oil up to the heads. I assembled the oil pan, front covers and, just to be sure, cranked the engine – LOW OIL PRESSURE!!!. At this point two other guys from the shop came over and looked while I cranked – oil was gushing out of the VANOS solenoid vents, behind the tension rails between the cams, on both heads. When I reinstalled the VANOS solenoids I put the O rings on the solenoid with a good lube and pushed them into the front upper cover. Even though the clamp looked good, the solenoid was out a little so massive amounts of oil was bypassing the solenoid causing a pressure loss. In the end this car had a pump problem, an “O” ring cut by the original tech when he installed the pump and VANOS solenoids that were installed too shallow they bypassed oil. The correct way to install those solenoids is to lube and install the “O” ring in the upper front cover first and then install the solenoid.

(Con't on p. 7)

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Jim Bradanini
Program Administrator

QUOTE

Hey: To all my tool carrying friends,

I just switched Brian's tool insurance from Farmers to Pro-TEC and I am now only spending \$350 a year for \$70,000 of insurance on hand tools, welder, air compressor, tool boxes, etc...we were spending \$747 every six months.

Anyway, I figured whoever needs insurance on your tools against theft, flood, fire, etc.... blanket coverage. The people are really nice and you can do it over the phone. You don't have to have a tool inventory list, though you will need one if you have a claim so do one up front anyway.

They offer \$50,000 for \$250 but we upped it to \$70,000 for \$350. <http://www.mechanicsinsurance.com>. The guys name is Jim Bradanini and his email address is: JimB@cpminsurance.com. Their phone is 203-439-2810. I had left a message and he got back to me within the hour.

Thank you so much for making your process so smooth and painless, kind and professional.

Jo



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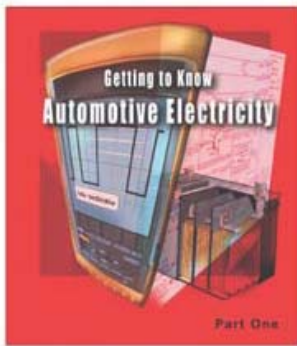
Products, tools and equipment that technicians love.
Ask about our complete equipment programs.



OTC, announces a new standard of diagnostic innovation with the launch of the professional OEM-grade Genisys Touch, the first-ever PC-based tablet diagnostic tool with an included J2534 Reflash/Reprogramming device.

The new Genisys Touch is a leading-edge Windows 7 diagnostic platform with a large resistive 10.1-inch touch screen. It includes advanced and exclusive features such as VIN-based AutoID to detect CAN vehicles in one touch, Wi-Fi and web browser access, including directly to technicians' favorite OEM subscription sites, and Bluetooth pairing to an included J2534 vehicle communication device, as well as OTC's optional wireless TPMS reset tool and PC-Based 2-Channel Oscilloscope.

AutoDetect is an exclusive feature of Genisys Touch. It is an experience-based information solution aimed at providing the technician with instant repair information solutions on the spot. The system will automatically detect and alert the technician if there are any on-tool or internet repair solutions available for the specific year, make, and model based on trouble code or symptom.



