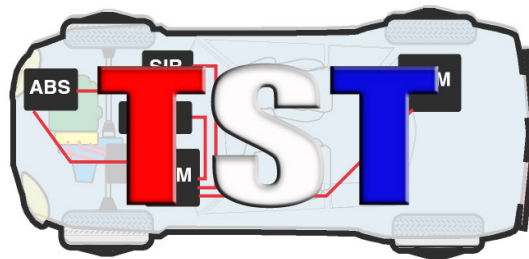


September 2009



Technicians Service Training

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Editor

Jerry "G" Truglia

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Oh, What Diagnostic Tool to Buy... Part II

We are going to continue our review of PC-based scan tools and cover the PC-based scopes on the market.

EASE

EASE was the first PC-based scan tool on the market that made it easy to connect to the vehicle and quickly gather information. Besides viewing the usual PIDs and Monitors, you can access the best graphing capability available, comparing up to six PIDs. This scan tool also displays a DTC alert the moment you start scanning the vehicle.



Here we can see how an EASE provides information on what protocol that the tool is connecting too.



(Con't on page 3)

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11 Lupi Plaza

Mahopac, NY 10541

Phone: (845) 628-6928

Fax: (845) 628-9109

Email:

Info@tstseminars.org

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

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www.TSTseminars.org

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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 once a month week-day 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 www.ATSnm.com

John Thornton formerly of Team AVI

Wayne Colonna of ATSG www.ATSGmiami.com

Jorge Menchu the “Labscope Guru,” owner of AES

www.aeswave.com/aboutaes.htm

John Anello Auto Tech On Wheels www.autotechonwheels.com

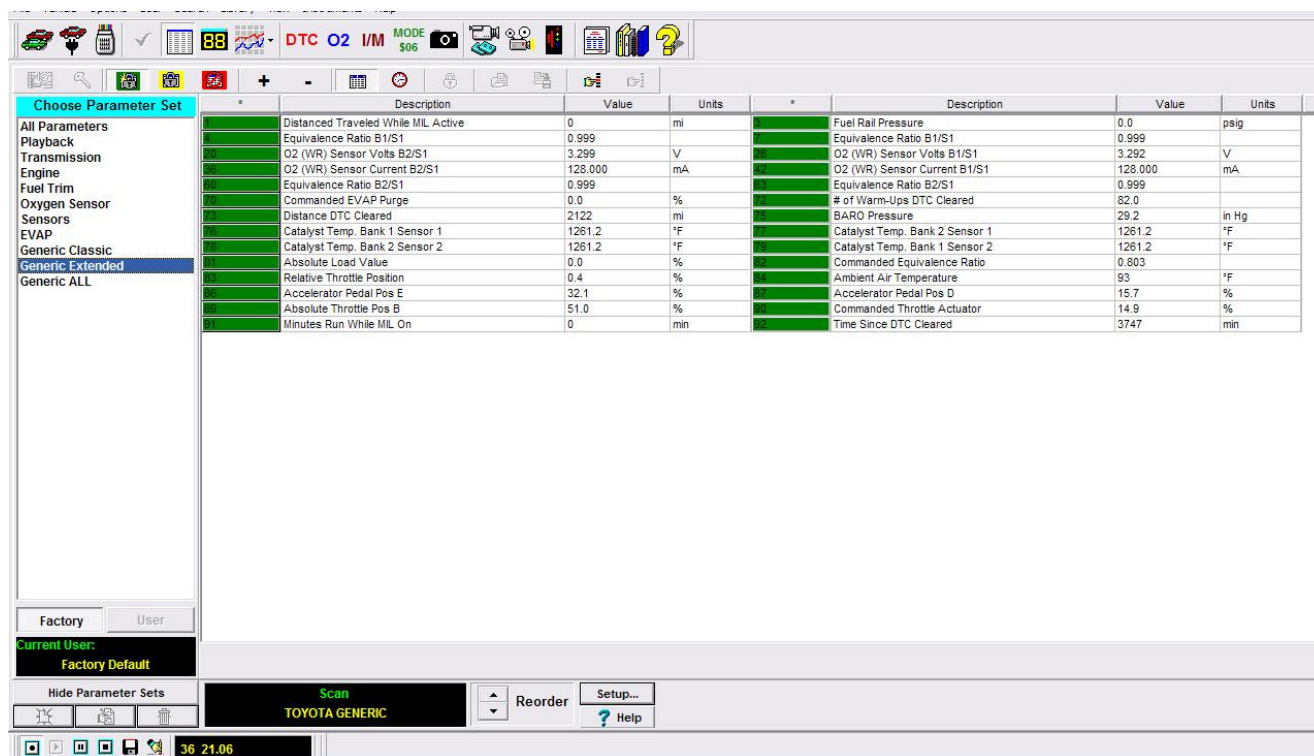
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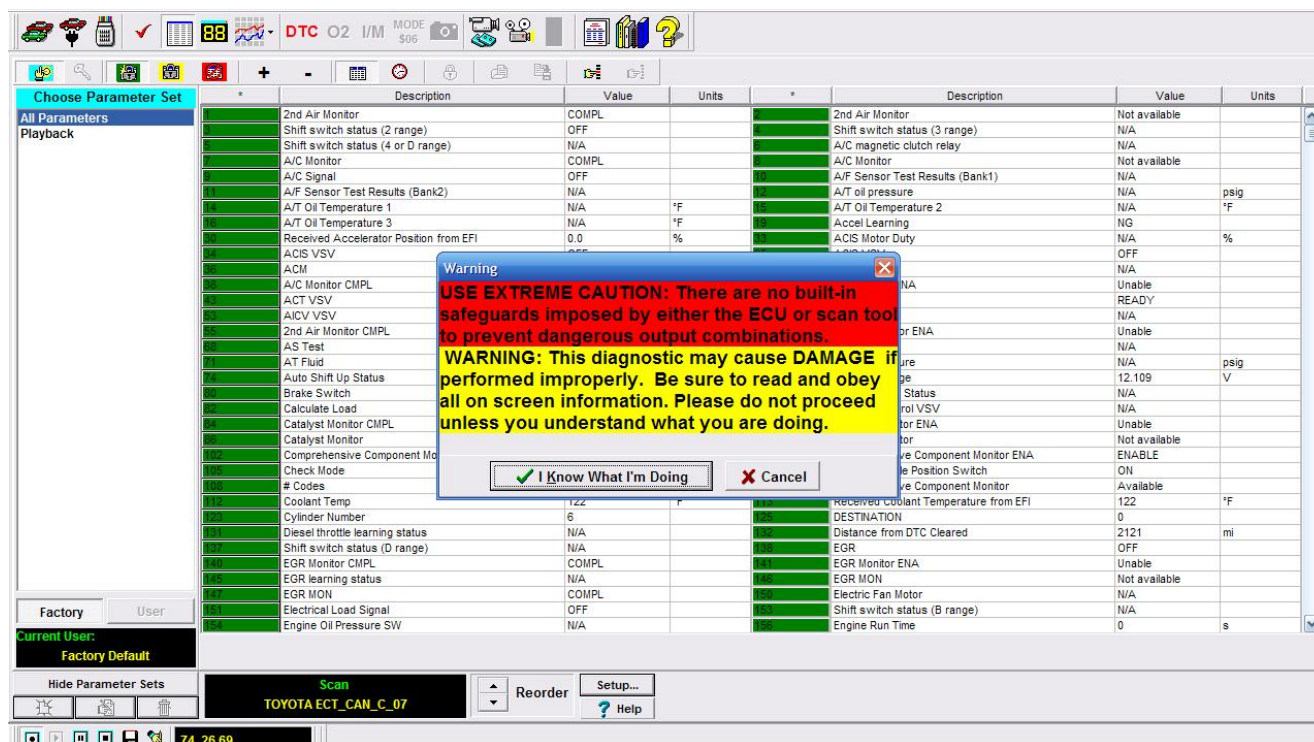
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Oh, What Diagnostic Tool to Buy (con't from p. 1)



