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MC2

THE MINI MAGAZINE



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All About Seafoam | HID, LED, DIY Lights | MOTD 2014
Mongol Rally | Alter-Ego Part IV | Keepin' Your Cool



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Our Digital Future Cometh...



A few years ago we invested several thousand into an app and hosting our first e-magazine on the iTunes platform. The app was fine its first generation, but things went badly with the second-generation app later

that year, we had problems with the developer, and we threw in the towel. Despite being an Englishman, I don't like the taste of vinegar on my fish & chips, or anywhere else thank you!

The last year we've worked with our Web team to develop our own digital system using stable software, and our own website structure. The end result is coming soon to everyone globally, as it works with a common platform based on PDF-style software so that it will be useable for iPad and Android owners. We wanted something simple that was also 100% controllable from our office. If something goes wrong, you will be able to complain to us directly, and we will fix that matter in minutes or hours (during business hours) as we will have all your purchase records- and all the e-issues at hand.

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The plan overview is to start with the new MC2 design issues starting with #38 through this #50. We'll offer single issues, and combined or bundled issues for a better deal to you. There will be debut prices, and everyday prices. Later this year we hope to have some early issues available.

In no way does this mean MC2 is going all digital. I'm an ink-on-paper type, as is the vast amount of our readership!

Our first e-zine will be on Project Alter-Ego itself. We'll take what we published in print, and add to it in greater content with more editorial as it costs less to produce e-zines than it does print. Also, we'll add some sponsor advertising and offers, as well as editorial from past issues that's R53 specific so it's a good offer. Look for it in a newsletter announcement for less than \$10.

Stacks & Stacks

We're rather pleased with ourselves for being one of the founding magazines in The Magazine Channel. Download the app on the iTunes app store, read all that stunning editorial content (no advertising as yet), and let me know what you think of our new baby ASAP please.

We can't detail the future of Stacks™, but what we can say is that it's way more than just e-zines, it's entertainment, it's in cooperation with the two major software platform companies, and the major chip designer company. Possibly, by January 2015, near 500,000 tablets will be released on to the market with Stacks content. Then it's time to change your reading and your viewing!

A Little Business Review...

We renew all subscribers via e-mail, not the US mail. We start with two reminders when you have two issues left to mail. If not renewed, then we e-mail 3-5 reminders asking you to renew online, or call our office. After that, you've expired, and you get a few requests for you to return to us. Please make sure we have you current, deliverable e-mail, otherwise your MINI will not be happy.

We have forms in our main Website (www.mc2magazine.com) under the contact button for change of e-mail, change of address and lost/replacement magazines as you may need. Fill out these forms, and they will be returned to us so that a few days later we manually input them into the database software, or mail your replacement. Please do not use Facebook messaging, or other systems for any business with us, as we cannot retrieve/store such.

The website has all our contacts in it, as does the masthead page of every MC2 issue, with my e-mail in this column. Thanks for your help.

The label of every issue has your expiration month/year of your subscription expiration above your name. We suggest you renew your MC2 the previous issue to the expiration date. "Snowbirds," renew pronto please. ■

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Rat's nest. Spaghetti. A real mess. This is what was waiting for me when I went to work on "Maximus", a MC2 reader's 2006 R52 with an aftermarket radio and a Harmon/Kardon audio system. The symptoms I received before I went to work on it were that the steering wheel controls didn't work, and they could not tune in any radio stations. I wasn't sure what I was in for, but I had somewhat of an idea. This MINI

had a powered antenna. There are 2 wires that come off of this antenna. One is the antenna wire itself; the other is for the amplifier that helps to draw in distant stations better.

When I first heard about this issue with the MINI, the owner wanted to take the aftermarket radio out, and put in a new one. Although the radio she had was nice, she thought that it was the radio at fault. After discussing it for a few days, she decided to put in the stock radio, and she and her husband would attempt it on their own.

A few days later, I received a message and an image. The image showed cut wires, multiple harnesses and the Rat's nest of wires that the previous owner had made. Also, at this time, I was not aware that she had a Harman/Kardon system in the MINI. But, I figured if anyone can fix this, it was me.



Doing a little research into the wire colors on the MINI, I put together a plan. Since some of the wires were already cut out of the harness, I would cut the rest of the wires and put in a stock harness. This is a great idea if you come across a MINI with cut wiring. By starting from scratch, you can verify that you have the correct wiring in the car, rather than trying to wire in a new radio's harness. Also, if you ever sell the MINI, it would be easier to take your nice aftermarket radio out. This has allowed me to switch radios from car to car for many years.

The process of figuring out your wiring is two fold. First, you should try and find a wiring diagram for your car. If you've been around the forums and Facebook groups, you're sure to have seen one. While this is great to have, never use this as your only source. Cars can be slightly different in wiring from year to year. Additionally, sometimes the previous owner (in this case they butchered the wiring) may have changed things around.

Just be sure you know what you're doing, or pay for a professional!

WIRE COLOR

- Constant 12 Volts | Red/Brown
- Ignition 12 Volts | Violet/Blue* (*not on most cars*)
- Ground | Brown
- Illumination | Gray/Red
- Antenna Trigger | White* (*not on all cars*)
- Amp Wire | White* (*not on all cars*)
- Left Front Speaker + | Yellow/Red
- Left Front Speaker - | Yellow/Brown
- Right Front Speaker + | Brown/Black
- Right Front Speaker - | Blue/Black
- Left Rear Speaker + | Yellow/Black
- Left Rear Speaker - | Yellow/Gray
- Right Rear Speaker + | Blue/Violet
- Right Rear Speaker - | Blue/Gray

These are just a guide. As I mentioned above, wires can be slightly different from year to year so I highly recommend testing each wire before hooking everything up. You could burn out a radio, or as we like to say, release the magic smoke.

So it's time to break out the multi-meter and an installer's best friend, a 9-volt battery. Yep, the battery can help you find speakers. It won't help you find the polarity of the speakers, but if you know which one is which, that can go a long way towards helping you finish your install.

To start with, the most important things to find are the ground, and the power wires. Once you find those, you can start narrowing down the other wires. The ground is usually my first choice of a wire to find. So, setting our multi-meter to test for continuity, you can easily find it. Holding one of the leads to metal, you can probe the other wires. The one that causes continuity is most likely the ground. You should double check by turning on the ignition and making sure you don't have a power wire.



Next we need to find the power. Since we have the ground we can use that as our ground on our multi-meter. Set your meter to find DC current and start checking wires for power. You'll want to have your ignition on to find the power wires. If you find no wires with any power, chances are you have a blown fuse and that's an easy fix. The fuse is under the dash in your fuse panel. Shouldn't be that hard to find and replace. But please make sure to use the same size fuse! We don't want any fires starting in anyone's MINI!

The other wires you need to watch out for are the illumination wire, and any of the Harman/Kardon wiring. The illumination wire is another easy one to find. It should only have power when you turn on the headlights. So using your multi-meter you should be able to find that also. As for the Harman/Kardon wires, I didn't have a vehicle in front of me to go through them for you all. The amplifier in these cars changes the wiring around substantially. My recommendation is that if you find a car with this type of system, take it to a professional. It'll save you the hassle of working with a much more difficult system.

I'm sure you're still wondering, what's the 9 volt battery for Dave? Well, if you were sure you had speaker wires, in other words you went through all the other wires and identified them, you can figure out which speaker is which by touching the wires to the battery ends. So, you would take 2 wires, and put



one on the negative, then tap the other onto the positive. If the wires are hooked up to a speaker, you'll hear a little "thump" out of that speaker. There you go, simple enough to find which speaker is which.

So, now the next time you get into a 2003-2006 MINI that's had the radio ripped out of it, either because the last owner wanted their own radio back, or maybe, heaven forbid, someone stole your radio, you know you can get everything back to normal. More or less.

Oh, what happened to Maximus the MINI? I was able to fix the nice stereo that was in there. Turns out the owner before them didn't hook up the antenna correctly. It was a nice fix that the owner loved. Next step in that MINI is to hook up the steering wheel controls. But that's a whole other article.

So, until next issue, remember to wave everyone! ■

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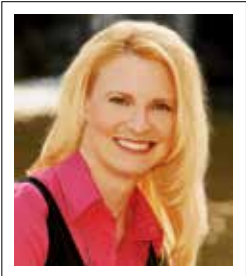
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What is Your Trade REALLY Worth? (Probably not as much as you think)



I have so many clients who come to me and say, "I looked up my car on Kelley Blue Book™, and it's worth \$XXX!" Unfortunately, it's probably not. Let's face it—we all love our cars (ok, some of us more than others) and think they are worth more than they actually are. Guides like Kelley Blue Book™ often serve to

confuse us further. That is why I wanted to take this month to explain what truly determines a vehicle's value. Not to make you mad, but simply informed. To do this, we first need to learn who this "Kelley" guy is, and where his "Blue Book" came from.

Kelley Blue founded in 1918 by Les Kelley. The dealership had three used Model T Fords and one employee, his 13 year old brother Buster. In order to build up inventory, he began circulating lists of cars he wanted to buy along with the price he was willing to pay for them. These price lists quickly became a trusted "standard" (since nothing else existed) among Los Angeles-area banks and car dealers. In 1926, Les published his first Kelley Blue Book™, a guide to used car values. Over the years, Kelley Blue Book™ expanded nationwide and began to be used by insurance companies and lending institutions to estimate the value of a vehicle.

The problem with Kelley Blue Book (KBB) is that its estimates are based on vehicle values in California, which (like everything else) are higher than most other areas of the country. This was actually a benefit if you were applying for a car loan or anticipating a payout from your insurance company! Unfortunately, the insurance companies caught on to this, and now most of them keep their own "books" with estimated values that are more favorable to their pockets.

Large auto dealer groups (such as nationally-branded-groups) use the inflated KBB values to their favor, making



you think that you are getting a good deal on a car when you are really not. Some banks still determine auto loans based on KBB value, but many have moved to using the NADA (National Automobile Dealers Association) guides, which is based on both dealer and auction sales data. Dealers have their own book, called the Black Book, that estimates the wholesale value of vehicles based on weekly auction data. Edmunds.com has an online vehicle appraisal tool, but I have found their estimates to be high on most cars and low on others.

So, then, what does determine a vehicle's value? The same thing that determines the value of houses, stocks and cotton t-shirts—the market. That market varies almost daily, depending on your geographic location, the time of year, and who is buying cars that day. Everyone knows that convertibles sell better in the spring and summer, while SUVs sell better in the fall and winter. Except in Florida. You may ask, "If the market for my car changes every day, then how do I know what my car is worth?"

If you want to get a rough idea of what your trade is worth, call any car dealer (or us at Women's Automotive Solutions) and ask what the Black Book value of your car is, based on the make, model, year, mileage and condition. You should also look on Cars.com and Autotrader.com to see what retail prices local dealers are asking for similar cars. A dealer will usually sell a car for a few hundred to a couple of thousand dollars less than the listed price. The dealer will typically offer you anywhere from \$2,000 to \$6,000 less than the retail price for your trade, depending on the type and condition of your vehicle, in order for him to make a fair profit on the resale.

The key things that affect your vehicle's market value are year, mileage, reliability (of the make/model), popularity and condition. Cars with high reliability ratings, like Honda, hold their values better over time. So do certain highline cars like BMW and Lexus because of their desirability. A vehicle's condition is determined by how well it has been maintained mechanically, the condition of the upholstery and paint, and whether or not it has been in any accidents. A scratch or scrape in the paint may lower the car's value by a few hundred dollars. If you smoked in your car, you will typically lose over \$1,000 in value!

Finally, if you show up at the dealership with a car that hasn't been washed or vacuumed in months, don't expect them to offer you top dollar. They will have to spend several hundred dollars to get the car cleaned up and ready to re-sell as they have either internal costs of prepping that car, or have to pay external companies for cleaning, detailing, and maybe mechanical costs to bring it to market. Remember, dealers are people too—and everyone likes a clean, shiny car, so put your best foot forward when your MINI is presented for trade-in. As in life, and on a job interview for a new employer, you only get one chance to make that first great impression!

Next issue I'll get into The Car Chick's 10 Commandments of Buying. ■



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Gravity is the next evolution in LED lighting. Powered by KC's patented Gravity Reflective Diode (GRD) technology, Gravity LEDs combine the advantages of LED lighting with the proven performance of precision reflector optics. This maximizes their effectiveness and amplifies the amount of light that is projected. The result is an extremely bright and highly efficient light that provides significantly greater distance vision as compared to conventional LEDs.

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2,104 Lumens; 111,690 Candela
- Comes with protective stone guard

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Your Words, Your Wheels



Corners On 2 Wheels

I love my new Mini Cooper S Hardtop. It's powerful, sophisticated and quite refined. My wife and I carpool to work each day—a 100 mile round trip and needed something we could rely on. We've named her Victoria and her tag says "M1GHTY." I haven't done any mods to her yet, but I've been eyeing the Black Jack mirror caps.

I'm a gearhead of the first order. My passion is two-wheeled vehicles. I own Rimfire Cycle Screws (www.rimfire-eng.com) and started it to fill a niche, that as a restorer of Japanese motorcycles, I could see needed to be filled. The distinctive nature of the Japanese-style Phillips head screws made using anything else, a violation of a true restoration.

