

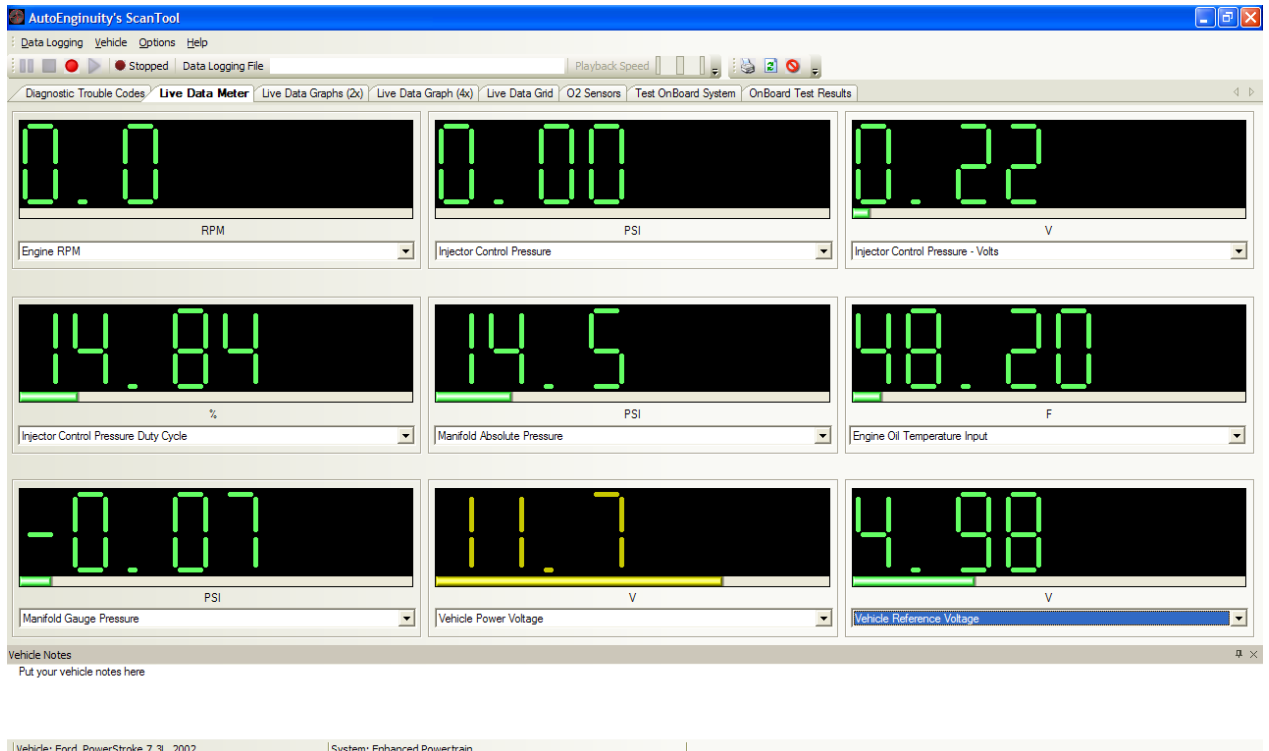
Riffraff Diesel 7.3L ICP/IPR AutoEnginuity Set-up

Page 1 of 3



Troubleshooting Injection Control Pressure (ICP) or Injection Pressure Regulator (IPR) issues can be done with AutoEnginuity (Ford Enhanced) quickly.

- Plug in your AutoEnginuity connector to the OBD II Port.
- Turn on the ignition to run.
- Start AutoEnginuity and connect to the Enhanced Powertrain System.
- On the Live Data Meter Tab select the following.
 - Engine RPM
 - Injector Control Pressure (ICP)
 - Injector Control Pressure Duty Cycle (IPR Duty Cycle Percentage)
 - Injector Control Pressure Volts
 - Engine Oil Temperature Input
 - Optional: Manifold Absolute Pressure, Manifold Gauge Pressure, Vehicle Power Voltage, & Vehicle Reference Voltage.
- With the engine off you should have results similar to below.
 - ICP should be 0.0
 - IPR DC % should be around 0.22 volts



