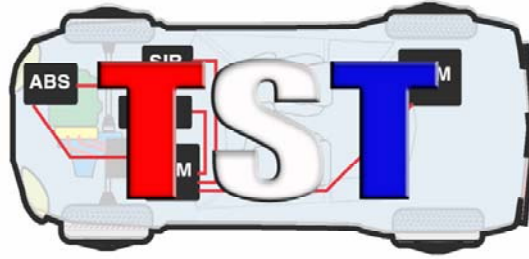


March 2011



Technicians Service Training

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Upcoming Seminars:

EVAP

Bob Pattengale

April 4th to 7th, 2011

Driveability Case Studies

Dave Crippen

May 2nd to 5th, 2011

Editor

Jerry "G" Truglia

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Top Ten Aftermarket Scan Tools

Editors note: The following is not an authoritative, nor is it endorsed by Technicians Service Training or anyone else besides the author.

On iATN, in articles, and in classes we keep seeing factory scan tools and are told that we need factory scan tools. The problem is that no can afford all the factory scan tools required to work on today's vehicles. There are too many manufacturers, and the manufacturers keep changing the factory scan tool (Chrysler, Ford, and GM have all recently made big changes, with Toyota and Honda making yet another change very soon).

There will always be a place for aftermarket tools, but it is very hard to know what the capabilities for these tools are. They all make claims and have salesman mercilessly pushing them, but there is very little information out there.

Having had the opportunity to test and use a plethora of aftermarket scan tools in an operating repair facility, there are a lot of scan tools I like and not like. The following is the list of the best. What makes them good is not always strictly how powerful the tool is. Price and ease of use are huge mitigating factors.

So, in no particular order, here are the top ten aftermarket scan tools to date.

(Con't on page 3)

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- *Keep technicians informed of information affecting our industry.*
- *Increase consumer awareness of what a good technician is.*

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www.aeswave.com/aboutaes.htm

John Anello Auto Tech On Wheels www.autotechonwheels.com

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Jerry “G” Truglia National Instructor & owner of A.T.T.S. Inc.

www.attstraining.com

Top Ten Aftermarket Scan Tools (con't from p. 1)

1. Autologic from Diagnos

Pros: The absolutely best, truly factory level aftermarket scan tool, phenomenal support network. Extremely easy to use.

Cons: Costs around \$10,000 for only one manufacturer, covers only European makes.

Verdict: The Autologic is the Bugatti of scan tools.



Car magazines often have those sports cars you wish you had, but never can get. The Autologic might be the scan tool equivalent unless you invest wisely to buy one.

The Autologic is used by Euro technicians that want factory capabilities, quick load times, instant access to flash files, special options that the factory tool does not have, and an OEM-level repair help phone line. Having used the Autologic and their product/diagnostic support this is not marketing hype. This is the real deal.

A lot of dealers actually will acquire an Autologic just for these advantages over the factory tool. Specialty shops like the idea they can convert grey market cars to American, program everything from lock to air conditioning settings, change vehicles over from automatic to manual transmission...just a few options that the Autologic has that a factory tool does not. It is in many ways *better* than a factory tool.

Autologic started as a Land Rover tool, costing about \$10,000. However, aftermarket shops without all the proprietary dealer flash updates and repair information found the price worth it. The Autologic has since become the top aftermarket scan tool for the following car lines: Porsche, Mercedes, BMW, VW/Audi, Jaguar, Volvo, Rolls Royce, and a few French companies.

Autologic has 50 engineers and 100 technicians committed to reverse engineering every single function that the factory tool does. Hiring head engineers that made the factory scan tools to join Autologic probably has had a significantly positive effect on the quality of the product as well.

It costs \$10,500 for one manufacturer, \$8,000 for a second OEM, \$7,500 for a third, and \$7,000 for every additional OEM. So, a fully loaded Autologic costs around \$70,000.