—Paul Franchina, Guntersville, AL



Love Over Many Years

Our first Mini was a 1965 Cooper S. Not many frills but so much fun! Next was a Sidewalk Edition convertible; more fun. Currently, we're driving a 2013 JCW Coupe. What's NOT to love! Enjoy attending MINI rallies/functions around the country, and love the MINI community. Always look forward to our next edition of MC2!

—Phil & Joan Richio, Kenosha, WI

Goodwood Facts

Reader Ian Fraser in Australia is on a number-crunching mission. He's looking for Goodwood registrations. So far he knows these sales facts:

- USA | 142
- Australia | 10
- Canada | 21
- Hong Kong | 3
- S. Africa | 10

Anyone able to help, please contact MC2, staff@mc2magazine.com



Lego His MINI

Richard, I just finished reading your article on Mini collectable in issue #49. Coincidentally, I also just finished building a Lego Mini Cooper kit. Well, actually, two kits, a tiny version (kit #40109), and a big version (kit #10242). I hope these make it into your collection. —Ken Wester



Take Two

The last time we saw this MINI was in Hollywood, Florida, with its creator, but now it's home in Alabama. As new owner Leslie Wagner knew it had appeared in MC2 back in issue #31, she contacted us for a few copies. Lucky her, we had the two she wanted on shelf. A rare Sidewalk edition, it's been customized with a Zeemax bodykit, HRE wheels, Hamann grill, Brembo brakes, as well as a RMW header, camshaft, pulley and tune, and Milltek exhaust. Lest we forget, the Focal speakers and Steg amps now take up the rear storage.



Modding A Justa in Hong Kong

While on the LXM pages this July, Thomas Cheung of Hong Kong found us. With mod's being frowned on in this little city, his R50 Justa Cooper is rather unique. Purchased 2 years ago, many of his friends don't understand why he didn't buy an S. But he has persevered to create something very



special with a DDM intake, Screamin' Demon ignition, Quicksilver exhaust, Sprint Booster throttle control, and Poseidon ECU tune. The suspension is BR-type BC coil-overs, Ultra Racing's strut brace, Eibach rear anti-sway bar, with 17-inch OZ Ultraleggera wheels and JCW brakes. The body kit is from Prior Design (Germany) with a few mod's of his own DIY at the front spoiler. He then added a M7 carbon fiber wing, mirror caps, and front vent scoops. He's almost finished with Sparco seats, and aftermarket LED headlights. He says this "little project" is still in progress, so he'll get back to us soon as, "It is easily getting for speeding or unauthorized modification in this little city." ■

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MINI News

British MINI Drivers Wasting Money?

In a recent news release, it seems MINI UK knows that 26% of its owners don't use their TLC Service Packs they paid approx. \$464 (275 Pound). This service covers all servicing costs for 5/50,000, with over 97% of buyers paying such during car purchase. Why is this we wonder... Service availability when wanted? Quality of service? Time it takes? It seems one reason may be, the entire UK geographic has about 130 MINI stores (the USA 120), and many Brits have to drive too far for service and wait for such. That, with the cost of fuel near \$8 p/gallon, is an interesting social difference. Wonder what the US MINI owner has to

say about distance/time traveled, and our land mass to dealer ratio?

Every Move You Make...

It is surely fascinating that the US and EU markets are taking two different approaches to get the "black box" into our cars. With the US insurance companies offering the device to save you money, and the EU talking about a mandated device for the safety of all drivers, the UK's Motorpoint recently released their survey of 2,000 motorists on their website about their like or dislike of this all-seeing tracking device. Over 71% of respondents said "no thanks" to these so-called "spy boxes" in their cars that could become mandated law in a few years. MC2 will be watching this very closely and will report to our readers this next issue. This should be a very nasty fight in the Land of The Free!

Resurfacing The Fabled Salt Flats

Mid-June—just in time for MTTTS visitors- the Save The Salt Coalition put down 2,000 tons of dry salt at the end of the access road (leading to the race pits) to the Bonneville Salt Flats, grading it to a hard surface. A modest project, it's another step in the direction to save a precious natural resource that is part of our heritage westward (the ill-fated Donner party), and a national and global landmark.



Organized by the Coalition, SEMA, aftermarket companies and concerned organizations in the racing community, it was undertaken with the Southern California Timing Assoc (SCTA), and the Bureau of Land Management (BLM), and the help of Shelton Construction, who has decades of experience in and around Bonneville.

Although 2 million tons of salt brine has been pumped on to the flats between 2011 and today, the dry salt campaign will eventually target the several-mile long international track surface that allows for the extreme speeds Bonneville is known for.

For those that want a t-shirt or other nifty stuff, you can contribute at www.savethesalt.org and wear it loud and proud at every Mini/MINI event. Contact us at staff@mc2magazine.com when you do and we'll send you a FREE MC2 Cousin Ernie shirt to say thanks!



THE VIDI

by P3CARS

vent integrated digital interface

THE PERFECT GAUGE

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our word for it.

"...The (P3Cars Vent Integrated Digital interface) digital multifunction gauge is a dream come true!"

—Paul Rivera (Quattro Quarterly Magazine)

"The P3Cars gauge is ready to go straight out of the box... it's been helpful to read boost and EGT, with the adjustable shift light being another handy option. It's certainly a useful tool for modified car owners."

—Greg Emmerson (European Car Magazine)

"They've designed a simple plug-in harness, and a really clean display that reads all sorts of info, and it's in view of the driver and passenger while not cluttering the steering wheel or center console. Better yet, it's affordable in comparison to all those ancient analog gauges as just the desired boost, oil and water temperature and battery gauges would set you back over twice what the retail of P3 Car's VIDI gauge does at it's MSRP!"

—Barry Brazier (MC2 Mini Magazine)

With this one gauge I can now read turbo boost pressure, engine coolant temp, intake air temp, exhaust gas temp, battery voltage, rpm, vehicle speed ... Hell, the new gauge even gives me the ability to read and reset engine trouble codes! I was sold the minute I saw it, and all the willpower in the world couldn't prevent me from plunking down my hard-earned cash for this marvelous instrument."

—MJ Calabrese (Roundel Magazine)

At P3Cars we've been producing the highest quality instruments for some of the world's finest cars since 2009. Our fundamental goal is to retain the gorgeous design of the OEM interior, and also accentuate it by providing an extended cache of metrics to the discerning driver. A new kind of interface was created, and new ways of thinking brought about a revolutionary new product.

Our gauge is a simple "plug and play" device with a revolutionary interface all designed and built here in the USA. Simply plug one of our VIDI units into your car's diagnostic port and you are ready to go. It is that simple. Boost, all available temps like coolant and EGT, a 0-60 timer, shift light, timing, and even battery voltage are all right at your finger tips. We even included a code read and reset function for engine fault codes. What's more is our VIDI is expandable, having 3 additional 0-5v linear inputs for those of you who take your cars even more seriously. Monitor anything from AFR to pressure or even flow rate. Your car wants to talk to you. Are you ready to listen?



The Mongol Rally

■ by Tim Ravet and Leanne Maher

Way back in the early days of my motor writing career I met Garry Sowerby, a most fascinating guy from New Brunswick, Canada. He and friend Ken Langley had circumnavigated the globe in a Volvo wagon. He topped that 74-day globe-trotting with adventures in a GMC truck from both the farthest point in Africa to the top of Norway, and from Tierra del Fuego, Argentina to Prudhoe Bay, Alaska, both of which were driven in about 24 days.

Ever since the hours spent interviewing him for stories sold in several languages, I have had this yearning to undertake similar grand adventures. (The wife's favorite word is "No!") So in early April when Don Bram of the LXM Facebook site sent me the link to this Aussie newspaper story about a couple of crazy Aussies undertaking the Mongol Rally in a MINI my yearning once again crept out from that lonely bucket list in a shoebox, finding a home in these pages as a great armchair adventure for us all to share.

The loonies are Leanne Mahar, mother of five, and owner of a promotional merchandise and workwear company, and Tim Ravet, father of two, and in management for one of the world's largest mining companies. They met on a motorcycle adventure in Vietnam. They lost their sanity when Leanne asked him if he would like to come along on the Mongol Rally.

The Mongol Rally is 100% irreverent. It's Monty Python on wheels—with a charity angle. Just about any wheels you can guarantee will be driven to and from Mongolia, as nothing's left behind. You should read from their website for yourself at www.theadventurists.com as you'll spend more than 10 minutes. To quote from their home page... "There's no backup, no support, and no set route; just you, your fellow adventurists and a tiny car you bought from a scrap yard (for less than US\$20).

Yes, I'm jealous! Now over to Tim, allowing him to write as he wishes on these pages...—Barry

"If Nothing Goes Wrong, Everything Has Gone Wrong"

—Quote from the Adventurists home page



You know the moment when you can feel that you are excited but forget why?

Maybe it's a nice dinner reservation, a purchase of a new gizmo, a job offer, a party or a holiday. On this adventure it can be the strangest things. Being excited about being able to get petrol from a petrol pump rather than black market road-side converted water bottle refueling, a hotel that doesn't look like it should be from a horror movie, or coffee made from beans, or a road that doesn't look like a teenager's face.

The adventure for us began a year ago. However, the lead up to the rally was an incredibly challenging time trying to second guess issues we may have, along with seeking sponsors and rally partners, arranging international freight, and generally trying to orchestrate car preparation from the other side of the world as Leanne and I are in opposite sides of the country. The results speak for themselves: a 2-inch lift kit, push bar and roof rack from CooperCRAP (www.crapindustries.com), integrated LED lights on CRAP's roofrack from KC HiLites (www.kchilites.com), Maxtrax satellite tracking and satellite phone from Fast Wave as well as our media partners at Turning Heads Media and MC2 Magazine, and of course Prodigy Merchandising, Leanne's company.



The Mini Surgery in Stubbington (Hampshire, England) prepared and installed all the goodies from CooperCRAP onto our MINI we've named Florence (the Machine), ready for our epic 15,000km voyage.

The Launch Party = teams + shitty cars + story swapping + booze...CooperCRAP, our prime sponsor, sent us heaps of their CRAP logo which was the perfect opening conversation—I must have little piles



of CRAP logos on nearly every car that left from London!

The rally officially begins at 7am, July 20th with a procession and a drive through central London seeing all the major sites as we head off (with hazy heads from the Launch Party the night before) to Dover to get the ferry to mainland Europe. The directional ability of Leanne was clearly demonstrated leaving Battersea Park—which way? Left. Why left (hoping she had been studying a map or something). I don't know, just turn left. This will be interesting, but for the record Leanne was correct.

Within days we are relying on my phone provider's SMS updates to know what country we are in and the brilliance of iPhones to tell us the time (too many time zones to keep track of!). Every time we see another small car with roof racks covered in stickers we excitedly pull over and catch up on events—find out their route, see if there's any talent onboard and more often than not, trials and tribulations. For example, day 2 we found out about the first decent accident which was a Morris Minor that got rear ended by a drunk driver on a motorway—



normally the news was more upbeat or predicting the next long border crossing or differing theories on squat toilets.

Florence, despite having the aerodynamics of a VW Kombi van with our roof racks stacked with four spare wheels, can still cruise at 90 mph (all conditions being perfect), air con that partially works, and an iPod connection!! All luxuries on this trip! However, the performance is killed by any altitude or less than perfect fuel—poor Florence chokes climbing up hills.



The next official (after the launch) rally event is the Czech Party—the first mainland party which is held in the grounds of a castle. All the teams camp (embarrassingly the first time we all opened our tents) but more importantly, the first time we got to test Florence on country roads! Things you learn about a new car. So, I'm guessing most of you know that there is a shelf below the steering wheel—ours was loaded up with coins and this became the corner-rating system—if they made a noise usually Leanne was wide-eyed and stopped speaking mid sentence. Needless to say, despite looking like a mean, top-heavy rally car with too much equipment, Florence still handled just as a MINI Cooper should! To be fair, Florence was a perfect specimen of a MINI Cooper through UK, France, Belgium, Germany, Czech Republic, Austria, Hungary, Serbia and Bulgaria, lapping up motorways and smaller side roads (which we spent most of our time on until I found out how to accept toll roads on TomTom). This brings us to Turkey.