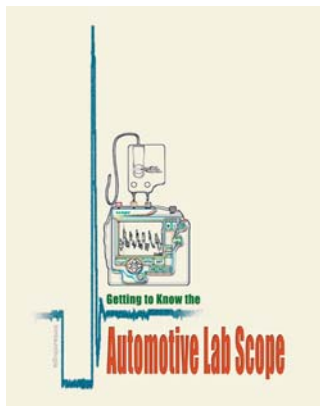
Batteries
Starters
Alternators
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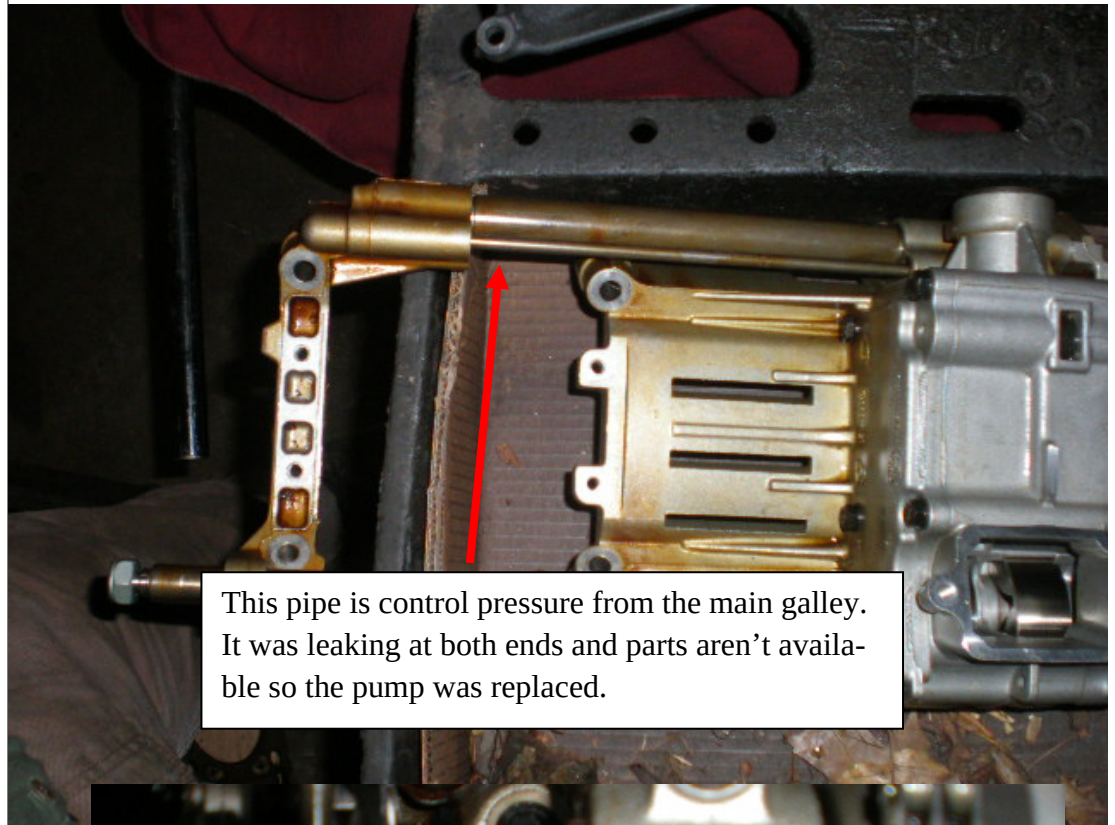
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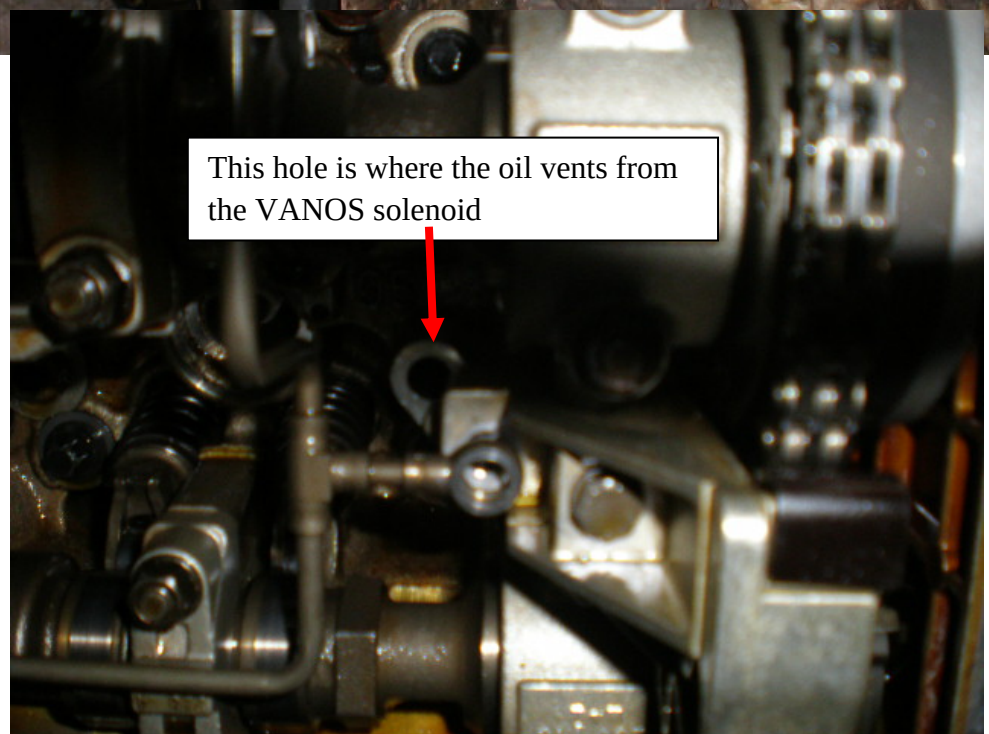