(Con't on page 7)



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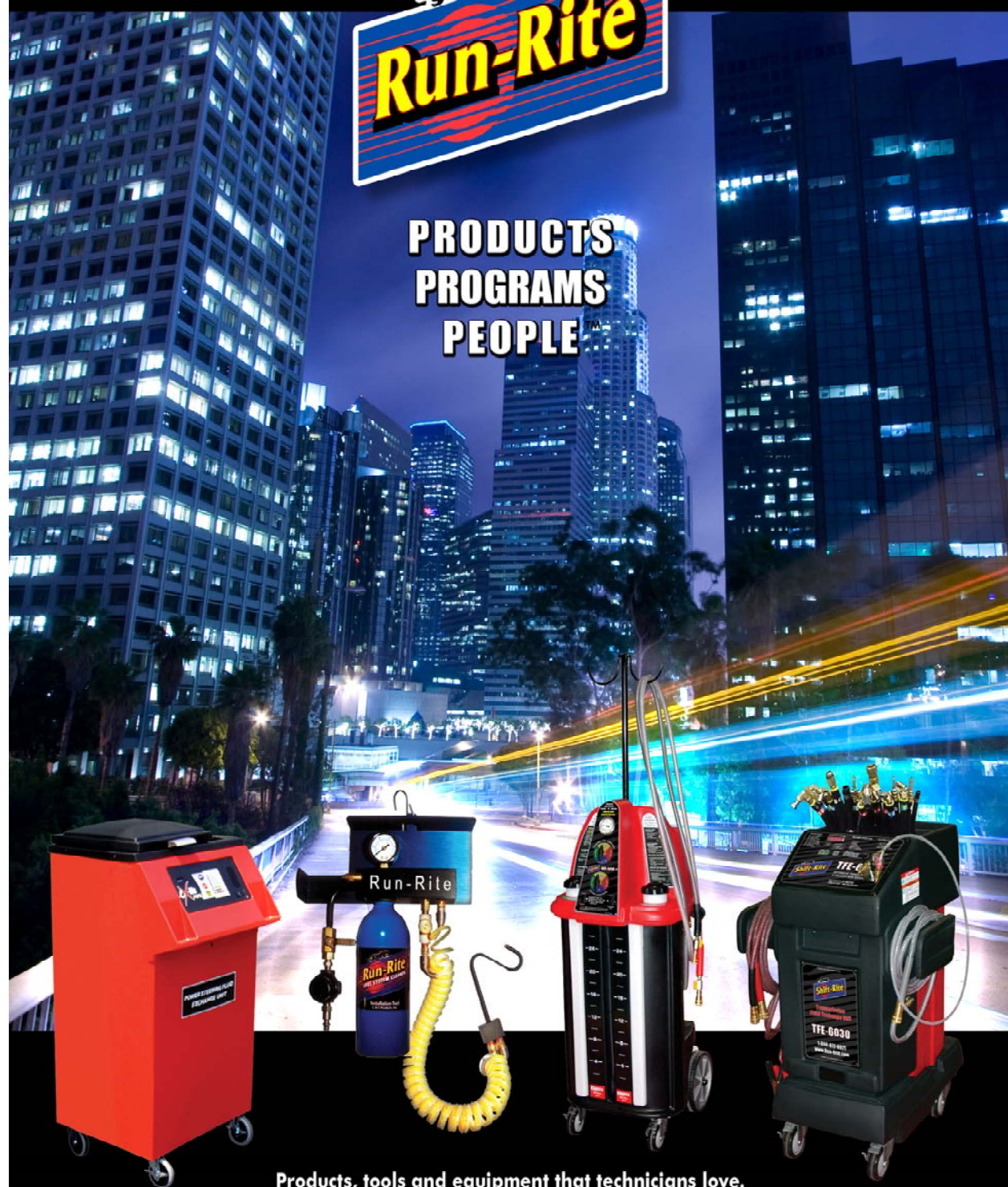
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Pegisys –
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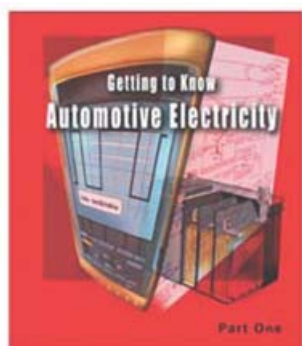
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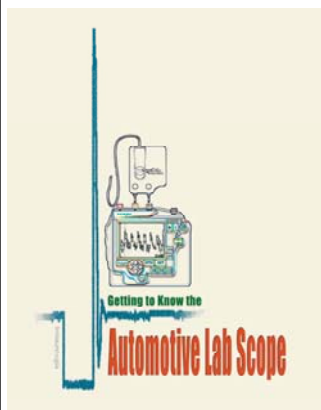
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Top Ten Aftermarket Scan Tools (con't from p. 3)

Updates are all the time with a yearly subscription at a reasonable \$1,000, and only \$200 more for each additional car line—easily worth the money for the technical support alone that helps you troubleshoot cars in your bay. All things told the Autologic is a lot of money, but it costs less than what a Big Box Scope like a Bear Machine cost adjusted for inflation went for back in the day.