By this point, we were racing to get to Iran prior to the borders closing for Ramadan having not found out that the Ramadan holiday is celebrated in Turkey prior to being celebrated in Iran. Picture the worst traffic jam you have been stuck in, make it close to 40 degrees C (104 F.), add a population in excess of 14 million, make it the beginning of a long weekend, and in a city that doesn't appear to end. Add some drivers that would rather swap paint than let in even a scooter, lane markers that are only for decoration, trucks that think they are a hemorrhoid, and vehicles overheating everywhere! Times this nightmare by a factor of five and you are in the ball park of road trip hell! Chaos at a new high! After 5 hours and 7 kms, we decided to pull over for dinner hoping that the traffic would ease. Nope! We drove in stop/start traffic until 2am when we had to give up and sleep in the car for 3 hours and continue at a more impractical and hopefully more free flowing time!



legality differ! Egged on by a convoy mate, we bravely gave the shoulder of the motorway a trial in the next traffic jam—nothing quite says pull over like a military officer holding an AK-47! F*\$K! Turns out the traffic jam was caused by a car accident and the police and military were attending. This is where our lessons were learnt very quickly by embracing our friendly Australian way—big happy smiles and waves every time we see the



In the most part, this worked...until I embraced the local culture of driving anywhere you could find space. Lane splitting, crossing solid lines and driving on the hard shoulder all appear to be common practice. It seems common practice and

police or military. The waves were an attempt to refute demands of 'pull-over' waves. However, there is no mistaking an officer with an AK-47 standing in front of your car holding his palm directly at you to stop! A language we didn't



recognise was fired off like angry rounds out of a machine gun. We mustered up our best confused look, requested English, pointed out we are Australians (not Americans) which usually required two different ways of pronouncing Australia, Ouztralia then doing an impression of a kangaroo followed by a smile and pointing to our flag on the car. Thankfully the rapid-fire language way replaced by a bit of annoyance, looked around presumably for a colleague that spoke English, then a smile and a wave off—first gear—GO! Laughs, video then cleaned out our pants!



Keep turned for the next installment from Team Unlikely. How much abuse can the MINI take? We make lots of night-time friends as we're the only buggers with lighting thanks to our KC HiLites that keep us from nailing wildlife in the outback. Does the equipment hold up? (Stay tuned for part II in the next issue, Editor) ■



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Tech Notes

Seafoam: It Works!

■ By Jeff Zurschmeide

In the car hobby, you hear a lot about fuel and oil additives and the benefits they can have on your car. You also hear a lot of talk about this or that product being a useless rip-off. But without doing a bunch of homework, it's hard to know what these products really are and whether they will improve engine performance and longevity. So we did the homework for you, and we spent some time with Jim Davis, Technical Director for SeaFoam, to learn more about what goes on inside your car's fuel system.

About Gas and Oil

First, it's useful to know what gasoline and motor oils are made of. We all know gasoline is made from refining crude oil. What you get from distilling the crude oil is a basic low-octane hydrocarbon fluid, and then more rarefied and processed hydrocarbons are added to raise the quality of the mixture. Other products such as detergents and ethanol (which is just plain alcohol) are also added for both performance and legal reasons.

"If you're using an ethanol-blended fuel, it has problems. First of all, it has the ability to absorb moisture. Secondly, ethanol has no lubricating properties. And third, ethanol is corrosive and it can create all kinds of problems—especially in older vehicles, but also in modern vehicles. If you use ethanol fuels in a car built before 2007, you're going to have corrosion problems. 2007 is when the manufacturers really started upgrading fuel systems and using materials that are resistant to the ethanol corrosion," Davis says.

While the "lighter" parts of crude oil are distilled off and mixed with ethanol to make gasoline, heavier parts of the base crude oil are refined to produce motor oil. The primary feature of motor oil is its ability to lubricate the moving parts of your engine and suspend any impurities that are encountered. Motor oils also include detergents to keep engine internals clean, and may include anti-friction agents such as zinc dialkyldithiophosphate (ZDDP), molybdenum disulfide, or polytetrafluoroethylene, commonly referred to as Teflon™ from DuPont.

As your car's engine and fuel systems operate, they use up oil and gasoline, and some residue from those products is inevitably left behind—and it's not the good parts of those products.

"Carburetors are vented to the atmosphere, so they're the most susceptible to evaporation. If a car sits for a period of time, and the fuel

TIP: ZDDP has been largely removed from modern oils because it destroys catalytic converters, but owners of classic Minis may want to seek out oils featuring this additive because of its protective properties. BMC engines were designed to expect ZDDP in their oil through the 1970s.

evaporates out of the carburetor, it will leave varnish behind. All modern cars are fuel injected and sealed, but every time a fuel injector fires, there's a little bit of fuel residue left on the tip. Guess what carbon sticks to? That carbon starts working into the nozzle of the fuel injector," Davis says.

Additionally, as your car's engine heats up and cools down, it bakes some fuel and oil residue onto the metal. The volatile elements in the fuel evaporate, and carbon and other impurities settle into the system. The net result is, your engine gets dirty. That's why your motor oil turns dark and smells like varnish over time and mileage.

Fuel and Oil Additives

So, both gasoline and motor oil are refined hydrocarbons with additives already included at the refinery. Why do you need to buy fuel or oil additive on top of that?

The answer is that both fuel and oil reflect standards imposed by the government or specified by fuel and automobile manufacturers working together. Those standards are not necessarily as good as they could be. For example, the government specifies minimum standards for gasoline, and some brands choose to exceed those standards. That's why some fuels work well in your car and others do not. Some fuels are rated as Top Tier or Tier One, many are not.

To pick one well-known brand, Chevron adds Techron™ to its gasoline, as well as selling it as an additive. Techron is a trade name for polyetheramine (PEA), which breaks down carbon deposits so that they travel through the engine and don't build up. Chevron is a Top Tier gas.

Other additives can be as simple as a bottle of common isopropyl alcohol or kerosene. Most of these are sold at absurdly high prices for what they are. While these products "work" in that alcohol will mix with any water in your tank and kerosene or other mineral oils soak into carbon deposits and loosen them, their effectiveness is highly variable.

What About SeaFoam?

Among all the engine fuel and oil additives on the market, few are more highly respected than SeaFoam products. SeaFoam Motor Treatment was originally developed by an employee in the 1930s at Sinclair Refining Company as a treatment to keep his boat's outboard motor in good shape, especially over long winters. For owners of classic Minis

TIP: You can always discover what's really in any product by searching for the Materials Safety Data Sheet (MSDS) on the product. It's an EPA-required public document that lists every ingredient. If the only ingredient is alcohol or kerosene, you can save some money by buying generic.

or new MINI convertibles that spend long months in the garage each year, the product can be a godsend when it's time to fire up the fun car in the spring.

"If the car sits and the tank isn't full, you're going to get condensation on the inside of the tank with temperature changes. That's going to end up being moisture in the fuel. If you use Sea Foam, you're going to stabilize the fuel and get rid of that moisture," Davis says.

SeaFoam's basic motor treatment is made up of a lightweight oil called Pale Oil, a light hydrocarbon fluid called Naphtha, and a little bit of Isopropanol. This substance is generally known as IPA, but is not to be confused with the India Pale Ale served at your local microbrewery—unless it's a really bad brewery.

"There's about 6% Isopropanol by volume in SeaFoam, and that's distilled from petroleum. A lot of people think IPA is going to attract moisture like ethanol does, but IPA does not. The IPA we use in SeaFoam actually solubilizes moisture and disperses it throughout the fuel," Davis says.

What happens when you put SeaFoam in your fuel is pretty simple—the Naphtha attacks residue from old fuel and the varnish buildup that happens naturally as your car's engine works. The oil helps lubricate the moving parts of your fuel pump and your engine valves. The Isopropanol emulsifies with any water in the system and helps it move through the engine without affecting



We didn't have a couple years to do a scientific test, but we found some old fuel that had been left in a vented fuel tank for over a year. That's the brown gunk on the left. On the right, we found some other fuel, also about a year old, that has been treated with SeaFoam. Which one would you rather use?

performance. Finally, the oil and Naphtha work together to break down carbon and blow it out of the engine.

"One more thing that SeaFoam does is a combination of everything. Because Sea Foam has the ability to dissolve gum and varnish in fuel or oil, it will stabilize fuel. It dissolves any existing varnish and prevents varnish formation in the fuel," Davis says.



Seafoam is best used used in the fast tank and the intake...



Don't use Seafoam in the air intake, it will seep through the plastic tube, not making it to the engine.

SeaFoam has also developed a line of products that include a transmission treatment, a top engine spray that is great for protecting engine parts that will be stored dry, a penetrating lubricant spray (Deep Creep™), and a surface cleanser (Bugs B Gone™) that is designed specifically to clean off dried bugs and their remains as well as tree sap and greasy road grime.

You can read a lot of opinion out there in the great wide Internet about all kinds of products. The bottom line is this—people who spend a lot of time with engines have been using SeaFoam for seven decades, and the company would not have lasted this long if it didn't work.

Publisher's note: With nearly 10 years of producing MC2, we've read so much about SeaFoam we started using it in our 2008 Project Clubman by about 10,000 miles. With 35,000 miles on the meter, we've recently driven Seattle-Sacramento at 36mpg, and get 40+ on roads in our Olympic Peninsula home. We have not had to pay for the expensive intake tract cleaning with crushed walnuts either. Like what was once said, "Try it, you'll like it!" (Only it doesn't cure heartburn)



A year ago we found Drew Boyt's Clubman wagon, which we featured in issue #49 early this year. Drew had fitted the first development turbo for MINI from FrankenTurbo, a name known for several years in Audi/VW upgrades. The system had been working well, with plenty of power (after changing the parameters of the ECU a little), and no complaints. So when we received a call from Scott McIntyre of Motoring Magic (one of our favorite repair shops) that he had fitted the FrankenTurbo system to his shop MINI, and was working with NM Engineering on the software requirements, we paid attention.

The FrankenTurbo is a hybrid, meaning it's a turbo housing that outwardly looks like the original B-W K03 part, but the internals and materials are all specified for greater durability and per-



formance. The major change is the high Silicon Molybdenum cast iron body is rated for 1,000 C. (1,832 F.), which allows for greater thermal stability during the heat cycling. (Given our recent install of the P3 Cars VIDI gauge, we know that our '08 MINI's exhaust

FRANKEN TURBO'S HYBRID CREATION

Stitching Together Scary Power Under Your Hood!

■ By Victor Roberts | Photos, graphs courtesy Motoring Magic, NM-Engineering, FrankenTurbo

Like comedian Tim Allen, many MINI owners are looking for "more power!" The problem, however, is what part to upgrade first, how much to spend for that bang for the buck, and for some, it's the stealth factor—does it show, or will no one notice?

So, you look at air intake and exhaust. Better sound, 5-10hp gains for each, better drivability, and the MPG increase or decrease is up to your right foot! Let's say you have invested \$1,500 to get that improvement, including installation. Some would say not much bang for the buck.

Now look at the potential that many turbo MINI owners have turbo bearing failure, requiring replacement at 60-80,000 miles. This is where the decision is made for you: Do you simply replace it with a rebuilt Borg-Warner K03 turbo, or do you replace and upgrade with aftermarket equipment? After all, the warranty's over at 50,000 miles, and the math is simple. Replace with a factory turbo for \$1,000-\$1,500 (depending upon if the rebuilt is purchased at private or dealership), and then add the shop or dealer fee of \$500-\$1,000.

If you went the dealer route, then you get back what you had at the start for \$2,000. Then consider the hybrid choice that's a little more but increases the bang for the buck ratio several fold.



gas temperature (EGT) is usually 950-1,150 F., except when climbing hills, where we've spiked at 1,400 F.)

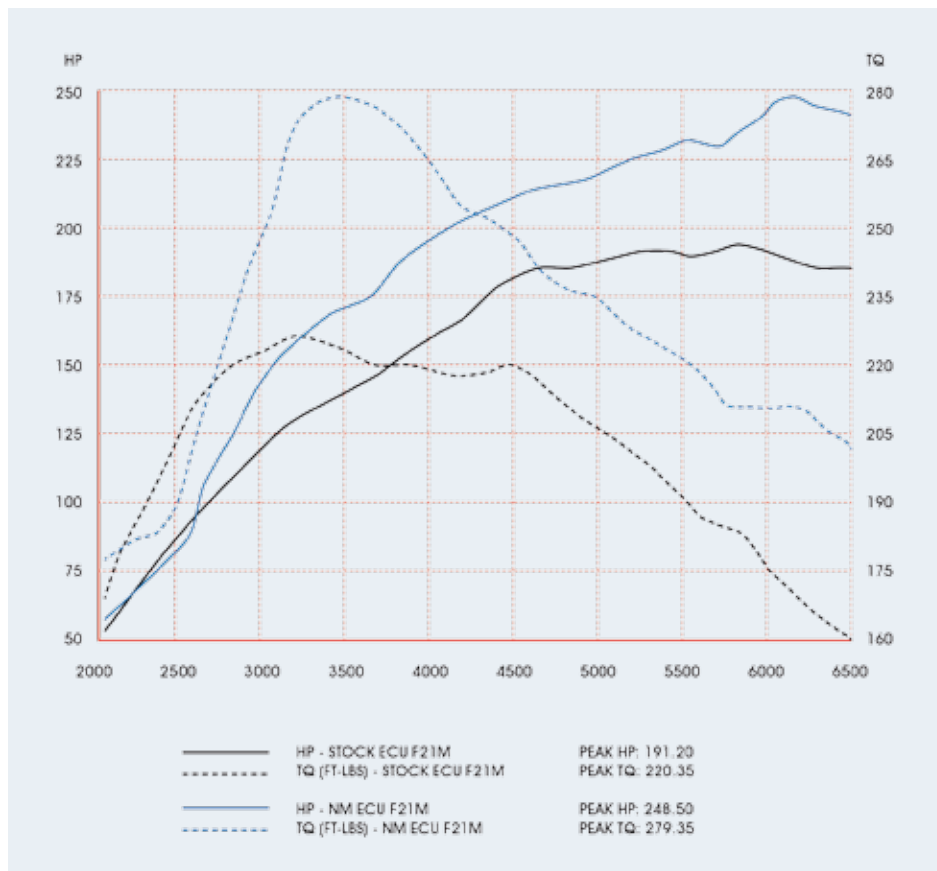
Additionally, the new turbo system incorporates a cast, ChroMoly steel shaft, Inconel 713C turbine rotor (often used in jet engine turbine blades), alloy thrust bearing, and Pierburg

diverter valve. The new valve uses a piston-style diaphragm replacing the often-failing factory rubber diaphragm. It doesn't leak like the factory piece either.

