

Look at the Mess I've Made of My MINI

by Matt Richter



Even before the new MINI came out in 2002 I wanted one. With the reports of the excellent handling right out of the box, it sure sounded fun.

At that time, I was going through sports car withdrawal with my Mustang in the second year of what should have been a three month suspension job, so when my wonderful wife Cheryl saw that I was reading yet another MINI evaluation, she whispered in my ear, "Just get the freakin' car already...and get the powerful one. I don't want to hear you complain later!"

So after a fruitless discussion with my local dealer, and a little online time, I flew to Salt Lake City and just over three hours later, I was on my way home in my very own CR/W MCS. The drive back was a blast, as in just under 18 hours I was back in my own bed, exhausted but happy.

The following spring, I took the MINI to Infineon Raceway. In two days of driving, I pretty much ruined the front tires because the cars don't have enough negative camber. RDR camber plates were on sale, and so I'd found my very first mod. I haven't stopped since.

So, what's bolted onto my car? It's been an evolving list, but I've tried to keep a goal in mind, and to acquire items used or on sale so I could keep the total spending down. Nonetheless, I've still spent more than \$10k on the car. Right now, I'm putting somewhere around 180 horsepower at the wheels. I'm pretty sure that there's more to be had with better tuning. (See the complete list on page 93.)

I like a balanced car, so in addition to power, I've worked on the suspension and the brake system, adding the big brakes, springs, shocks, sway bar, and links.

I'm a function-dictates-form kind of guy, so my car looks pretty stock right now (from the outside, the only obvious cues are the wheels, and the unpainted black M7 hood scoop).

On closer inspection you might spot the big brake kit, the lower rear control arms, or maybe notice that you only see one muffler.

From the inside, the fact that the car isn't stock is more obvious. The PLX and G-Tech displays are permanently mounted to the dash cover, and always provoke questions. And there's a fire extinguisher mounted in the passenger foot well,

hinting at a more serious type of driving than just commuting to work.

My MINI is my daily driver, and I live in hills. If traffic and weather allows it, the car gets quite a little workout just driving day to day. I take it out to the track three to five days a year. I don't race, but instead do club events, mostly with the Nor-Cal Shelby Club.

While driving a MINI on the street is fun, it pales in comparison to driving on a track. Prepared surfaces, corner workers and sharing the track with other enthusiasts is an automotive rush that is quite addicting. And there's no other place to really see what the car can do.

Since I'm a tinkerer by nature, and an experimental scientist by training, I really wanted to find out if there was anything to all the claims of enhanced horsepower with this mod or that one. But there wasn't much good independent data out there about what mods worked or offered the best value so I got my G-Tech and my PLX.

The G-Tech is a neat little performance computer with internal accelerometers. You input the car's weight, and it gives you horsepower and torque vs speed, rpm or time (among many other functions). But one has to keep in mind that the power the G-Tech measures is different than what a dyno gives you. The G-Tech data is from a moving car, so there's aerodynamic drag to take into consideration. And you need to find a good, flat area to do your power runs.

If the G-Tech tells you whether a mod made things better or worse, the PLX lets you know what the engine is doing so you know what to change in the tune to get things even better. It can get data from six sources ten times a second.

I also use BiM-COM beta from Ross-Tech LLC. While BiM-COM can log many more variables, the diagnostic interface isn't as fast as the PLX. The combination of these three items really allows me to see what the motor is up to, and quantify the effects of the power adders that I bolt on.

This leads to one other thing I do with my car: I test add-ons. With the G-Tech I can quantify performance, and since I'm not paying for dyno time, I can get as many runs as needed to get good statistics. The PLX and BiM-COM data allows me to see how a part affects the car's operation, and I'll add other sensors if I need them.



The only clues to Matt's obsession are the black M7 air induction system under the hood, the PLX and G-Tech read-outs and fire extinguisher on the inside, and the M7 hood scoop. Complete mods list is on page 93.

So, what did I learn in my four years of MINI ownership? I've learned that while the MINI is good out of the box, it sure can be made better.

I also have learned that our cars are complex, and if you just change things without really understanding how you're affecting the whole system, I can guarantee that you will spend more dollars than you have to, and be occasionally disappointed as well.

And the most surprising thing I learned is that while the MINI isn't very big, it is large enough for a family of three to have very fun road trips.

So what's next for me and my MINI? More motor-tuning for sure. Whether it's a local run or a larger event, the whole family is into the MINI driving experience.

So what's next? I'm happy with the brakes, but the suspension isn't perfectly sorted yet, and I've got a few more mods to do to the motor and I'll basically be done with the car... I think.

Because I'm curious by nature, I'll keep up the parts testing. Last but not least, I'll spend time on the track, as much as I can afford. Overall, the MINI is the most automotive all-around fun I've ever had, and I plan on enjoying it for quite some time.

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