An aftermarket shop could cover most European vehicles with an Autologic containing Mercedes and BMW, and a Ross-Tech Vag-Com for VW/Audi at a combined cost of \$20,000. That's a lot of money, but if you were to buy a Snap-On Veras, OTC Pegisys, and a Launch fully loaded for the same purpose, you would be spending about just as much for much less functionality. So, the Autologic is not out of reach for the serious Euro shop, as most Euro shops probably already have invested \$20,000 in scan tools anyway.

2. AutoEnginuity

Pros: The poor man's Autologic, by far the best bang-for-the-buck in the scan tool world.

Cons: Some bi-directionals work incorrectly or are missing, sometimes does not speak to certain modules, takes time to learn to use, weaker on Asian cars than Launch or Carman.

Verdict: If you can only own one scan tool and wanted to spend less than \$5,000, this scan tool at about \$1,500 would be your best buy.



The AutoEnginuity is a PC-based scan tool that has very cheap updates and does about 80 percent of what a factory scan tool can do. "Eighty percent," a number that is more of my own opinion than a statistical fact, is the highest threshold that any aftermarket scan tool is capable of. AutoEnginuity is much stronger on U.S. and European than *any* aftermarket scan tool outside of the Autologic (for Euro) and the Ease (for U.S.). That means, it is the strongest U.S. aftermarket scan tool from my personal experience.

However, the AutoEnginuity is not the most easy to use tool, and takes some learning. Nonetheless, if you want functionality on the cheap, this is your tool.

(Con't on page 9)

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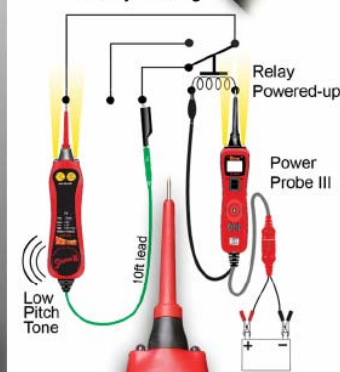
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Top Ten Aftermarket Scan Tools (con't from page 7)

3. Ross-Tech Vag-Com

Pros: Cheap, does 95 percent of everything you need on VW and Audi, works quickly.

Cons: Volkswagen is making it necessary to do so much reprogramming in its newest models that the 95 percent functionality may begin to slip; does not do keys.

Verdict: If you work on VWs or Audis, you would be crazy not to buy this tool at only \$600.



This scan tool does all the bi-directionals, oil change resets, and relearns that you need. It communicates to all the computers and gives you PIDs. It pretty much does everything you need besides keys and reflashing, and unless you are a snobby mobile tech, you will be happy. Even dealer techs buy this tool for its ease of use. It's a real winner.

4. ATS EScan

Pros: Easiest to use scan tool on the market, makes diagnostics quick, decodes Mode 6, good to show customers, cheap.

Cons: Only a generic OBD II scan tool, A/F sensors require factory enhanced data and this tool cannot help, catalytic efficiency test only works on cars that use a HO2S for fuel control.

Verdict: This is the industry-leading check engine light scan tool and costs only \$795.00.



The EScan simply just works and makes diagnostics easy. It has pre-programmed volumetric and catalytic efficiency tests, decoded Mode 6, tests thermostats, easy PID graphing and color codes everything. It works quickly and really helps sell the credibility of a diagnosis to customers that these days demand measurements and printouts.

5. OTC Genisys

Pros: Much cheaper than Snap-On with equal diagnostic strengths, has Pathfinder, extremely easy to use with only a few buttons, decodes Mode 6 on some vehicles.

Cons: Like Snap-On, will be weaker than many aftermarket scan tools on European and Asian cars, has to be turned off properly before being taken out of the car.

Verdict: If you can only have one scan tool and are not a computer-friendly person, this is the scan tool you need.



Chances are you have a cell phone. It can take pictures, record videos, work as an audio recorder, surf the internet, text message, and play video games. However, chances are you only use it to make phone calls. A cell phone with all of the gadgets in the world will not do you any good if you do not know how to use its functions.