The FrankenTurbo system retails at \$1,199, plus the labor (and mandatory Detroit Tuned oil line repair kit), so you're in under \$2,000, says Scott. Contact is www.motoringmagic.com or call: 805.496.2300.

The proof of the pudding is from NM Engineering's in-house dyno system using their Stage 2 ECU software. A look at the accompanying chart shows the peak 191 stock HP, and the final 248hp, as well as the acceleration from 220 to near 280 ft-lbs of torque. Contact is www.nm-eng.com or 800.423.3623.

The caveat here is that Scott's shop MINI is also equipped with both of NM's silicone turbo pipes, Wagner intercooler, and NM's CARB-exempt air intake, so this extra power has an approx. cost closing on \$2,000 attached to it above the Franken Turbo system and labor. Essentially, this much power will cost near \$4,000 total. Considering we start near 170hp stock (S), this investment meets the criteria of bang for the buck, and it's very stealthy. The FrankenTurbo system looks almost identical to the factory turbo system, so not even your friends will know. And the Wagner intercooler is blackened out, so it hardly shows.



Further proof of how well this system works in the real world is Scott took his Frankenized MINI on the MTTs just last month, adding 6,000-plus miles to the odometer. He reports no incidents, no problems. "It's a handful, plenty of power," says Scott. "I throw customers the keys for their own test drive, and they come back with a large grin on their face every time, asking where can they sign up!" ■



AN EASY DIY PROJECT...

REPLACING R53 FOG, HEADLIGHT BULBS

Presented by Pelican Parts | www.pelicanparts.com

Time | Cost:
30-60 minutes
Fog: \$30+,
Headlamp: \$35-
\$200

Tools: Needle-nose pliers, philips screwdriver, jack & stand

Applicable Years: R53

Tip: Don't touch the glass parts of the bulbs

More Info: www.101projects.com/MINI/56.htm

Performance Gain: Better visibility



In our last issue we wrote about the R53-gen taillights and turn signals, a DIY project that we believe is within the grasp of most MINI owners. It requires very basic hand tools we should all have in our garage, such as needle-nose pliers, small screwdrivers, and a 10mm wrench. A multi-adjustable wrench would work, too.

The headlights require a few more tools as the inner liners should be removed. As Scott from Motoring Magic (one of our technical service advisors north of Los Angeles) said, "You can fight with that liner, or remove four lug nuts and the wheel and do the job 3X faster!" You'll need a jack and stands (some put the wheel assembly under their car), and then the screwdriver for the eight screws.

While you're there, this is a good time to look at your brake pads for life



FIGURE 3

Once the liner is removed, you'll see the rear of the fog lamps. Simply twist the bulb holder to remove the bulb. Replace it with a H11 55 watt bulb.

left, check the suspension, and—as you're an R53—look at that drive belt as they can come off and the car is undriveable at that point! A little lube on the lug bolts wouldn't



FIGURE 1

Remove the wheels so you can access the wheelhouse liners. Remove the two Philips head screws as shown here (green arrows).



FIGURE 2

The factory owner's manual on our car says to contact your local MINI dealer if the side marker or fog lamp bulbs burn out. All that is required to replace them is to remove the wheel liners. Shown here are all of the rivets holding the liner to the car (green arrows).



FIGURE 4

On cars with Xenon headlamps, pull the two rubber covers off the back of the headlamp assembly. Underneath, you will find the Xenon low beam bulb (green arrow) and the halogen high beam bulb (purple arrow).

hurt, and checking that brake fluid is so easy at this point.

For the headlights, open the hood and locate the covers that fit over the headlight housing. If your car has Xenon headlights, you simply turn the connector counter-clockwise to release it from the bulb. Once removed, release the metal clips holding the bulb inside the



FIGURE 5

To remove the Xenon bulb, first turn the connector counterclockwise. Then press the two ends of the metal retaining clip together as shown here (green arrows). Maneuver the clip off the bulb and remove it. It's important to remember not to touch the bulb when installing the new one. The oils in your finger can damage the bulb while you install it. Only grab it from the back of the bulb. On cars from July of 2004 on, the retainer is a little different. On these cars, the metal clip is replaced with a retaining ring that locks the bulb in place.



FIGURE 6

For the other headlight bulb, and also the low beam on cars with standard headlights, you simply pull the bulb down and out of the housing as shown here.

housing. There is a slight difference in the mounting of the bulb in cars from 07/2004 on. Once you remove the Xenon connector, the bulb is held in place with a retaining ring rather than metal clips (See figure 6).

Remember, touching bulbs with your bare fingers leaves sweaty oil on them. Do not touch the glass part of any bulb, as this may lead to you doing this same job again very soon! For all other headlight bulbs, you just have to pivot the bulb out of the housing as shown in Figure 6. Use the side of the bulb opposite of the locating tab as the fulcrum point. It should pop out with just a little pressure. Once out, remove the electrical connector. Now pop the new bulb into the headlamp assembly and put the connector back on.

If you have an R56, the wheelwell has a plastic cover, and getting to the fog lights is easier. Also, the access covers to both generations of Xenons are similar with a removable flap to access. The R56 servicing is tougher for larger hands.

As always, if you're not positive about your ability, or don't have the correct tools, maybe even a friend to help, don't attempt servicing your MINI. Have a professional do the job. ■

Photos, information courtesy www.pelicanparts.com

Lighting Basics

Lumens, Candela, Reflectors, Kelvin and other confusing lighting terms



■ By Victor Roberts
Artwork, photos courtesy KCHILITES

A few months ago, as we dove into helping our intrepid Mongol Rally team featured in this issue. We found that a lot about lighting was very confusing. Then we found that some bulb and lighting companies like it that way!

As Andy Cohen at Cooper-CRAP (www.coopercrap.com) had equipped our 2002 MINI with their exclusive new combination sump protection/Low-Rise PreRunner lightbar out front, he set up our MINI with a large LZR Series LED lightbar from the legendary KCHiLites (www.kchilites.com), the company that practically invented off-road lights some 40 years ago. Our team says that several other teams made sure they followed them across difficult dark terrain, as the LZR Series lights were the brightest and reached further than the usual round rally lights!



Fourty-inch LZR Series KC HiLites on our Team Unlikely Mongol Rally MINI light up the Mongol night

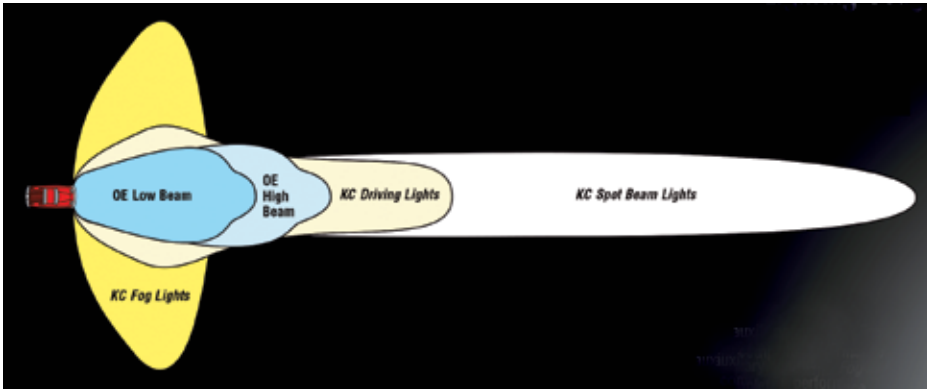
The basics of lighting are essentially: Lumens, Candela (formerly Candlepower), Lux, and Color (also know as Kelvin), and pattern. Yes, there's also halogen, quartz-halogen, HID, Bi-Xenon, and bulb wattage, but that's for another issue, as are projector kits we used on our Project Alter-Ego from SpyderAuto.

Lumen: The total amount of light created by the bulb or light source. This is measured in all directions. One Lumen is the light cast upon 1 sq.ft of surface. Lumen also has something to do with beam efficiency.

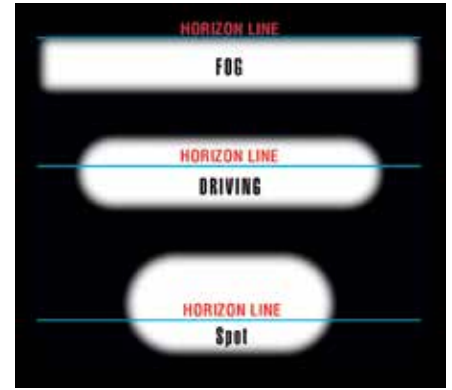
Candela: Known as candlepower until recent years, it's how much light is produced by a light source, such as a bulb. Often measured at the bulb, the luminous intensity can be fiddled with by a manufacturer to create a larger candlepower. This is where reflector design is critical, as cheap lights have light dispersion problems from poor designs and they scatter that light and use the candlepower poorly.

Lux: The amount of light reflected from a given surface on to which it is projected. It's essentially the light coverage of a given beam.

Color: As you know from headlights, foglights, and street lamps, lighting can



Beam patterns are determined by types/styles of lights. (Courtesy KCHiLites)



Light patterns as seen from the driver's seat. (Courtesy KCHilltes)

have a distinct color. The color temperature of light is measured in Kelvin. It has nothing to do with the brilliance/luminosity of the bulb, but it is a measurement of the brightness of the light source. Headlights vary from yellow (3,000K), to a daylight white near 5,000K, to a bright white (6,000K), with the icy blue lights near 8,000K, and the very blue lights near 10,000K.

Pattern: The lighting pattern is dictated by the lens reflector's shape and bulb placement within the housing, and the physical dimensions/size of the light enclosure itself. For our discussion we are addressing three patterns: Fog, Driving, and Spot beams.

The foglight is placed below the line of sight of the driver (under the front bumper) as we're using it to cut under the oncoming fog layer, not illuminate the road. The pattern is wide, and should only be approx. 2 feet or so in height, otherwise it adds to the glare. You could say they're aimed below the oncoming horizon line.



KC's newest Gravity series LED driving lights are street legal

Driving lights are designed to supplement the high beams. The candlepower rating is often 2-3 times greater than your headlights. The pattern should reach further down the road, but only just slightly above the oncoming horizon line, with a width less than the fog lights.

To a MINI owner, spot beams are rally lights. The more the merrier if you're competing! This is where larger is better, as the larger the reflector housing, the greater the light focused down the road, so a 6" housing focuses less than a 9" housing. They're focused well above

the oncoming horizon line, and a little below it.

One of the most misunderstood facets of auto lighting is the bulb design, and the wattage of it. Wattage is essentially a rating of how bright a bulb can glow. In automotive usage they range from 35 watts to 100 watts, but that doesn't mean your application will always allow the fitment of the largest wattage bulb due to circuitry limits, and the design of the bulb's housing itself.

Next issue we hope to get into replacing bulbs for better performance (such as H4 type), longer lifecycle, what's available in replacement units for those MINI owners that want HID or projector-style headlights, taillights, and tips on installation and legality of some bulbs. Did you know that not every State of the Union allows driver's lights to be left uncovered while not in use? ■



Notice the absence of any pattern on these KC Pro-Sport halogen spotlights glass lenses. This helps determine their pattern.



KC's 6" gravity LED series. Notice the reflector's pattern is not just round in the housing.



Keep Your MINI Cool

(No Matter How Hot Your MINI May Be)

■ By Jeff Zurschmeide

In the world of MINI performance modification, the very last thing that most people look at is the radiator and cooling system. Mostly this is because there's no measurable horsepower, torque, or handling gain to be found in this area. But it's also because the stock units are generally up to the task of cooling the MINI engine up to a fairly high level of performance.

But what you get when you pay attention to your radiator, water pump, and thermostat is something potentially far more valuable than a few more horsepower—you get increased engine longevity. The hotter your engine runs, the sooner your engine wears out.

Here are the dangers in a nutshell. Over time, your coolant breaks down. When the coolant goes, it creates acids. Those acids put your internal engine parts at risk for corrosion. This is why

you should always use the special BMW-recommended coolant for your MINI—don't succumb to the temptation to buy less-expensive general-purpose coolants. Along with the acid issue, these coolants will leave a calcium or magnesium phosphate crust in your engine.

