"To each there comes in their lifetime a special moment when they are figuratively tapped on the shoulder and offered the chance to do a very special thing, unique to them and fitted to their talents. What a tragedy if that moment finds them unprepared or unqualified for that which could have been their finest hour." - Winston Churchill

We all know there are some moments in every ones life, that are very special. Your first day at school, your first kiss, your first car, your first race, your wedding, your child's birth, a difficult task that's been accomplished... They remain with us for the rest of our lives.

Today is one of these special days for me! A very challenging task, has been completed.
I'm very proud to announce, our new Smarty Touch is ready for release !

The last tests have been completed. The required parts are now flowing into our warehouse, assembly and quality control testing has begun. A few small pieces are still needed to complete this complex puzzle but we're really getting close. The Smarty Touch is now ready to be released to the public. It will take another couple weeks but in the first days of November he will be out there.

If you would like to know about us and our products let me take you with me, so to speak, to get an insight of what's been happening behind the scenes, during the development of our new product.
It's been over two years since our first meetings, to define the project in it's smallest details. Several priorities were set in stone. Without annoying you too much, I'd like to mention just a few of them.

1) Even the smallest thing is to be developed IN HOUSE. No outsourcing, no cheapo, no compromises.
I insist upon having total control of the specifications and the quality of my products. It's always been that way, and except for the financial point of view, I see no reason why my way to do business should change. I could save money by outsourcing the engineering, but I'm firmly convinced that this would jeopardize our overall quality.
It is easy to understand that designing your own hardware and having an intimate knowledge of it's capabilities is a bit different than buying a ready made product from a third company. Do some cosmetics to it's software and claim yourself king of the hill... IN HOUSE R&D, that is how MADS does it's thing. Period.

2) The new Display/Tuner has to combine in one unit everything that ALL our hand held tuners can do.
Yes, that's right! The Smarty Touch works on any Dodge / Ram pickup truck with a Cummins engine from 1998.5 up! It recognizes on it's own what year the truck is, which protocols are used, which PID's are available for that truck and lastly which performance software to use for it. The performance tuning software you know form the Smarty has remained unchanged (for now) BUT with the addition of a full color display. Did I mention that we actually USE these colors in our dash's to display the PID's?

3) Only one very small connector & cable from the monitor to the OBD plug.
In order to communicate with all of the buses required for these trucks, that is impossible to do! We need at least 14 wires between the Display and the OBD plug. At least!
Now what?
We divided the product into two parts. The Display, and then the OBD interface (controller) which installs under the dash. Each with it's own CPU and dedicated software. The controller talks to the OBD protocols, and sends the PID's to the display. During a download to an ECM the display prepares the files for it and sends them to the controller.
A needless complication?
Well, maybe. Doing it this way, we get the small plug & wire I wanted for ease and flexibility of installation, also twice the computing power. More computing power translates into much faster data

acquisition and data transfer rates. Faster than anything else out there! Faster power up times when you turn the key on. More doors held open for future implementations.

Of course, now we had TWO projects to work on. TWO distinct units, each with it's individual CPU. Twice the hardware and software to develop! The CPU's need to communicate with each other, need to stay in sync... Well, I think you get the picture!

4) A color display that is readable even in the brightest sunlight. I mean to say, I want a BRIGHT display!

I could not find any readily available display that made me happy. Thus, I got a display built to my engineering staff's specification. Again, maybe a needless complication or overdone, but I wanted it all or nothing.

A bright display is nice to have during a sunny day, but what happens to all this brightness during let's say the night or any other situation in between? I'll tell you a little story about this a little later on. Keep on reading!

5) No buttons or other fancy touch thingies! Just a touchscreen is what I want!

I would have liked a Smart phone like touch panel, so that things could be moved in all to us familiar ways. Unfortunately that's one thing I was not able to get. In order to slide things around a capacitive touch panel is needed. One problem though, those quit working roughly above 122°F or around freezing. I don't know about others, but the interior of my truck gets hotter than this during the summer and colder in the winter. Do we want a nice capacitive touch or one that works even in the toughest situations?

I had no doubt, a product with my company's name behind it HAS to work. Always!