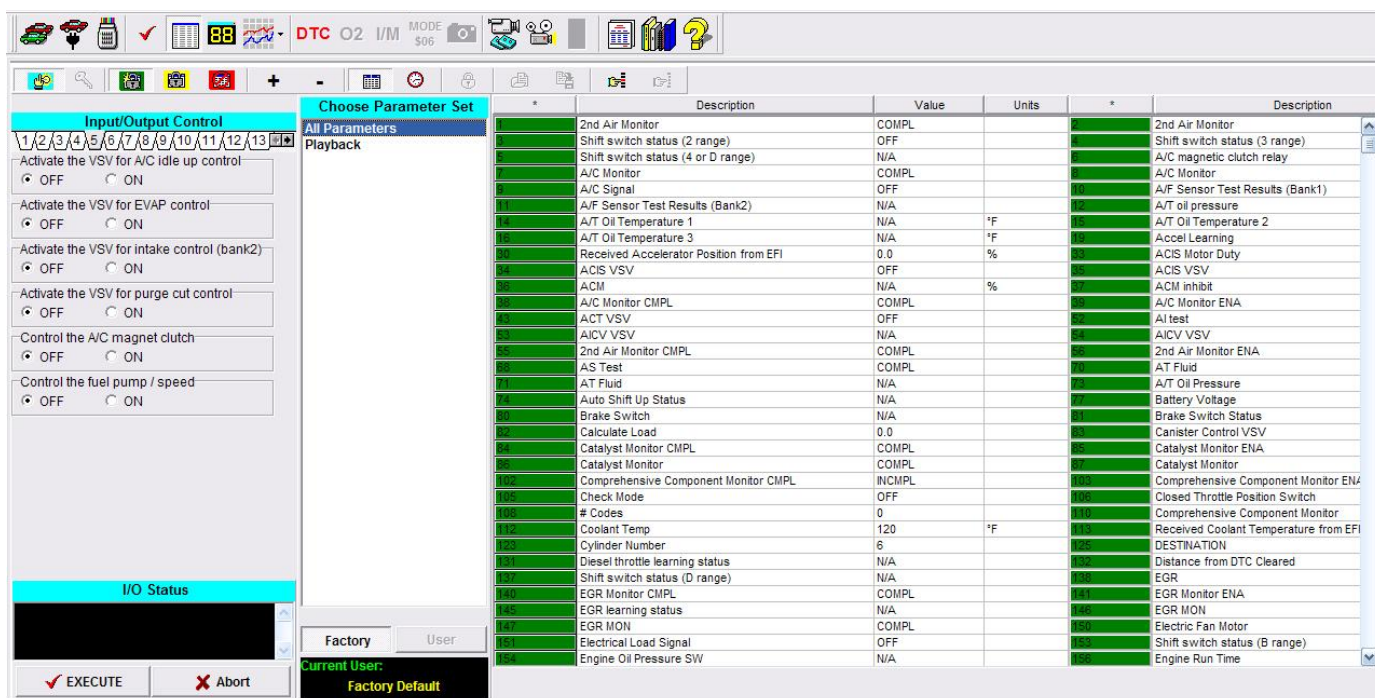
The tool allows the user to select all PIDs, Group PIDs or select PIDs.