However, in addition to the factory-specified coolant, quality products like Water Wetter (from makers of Red Line Oil) can help your cooling system. Water Wetter is a chemical that aids in heat transfer from the metal to the water, and also lubricates and protects your seals, and helps protect your engine, water pump, and radiator from corrosion.

Now that MINIs have been on sale in America for 13 years, the earliest cars are now reaching the age where plastic parts in the engine bay are becoming brittle and cracking. In particular this can affect the coolant expansion tank, which is made entirely of plastic, and the plastic

side tanks on the radiator. If you're still running your original expansion tank, radiator hoses, thermostat, and water pump on a MINI that's ten years of age or more, it's likely time for a full refresh before you run into trouble.

For a great upgrade, you can get an all-aluminum expansion tank replacement and never worry about cracking again. It's more expensive than stock, but it also looks great. Installation takes just moments and you can do it yourself in your garage. BMP/ProMINI (www.promini.com) manufactures a direct replacement all-aluminum expansion tank in black or polished aluminum as used in our Project Alter-Ego.

"It takes very little to install one of our tanks. Just unbolt the existing tank and raise it up slightly. Then pinch the hose shut with a pair of vise grips and install the hose on the new can. Top off the coolant and you're done," says Al Hafner of BMP/ProMINI.



If you have engine modifications and it's time to refresh your cooling system, you should consider an aftermarket radiator. Don't worry about the water pump. You can keep that OEM.



However, you may want to switch to a lower temperature thermostat if you live in a high-temperature location or your car is generating a lot of heat. M7 Tuning (www.m7tuning.com) offers a 180-degree thermostat, as compared to the stock 195-degree unit.

"Bottom line, it's a performance gain. Cooler cylinder head temperatures mean cooler intake charges, which means more power. Dropping 15 degrees out of the thermostat means dropping almost 15 degrees everywhere else," says Mark Catania of M7 Tuning. (Editor's note: M7 Tuning is now M7 Speed, too)

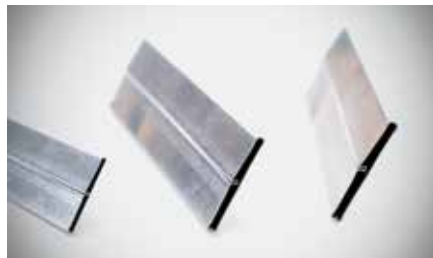
Note that if you switch to a lower temperature thermostat, your MINI will throw a Check Engine light at you occasionally, because your car's emissions control system wants to see the coolant at the specified temperature. But if you're battling heat on a track day car or super-built MINI, the best ticket to more effective cooling is a 180-degree thermostat and a better radiator.

An aftermarket radiator will cost about twice the price of a stock replacement, but that's still much less than \$500. The benefits of an aftermarket radiator start with all-metal construction. One failure mode of the stock units is that the plastic end caps can come loose or crack and leak, and you can avoid that with all-aluminum welded construction. The other benefit is simply more effective cooling. Aftermarket radiators such as those made by CSF (www.csfradiators.com) use a better design for the cooling passages, and offer increased airflow and surface area for heat transfer.

"Our radiator has significantly more capacity because it's got a thicker core

than stock. On top of that, the tube technology we use is about 50% better than the OEM core. We get more surface area contact with the coolant, better flow, and the structure is stronger than stock," says Ravi Dolwani of CSF.

That increased surface area comes courtesy of CSF's "B-Tube" design. Most radiators use a series of oval tubes that run between an inlet tank and an outlet tank. The tubes are bridged by a series of thin metal strips that function as heat sinks. When hot coolant flows through the radiator, its heat is transferred to the radiator tubes and the metal strips, and then to the air. That effect cools the water—easy enough, right?



The advantage of a CSF radiator is that instead of a series of oval tubes, CSF uses a flattened "B" shape tube, offering more surface area in a tube made of lighter, thinner aluminum. The lighter construction means the metal heats up and cools down faster, transferring more heat out of the water and into the air.

Other high-tech features of the CSF radiator include the aircraft grade aluminum used throughout the part, and extra deep end tanks for more capacity. All the brackets and fittings are CNC-machined for perfect OE fit, it drops right in as though it was OEM, and the finished job is shiny and looks very cool.



Possibly, the best feature of the CSF radiator we installed into our Project Alter-Ego is we now have a real drain plug, as MINI engineers decided we should live without that in their design. No more wasted (expensive) coolant on the garage floor when we flush it!

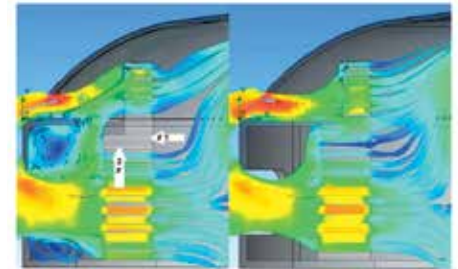
An innovation to control the airflow from M7 Speed, their Air Plate Diverter straightens the air as it hits the radiator and A/C condenser fins. Shipped in white gel-coat fiberglass, it's also on our

Project Alter-Ego. The colored graph here shows how the air temperature decreases and flow changes in the R53 MINI once the APD straightens the airflow.



Before

After

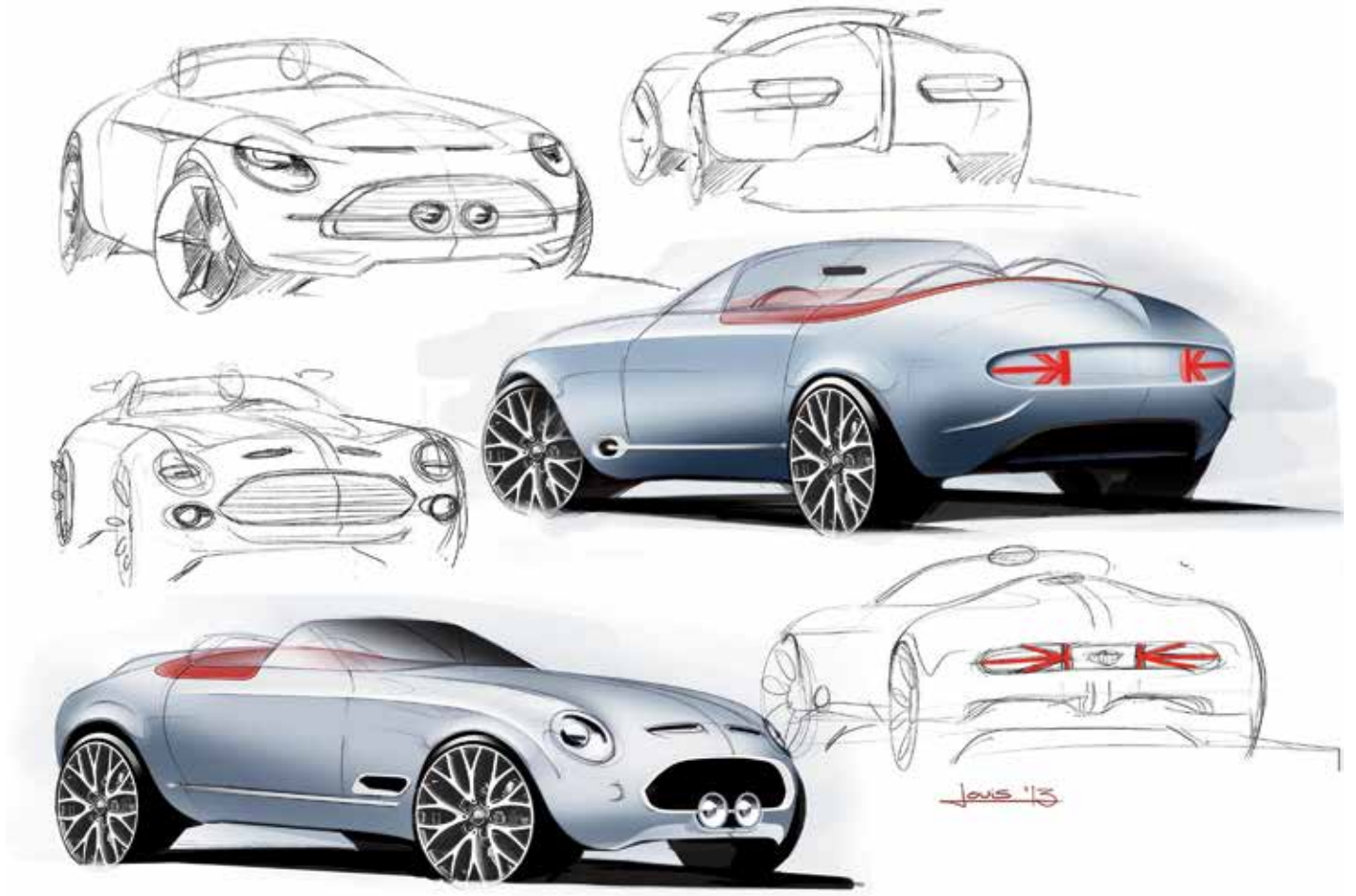


So the next time you have your hood open, take a good look—what's keeping your MINI cool?

What About Classic Mini Cooling?

Original Minis have more issues with cooling than modern MINIs because of the unique design of the cooling system in which the radiator is mounted on the side of the engine. Air passes in through the grille on the front of the car, and then out through the radiator and wheel well. Like all older British cars, the system works well when maintained, but the thermostats, water pumps, and other systems just don't last forever.

But because the radiators are smaller and lower-tech, costs are kept down and an upgraded radiator doesn't cost much more than a stock replacement. Upgraded radiators in several designs are readily available for less than \$300. Remember to replace your water pump, thermostat, and hoses at the same time! ■



MINI Superleggera™ Vision...

■ By Barry Brazier | Photos courtesy MINI Future renderings by MC2 Design Editor, Murray Pfaff

Call it "Vision...Part II"

The continuing saga of MINI's designing their future. Their grand adventure into the not-yet-crystal-clear future.





Why Part II? Because part I was the Vision shown us early 2013. The futuristic Coupe with all sorts of electric gizmos, styling cues from the Rocketman concept, and lots of Union Jack styling in the interior. Look at the above photo, and you'll see there's a ball of thread the trail going back a few years. Not saying that we at MC2 have all the answers, but we've not yet seen any wise sages say anything in comparison to MINI's first Vision project early 2013, and how interesting it is to have styling cues continue forward. It says something about the thoughts of Anders Warming, Head of MINI Design, and the core team, be they styling, marketing, or manufacturing, for it takes seven years to bring forth a model change, and it takes at least three years to go from a napkin sketch to show debut.

With seven models now on the showroom floor, it seems that this 2-door sports car could take its bow in 2016, the year before the next major model changes. It is possible that the first view of the production potential may come at Frankfurt 2015, as did the R56 generation. But then Germany is the third-largest market, so maybe it'll debut at Los Angeles, as this roadster will sell more units in the US market. Having said that, this is considered a "halo" model for MINI, so our friends tell us this model may come with a limited-production ticket—and a higher price tag.



The Superleggera™ Vision

Held on the prestigious grounds of what is clearly one of the world's best hotels, with the azure waters of Lake Como as a backdrop, the Concorso d'Eleganza Villa d'Este is steeped in grand tradition. MINI celebrated the 85-year heritage of the event by creating the Como Blue paint of the Vision with one of a handful of Italian craftsman companies capable of making such a one-off auto that almost appears carved from a solid block of aluminum with very few seams in the body, but more on that later.



Touring Superleggera is one of a handful of coachwork companies (Carrozzeria, or auto body) that are skilled in the usage of the ways of taking sheetmetal and forming it using hammer, English Wheel, and wooden "bucks" or forms that the metal is stretched over. It's extremely time intensive, costly, and very rarely used in anything but show cars. The exceptions to that have been several low-production Alfa, Ferrari and other Italian nameplates, as well as licensing of their system to Aston Martin for the DB4 and DB5. The patented system is essentially a structural tubular framing over which the alloy panels are formed (some would say beaten) to create a final shape. It's a designer's greatest dream to create a shape they penciled on paper when they know it will never be possible in produc-

tion as presses have limits based partially in their cost.

Not wanting to simply re-print MINI's 6-page media release with its voluptuous crafting of words, we'll motor through the Vision, making notes as we progress...

What is distinct is the ongoing usage of MINI's heritage and the waving of the Union Jack design. As it was used in the first Vision, so it is with the second in the usage of the cross-braced door insets. Then there are those unique tail-lights that say you're following a MINI. It's said that one of the Italian designers had a hand in this idea, but we can't verify this. Maybe they'll be offered in a JCW-styled upgrade package, or as a dealer accessory, but they'll not make it into every sale.

There's no doubt this vision is a minimalist one, which intrigues us given the first Vision offering with its over-abundance of MINI Connected goodies and flashing lights. This is good as it keeps to the lightweight theme. Also, it keeps to the tradition of sports cars being one with the road, the enjoyment of the motoring experience. If the MINI roadster is to be a genuine offering of true heritage, it will not have all the audio, MINI Connected and such as standard fare, but included in packages. This creates less weight, less cost—and it has to be aware of cost given the new Mazda MX-5!



