

Inside this Issue!

- XMS tuned Porsche
- XMS tuned Porsche part 2

Porsche Tuning in Taiwan

On my recent trip to SPEEDWAY in Taiwan, a number of specials were lined up for me. The first of two Porsche's tuned, was a yellow 964 with a 3.8 liter multi-spark engine. We used our **Perfect Power XMS** Engine Management System controlling injection, ignition, boost and idle. All parameters were tuned to perfection by running closed loop wide band lambda.

The installation was as flawless and neat as the entire SPEEDWAY workshop. Once all the sensors had been calibrated it was time to align the 60-2 wheel to the **XMS**. This is not always that easy when you cannot see how many teeth before TDC the gap is. Normally, and on most factory-fitted 60-2 engines, the gap is between 60 and 80 deg before TDC.

So we started on 70deg. Turned the key and the "beast" came alive. Idling a bit rough at first but then again, this was the first engine ever tuned with an **XMS** and running on 1000cc injectors. Next we tuned the fuel to get improved idling. Then ignition timing was checked and adjusted so that the timing displayed on the screen was identical to the engine's. All through the above process, the automatic lambda tuning was disabled. It was a great help in tuning AFR to still have the lambda values displayed.

On the dyno the "beast" really came alive. At 480kW on the wheels, the 365/55/18 tyres started smoking. With the ultimate affect, that at 4500rpm the "beast" **wanted out!** Shortly after that, the clutch let go. Since SPEEDWAY is a Porsche / Lamborghini / Ferrari specialist, the clutch was replaced with a beefed up version in under 5 hours. That is engine and clutch out and back in, running and dyno-ready in under 5 hours !

The moment of truth arrived, it was time to road tune. To my surprise the T88 Turbo came in very early at 3000rpm and produced 1.8 bar boost at 4800rpm. It held this boost all the way through to the rev limit, which was set at 8500rpm. Besides the obvious drifting affect at 220km/h , as the rear again would light up, the car drove very well. With idle control and lambda doing their thing, the engine came to a perfect idle every time, even with the air conditioning system keeping us hot heads cool at all times.

The **XMS** has a new feature, which was put to the test on the "beast" .The **XMS** is instructed to "learn" a long-term lambda. This means that the more you drive the car, the better it becomes. The **XMS** will continuously tune the engine using wide band lambda to achieve the AFR targets you have entered. The **XMS** will then remember these values and the next time you drive the car, it will just carry on tuning again to make the car better and better.

All in all, this car was a monster. With power that could not be unleashed to its full extend without all occupants soiling their shorts.

The **XMS** made the Porsche 964 smooth and drivable all the way through the rev range and boost conditions. 10 out of 10 for the **Perfect Power XMS** unit.

For more details, please contact Peter Ludwig at peter@dtwebs.com



Porsche tuning in Taiwan round 2

My last visit to Taiwan saw the XMS units being fitted to two Porsche's. The second one was once a normally aspirated 911. When I arrived the engine was a twin turbo 3.6 liter twin spark engine. This was only going to be a mild conversion I was told by the owner of Speedway automotive.

Funny thing though is their version of mild is enough to pull a 11,2 second quarter mile out the bag.

The unit was installed and the engine was running in under 1 day. Controlling fuel, ignition timing, wide band lambda, boost, idle and of course rev-counter and fuel pumps.

On the dyno this little baby went beautifully, only wheel spinning at 4500rpm at 0.9bar boost. When doing power runs from there it ended up with 600hp and 750n/m of torque. This may not sound like much in Porsche terms but when we hit the road later that evening it was suddenly clear that this was no toy.

With 4 up in a car that is designed to carry 2 and a briefcase, it was tight. Plus the roll cage did not make life any easier for the two mechanics in the back seat. Luckily these are small chaps.

Having a dyno helped for the initial setup of the engine but road tuning was needed. Running six 900cc injectors and the air con permanently running traffic tuning was a major concern, however this went flawlessly and then it was off to the freeway. In 4th gear at 6000 rpm doing close to 270km/h, with that power behind you the car is still accelerating. That's why I say close to 270km/h as at a glance the needle was still climbing, then I started to get worried about traffic and ignored the speedo from there on.

All in all the entire installation and tuning was done and completed in 1 day. Cold starting was completed the next morning and to my disappointment it was all over. No more Porsche's left to tune.

The XMS unit worked so well the customer thought we had left the original Bosch management system in, that was until he put his foot down and the 2 turbo's came alive. I have never seen such a big smile and so many teeth from one person in my life.

With results like these no wonder the XMS stand alone engine management system from Perfect Power is making a name for itself as one of the finest management systems out there.