LINDER TECHNICAL SERVICES

Networking

Newsletter

JULY 2001

Jim Linder
The Injector "Guru"

JUST THINK ABOUT IT!

Every now and then a new testing procedure comes along and you have to say to yourself "why didn't I think of that??"

This fuel injector and pressure testing comes to us from a discussion on I-ATN between Ed Murphy, Danny Iwama and Miles Wada. Others were involved but the credit for this discussion goes to these three.

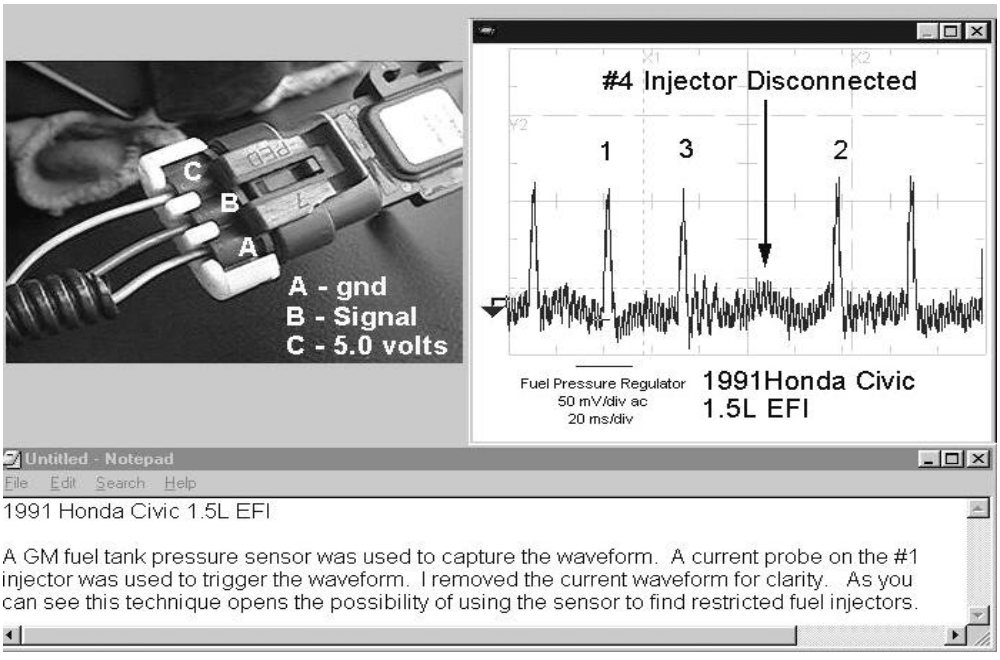
It is a pretty simple test using a throw away vac transducer from the top of a GM fuel pump module. (In most cases these are not defective but hit the trash bin along with the pump module) The test procedure is fairly straight forward and the wiring is shown in the picture thanks to Danny Iwama. Just hook to the fuel pressure regulator (using one of your old pressure transducers) and hook a scope to the output lead from the sensor.

The idea is that each and every time a fuel injector fires or opens the rail will show a pressure change. On a sequential system, each injector has its own pressure drop waveform and all should be equal. The example below shows a disconnected injector.

This thread may be viewed on www.iatn.net technicial discussion forum using the archives.
http://members.iatn.net/forums/forum13/read/7874.html

Let us know your results using this new test.

Jim L.



Analysis from the "Sleuth", Michele Winn

For those of you who have been following our TBI Conversion project, this is the final chapter. As you know, it has taken several months to document our progress, but thankfully, the actual project was completed in a matter of days.

The last thing for me to do was install new throttle linkage. Sure, there was nothing wrong with the old linkage, but Jim had a shiny chrome ball-end new linkage kit that he was dying to use.

Ok…..I've got the ignition wired, fuel system plumbed, throttle linkage connected……I'm ready to go. I'd better check on Jim's progress inside the truck.

While I was crouched under the hood sweating over wiring dilemmas, Jim was stretched out on the seat inside the truck. Mounting the ECM and fuel pump relay (included in the harness) was easy given all the room inside the cab of the truck.

The ECM was mounted at four locations using rubber-coated metal brackets
Fuse holder and ALDL test connector were simply attached to the metal heater control box using pop rivets. This proved to be very accessible, out of the way, and functional!

The only remaining wiring issues were to wire up a permanent power feed and an ignition on/off wire to the existing ignition switch. Again, this was fairly easy since the ignition switch back is exposed under the dash. Clip and soldered the wires, and the unit is ready to go.

Time to reconnect the battery, check for smoke and possible leaks and spin the engine over.

No smoke, pump runs for a short time and we show 12 psi on our fuel pressure gauge. Lookin' good so far. Cranked the engine…….WOW! It runs!!! Engine speed is at fast idle (smooth with no slobber). RPM drops off somewhat and it sounds great!

We un-hooked the set timing connector and verified ignition timing with a light (we love those little battery power hot rod lights). Tightened down the distributor at 4 degrees BTDC. (We will adjust this as needed later).

Analysis from the "Sleuth", Michele Winn (cont.)

The engine was allowed to warm-up and the radiator is filled with new antifreeze.

Time for a test drive! Jim backed out of the shop and said he could feel the difference immediately. It was almost like a NEW engine……smooth, no hesitation and instant response. With this newfound torque and zip, it was hard for him not to punch the throttle as he drove down the street. Another difference was noted as he rounded the first turn. He left the truck in 2nd gear and still had plenty of power when he started to accelerate. Before, the only way to have any power and prevent a severe stumble was to downshift into 1st gear coming up to a turn. Once he was safely back in the parking lot, it finally got the best of him!

As he side-stepped the clutch, I observed lots of tire smoke and unreal throttle response.

WOW, THIS IS REALLY COOL!!!

For more information on parts or special tools used for this project, contact Michele at 317-487-9460 or e-mail at michele347@juno.com

LINDER TECHNICAL SERVICES

4-D GASOLINE ALLEY
INDIANAPOLIS INDIANA 46222

Phone: (317) 487-9460
Fax: (317) 487-1868
Toll Free: (888) 809-FUEL (3835)
out of the (317) area code only

AUTOMOTIVE SOLUTIONS FOR TODAYS TECHNICIANS!

www.lindertech.com

ATTENTION E-MAIL USERS!

Linder Technical Services is in the process of making our monthly newsletter, "Networking" available via e-mail. Instead of receiving our newsletter in the mail, we would send it to you via e-mail in a downloadable format for you to either view on your computer screen or print out and read. This will help reduce printing and mailing costs and save valuable time that is spent folding, taping and stamping several hundred copies each month.

* If you do NOT want to receive the newsletters by e-mail and wish to continue receiving them in the mail, simply do nothing. We will continue to mail newsletters to you unless you contact us to do otherwise.

This new system of sending newsletters will not be implemented until August or September, but we would like to start compiling an e-mail list now. If you would like to start receiving the newsletter via e-mail, please send an e-mail to Michele Winn at michele347@juno.com. Be sure to include your name, your company name and the mailing address where you are currently receiving the newsletter.

We hope that this new system will be more convenient for everyone! Thanks for your continued support of Linder Technical Services!