The Building

The process of molding, forming large sheets of aluminum almost lost in these days of stamped metal production and hand tools, the English Wheel, presses, wooden bucks and Como Blue. Notice you'll not find gallons of bodyfiller (aka



ing Process...

...on the Vision concept by Touring (Milan, Italy), is an art
...d robots, so we present here a few photos of how they use
...d framing to create an almost-seamless roadster body in
...a Bondo) in their workshop! Enjoy...



What really grabs our attention are the differences, or the evolution, of the bonnet proportions, and the very obvious lack of urethane trim. In the red/white rendition posed in the Concours-like setting and in other art, there's a promising "power bulge" in the center of the bonnet, but alas it disappears in the final conceptual ideas and the show car. No doubt there was too much influence of the AC Cobra styling!

The reality is, as MINI wanted to show this as an electric-powered concept, the hood evolved into function over form. Even the radiator grill is closed off from airflow. The carbon fiber splitter was a nice touch, once again showing sports car intent.

Then there's the absence of the black urethane fenders, which we can see from the original sketches was never penned into this second Vision, unlike its brother last year. It's our understanding that MINI styling wants the production sports car to be void of the black urethane that has come to be a MINI trademark. We couldn't agree more that the urethane needs to be absent here, as it's wrong for a sports car. We're likely to paint our own Clubman's fenders real soon, too. It's a personal issue for most MINI owners of appearance vs care.

The elegant part of this hand-formed, aluminum body is that it's accomplished with large sheets of alloy leaving very few body seams or gaps. The best feature is undoubtedly the "Touring" line that, like a finely-pressed pair of black dress pants, creates a distinct feature for the eye from each front fender and curves into the tail section with that fascinating homage to several Jaguar and classic styles.

As we all know, the tailfin will never make it past this concept, but it does show some thought as to heritage, as well as a little fanciful nod to the Italian Barchetta or "little boat" that this concept is seen as. The carryover of the fin design as a dividing point of the rear fascia works nicely.

The overall boot proportions, however, is really nicely done. It not only has the



British sports car feeling, but also a hint of BMW Z8, a favorite BMW of ours. The rear overhang is so short, it just fits so nicely, but the current model MINI wheels just do not go with this concept. MINI is saying they have the look, heritage of the classic 10-inch Minilites, but dipping into the parts bin didn't work! The side mirrors work just fine.

Curiously, the dashboard design is laid out in a central round with gauges/readouts side—just as they were in the first Vision. Add to that the 3-spoke steering wheel, and if you look at the first Vision seating, you'll find the same one-piece bucket shaping. There's a trend here that will show in the final presentation, no doubt!



knocking on the door of a great Italian coachbuilder in Milan for isn't it! It has a little flair for fashion, as fashion is very important in that market. Even though the Concorso is in a high society setting, it's always important to be youthful so they did so in paint, and the interior trimmings, something we all appreciate.

The future of this model in MINI's lineup? We talked

With the thesis that this concept be as minimal in clutter and interior parts as is possible, it's fascinating that they've been able to put little styling cues of heritage past in it, but then that's why they went

with our spies, did a little meditation, looked at the present lineup...Then we let our talented Murray take pencil to screen with our cover and these pages showcasing our thoughts... ■

The Future Is Soon...

So, you're itching to know what the future MINI sports car is to look like? What they'll name it? It's engine lineup? Will it be electric? Is it front or rear-wheel drive? Will all-wheel drive be available? Where will it be built? What's the starting price?

All the questions we have been asking our friends, but the answers are not always visible. Then there's the honesty factor, as we don't have enough answers, and we're not going to allude to such or state that we do. Unlike some of the automotive press, and MINI news websites, we're not going to talk about "our sources tell us," and other jargon. So let's take a look at what we do know, what is possible, likely, and use a little common sense...

With the Roadster and Coupe going away soon, MINI is seeking a replacement for them, so this Vision concept shows their intent. The name will not likely be similar to those in present MINI lingo, with the "man" on the end. It will be new to the stable. Will they call it a roadster? We believe so. We have little idea of what they've been saving in the legal department for a model name.

Believing this is a "halo" model meant to create consumer buzz, the engines will carryover from the present lineup, with the greater percentage of this model equipped with the 3-banger as BMW needs to keep their eco-friendly status visible. Too many lower MPG models sold costs companies money. In the 2nd or 3rd year, they may have a Works-style offer of the 2-liter with 220-230hp, but BMW doesn't like competing on a number basis, it goes against their desire to get more from less- and against the MINImalistic vision of this concept's thesis.

With the all-electric project from a few years ago, they learned a lot about the consumer and packaging a battery-powered car. However, not that many buyers are out there for this offer, and the fewer the units produced the greater the cost, so maybe they'll offer an E-Roadster with a partner production company?

Unfortunately, it's look like it will be front-wheel drive, as BMW is strongly going that way, and the MINI brand is their test bed for all sorts of engineering for the 1 and 2-Series BMW models. Needing to base this model under 2,500lbs, and get 45mpg or greater, don't keep beating the all-wheel drive drum, as they're not listening!



Then there's the details of will it be only a manual soft-top roadster, so that it remains MINImal and less cost? Is the electric-powered roof, or a removable hardtop in the cards? One is expensive,



and heavy, the other about \$2,000 as a dealer-installed option.

As Oxford is maxed out for production, and their present factory footprint is the same, we have to ask ourselves are they "Going Dutch" with their new facility in Holland we detailed in MC2 issue #45? We don't know enough to say yes to that question yet.

With the stunning new Mazda MX-5/Miata just shown at Laguna Seca Raceway, the 2-seater competition just

became very aggressive. Mazda's pricing starts near \$24,000, so MINI will have to be near that. With a possible 2-engine offering, this allows MINI several ways of pricing the model. Given the growth of MINIs packaged offers, we can easily project the average price would be near \$35,000, higher

than we believe is average for the present lineup.

There are details, and broad strokes we know a little about, but that's for another issue down the road... ■



Artwork by Murray Pfaff

MINIS ON THE DRAGON 2014

Tale of the Twisties

■ By Barry Brazier
Photos by Robin Rogers, Mike Runkle,
Barry Brazier

For MC2, this is our 3rd MOTD attendance in a row, paling in comparison to hundreds for whom it is an annual event like the Swallows to Capistrano, or the return of the Sperm Whales to their breeding grounds in Baja. I've met a few that have taunted this 11-mile stretch of contorted asphalt every year of the 12 events. Some come twice a year as part of the October run. It is to those MINlacs we present this photo essay with limited interruptions...

Now in its 12th year, MOTD has grown these last few years under the tireless leadership (and ownership) of Barry Patascher and his sometimes unseen legion of volunteers that are everywhere on Wednesday. You name it, they are there—and what seems everywhere for the first two days until things settle down some and the many personalized parts of the event begin to break down. In 2009 attendance was down to near 600 people, now it's up to over 1,000, with 693 MINIs attending.



With the US being so large a country, the attendance has lots of pins in the map from the closeness of Washington D.C. to several drivers from California, and then myself from Seattle (I flew). All told there are 36 States of the Union, and Canada. There have been attendees from other nations from Mexico, Japan, and UK, Europe in past years.

With our host Graham County being one of the poorest in the nation I am told, and with so little a business base due to its containment within the National Park and National Forest lands, MOTD has a lot to do with giving back to those that host our event. The MOTD website gathered \$2,886, the food bank donations \$9,000, Breast Cancer Aware-



ness \$5,500 (by the MINISKIRTS.org), and over 3.5 tons of food were part of how we gave back to our hosts for their kindness to us again. The total was \$14,500 given by raffle and popcorn sales, T-shirt sales, the poker run, Dragon Parade CDs, and MINI-bee's merchandise sales of badges and pins.

For our Project Alter-Ego, Dragon was proof of our sponsors and parts that we chose for this project. Murray drove the miles from his Detroit home to MOTD in our freshly-painted and air suspended 2002 S we've been raving about the last three issues, then allowed myself and a few new friends to "test" Ego on the Dragon with zest. Not having driven an airbag-equipped MINI, I have to state that I was greatly surprised that our Alter-Ego carved the twists so well. No understeer, no bounce, and we were still using the original rear anti-sway bar (we recently upgraded to a Hotchkiss bar) to that point. It was similar to my Clubman's Koni FSD struts, and a more pleasant ride quality than from stiffer coilovers. Many thanks to Airlift Performance for their working with

us to develop the first US-engineered and built MINI airbag systems.

Entering the show n' shine more for promotional value than awards, Murray's many hours were rewarded with several trophies that will be added to his shelf for his stunning engineering in his past muscle car designs. Our next fun project from Murray's e-pencils will debut soon.

As with any great party, there were distinct highlights, the fireworks show being such for everyone. For me, Kelli Creighton's annual Zombie Kill and her conning our humble staff photographer Robin into being part of it while shooting photos was a great gag. Atta girl Robin!

Will MC2 return 2015 for our 10th anniversary? If so, what will we bring to the party next year? We'll tell you in issue #54 early 2015 what we're tinkering with... ■





MINIS ON THE DRAGON 2014





PHOTOGRAPHIC LIGHT PAINTING

As we all know, the Dragon has a lot of great forest scenery to shoot neat photos of your MINI. Our Robin Rogers was up the second morning before dawn where she caught more photos of fog and the forest than we can use here. So why is J. Adam Sowers in a dusty, dark garage on the Fontana property with a reader's Countryman we asked?

MC2 contributing photographer Adam Sowers uses various techniques of hand-held floods for his light painting he offers at MOTD. With power cords, and light sources at hand, Adam spends an hour or so with the subject MINI, then another 2-3 hours in Photoshop imposing the selected images into layers to create a composite file (in JPEG and/or TIFF) he hands you to take to the professional photo lab of your choice where you can have large glossy photos mounted on masonite or other surfaces to hang. It's about \$125. The following is a link to his site for a video. <http://jas.photo/mc2issue50>. The QR code connects via smartphones.



J. Adam Sowers





NEVADA CITY ADVENTURE 2014

Mini Mania Throws a 40th Birthday Bash

■ By Barry Brazier
 Photos courtesy of Brendan MacRae and John Burnett

It's been said that necessity is the mother of invention. Take for instance, the replacement of the Lucas ignition and associated parts, and the drum brakes with discs. Now Mini Mania's not claiming they had their hands in this first, but after 40 years, Don Racine and his merry band of Miniacs have had their hands in a lot of firsts in the N. American—and global—market that have gone unheralded.

It could be said to have started in Don's Milpitas bay area home way back in the early 1970s. He'd been playing with Minis for a few years, so his racing needs drove him to search for parts not available in N. America. He soon became a strong

partner with MINI Spares in the UK. The move to Nevada City, a small town east of Sacramento, Ca. at about 2,500 ft. altitude came in the 1980s, where this 14th annual bash was held.

My journey started early Friday in our 2008 Clubman. Recently equipped with P3 Cars digital interface gauge, one detail we learned on this trip is that oil temperature isn't as critical as I had believed! From sea level in Seattle, south on the I-5 interstate for 12 hours, through valley and 4,000-plus foot mountains at the California border to Oregon, the oil temp never rose above 235 degrees Fahrenheit. The exhaust gas temperature (EGT) was a steady 1,100-1,200 F., with the exception of when I mashed the Sprint Booster-equipped throttle, the EGT spiking near 1,500 F., then soon returning to normal once I took my foot out of the 6-speed gearbox.



Shasta MINI showed up with their family of Minis... Bully



MNE Eagle, a veteran's tribute



and Tiny Tows

By 8AM Saturday morning, the party started at Mini Mania's expansive headquarters nestled amongst the tall black pines in this quaint Gold Country town. By 4pm it became their most successful event ever with 140 MINI, and 48 classics attending. In total, 320 attendees from four states rolled into town, with three clubs entering with a significant number of members. Of course, for those that know the Shasta MINI Club, they turned out all of their stunningly-unique themed classics that represent the fire & police dept, tow truck, Chequered taxi, America, and then put up the best display where they invited everyone to get lei'd—a Hawaiian theme.



Linda Wilson's classic MINY FYR



Stacey Lowery's Morris Mini Taxi

With several show-quality Morris Minors, an Austin-Healey or two, and some nice Mokes, the day also had two panels of classic and new MINI professionals (our Chuck Heleker and I were part of both) to help answer questions. Each had attendance of 70-80 people. The irreplaceable Phil Wicks also took center stage with tales and fun facts of his days in the classic Italian Job movie.

With background music provided by Paige Anderson and the Fearless Kin band, Mustang dyno testing by Driving Ambitions, prizes and awards were many. The day wrapped for us all with a drive led away from Mini Mania into the surrounding hills, with everyone heading home from such.



Shasta Mini dressed up for the occasion



Paige Anderson and The Fearless Kin band





We're working on getting TWINI into our pages soon

An added bonus for the editorial calendar, I spent time with Jacques Andres of Bay Bridge Motors and his twin-engined R53. We hope it will be center stage this next issue. And a detailed conversation with Arric Johnson of JM Turbo Coopers has provided us with info on his replacement turbo systems we hope will make our tech pages soon, as he's had replacement turbo systems in the market these last 2-3 years with kits that have seen extensive mileage and ongoing evaluation.