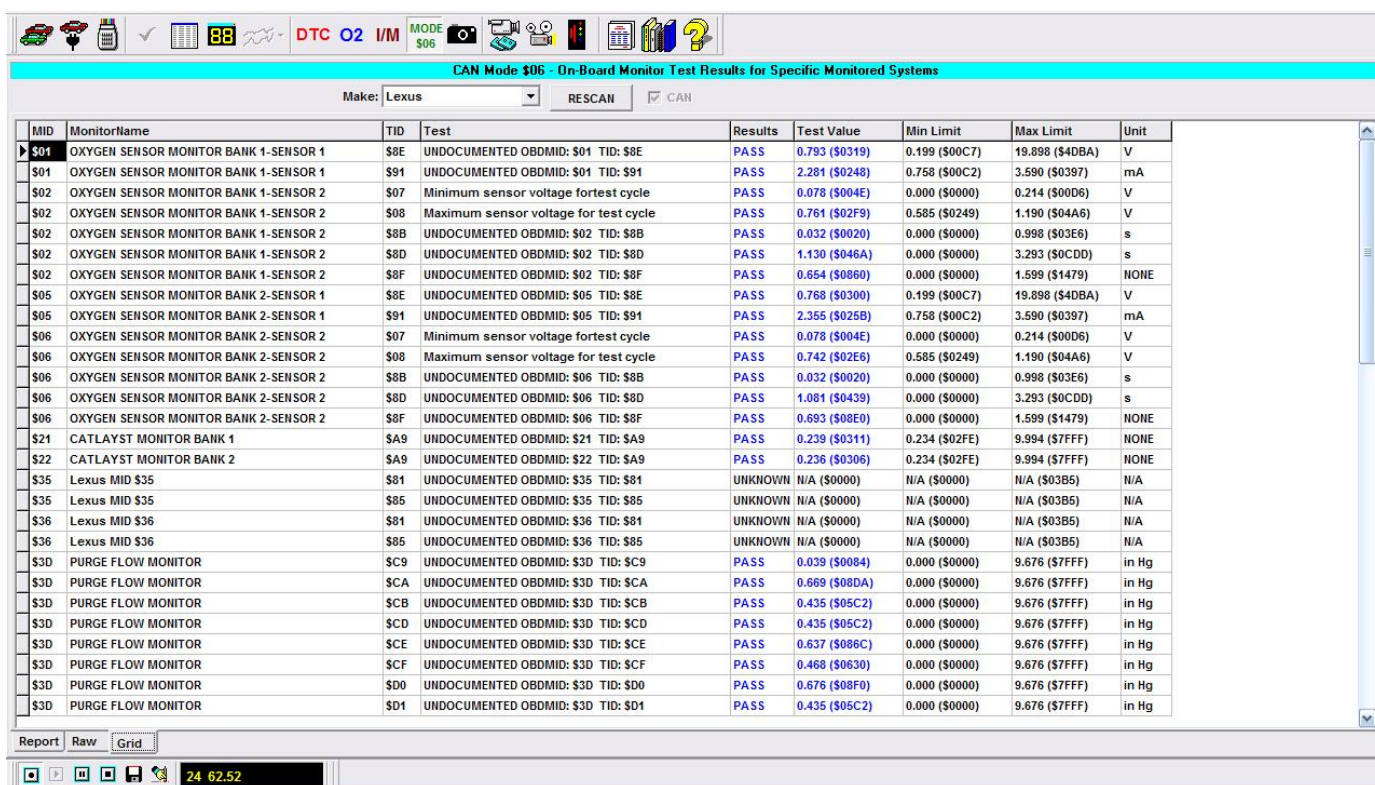
Bi-directional control is a breeze, just click the icon for bi-directional and click the “I know what I am doing” button.

(Con't on page 4)

Oh, What Diagnostic Tool to Buy (con't from p. 3)



A bi-directional control menu is viewable on the left side of the screen.



Mode 6 results are easy to use since it is converted to plain English for most applications.