(Con't on p.12)

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G Truglia

Top Ten Scan Tools (Con't from page 9)

The same is true with a scan tool. Not every a technician is a technology whiz. And, if a scan tool is too hard to use it won't do anything for you. The Genisys is the easy to use, and proves to be a pretty strong scan tool all around.

It has all the capabilities that a Snap-On has, but for less money. Instead of Troubleshooter it has Pathfinder, which is good when you don't have a system like ALLData. It will decode some Mode 6 and in Generic OBD II give the right A/F ratio sensor voltage for some manufacturers. It can also be used as an labscope and gas analyzer with add-ons, making it a must-have tool for the average shop. If you can only have one scan tool and don't want to learn how to use an AutoEnginuity, the Genisys is your tool.

6. Launch X431

Pros: Strong compatibility with Euro, Asian, and USA. Frequent updates, expanding compatibility, and cost.

Cons: Long PID and bidirectional control lists that sometimes lack compatibilities, learning curve, risky re-learns, overstated capabilities in advertising.

Verdict: For less than \$3,000 you can get one of the most powerful aftermarket scan tools available.



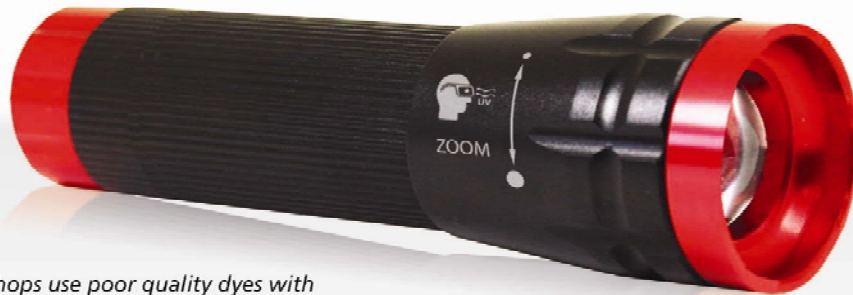
The Launch X-431 has had some outrageous claims made about it. One article in a mainstream magazine claimed that the tool had 99 percent of the capabilities of an OEM tool. This is ridiculous. Yet, the X-431 is still a very solid tool. It generally has between 70 to 80 percent of the capabilities of an OEM scan tool and it covers a lot of car lines. The tool is very strong on Toyota, Honda, and GM. It is relatively strong on some of the odd OEMs such as Suzuki and Volvo. To their credit, it has had accurate A/F sensor voltage readings on all the Asian and European manufacturers that I have tested the tool on.

Launch has a very aggressive research and development team that expand the tool's capabilities before everything has been tested. So, as the tool is growing rapidly, it has some awkward growth pains akin to a teenager. The tool has some strange verbiage due to the Chinese-to-English translation. It sometimes lists parameters and actuations that it cannot do. If the tool does not have the latest update, it may do a relearn or actuation incorrectly, which requires a factory scan tool to correct. Despite its flaws, which are minimal considering every aftermarket tool is flawed, the Launch is a great tool that is still on the upswing. It might very well become the best aftermarket scan tool on the market, bar none, in a few years. For the money, the X-431 is the best overall bang-for-your-buck scan tool outside of the AutoEnginuity.

(Con't on page 15)

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



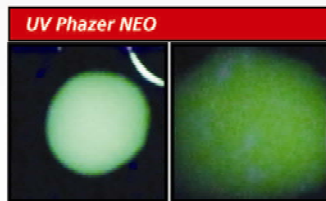
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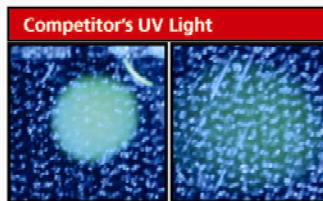
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Top Ten Scan Tools (con't from p. 12)

7. NextTech Carman Scan

Pros: OEM for Hyundai and Kia, superior on Honda and Toyota, strong on Asian manufacturers, strong on European cars, cheap price.

Cons: Not good on American cars, questionable future.

Verdict: If you already have a red or blue box scan tool, the Carman Scan is the perfect compliment to help you work on Asian vehicles and some European cars.

The Carman is probably the strongest aftermarket scan tool with a relatively cheap price (\$2,500) on the market. However, it is strong specifically on Asian manufacturers Hyundai, Kia, Toyota, and Honda so its strength is very focused. On other Asian and European manufacturers, it goes back and forth between it and the X-431. I have had luck using the Carman on Volvos. Believe it or not, the Carman was able to retrieve codes on a Toyota that two Toyota factory tools were unable to do. It is a solid tool.



