

# ON TRACK



Volume 1 Issue 2, February 2008

## Real-Time Data with Real-Time Results

Taking water/methanol a step further, the VCS3G-3D allows a user to fine tune their injection system from inside their car.

The VCS3G from Labonte MotorSports is not just an injection controller. It is a fueling computer for water-methanol injection systems. The advanced control algorithm was developed through rigorous engineering and dyno testing to deliver precise control of injection. Delivering the right quantity of fluid at the right time leads to maximum horsepower and detonation control from an injection system.

There are many features of the VCS3G that can aid in tuning. The touch screen allows easy setup and monitoring, all on the fly and in real-time. It also includes inputs for monitoring fluid flow when used with the IFS-10, and a fluid level when used with the FLS-10.

The many features and user friendly interface make the VCS3G perfect for any car enthusiast. When running



water/methanol, the VCS3G from Labonte MotorSports provides performance that achieves results. List Price \$269.00

## Subaru Install

We recently installed our water methanol injection kit on a 2005 Subaru WRX. The install is very straight forward and the WRX is an ideal candidate for water-meth injection.

The owner's response was very positive. He commented on how the turbo spooled faster and how the acceleration was throwing him in his seat a little more.



# Tech Tips

## Nozzle Selection

The simplest way to select the jet size for a water-meth setup is to size the jet based on the vehicles FWHP and max boost level. This gives an initial size that will account for the vehicles fueling and intake cooling requirements.

Most nozzles used in meth injection

### Nozzle Selection Guide

When using 50/50 Water Methanol mix and no intercooler  
Use N/A column for Naturally Aspirated Engines



HP (flywheel)	W/M (ml/min) for Boost Pressure					
	N/A	5-9psi	10-15psi	16-20psi	21-25psi	25+psi
50	M.75	M.75	M.75	M.75	M1	M1
100	M.75	M1	M2	M2	M2	M2
150	M1	M2	M2	M3	M3	M3
200	M2	M3	M3	M3	M6	M6
250	M2	M3	M6	M6	M6	M6
300	M3	M3 + M1	M6	M6	M6	M6
350	M3	M6	M6	M6	M6	M8
400	M3 + M1	M6	M6	M6	M8	M8
450	M3 + M1	M6	M6	M8	M8	M6 + M2
500	M3 + M2	M6	M8	M8	M8 + M1	M8 + M2
550	M3 + M2	M6	M8	M8	M8 + M2	M8 + M3
600	M3 + M2	M6 + M1	M6 + M2	M6 + M3	M8 + M2	M12
650	M6	M8	M8 + M1	M8 + M1	M12	M12
700	M6	M8	M8 + M2	M8 + M3	M12	M12 + M2
750	M6	M6 + M3	M8 + M3	2x M6	M12 + M1	M12 + M2
800	M6 + M1	M6 + M3	M8 + M3	M12	M12 + M2	M12 + M3
850	M6 + M1	M8 + M1	2x M6	M12 + M1	M12 + M3	2x M8
900	M6 + M2	M8 + M2	M12 + M1	M12 + M2	2x M8	M12 + M6
950	M6 + M2	M8 + M3	M12 + M1	M8 + M6	M12 + M6	M12 + M6
1000	M8	2x M6	M8 + M6	M12 + M3	M12 + M6	M12 + M8
1050	M8	M12	M12 + M2	2x M8	M12 + M6	M12 + M8
1100	M8 + M1	M12 + M1	M12 + M3	M12 + M6	M12 + M8	M12 + M8
1150	M6 + M2	M12 + M2	2x M8	M12 + M6	M12 + M8	2x M12
1200	M8 + M2	M12 + M2	M12 + M6	M12 + M6	M12 + M8	2x M12
1250	M8 + M2	M12 + M2	M12 + M6	M12 + M8	2x M12	2x M12
1300	M8 + M3	M12 + M3	M12 + M6	M12 + M8	2x M12	2x M12
1350	M8 + M3	M12 + M3	M12 + M6	M12 + M8	2x M12	2x M12
1400	M8 + M3	M12 + M6	M12 + M8	2x M12	2x M12	2x M12
1450	M8 + M3	2x M8	M12 + M8	2x M12	2x M12	2x M12
1500	2x M6	M12 + M6	2x M12	2x M12	2x M12	2x M12

systems are of the “M” rating. This is a standard industry rating where the M followed by a number (i.e. M4) denotes the nozzle flow rate in GPH with 100psi pump pressure. So an M4 will flow 4 GPH with 100psi pump pressure.

Labonte MotorSports currently stocks the following nozzle sizes: M.75, M1, M2, M3, M6, M8, and M12. The M6 and M8 are the standard nozzles included in our ISG-10 systems.

The VC-MAF injection controller was used as the smaller Subaru turbo spools up quickly. Boost reference injection would hit peak injection too soon in the RPM band and possibly quench combustion. The VC-MAF has an internal power-up delay to prevent injection during startup when the stock ECU activates the MAF sensor.



**Labonte MotorSports, LLC**  
8187 Commerce Dr.  
Loves Park, IL 61111  
(815) 315-4823

### Interested in being a Dealer for Labonte MotorSports Products ?

We make it easy for Qualified Dealers to get started. Send us an email at [sales@labontemotortsports.com](mailto:sales@labontemotortsports.com) or call and we will send you out our Dealer application kit.