(Con't on page 7)

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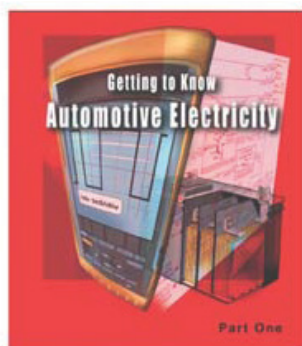
(PC not included)

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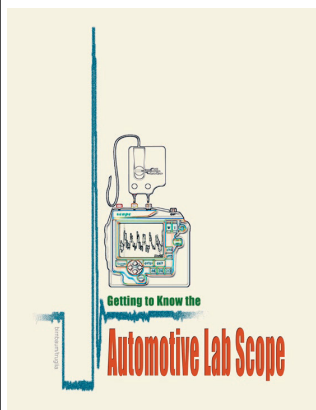
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Oh, What Diagnostic Tool to Buy... (con't from p. 4)

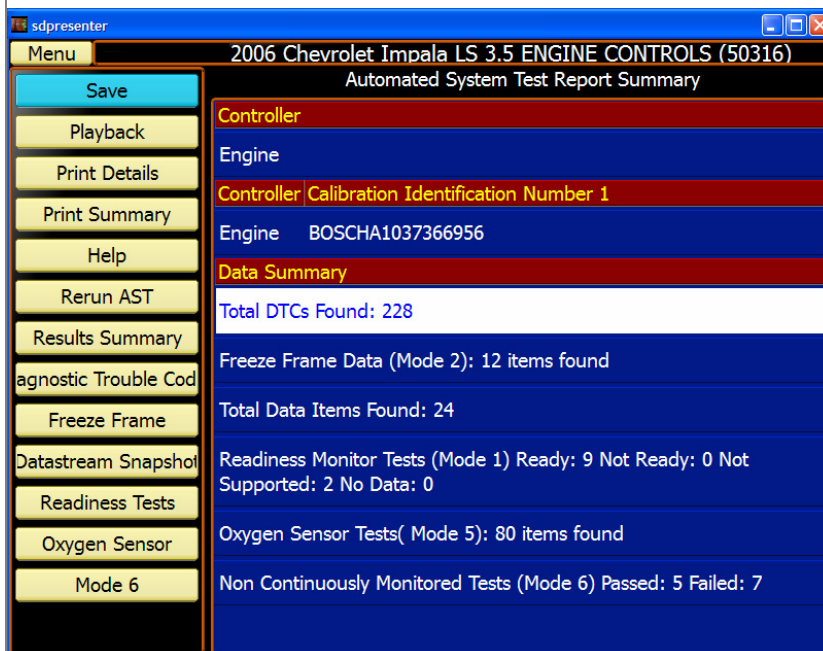
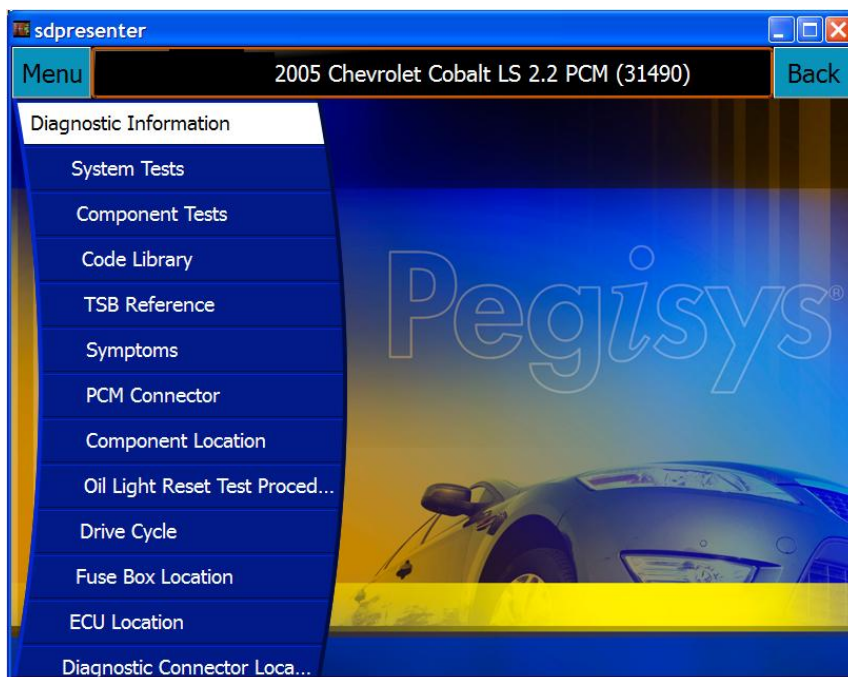
Overall, EASE provides all the Generic/Global functions plus, Bi-directions control with easy to see and use buttons to click for graphing, meters, Mode 6, and much more. List \$3765.00 wired - \$4000.00 wireless for domestic and Asian.

OTC Pegisys

The Pegisys, unlike the other tools, comes in both PC-based and handheld.

Let's take a look at the PC version.

Just like its little sister the Genisys, the Pegisys allows you to check the en-



tire computer that the scan tool communicates with. This test is called the Automated System Tests and it provides a summary of all the problems in the vehicle.