However, an industry source whom spoke directly to NexTech's American operations was told that if the Carman Scan's sales don't increase, that they will stop supporting the tool. Just like the OTC IPro (which is in reality the same tool), once a tool is no longer supported that really hurts the technician that owns it. Let's hope that technicians start appreciating the Carman Scan and the tool can get some support.

8. Autoland Scientech IScan II

Pros: Strong on all vehicles, particularly Nissan and Volvo. Very easy to use.

Cons: Priced above the Launch and Carman Scan.

Verdict: Priced above its Asian competitors, it is overall the strongest all-around. Definitely one of the best overall scan tools.



In Taiwan, just down the street from the local Costco is the headquarters of Autoland Scientech. They have been cooking up some very underrated scan tools over the years. On iATN it has a very good reputation. Christian Brothers (an automotive repair chain) prefers the IScan II to the Nissan Consult III. My own experience with the tool has been very good, though it lacks some OEM functions (i.e. the Honda Evap test). Autoland has also added strong U.S. support to its tool, particularly Chrysler. It does most of the coding, adaptations, and activations you need too. If you are looking for a strong European-Asian scan tool, give this one thought. It is as advertised, it won't disappoint. ***(Con't on page 16)***

Top Ten Scan Tools (con't from p. 15)

9. EASE

Pros: Strong on Chrysler, Ford, and Toyota

Cons: PC Based tool that only works on one computer, long list of PIDs that are not there, user friendliness is an issue. Does not do European cars.

Verdict: EASE was the first widely used PC-based scan tool on the market and holds its own against the competition. It is price competitive, but may have been eclipsed by the cheaper AutoEnginuity at this point.

Being a PC based tool, if the blue or red-box scan tool is handy, it is not going to be your first choice. It is not very user friendly and takes getting used to. However, it is more powerful than most aftermarket scan tools on Ford and Chrysler.

Furthermore, it has impressive Asian capabilities, as it was the closest to the Toyota Techstream in TST's 2009 Toyota Scan Tool Shootout. It should be noted that the Carman Scan and X-431 were not evaluated in that shootout.

Choose Actuator Test		
	ID	Test Name
?	1A	S/C VENT SOLENOID
?	1B	S/C VACUUM SOLENOID
?	1C	FUEL SYSTEM TEST
?	1D	FUEL INJECTOR #4
?	1E	FUEL INJECTOR #5
?	1F	FUEL INJECTOR #6
?	2C	S/C POWER RELAY
?	33	FUEL PUMP RELAY
?	3B	IAC MOTOR OPEN
?	3C	IAC MOTOR CLOSE
?	3D	LDP SOLENOID
?	40	O2 HEATER RELAY
?	52	UPSTREAM O2 HEATER
?	40	O2 HEATER RELAY
?	52	UPSTREAM O2 HEATER
?	53	DOWNSTREAM O2

☐ Once
 ☒ EXECUTE
 ☒ Abort

10. OTC Nemisys

Pros: Has US and Asian code reading and bidirectional capabilities for under \$1100 equivalent to that found on the OTC Genisys. Can be expanded for heavy duty. Compatible with GM CAN cars that the Tech2 is not. Updates are only a few hundred dollars a year. Easy to use.

Cons: Not expandable for European or other equipment that Genisys works with.

Verdict: If you already have a scope and are not looking to get into gas analysis, this scan tool gives you pretty much everything you need for very little money.

(Con't on page 18)



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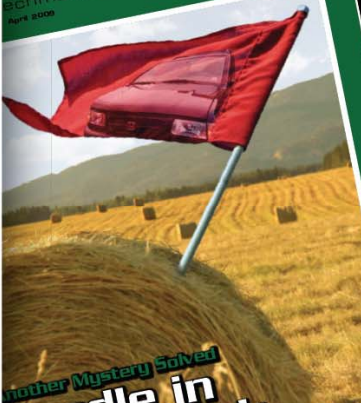


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techmag.com online publication
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April 2009



Another Mystery Solved
Needle in a Haystack

Business INSIDER

Inside the Insider

Five Ways to Limit Liability
By stepping out into the business world, every shop has exposure. While you cannot stop people from suing you, you can limit your business' personal assets and wallet from your liability if you take some steps to protect yourself.
(Turn to page 1)