BMW 750I OIL PRESSURE CONUNDRUM *(con't from p. 3)*

If you install the "O" ring on the solenoid first, no matter how well you lube it, the "O" ring can roll and push the solenoid out a little.



This pipe is control pressure from the main galley. It was leaking at both ends and parts aren't available so the pump was replaced.



This hole is where the oil vents from the VANOS solenoid

*Article by Pierre Respaut,
ASE CMAT, L1, TST Vice President*

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Technicians' Choice Awards 2012



TST has selected the following companies for the **2012 Technicians' Choice Awards**. *This is the industries only award that is chosen by technicians, shop owners and instructors.*

TST does not accept payment, donations or other compensation, from any company that affects the outcome. We select the tools / equipment based solely on the functionality, the ease of use which aids the technician in diagnosing and repairing a vehicle.



We congratulate the following companies;

Associated Intelligent Charger(s)

- Charger & 70 Amp Power Supply for Standard Automotive, Deep-Cycle, AGM and GEL Cell Batteries Performance Features
- Electrical Stability System (ESS™) technology turns ESS6008MSK into a stable power supply for extended service procedures or re-flashes
- Nominal 13.7V DC output
- Program diagnostics indicate weak or defective battery
- Charges all types of 12 volt batteries
- Designed for AGM, GEL Cell, Sealed and Standard Flooded Batteries including Spiral Cell, Orbital™ or Optima™ Batteries
- Dead Battery Override Control
- "Safe In Any Weather" Operation
- CSA listed
- MADE IN USA

(Con't on page 12)

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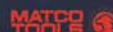


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9 of the Top 10* "Check Engine" DTCs can be diagnosed with a Smoke Wizard.

Maybe it should be called the "Smoke Wizard" Light

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Pressure and vacuum decay tests

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Easy-to-read variable flow control valve

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Now available in an array of colors

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Flow ball that won't hang up

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www.SmokeWizard.com

*Analysis of 2008 California Smog Check data.

See us at APEX Booth # 964

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www.SmokeWizard.com

*Analysis of 2008 California Smog Check data.

See us at APEX Booth # 964

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Questions:

1. Do you want seminars to continue in your area?

2. Do you find the seminars useful?

Please ask a fellow technician to come and check-out our seminars so we can continue to bring you the best available information each month.

We need your support:

**Thank you,
G Truglia**

Technicians' Choice Awards 2012 (con't from page 9)