(Con't on page 9)



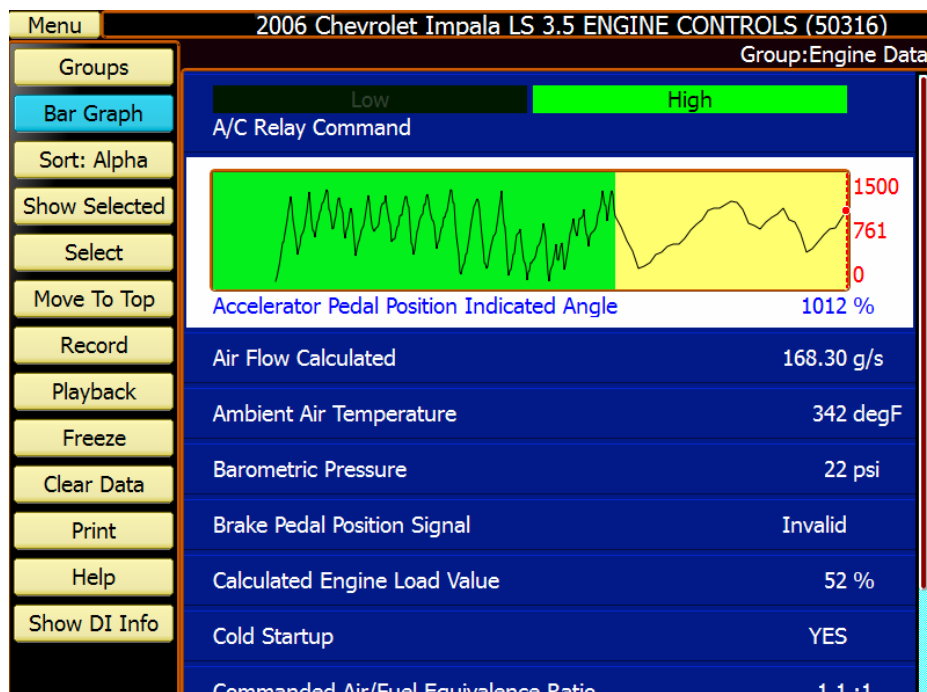
With the press of a switch you'll have an instant hot lead or ground lead. You can instantly check for continuity as well as instantly identify open, positive, and negative circuits. Locate shorts without wasting fuses. The 20 foot jumper lead allows you to test bumper-to-bumper even when the vehicle is up on the lift, without jumper leads.

This tool is a must have for any shop that is serious about diagnosing electrical problems.

\$160 at SEARS, but Power Probe as our sponsor helps us pass on a steep discount to TST members.

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Oh, What Diagnostic Tool to Buy (con't from page 7)



Graphing or any other function that is in the menu bar is a click of the mouse away.

Menu 2002 Volkswagen Passat GLX 1.8 ENGINE Back

Hotline Archie Summary

Vehicle Description:

2002 Volkswagen Passat 1.8L, Turbo, Eng Cfg L4, Eng Des AWM

Mileage:

48108

Customer Concern:

Customer Concern: P0011 (VW 16395), specification not reached for camshaft retardation bank1.

Tests/Procedures:

1. Using a full function Volkswagen compatible scan tool, enter address word 01 (Engine). Function 08 (Read Measuring Value Blocks) and Display Group 091 (Power Enhancement Camshaft Adjustment).

2. Observe the 4th display field "Active Camshaft Adjustment Angle" with the engine at idle. The 4th display field should read between -3.0 to +6.0 degrees KW, if the camshaft is in the normal unadvanced position. Any other reading at idle

The above Direct Hit screen provides vehicle-specific information with symptoms, test procedures, and the most common fixes. This PC tool is easy to use and it is updatable via the web. This tool offers all the Generic/Global functions, plus vehicle-make specific for Domestic, Asian and European. Bi-directional control to activate components, Pathfinder (searchable tech help tips and information), TSBs, specifications, Mode 6 translated to English, Direct Hit/Identifix and much more are all available. Like the EScan, the Pegisys also has wireless capabilities.

(Con't on. 11)

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

Maybe it should be called the "Smoke Wizard" Light

Use with shop air or any inert gas (like nitrogen) for safety

Pressure and vacuum decay tests

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*Analysis of 2008 California Smog Check data.

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Questions:

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

2. Do you find the seminars useful?

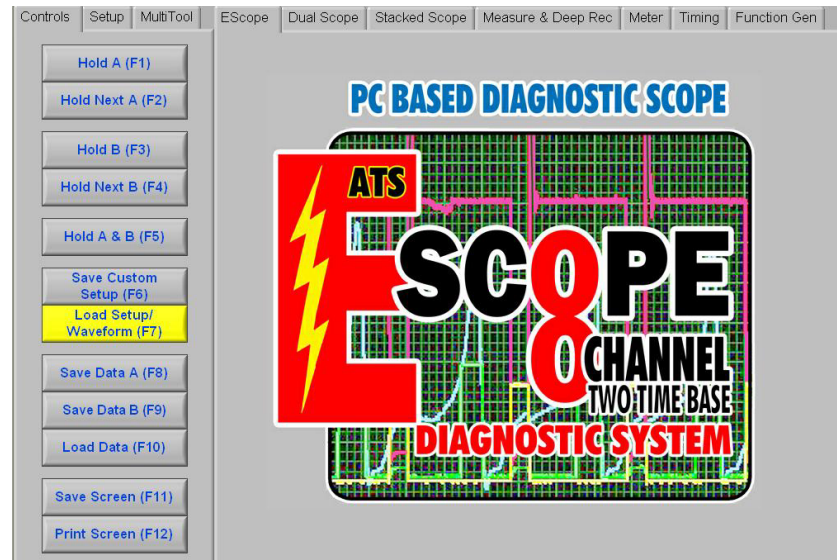
Please ask a fellow technician to come and check-out our seminars so we can continue to bring you the best available information each month.