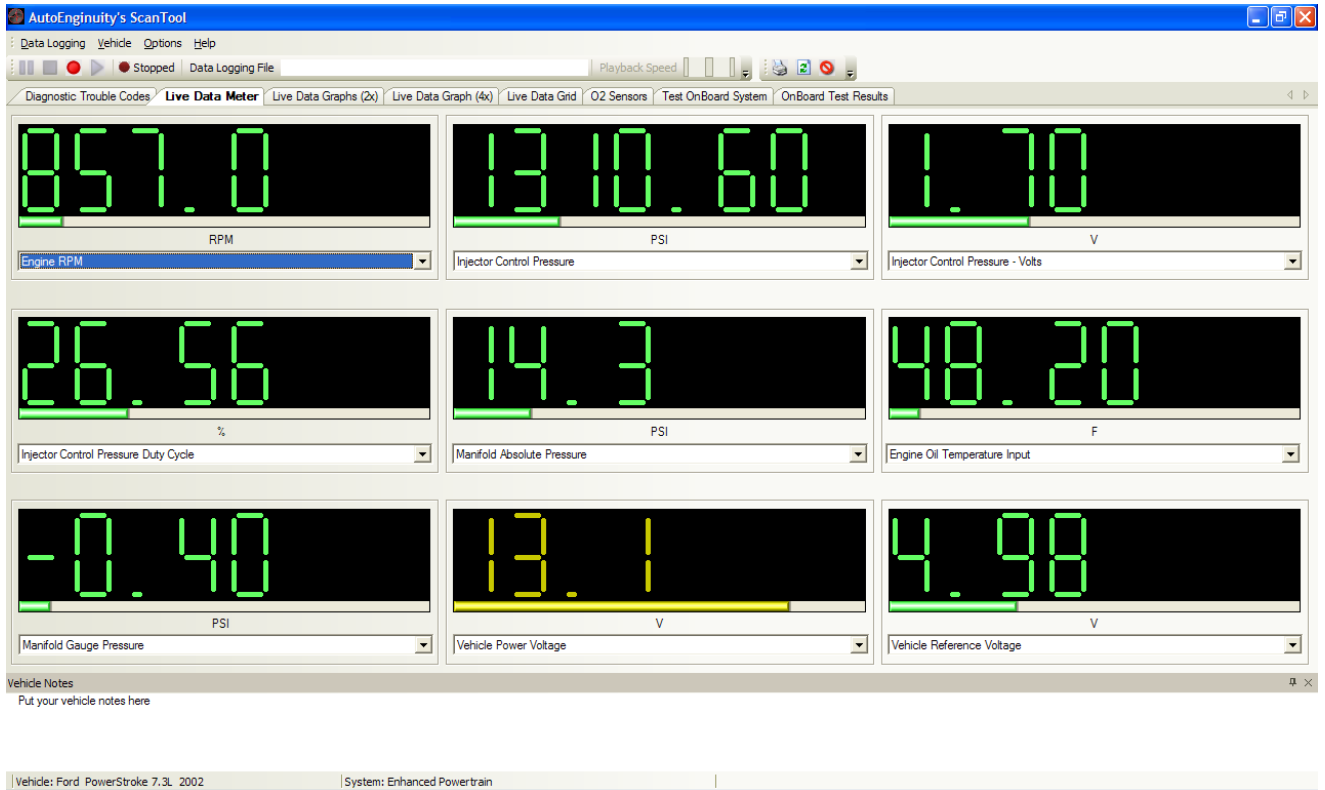
Toll Free Sales & Customer Service: (866) 446-3360

Riffraff Diesel 7.3L ICP/IPR AutoEnginuity Set-up

Page 2 of 3



- Check the following before running any tests
 - Verify engine oil is clean (oil should have less than 5,000 miles) and sufficient quantity (in cross hatch section on dip stick). Dirty oil can cause drivability and rough running conditions.
 - OEM fuel pressure is 51 psi +/- 4 psi. This must be checked with a separate gauge. The PCM does not monitor fuel pressure on the 7.3L engine.
 - Check the oil level in the HPOP reservoir. It should be within an 1" from the top of the reservoir. Remove the HPOP reservoir plug to verify.
- Now you can start the engine and verify the ICP/IPR live data.
- You can see the ICP is at 1310 PSI and IPR Duty Cycle is at 26.56%.
- As Engine Oil Temperature increases, Engine RPM, ICP & IPR DC will decrease.



