

Networking

Newsletter



Tech Training

NEWS FLASH FROM: Automotive Video, Inc.

Reliable sources have confirmed that Jim "The Injector Guru" Linder plans to escape from the cold Indianapolis weather in January to draw schematics on the beach!

We invite you to join Jim Linder, John Thornton, Dave Hobbs, Bob Augustine and TEAM AVI owner, Paul Louwers for our:



HAVE FUN, LEARN SOMETHING! SEMINAR

On Beautiful Sanibel Island, Florida

January 15-17, 2003

Crystal waters, sunny blue skies, the area's golf courses, walking on the beach, warm temperatures in the middle of the cold winter.....all while having fun and learning something! It doesn't get any better than this!

AGENDA

COME NETWORK WITH THE BEST!

Thursday, January 15, 2004

7:00pm- Networking with
9:00 "the Gurus"

Friday, January 16, 2004

All Day Open Registration

Saturday, January 17, 2004

7:30am-8:30am Breakfast
9:00am-noon Ford Update
Noon-1:00pm Lunch
1:00pm-4:00pm Multiplexing and CAN Data

SEMINAR CO-HOSTS

*TEAM AVI Owner, Paul Louwers
* Jim Linder of Linder Technical Services

GUEST SPEAKERS

*John Thornton (TEAM AVI's newest instructor)
*Dave Hobbs
*Bob Augustine of Vetronix

OTHER ATTENDEES

*TEAM AVI's knowledgeable & friendly staff
*TEAM AVI Customers

\$175 per person if registered on or before Nov. 21, 2003. (\$200 after Nov. 21)
Price includes All-day seminar, Breakfast & lunch on Saturday

Register Online at: www.auto-video.com
Or By Phone at: 800-718-7246 ext. 233

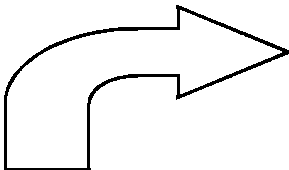
TEAM AVI has reserved a block of rooms at the West Wind Inn on Sanibel Island. These rooms will go fast! To get TEAM AVI's group discount, call the West Wind Inn at 800-824-0476. These rooms will be released after Nov. 21, so make your reservations now!

Analysis from the “Sleuth”, Michele Winn



There won't be any pictures this month because this car was never in our shop, it came from a hotline call. 1999 Olds Achieva cranks but won't start. Here's the history. It came to the garage because the battery light was on. The technician thought it would be a very easy fix and slams a gravity alternator on the car. OOPS! The battery light is still on. Further testing lead them to believe that the computer was faulty, so they ordered a new computer and had it programmed. After installing the new computer (PCM), the vehicle cranks but will not start. This is the point where I got a phone call. The first thing the caller said was the vehicle cranked but wouldn't start. It took me a few minutes to realize that it was running when it came into their shop, but wasn't running now. (Don't you hate it when you drive one in and have to push it out!) So, I started down the usual path, have you checked spark, fuel, injector pulse, etc. Several minutes later I realized that this vehicle was running when it got to their shop, ran after they replaced the alternator, but hasn't run since they replaced the PCM AND now the caller mentioned that the anti-theft light was flashing on the dash. AHA! Now we're getting somewhere. This must be a theft deterrent problem, but what happened exactly? According to Motor/ALLDATA online, here's how it works. Before an anti-theft vehicle will start, a password is communicated between the BCM (Body Control Module) and the PCM (Powertrain Control Module). If either the PCM or the BCM is replaced, it must "learn" the password before it will allow the vehicle to start. So, how does it learn the password? We'll get to that in a minute. Here's another case where the proper tool could have made a big difference in the time it took to diagnose this problem. When they got to the point where the vehicle would not start and realized that the anti-theft light was on, if they would have had a scan tool to communicate with this vehicle such as a Tech2 or a Mastertech, they probably would have found stored codes such as P1626 and P1631 that would indicate a problem with the password. Also, if they had access to an information system such as Motor/Alldata they could have looked up a flow chart for the symptom "Cranks but will not run" and would have found that Step #1 was to check for codes and then follow the appropriate flow chart. Either way would have led them to the conclusion that they needed to perform a Password Learn Procedure. With a Tech2, this can be done easily with a few keystrokes. It can also be done manually. Here's how: Attempt to start the vehicle. It will start and then stall. Leave the ignition key in the "on" position until the anti-theft light turns off. (This will take approx. 10 minutes.) Turn the ignition key to the "off" position. Now re-start the vehicle. It should start and run on this attempt and the password has now been learned. In the world of a flat rate technician, having to wait an extra 10 minutes to get a vehicle out of your bay simply because you don't have the correct scan tool could really become annoying!