We need your support:

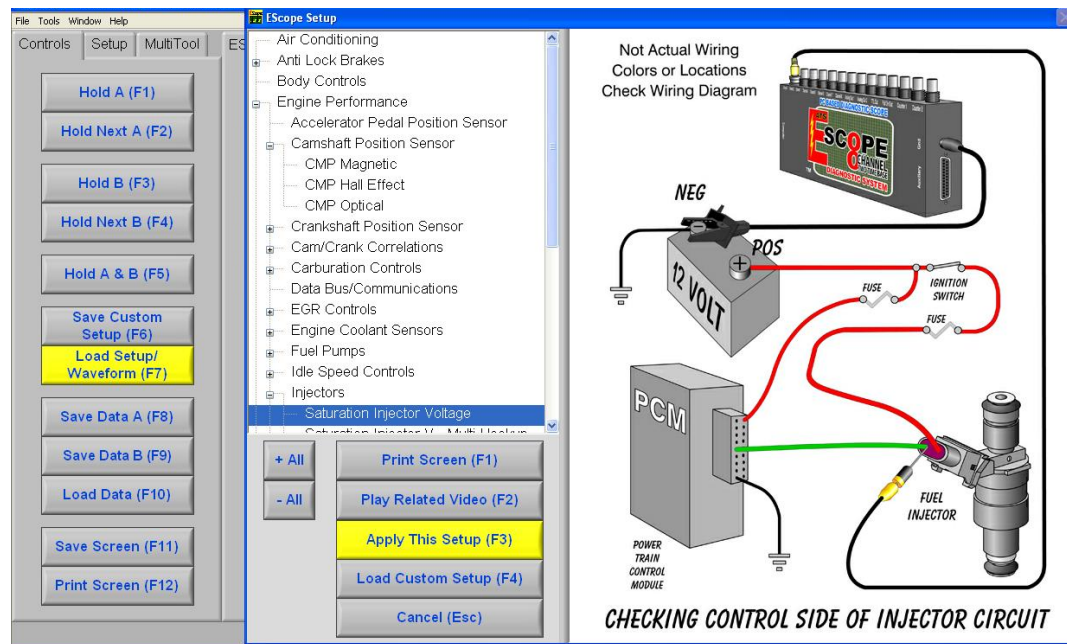
Thank you,
G Truglia

Oh, What Diagnostic Tool to Buy... (con't from page 9)

Aside from scan tools, there are a few PC-based scopes that are easy to view, update and use.



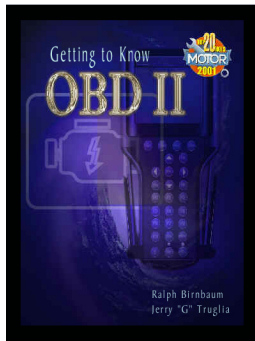
One popular one is the EScope. The EScope comes in two platforms, the smaller four-channel scope that sells for \$995.00 and the big brother eight-channel that sells for \$2995.00 (the Pro version is \$4995.00). For the purposes of this article, we will concern ourselves with the eight-channel EScope Pro, because it has a few more features and four additional channels. TST members get a **ten percent discount** of all ATS equipment.



The setup screen is very user-friendly, containing videos and pictures of how to correctly hook up leads

for a plethora of situations. The yellow button, as we can see in the above, loads a list of setups that make it easy for the user to select from one scope setup to eight channels. Thus, you can select eight coils, injectors, or eight different signals.

(Con't on page 12)



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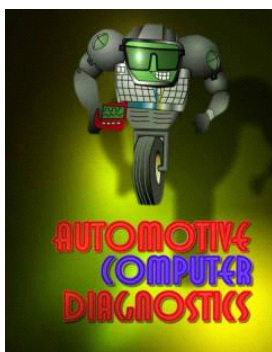


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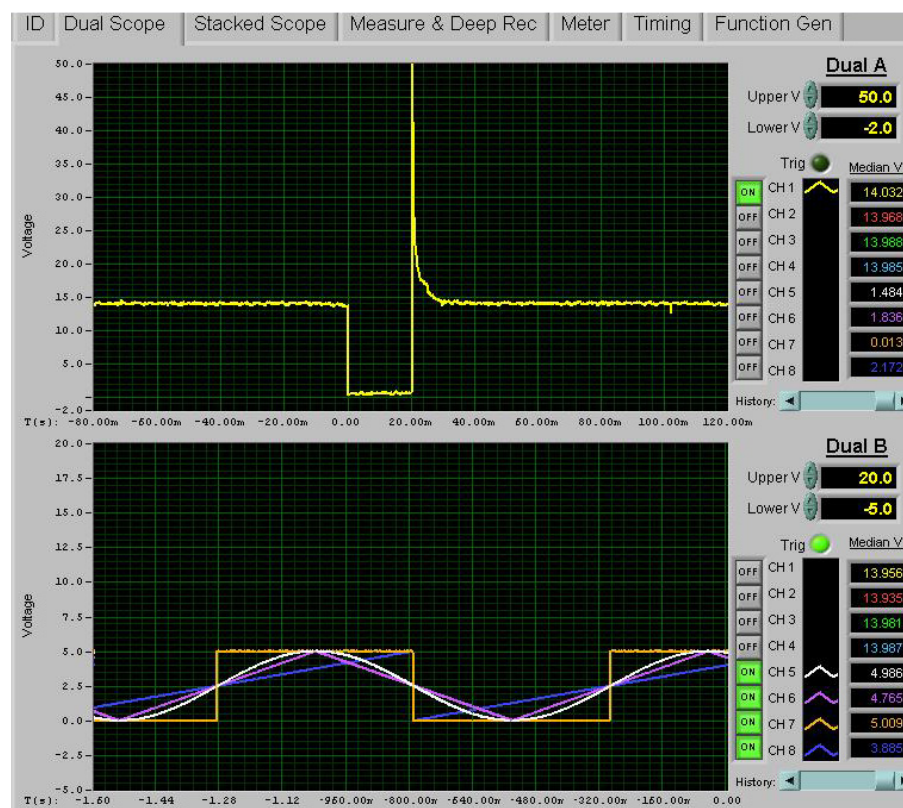
TSTSEMINARS.ORG