Human Potential
The mind is a strange and powerful tool. Psychologists tell us some very interesting things about its functions. First, 90% of its activity is subconscious.
(Turn to page 1)

In Times Like These
Small business is the backbone of our economy. Businesses like ours
(Turn to page 3)

Sole Proprietorship
If you are getting started in a new business or a twenty-year business veteran, this question comes up on a regular basis. My answer to this dilemma has always been the same, it depends.
(Turn to page 8)

MT Business Insider Pricing Matrix
Prices are based on percentages, but customers look at prices. How do you recent profit margin on parts with your customers' need to pay this price?
(Turn to page 8)

E Certification: The Competitive Advantage
Of the most powerful influences on a shop's success is a world of recognition. From finally, recommended a business based on competitive just awarded.

Five Ways to Limit Liability For Business Owners

By stepping out into the exposure. While you can most liability if you take some steps.

First, incorporate or form a limited liability company (LLC), articles of incorporation, and a set of bylaws in your state. Once you incorporate, hold your business out to the public as a corporation.

Human Potential Using What You've Got

The mind is a strange and powerful tool. Some very interesting things about its activity are subconscious. Let's define things within or without oneself. 90%! Think a -- If -- you are 100% in control during your work, best you are capable of achieving is still only 10%.

It's generally agreed that a human's learning ability is physical. Remember that a scrap of brain tissue no larger than a grain of rice contains more information than a computer the size of a room. Now consider that an average person's brain weighs about three pounds. How many ounces of yours do you actually use?

Top Ten Scan Tools (con't from p. 17)



The Nemisys is the perfect scan tool for the repair shop which uses a scan tool mainly for a code reader. Yet, this tool can do everything that a Genisys, Veras, or any other scan tool can do when it comes to overall compatibility, graphing and Mode 6 functions, and et-cetera.

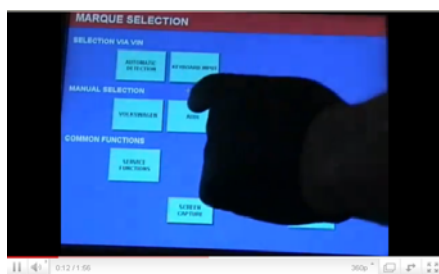
It is the cheapest scan tool available that combines ease of use. It is perfect for technicians that are still learning their diagnostic strategy and would not be able to exploit more powerful tools. To sum it up, this is the scan tool for you if you are not an advanced technician.

Summary:

Before spending thousands of dollars on a scan tool, do your research. Figure out your priorities and be realistic. Are you really going to want to use a PC based tool? Is ease of use going to be a deal-breaker in the real world? How much do you have to spend? How advanced of a technician are you?

After answering these questions go to classes and ask people you find there. Find out what scan tool does the most for them and ask their scan tools don't do. Check out iATN and read some reviews. Trust no salesman, do your research, and get the scan tool right for you!

Article by Craig Truglia



CHECK OUT TSTseminars.org/scantools.html TO SEE OUR SCAN TOOL SHOOTOUTS INCLUDING AUTOLOGIC VS. THE T4, VW SCAN TOOL SHOOTOUT, AND MORE!

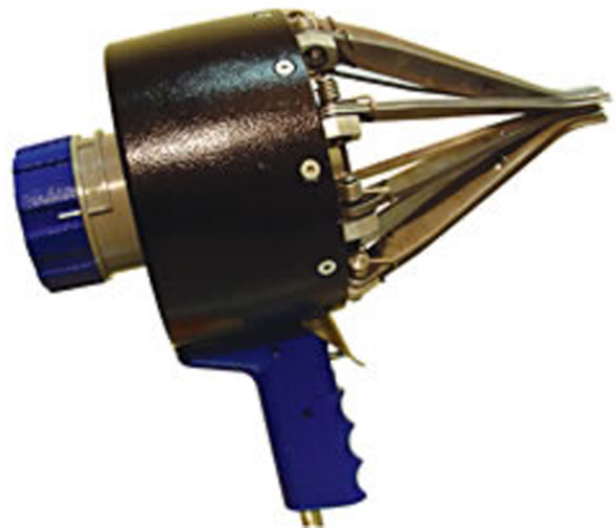
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\$12.99 an Universal Car CV Boot

\$16.99 for Universal Truck-SUV CV Boot

\$16.99 for Universal Rack & Pinion CV Boot

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