Next month's issue will feature two other pieces of equipment that we feel are very valuable to have in a shop: the smoke machine and the CODA fuel system analyzer. We will also talk briefly about a case study on a 2001 Excursion with rough idle and MIL on. If you ever have a question about anything mentioned in our newsletters, feel free to give us a call toll free at: 888-809-FUEL or e-mail me at michele347@juno.com. I'll be happy to answer your questions and/or put you in touch with someone who can help.



Don't miss the annual LTS cookout in Las Vegas next month during Automotive Aftermarket Industry Week. It will be Tuesday, November 4 at 7pm. As always, food is provided by LTS, but BYOB. A map and directions will be posted on iATN industry events forum in the near future. Hope to see you there!

Fuel Injection Service Update from the “Wizard”



HIGH PRESSURE DIRECT INJECTION

We just never know what we will see next in the LTS Injector Lab. Jim responded to a gentleman on the internet regarding servicing direct injection injectors. The next day I received a phone call from him. The injectors needing service were out of boats used for surveying the Mississippi River. These boats have a 200-horsepower, 2-cycle Yamaha engine that uses H.P.D.I. (High Pressure Direct Injection). Isuzu developed the fuel system for use on automobiles in Malaysia. It operates at 750psi of fuel pressure. It requires this high pressure to get enough fuel because there is a very short time span when the computer can energize the injector to spray. His concern was whether the injectors could be serviced as part of a preventative maintenance program.

Several interesting facts came to light during our conversation. The boats operate 40 hrs a week and seem to run well for approximately 800 hrs before servicing is an issue. The boats use 1800 gallons of fuel per week. A set of new injectors (6 of them) costs \$2,000. The power head costs \$4,500 and the total preventative maintenance service can run about \$9,000. I could quickly see why he was looking for a way to cut costs. He also said that a 5% reduction of fuel would kill a cylinder and could cause engine damage. This is because these engines use the fuel to help cool the cylinders, so consequently when they go lean, they lose their cooling ability.

When the injectors came into our lab, we could tell that they were heavy duty. If you look at the photo on the right, the heavy-duty injector is shown on the left. Testing was done at 120psi and a flow measurement was taken and recorded before cleaning. They were cleaned for one hour and re-tested. The injectors increased their flow by 5%, enough difference to create a problem. The injectors have been returned to the customer and we are waiting for them to be installed at the next preventative maintenance interval. We will keep you posted.



(Injector types from left to right:
High Pressure Direct Injector, Bosch
and GM MultecII)

Please Welcome our newest employee, Joe Geiman

Joe is the latest addition to the LTS family. He started with us back in June and his official position is “Injector sales”. Right now he is working in Central Indiana with plans to expand in the near future. His background is in technical sales and marketing and we have been extremely pleased with his results. Joe is also planning local area fuel injection seminars for next year.

Like the rest of the LTS staff, Joe is a car buff. He is a member of the Gran Sport Club of America and the proud owner of a 1987 Buick Grand National. In his spare time you might find him target shooting where he holds a master classification in high-powered rifles.

Periodically, Joe will contribute to our monthly newsletters. Look for an article from him in next month’s issue.

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LTS Training for 2004

Many of you have attended our local technical support training here in Indianapolis for many years. (Much longer than I care to admit) Over the past several years we have offered many different classes designed to help you as a working technician diagnose and repair vehicles. These sessions have included topics which ranged from new model introduction to 48 hours of driveability and also included emission repairs (although Indiana doesn't really have I/M testing in the majority of counties) All of these class sessions have been written and put together based on demand and actual area shop needs. This year we brought in several experts from different fields and held one-day eight hour classes which began back in January. The comments and reviews have been great with every seat filled at each session!

Now we (LTS) must start scheduling training classes for 2004, and I need input from any and all readers of this newsletter in regards to what we should create for next year. Some have suggested bringing back a level one class for the newer service techs, others have mentioned a new lab scope class while others have asked for more scan tool graphical interfaces and OBD-II.

Sit down, kick some ideas around and let us know what you feel is needed for next year. We do listen and plan around your needs.

Also, the first ten people to send a suggestion to me at jimlinder@juno.com will receive a FREE LTS t-shirt!

—Jim Linder, The Injector “Guru”