Oh, What Diagnostic Tool to Buy... (con't from page 11)

An advantage of PC-based tools is that they are often the most innovative. Unlike any other lab scope on the market, the EScope allows us to use TWO different time bases. This allows users to view separate signals at the best possible time for viewing each.

A great feature this scope has is the capability to mimic bi-directional control that otherwise you can only do on select scan tools, allowing you to manipulate components for necessary tests. This is done by applying power or ground to a component.



Pseudo bi-directional control is great when diagnosing a defective solenoid. For example, with an EGR valve that does not function, is this the fault of the component or the PCM? Well stop guessing! Hook up the scope leads to the appropriate side of the solenoid (make sure to check what side has power and what side is ground) to confirm if the solenoid and or PCM is good or bad.

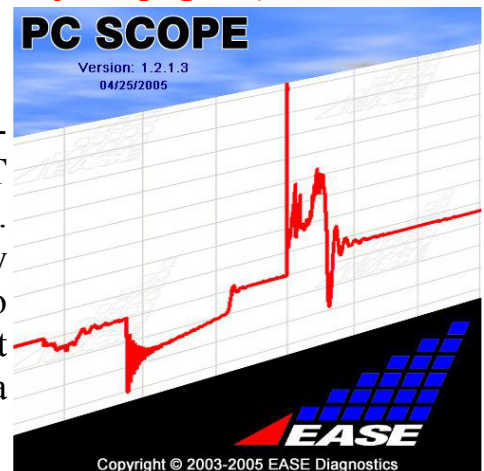
This scope also has a signal generator that allows you to make a DC square wave or an AC signal. For example, if a vehicle comes in due to a no-start condition, the necessary signals can be substituted allowing us to, again, discern whether there is a particular component and not the PCM at fault.

(Con't on page 13)

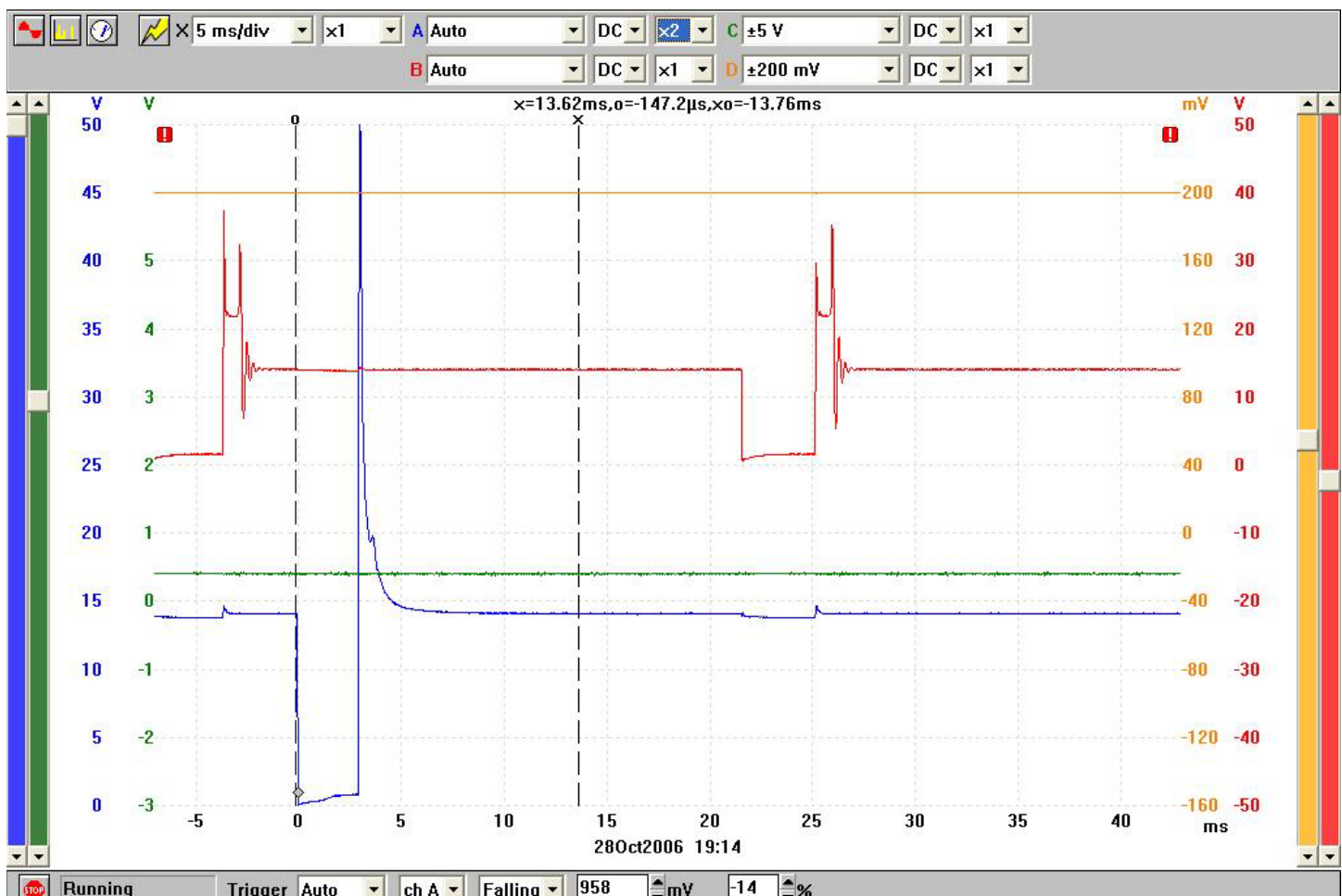
Oh, What a Diagnostic Tool to Buy (con't from page 12)