Power Probe The Hook

- **HOT SHOT MODE** - Load tests power and ground connections and gives you a quick pass or fail result.
 - **ADJUSTABLE CIRCUIT BREAKER** - Can be adjusted and set from 2 amps to 65 amps. This feature lets you work in sensitive circuits to heavy loads with confidence.
 - **VOLTAGE REFERENCE SUPPLY MODE** - Supplies from 0 to 5 volts in half volt increments to the probe tip. This feature can provide a known reference (that is good) voltage to simulate sensors. It's a great compliment to your OBD scanner. The display shows both the set voltage and the tip voltage, so you can see if there is a short in the circuit.
 - **POWER SWITCH PREFERENCES** - Lets you supply constant power (no more holding the button down), pulse power or momentary power into the circuit you are testing. Maintaining continuous power on a circuit without needing to hold your finger on the power switch is one of the many advantages you will experience by using the Power Probe Hook's latching feature. It's great for testing circuit loads and voltage drop tests. Finding a buried or hidden component can be very time consuming. The Hook's power switch can be set to pulse a components circuit on and off while you devote your attention to searching it out.
- THE DUAL CONTINUITY TESTER** - Will allow you to test multi-pole relay contacts while you simultaneously measure the coil resistance.



Induction Innovations Mini – Ductor II

The Mini-Ductor II allows you to heat and expand frozen, rusted, or thread-lock compound nuts without the collateral damage from a flame. Loosen seized hardware, bearings, gears, pulleys, lug nuts, in-line applications, fuel tank straps, pdr applications (paint-less dent repair), and more.

Features:

- Grenade grip for a greasy hand technician
 - Work illuminating L.E.D. for increased vision of product application
 - Operates on 120 volts/1000 watts of power
 - Faster and Safer than a torch
 - Uses high frequency magnetic fields to heat metal and only metal, induction heat
- Made in USA



(Con't on page 16)

DYING TO FIND A/C LEAKS?

The new **UV Phazer NEO™** UV light finds leaks others miss.



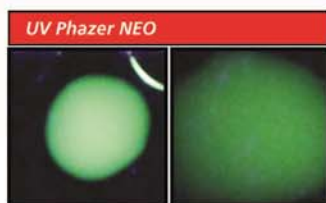
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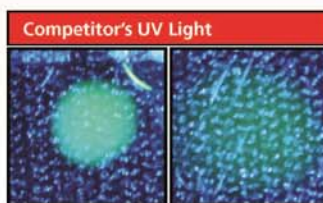
We found many shops use poor quality dyes with ineffective blue lights. That's when we challenged our Engineers to create the ultimate leak detection solution – the **UV Phazer NEO**.



*UV enhancing glasses and Smart Charger Included.



*ACTUAL PHOTOS



*ACTUAL PHOTOS

We compared the **UV Phazer NEO** light against a leading competitor's UV light using a few popular A/C dyes. The **UV Phazer NEO** fluoresces the dyes brighter which results in faster leak diagnosis and repair.

FEATURES:

- ▶ **High Output UV LED**
- ▶ **True UV:** Fluoresces dyes brighter than blue LED lights
- ▶ **Adjustable Lens Focus:** Allows for focusing light intensity
- ▶ **Rechargeable Lithium Ion Battery:** Years of trouble free battery life
- ▶ **Compact Design:** Perfect for use in tight areas
- ▶ **Durable Aluminum Construction**

Which light do you want in **your** toolbox?

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NEO™



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- Combines Handheld Scan tool with Factory Interface Ford, VW, Toyota, BMW, Mercedes Porsche and Volvo Software.
- Coverage to OE systems (Not just a generic scan tool) Engine, Transmission, ABS, SRS, Instrument Cluster, Climate Control and much more
- Functions include Read, Clear, Data Stream, Activations, Adaptation and Coding and Programming as well as Service Resets
- Programs Key, Calibrate Steering Angle Sensors, VIN rewrite, Tire Pressure Monitor Sensor ID registration, Idle Learn

Dealer-Level Capabilities

- BMW Offline Programming
Programs the Models after E65, E60, E90, E70, F-Series... (SSS)
- IMS2 (Interface Module Simulation System)
Performs Dealer Scanner Functions, Including MERCEDES-BENZ, BMW, PORSCHE, VOLKSWAGEN, VOLVO

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iSCAN II_{wt}
Driving Diagnostics



Technicians' Choice Awards 2012 (con't from page 12)

MotorLogic Information System

MotoLogic

OE information that is easy to search and use at a reasonable cost.