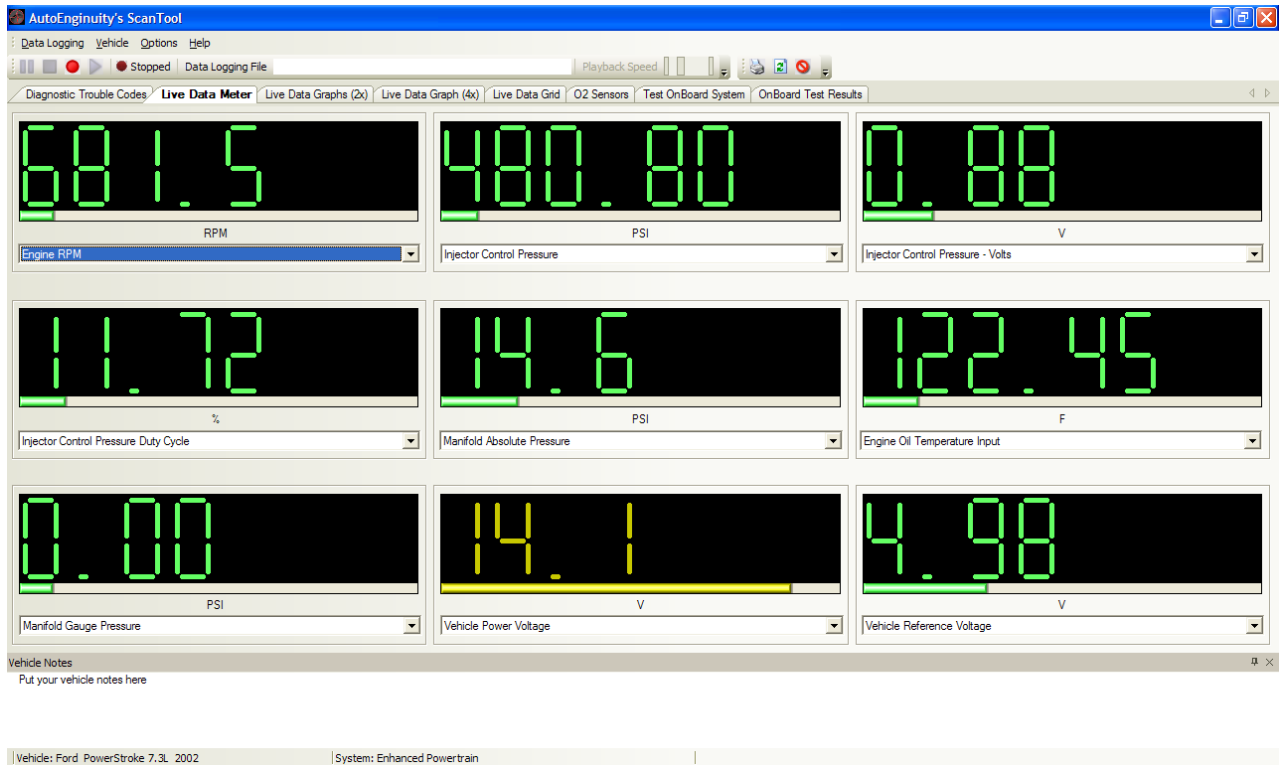
Toll Free Sales & Customer Service: (866) 446-3360

Riffraff Diesel 7.3L ICP/IPR AutoEnginuity Set-up

Page 3 of 3



- After the engine oil warms up, you should see a drop in both Engine RPM, ICP and IPR DC.



- Check the Injection Pressure Regulator (IPR) Duty Cycle under a load.
- Drive the vehicle at Wide Open Throttle (WOT) under a load (pulling a hill).
- Verify the IPR Duty Cycle Does not increase above 65% with ICP less than 2000 psi.
- If you see greater than 65% Duty Cycle, you may have a faulty IPR, Weak HPOP, or leaks in the high pressure oil system (injector O-rings). Individual component testing may be required.

Screenshots and Instructions by Ken (Woodnthings on FTE)

Disclaimer of Warranties and Liabilities

Riffraff Diesel disclaims any implied warranties of merchantability and fitness for a particular purpose.

Riffraff Diesel also disclaims any liability or consequential damages including, but not limited to, repair labor, rental vehicles, hotel cost, or any other inconvenience costs.

This warranty is in lieu of all other warranties or guarantees, either expressed or implied, and shall not extend to any consumer or to any person other than the original purchaser.

Toll Free Sales & Customer Service: (866) 446-3360