See ya next year at their 15th birthday bash? ■



There were many race classics at Nevada City Adventure



The show also had superb Austin Healeys and other British classics



The MC2 Project Clubman was driven 1,500 miles at 36MPG!

WINNERS

MINI Cooper

- Best of Show > Randy Stevens
- Best Engine Bay > Gary Morgan
- Best Use of Chrome > Ken Voge
- Best interior > Steven and Stacey Lowery
- Best overall presentation > Steven and Stacey Lowery

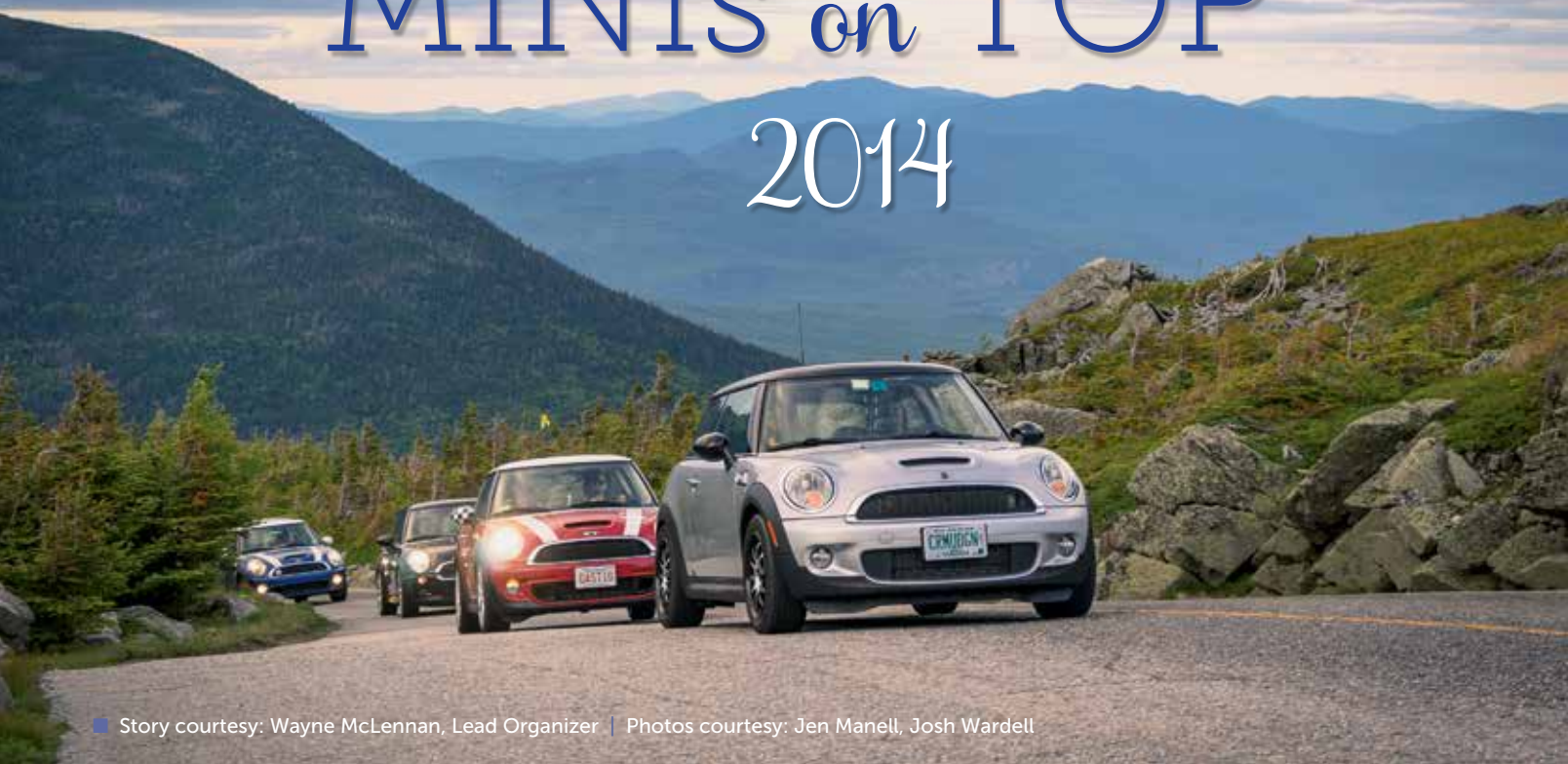
Classic Mini

- Best of Show > Todd Dunning
- Best Engine Bay > John McGee
- Best Paint Job > Jim Predmore
- Best Interior > Bill Brooks
- Best overall presentation > Jim Predmore

Clubs

- Best Overall Presentation > Shasta Mini

MINIS on TOP 2014



■ Story courtesy: Wayne McLennan, Lead Organizer | Photos courtesy: Jen Manell, Josh Wardell

As dawn broke on a beautiful Friday morning, June 20th, hundreds of MINIs were in final preparations to make the annual trek to the White Mountains of New Hampshire. Some would be joining the organized rallies that feed MINIs on Top, and others would form their own groups, all leading to two days of MINIlac nirvana.



Attitash Grand Summit Hotel, located centrally between Mount Washington and Loon Mountain in New Hampshire, was once again the base hotel for MINIs on Top. As MINIs started rolling in, excitement and anticipation built as people from all over the United States and Canada started to gather and mingle. The first official event kicking off MINIs on Top was "Sundaes on Friday," an ice cream social sponsored by Greasy's Garage of Worcester, Massachusetts. It was held in the MOTORoom (MINIs on Top Operations Room) of the base hotel at 7:30 p.m. and was open to all participants of MINIs on Top and their families and friends. Hundreds of MINIlacs gathered and mingled, eating their fill of ice cream and forming teams of four to participate in the evening's trivia.

Saturday morning started with breakfast hosted by the Lyon-Waugh Auto Group—MINI of Peabody and MINI of Bedford at 6:30 a.m. in the MOTORoom. At 8:00 a.m., MINIs started their engines and began the 45-minute drive to Loon, passing through Bartlett, New Hampshire across the incredibly scenic and "twisty" Bear Notch Road to the Kancamagus Highway. The Kanc, as it's affectionately called, is another incredibly scenic and "twisty" road that passes over a mountain range and in places runs parallel to the Swift River.

At 9:00 a.m., MINIs started to file into the parking lot of Loon Mountain Ski Resort, located just a couple of miles east of Lincoln. Every model of MINI was represented—from a classic Mini making the trip from Canada to the Gen 1, Gen 2, and even the new Gen 3. Hardtops and convertibles, Clubmans and Coupes, Roadsters, Countrymans and Pacemans, non-"S" and "S" models, John Cooper Works, and even a few GPs all gathered to share their love of MINI.

More than 300 MINIs rolled into Loon to find vendors selling their MINI wares. The Concourse d'Elegance was in full swing with awards for dirtiest and cleanest, best paint, best vinyl, best

electronics, and most modified, just to name a few. The two most honorable and heavily contested awards were "Best Overall" and the "Kids' Choice Award." To win any award at MINIs on Top is quite the achievement and something to be proud of.

At 11:30 a.m., the Drivers Meeting kicked off, highlighting five scenic drive routes for the afternoon. This year a new drive was added that led from Loon to the outlets in North Conway for the serious shopper and bargain hunter. At the conclusion, the various drives staged and headed out on their rallies with the help of the local police in an effort to keep our groups together.

All the rallies converged at the base of Mount Washington. By 4:00 p.m., many MINIs had started to arrive at the Auto Road and were strategically parked. Over 400 people and 300 MINIs gathered under the big top for dinner and the presentation of awards and door prizes. Soda and water were distributed courtesy of MINI of Warwick.

Then the big moment arrived—the sunset drive to the summit of Mount Washington, the most spectacular eight-mile drive anyone could imagine. This drive is truly what your MINI was built to do! The lucky few that won the draw for a private tour of the Mount Washington Observatory were the first to ascend the mountain. The Auto Road was closed to the public to allow MINIs on Top participants to have the mountain to ourselves. A spectacular 300 MINIs and over 380 people made the drive to the summit, with Nature being kind



to us allowing the most spectacular solstice sunset in perfect summertime weather.

As MINIs on Top wound down, it was time to head back to Attitash Grand Summit Hotel for the final event of the weekend. Starting at 9:00 p.m., with light food sponsored by MINI USA, the MINIs on Top "after party" kicked into full swing. Entertainment started with the wonderful vocals and acoustic guitar of Gail Fabbri. Next came the main entertainment for the evening, a three-piece harmony band called the "Rule of Three," which played music from the 60s, 70s, and 80s, including some of those cool "B" side hits. Drummer and vocalist Patrick Seitz, also a proud MINI owner, led the fantastic band, which was sponsored by MINI of Boston. They played through the wee hours of Sunday morning. As the evening progressed,

stories were exchanged and new friendships were made.

MINIs on Top has a long tradition of fundraising for various charities over the years. This year's charities were the Mount Washington Observatory, the March of Dimes, and Operation Homefront. Funds raised from the entry fee to the trivia contest benefit Operation Homefront; funds raised by door prizes from many generous donors and organizations benefit the March of Dimes; lastly, in MOT tradition, 6.289% (corresponding to Mount Washington's height of 6,289 feet) of the fund pool went to the Mount Washington Observatory. Since the first MINIs on Top back in 2003, we have been able to donate to various charities. It's the giving nature and friendliness of the MINI community along with the support of our sponsors that truly makes MINIs on Top one of the premier MINI events in the country.

Thank you to Vanessa Ferrari, Eric Ruiz, Don Kindred, and Maryfrances Fabbri for their dedication and hard work taking on the organization of MINIs on Top. Also, thank you to all the volunteers for their assistance before and during MINIs on Top. Without volunteers, the event just would not have been successful.

Mark your calendars for June 19 and 20, 2015 for the next MINIs on Top. Reservations at Attitash Grand Summit Hotel can be made now by phone. Call to take advantage of our special rates and reserve your room today. Keep an eye on our website minisontop.org for all the latest news and information, and don't forget to "join" our Facebook group: www.facebook.com/groups/402008025820/.
Motor on! ■





Panasonic's Clubman Demo... *In Step With Abbey Road Studios*



■ By Victor Roberts | Photos courtesy Marx Layne

Vehicles outfitted with thousands of dollars of audio, capable of thumping-great bass sufficient to thrill teenagers into the night is of little interest to MINI owners, but when we got into the meat & spuds of the Panasonic/Abbey Road demo Clubman, we began to understand why a global company like Panasonic put their very best foot forward with our iconic MINI...

Say Abbey Road to a MINI owner, and you immediately get visions of the Fab Four and the zebra crossing with Paul walking out of step. But less than a Mini skirt's length away from this album's landmark photo stands the Abbey Road Studios. Over its 80 years, Abbey Road Studios has been the recording studio for the very best in music, from the days of the Beatles and Pink Floyd LPs, to Adele, Lady Gaga, and Halo and Call To Duty game soundtracks.

The basis of this project is obviously a somewhat-standard 2014 Clubman. It's not equipped with much of an option list, as it's rarely driven. "The two iconic British brands just seemed like an ideal match," said David Allen of Abbey Road Studios. Other than being nicknamed "Bumble Bee" for its obvious new livery, black stripes, yellow-accented wheels and continuance





and are still in usage in today's digital age says Abbey Road.

The EQ units, together with many feet of extra wiring run the audio system throughout the entire Clubman. However, these EQ units will not be used in what we believe will be available in a year or two as a branded system. It will be offered as a DSP (Digital Signal Processor) with the equalizer's characteristics, as that would allow for a compact system we're told.

With Panasonic's recent acquisition of Aupeo!, a personalized Internet-based radio service, and their partnership with MINI using the MINI Connected app it becomes evident that this very unique demo Clubman has some future. With Panasonic's 60 years of electronic engineering leadership, and their somewhat-unseen status as a very strong OEM integrator of all things electronic by the general consumer, it may be that Panasonic could be angling to become the systems integrator for many auto brands, although they'll not be taking public claim for such.

Meanwhile, listeners can enjoy a selection of the iconic music tracks produced at Abbey Road Studios through the special "Abbey Road Studios Demo Channel" found on Aupeo's personal radio streaming music service.

In conversation with Tom Dunn, Director of Panasonic Global Audio Solutions Business Unit, MC2 was told, "The reception has been incredibly enthusiastic—everyone who hears it is impressed by it. I love watching people's expressions at trade shows as they come out of the car after having a demo."

"People around the world continue to enjoy the vast collection of great music recorded, produced and mastered at Abbey Road Studios. We are pleased to share our combined vision of

the Abbey Road Studios premium audio system in this world's first demonstration vehicle."

"The ultimate test is to see how well a mix that is currently being worked on in an Abbey Road control room translates into the car, and the results have been stunning," said David Allen, GM of Abbey Road Studios. "When you have Abbey Road engineers using the car system as a point of reference for a project they're currently working on, you know you're doing something right!"



of such colouring across the Panasonic speakers, it's the very unique audio components that have MC2 fascinated at this view of the future—for there's a lot being hinted at in this concept.