ATS Automotive Test Solutions Transducer Kit with EScope

Wherever There's Pressure...

Pressure Transducers turn pressure readings into voltage signals. Use transducer diagnostics all over the car: spot misfires, blown head gaskets, fuel delivery problems, transmission defects, engine mechanical failures, and timing issues.

Find pressure-related problems faster in: cylinders, fuel systems, and transmissions. Don't limit yourself to analog dials or average digital readings from run-of-the-mill pressure gauges. Get the whole picture by watching pressure draw a trace across your screen. Hey. If you're going to screw a pressure test hose into a plug hole or transmission test port, why not get something useful for your effort?

The kits contain hoses, couplers, and adapters for common automotive tests. All transducers are backed by our commitment to customer service, before and after the sale.

Quickly finds misfiring cylinders, running compression problems, camshaft timing problems, blown head gasket, sticking piston rings, fuel pressure problems, and much more.

Can be used in conjunction with all ATS diagnostic equipment.

The diagnostic tool for the new millennium technician.



DrewTech Mongoose Pro GM II

As usual DrewTech is the leader in J2434 technology. This Mongoose cable allows the user to operate the GM factor scan tool software. Drew Techs SAE J2534 tools are used by manufacturers and Tier1 suppliers of passenger cars, light duty trucks, and heavy duty trucks for engineering, manufacturing, end of line testing, calibration reflashing, telematics, and factory diagnostics tools.



(Con't on page 18)

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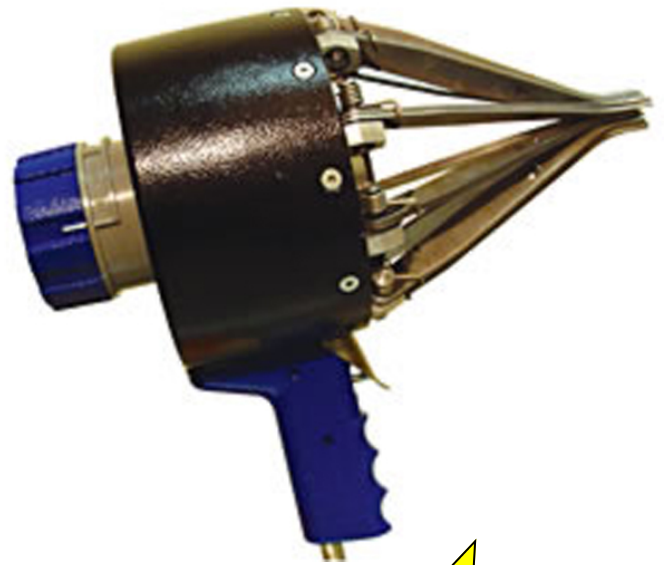
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CV Axle Boots *tear far before the cv axle has had it and replacement axles (Remanufactured and Chinese) result in comebacks. **With the Astoria 2000, you can replace the CV axle boots with better-than-new boots without even removing the axle from the vehicle.*** Use it to repair newly ripped CV axle boots or as a maintenance item that will save your customers money in the long run and make you money too. At \$259.99 for the tools and \$25.98 for a pair of boots, you'll pay for your tool on your first CV axle maintenance.

CV Boot comes with clamps and CV Joint lubricant.

Price: \$12.99 for Mini-ATV CV Boot
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 \$16.99 for Universal Truck-SUV CV Boot
 \$16.99 for Universal Rack & Pinion CV Boot
 \$39.99 for Box of Universal Gomex Clamps
 \$259.99 for New CV Boot Installer Claw including Gomex Clamp Tool



**Now Get The
Tool for FREE
When you purchase
36 CV Boots.
Mix and Match**



Technicians' Choice Awards 2012 (con't from page 16)

Launch GDS Scan Tool

With the all-new GDS, you have OE-level access to Domestic, European, and Asian manufacturers, for reading/clear codes, live data graphing and recording, Bi-directional testing and Module Coding. The GDS offers unrivaled speed in the access and communication of all vehicle systems and their modules. Boot-up and navigation, as well as diagnostic procedures are performed ultra-fast and with superior coverage, both in depth and breadth. The GDS is also Wi-Fi enabled, allowing you access to your favorite websites for troubleshooting advice, charts, and repair information.