EASE and/or Pico Scope

The EASE software and components for the two-channel PC-based Pico labscope is reasonably priced at \$1495. **TST members can purchase the 4-channel scope for \$2099.** Amongst its strengths is its graphing capability, which is very similar to that of the EASE scan tool. Its functions are akin to the PICO labscope. It contains all the necessary functions that you would find in a scope, but some capabilities such as a Meter and a library of set-ups for waveforms.



The controls of the EASE scope are straight forward and self-intuitive.



Here, as we can see on the PICO four-channel scope, there are many auto-setups that allow us to get a waveform reading with a click of the mouse. The display of the waveforms is clear, adjustable and easily printable—an advantage that PC-based scopes like the Pico Scope and EScope have. Both the EASE two channel scope and the PICO four channel scope have one time base unlike the EScope. This is typical of other scopes.

(Con't on page 14)

Oh, What a Diagnostic Tool to Buy (con't from page 13)

Let's review what we know about the PC-based scan tools and labsopes. They are easy to update so we can quickly and cheaply keep up with the most current information, overall more affordable; and can be referenced with factory websites, AllData, Google, Iatn, Identifix amongst others. Even PC-based tools on heavy duty vehicles not covered in this article are the same way.

So, why would you want to purchase a PC based tool over a handheld? They are easy to use, cheaper to buy, quick to update, and have many options and capabilities that are just not found on handhelds.

If you want the best bang for your buck purchase one or more of the scan tools and then start saving up for the factory PC-based tool based on the volume of the manufacturer's vehicle you service. Of course, sometimes there is no substitute for the factory tool and with the move to software they are becoming very reasonably priced, but shops have to prioritize tool purchases for their different economic circumstances.

With this in mind, I recommend that at the very least to get a good Generic/Global scan tool in order to exploit capabilities that a factory tool does not have (i.e. ESCAN, EASE, Auto Enginuity or Pegisys) and taking advantage of their ability to work on many different manufacturers. Trying to diagnose and repair today's complex vehicles without a scan tool is close to impossible. The same is becoming true for lab scopes, and it is becoming easier and cheaper to use them now that PC-based scopes can provide save screens, printing functions, easy voltage and time adjustments, presets (easy setups), and much more.

Happy scanning and scoping!

Article courtesy of G Truglia, President

Member Sightings:

TST associate John Anello spotted in Geico newsletter...

By John Rodak

Where's the yellow hair? The yellow clothes? The yellow Hummer? -Ed.

Have any member sightings, funny stories, cars that evoked your worst nightmares?? Email CraigT@TSTseminars.org



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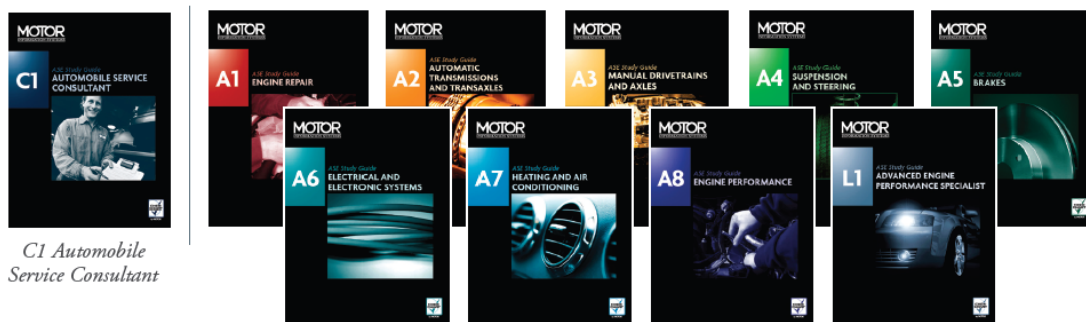
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