Thus we went with a resistive touch panel. Believe me when I say, any and all efforts have been done to make this touch panel as responsive as possible. It's nice and easy to use!

6) Easy to use, customizable, comprehensive and complete software, beyond the customers needs.

This was the most challenging specification to deal with! How does one get a lot of options, without crowded and complicated to use menus? No time and efforts have been saved to get the Smarty Touch to this point. I don't even want to mention how many meetings we had with the software development department, to get the "easy & simple" things right.

Several software versions have been simply dumped and everything started back again, from scratch.

Let me just say that except for a few fine details, NO instructions are needed to use this display. It is easy to navigate through the menus and intuitive to find the right item one needs. Nothing shows up on the display that's not needed in that moment. Once any item becomes selected that may be further (eventually) customized, there's always the right icon showing up, helping in the process. Countless hours have been spent "fine tuning" things here!

7) The EGT sensor has to be accurate and has to have a very broad temperature range.

To accomplish this we needed better hardware & software, than what is readily available. So, we did it my way.

Nothing out there that fit's my needs? Research, develop, design our own.

Just two facts here.

1)With the Smarty Touch it is possible to calibrate the sensor. That is required, because no two sensors read the same.

2) K-type EGT sensors start to melt down by roughly 2200°F. (I have tested this with a torch destroying several sensors)

Our hardware has enough digital resolution to read up to 3773°F.

Is that accurate and broad enough? For me, it sure is!

The specification's list is much longer, but I don't want to annoy you with even more technical details.

To get a grasp about our way of doing things in this company, let me tell you this little story about the display's brightness.

This was the last thing that I filed down to smoothness with my engineers. In my opinion, the display would simply not turn dark enough during the night. Annoying at least, but eventually also dangerous. We started to talk about possible solutions. The easy solution would have been to use two different graphic layouts. Day and night alike to a navigation system. They simply use either bright or dark colors. Easy & cheap to do. Hmmmm....

Sorry, what do we have a light sensor for then? I want to dim the display continuously! Not in large steps! Continuously!

The answer to this was, yes but our display is so bright that it's hard to do. If we reduce the brightness too much, then the display will flicker. Because of this and this and that... OK, let's find a solution for this flickering! Well, after work, during the nights, I've spent several hours a night simply driving around with different possible solutions, under different light conditions.

During that time it's hectic, almost panic in the shop. We still need to do a lot of things, if we ever want to get the product ready. Yet, two software engineers and me, full time on this, plus the nights. After a week, fiddling with the light sensor and the brightness, we got it to the point where I'm happy with this. Some VERY smart software trick went into this, to circumvent the flickering issue. The brightness goes now up and down smoothly, adapting perfectly to any driving conditions out there. Today, driving a truck into our shop (a little darker than outside but not by that much) dims the display nicely and precisely! In all honesty, if never seen such a nicely dimming display in any vehicle or any other product. EVER!

Of course, we could have let this alone or go the cheap and easy route.
Really? Nope, not this company!
We want it to be as perfect as we can get it, or we don't want it at all.
That's our spirit, that's our goal in everything we do.

Don't get fooled!
Is the Smarty Touch perfect? Nothing made by man is! Can it be better? YOU BET!
Bringing the Smarty Touch to market readiness is only the first important step. Over time more and more features will be added. More PID's will come. The tuning software will be revised. And then, who knows where the next brilliant idea will take us... Stay tuned!

Now that I'm reading all this, it almost sounds like I did it all on my own. Nothing farther from reality!
I just gave the inputs into which direction to steer. My people busted their backs to make all this happen.
Several members of our staff have not seen a single vacation day, in the past 12 months.
In fact, I need to thank them ALL. The whole company staff. Everybody in here was involved in the Smarty Touch project and gave the best he could.

A very special THANK YOU goes to the Beta testers (you guys know who you are) who provided us with VERY valuable and precious ideas and feedback. As you can see we were listening to you...

It's been a long and difficult road to get the product to maturity! Major hurdles have been jumped! Major drawbacks have been faced! Sometimes the challenges seemed above what could possibly be done, but at the end WE were prepared and qualified for the task.

Keep your eyes on the road and your hands upon the wheel!

Thanks for reading ,

Marco

October 22 2014