OTC Genisys EVO

Includes Genisys EVO® featuring the NEW System 5.0 with Code-Assist™ experienced-based Confirmed Fixes™ from Identifix®, NEW USA 2012 Domestic / Asian with ABS and European 2011 software including Pathfinder, Repair-Trac®, Fast fixes™ information, InfoTech Component Information software, Automated System Test™, OBD II Smart Cable, USA Domestic and ABS/Airbag OEM vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), manuals, and carrying case. Tire Pressure Reset tool kit includes; TPR handheld, DB25 wireless adapter, registration card, user manual for TPR and Genisys interface.



EASE Scan Tool

Extensive data coverage thru 2011 and a vast range of controllers, data and bi-directional controls make this EASE Diagnostics best OBD2 scanner ever! You'll see loads of vehicle data on your large PC screen so you can quickly see the whole picture - making your auto repair job much easier. Vehicle information is presented in a user friendly format that you can quickly navigate through to identify car problems and fix cars right - the first time.



UView UV Phazer NEO

Features and Benefits:

- High Output UV LED
- Adjustable focusing lens
- Rechargeable lithium-ion battery
- Durable aluminum construction
- Compact design



The new Phazer NEO UV LED light finds leaks others miss. This high output UV LED light optimizes UV wavelength fluoresces dyes brighter than blue LED lights.

Congrats to all once again

WELLS
VEHICLE ELECTRONICS

Tech Tip: **SECRETS TO INTERMITTENT MISFIRES REVEALED!**

Check out the troubleshooting process and ultimate solution to an unusual misfire problem on a Dodge Caravan in a fascinating new diagnostic video.

2001-DODGE GRAND CARAVAN
3.8L ENGINE
118,000 MILES
DRIVEABILITY ISSUES:
INTERMITTENT HARD START,
ROUGH RUNNING, MISFIRE, BACKFIRE
THROUGH THE THROTTLE BODY

Not bridging spark plug gap

Excessive Anti-Seize Compound

Testimonial

"This latest case study from my friends at Wells Vehicle Electronics shows how doing something as simple as installing spark plugs the old-fashioned way may result in an unnecessary comeback. This is a great video and I encourage you to share it with your fellow techs!"

Peter Meier - Technical Editor, Motor Age Magazine

Access this video through www.wellsVE.com
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See more than 20 other in-depth
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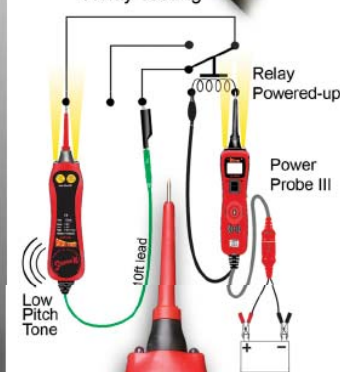
the "Smart" ECT2000



#PPECT2000

The "SMART" receiver indicates the direction to the short circuit eliminating the guesswork.

Relay Testing



Power Probe Lead Set



#PPLS01



Gold Series

Power Probe Lead Sets makes your Power Probe more useful than ever before!



#PPCT

POWER PROBE®

The Perfect Compliment to the Power Probe III

DID YOU KNOW?

ASE CERTIFIED
TECHNICIANS

- ➔ **GET PAID MORE**
- ➔ **GET HIRED FIRST**
- ➔ **ADVANCE FASTER**



**THIS IS YOUR LAST CHANCE TO TAKE A
TRADITIONAL "PAPER AND PENCIL" TEST!**
AFTER THIS FALL, ALL TESTS WILL BE COMPUTER-BASED!



Motor-Age
TRAINING
Self-Study Guides for ASE Certification

MOTOR AGE STUDY GUIDES
...YOU PASS OR DON'T PAY!



Check out the ASE website for test dates and locations

www.PASSTHEASE.com