Having developed production audio systems with other automotive partner brands (VW), and music industry veterans like Fender and Elliot Scheiner, the Abbey Road system and sound characteristics are unique to MINI, we are told. The Clubman was chosen as it provided the room for the rear-mounted fiberglass display of two equalizers, and the classic silver tape reel. There are 12 Panasonic speakers and a 12-channel, 580-watt Panasonic Automotive amplifier with Panasonic's unique "Motion Control" feature housed in the Clubman.

The two classic EMI TG12412 equalizer (EQ) units designed by Abbey Road Studio's Recording Engineering Development Department—which have been used on Abbey Road Studios recordings since the early 1970's—create the one-of-a-kind Abbey Road Studios sound,



There are no stated plans with MINI for this system with any coming model as of this issue of MC2, but this type of project does demonstrate what the near-future holds for MINI in the way of in-car audio and total systems integration. We see the integration of your home and MINI systems much like some of the satellite TV systems and general media where you can transition from your home to car seamlessly. It's almost like you can take your home life with you.

Stay tuned to MC2, as we're watching Panasonic and Abbey Road Studios very closely... ■





Project Alter-Ego Part IV

It's A Wrap! We reflect on the restoration, sponsors, and the awards we've garnered this last year...

■ By Barry Brazier | Studio photos: Tom Fedrigo | Build, race photos: Marc Rozman, Monique Roehl

Almost a year to the day in September 2013, Murray Pfaff (pronounced Paff) came knocking on our door about his 2002 S. To our delight, our Murray wasn't looking for a few basic fixes—he wanted to dive into the deep end of the pond with a full re-styling, paint, and maintain the original drivability. We were greatly relieved that he didn't want to drop in a small-block V8 given his hot rod builds that include his stunning personal Chrysler Imperial Speedster, that was narrowed 8", sectioned 3", and shortened over 52" from an original 4-door land yacht!

To our delight, we found that as we dug into its undercarriage, it was in decent condition at 75,000-plus miles. As Murray's main transportation about the Detroit greater area since day one, it had managed to survive the decayed streets from the nasty winters, and was in good condition mechanically. Like every R53, the reality of the beaten rubber bushings was something no one fully realized until it was on a lift, so while developing the Airlift Performance system, Powerflex bushings were installed all around.

It's been a busy year for Murray and our R53. He started with the Detroit Autorama where Ego took 1st place in class. Then came MOTD, where we took home several of the top trophies.

Next came a blue ribbon from Murray's professional design colleagues at Eyes On Design, held on the grounds

of the Ford family home in Grosse Point, MI.—which I think surprised Murray. He then ran Ego ragged on the HOT ROD Magazine Power Tour for a few thousand miles.

However, above all events and shows that Murray has entered with the project, the Optima Ultimate Street Car Challenge had us wondering if the little bugger would survive. Entered into the challenge under 3,000lbs, his competition included a LS-powered Miata, LS-powered Volvo, a S2000, and a Corvette Z06. He was the first MINI to enter Optima battery's Ultimate Street Car Association events, but carrying our flag didn't settle his stomach that well. He told us he had brought a peashooter to a gunfight!

Over the two days at Michigan International Speedway, Airlift's first-ever MINI Cooper suspension system was really put to the test with colours flying. As Murray says about MIS, "...the course was laid out over 30 acres of asphalt "essentially" consisting of two straights and a hairpin. It was an understatement to say it was built to carry some speed." His best top speed was 115mph, with others clipping 140+.

Placing 2nd in the design and engineering review part of the weekend, after the flawless 1950s LS-powered Volvo



Coupe, Murray had but two words: mission accomplished.

Having driven the highways, the Dragon, city streets east of the Mississippi River, and the banked corners of MIS putting nearly 9,000 miles on the odometer between May and September, we've managed to not introduce ourselves to any law enforcement, and broken nothing other than a few hearts. Next stop, SEMA Show.

The Rotiform NUE wheels (www.rotiform.com) we continue to be pleased with. As we elected to have them powder coated white, then added a little red highlight to each (*courtesy of John Mijal at That's Minor Customs*), the optical fun motoring down the road can be fun to say the least!

The Spyder headlights (www.spyder-auto.com) were a direct replacement for Ego's standard buckets. They included a H1 bulb for low and high beams. Spyder's lights are manufactured by an OEM and ISO-approved company, so we have no problems with light color and output legality.



A note about the LED-equipped fog lights that give Alter-Ego a R56 style. Patterned from the R56 aero kit vents, they're imported from Germany exclusively by the MC2 General Store (www.mc2magazine.com/general_store.cfm), so they fit our Project Clubman precisely, but not so the R53 chassis. This was a real creative integration by Murray and That's Minor Customs, so you may want to refer back to MC2 issues #48 and #49 for photos for what the guys had to do to make them fit the fascia.

Bags vs Coilovers

The all-important suspension question for our project MINI was as obvious as the air snorkel on a MINI's bonnet: Bags or coilovers? We had heard a little, or seen photos of "bagged" MINIs outside the US, but the kits were universal in components, meaning that the airbags fit a variety of small cars, and the one kit we found used the larger bellows-type airbags on all four wheels. A lack of calibration to the MINI's weight and handling was very evident. We found what we

needed at Airlift Performance in Lansing, MI. A family-owned company since their early days in the late '40s, they've taken to proving their name on racetracks, as well as the custom car market. Check out their site at www.airliftperformance.com as their FAQs are many, and their videos are proof of their parts quality.

What Airlift developed specific to our MINI was bellows up front, and sleeves out back. (The bellows look like stacked donuts) The tank is 2 gallons (do not confuse air tank volume with two 1-gallon liquid milk jugs) by volume, with a max pressure of 125 psi. This means Murray can cut the grass, and scrape the clouds as he has approx. 5 inches of lift via their AutoPilot controller that sits freely beside his seat allowing eight pre-set adjustments.



Going into the project, we had two pressing questions that Airlift Performance had detailed answers to, such as the obvious usage of airbags in the Detroit winters, and the compression and rebound characteristics and tunability vs coilovers.

As an airbag system uses an on-board air compressor, anytime you compress air you have moisture as part of the equation. This air collects in the steel tank, and it must be removed in consideration of the tank's health, as this would create rust if left inside the tank. As with any air compressor, we could just open the valve and dump that condensation, but we don't need to as we installed an inline water trap. Airbags don't know they're in a Detroit winter, or Phoenix summer, as temperature doesn't affect them.



The system consists of a high-pressure gas body (much like Bilstein) with valving to modify the fluid move-

ment through tiny orifices. Like high-end coilovers, they have a moveable alloy collar on the body. The strut/shock has a beefier lower body than most coilovers we've seen—a likely result of their knowing these systems will be used for road racing.

With an available pressure of 125psi, Murray says he's not moved the controls much at all, preferring to stay in the range of 40-50psi for all corners. This gives him a softer ride quality. With the factory 19mm rear anti-sway bar being fine in the early days of development, he installed an Eibach 20mm bar (from M7) before the Optima event to create a little more tail-happy movement.

The airbags are a fabric/rubber bellows up front—to carry the greater weight—and sleeves out back. The fronts are equipped with a few degrees of camber adjustment, and a clean alloy top mount inside the towers; it looks kinda racey just like coilovers inside our M7 cross-brace.

One thing we did learn of is the struts and airbags for a "slammed" car are different than a performance setup. The system designed for Ego is a full performance design that allows for camber adjustment, compression and rebound settings, and it's equipped just as an expensive coilover strut is. The airline is the standard 1/4" diameter as it provides what we wanted with a height exchange in 2-3 seconds, not the almost instant "dump" of the air "slammed" show cars want for effect.

The cost question is answered very simply. Comparing the Airlift system that will be production ready for the MINI soon, its \$3,000 cost (plus installation) is akin to the cost of four KW VIII or JRI coilovers. And with the bags we get infinitely more adjustments, and the ability drop or raise Ego as needed for show or pylon-carving days. Very few many MINI owners rave about how comfortable their coilovers are on the street!

Interior Upgrades

Overall, the factory interior was in good shape, but it was drab. The Katzkin (www.katzkin.com) seats installed by Yee's Auto Glass & Trim (www.yeeautomotive.com), Detroit, dressed it up some. Yee's also made the handbrake and shift boot from the same leather.

As the paint scheme went under the hood on the M7 cross-brace it continued on the dash and the tach—with the redline showing.

What detailed the interior are the Rennline pedals and RS-style door pulls (www.rennline.com). We installed a set



of RS door pulls in issue #49. Murray says the RS door pulls are easier to use than the factory latches, and they're available in six colors. Murray then designed and manufactured his own doorsills in aluminum to match the various Alter-Ego colors.

Sounding Off

As we all know, a good sound system can cost a few thousand. It can be lots of amps, speakers, wires, connections, and take the local audio shop two days to design and install, which means they add that labor to the bill. What we wanted was something cost effective, didn't take away precious space, and then penalize us with 70lbs or greater of constant dead weight in the boot. We turned to what may be considered the best available, reasonably-priced, sub-woofer and system that weighs less than 30lb from Integral Audio (www.integralaudio.com).

Several months back we happened to talk with Aaron at OutMotoring.com about his audio sales, and from this we contacted Integral Audio about their one system for the R53. The 1101S subwoofer came with everything Murray needed to install it except for the tools. The sub itself is hidden under a false floor that's part of the stealth kit supported with six rubber pedestals. A heavy steel grill covered with black acoustical carpeting says you have nothing behind the seats other than carpeting. The entire 29lb sub system is removed for racing in less than 1 minute!

In conversation with President Kevin Bennett, he spoke of their acoustic measuring of ever vehicle brand and model



with a complex array of microphones and software to evaluate what is called "Transfer Function," the changes of the sound caused by the internal shape, volume and so forth of the interior. From this, they design a system with a flat, smooth frequency response that is identical from one MINI to the next in that model.



The sub box features their 10" proprietary speaker. Their ARC Audio 250-watt amplifier is tucked in the sidewall compartment (see photos), and the controls are within Murray's reach. Alter-Ego retains the entire factory AM/FM/CD that Murray wanted, along with the factory 6-speaker audio at a cost under \$1,200 retail. Happy wallet, happy motoring!



Integral Audio also makes their Soundstage™ system for the R56 chassis, along with a separate subwoofer as shown here, but designed only for the R56. It's about \$2,700 retail, so we're looking at equipping our 2008 Clubman with it as the factory Hi-Fi system just doesn't have any personality to it. What we are impressed of Integral Audio is their sourcing of relationships, and engineering specific to the MINI itself. It's not just parts, it's 3D laser measurements, CNC-machined sub box are all specific to our MINI, which is the way it should be.

Under The Bonnet

As the project outline never entailed a major power upgrade, the little things such as replacing all the worn-out factory rubber with vastly-better Powerflex (www.powerflexusa.com) urethane suspension bushings was time well spent. Ego tracks better, goes where it's pointed, and doesn't do the two-step suspension shuffle around town.



The replacement of the factory dual-mass clutch/flywheel setup with Bavarian's (www.bavauto.com) single-mass clutch has worked out great! As we had believed, this design with its sprung hub has been easy to engage, actually feeling lighter on the leg than the higher weight of the dual-mass flywheel setup that MINI believes is a better offer for the masses. Murray has proven that it can take punishment, as he dished it out at MIS with no slippage.

He also reports that the EBC (www.ebcbrakes.com) USR-series black rotors and EBC Redstuff pads are working just



PROJECT ALTER-EGO PART IV

dandy, as are the Goodridge (www.goodridge.net) stainless steel brakes lines.

One of the required changes—and a definite upgrade—we had to make, was improving the engine cooling (see *Keep Your MINI Cool*, page 30) with a CSF aluminum radiator (www.csfrace.com) as the factory part is not efficient enough. CSF part #7016 is a single-row, all-aluminum design of the tank and core. The hand-polished finish is pretty, but Murray painted it black as it was really too shiny through the grill, and against the painted M7 Tuning Air Plate Diverter, as it ran under the bonnet. He tipped in the Peak antifreeze as that's been his fill for some years.



Also, we added a M7 (www.m7tuning.com) 180-degree thermostat, and the Pro MINI (www.promini.com) all-aluminum coolant tank, as it works, and

adds some color.

The next issue or two we are going to replace the aged Eaton M45 supercharger with the rebuilt one from AutoX-Cooper.com. It's not something that Alter-Ego must have done, but with the

86,000 miles racked up, and having done no service thus far, this is an investment in longevity that pays dividends. We'll top it with the M7 V-groove pulley. ■



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Proving the MC2 Oil Catch Can

Back in issue #41 we debuted our own design of oil/air separator, or simply called oil catch can. The reality was that we found just a few cans on the market were well engineered, and had a reasonable price, so we engineered one that was specific to our needs with US-made parts specific to MINI. The can itself is effectively unaware of the engine it's plugged into; it's the connections for the engines we supply that make it specific to MINI.

Most cans are available from a Chinese manufacturer or two for less than \$60 if you buy a few dozen at once. Their "filter" is akin to a brand of soap-impregnated steel wool ball used for scouring dishes, old wheels and such. It deteriorates from oil, engine gunk, and ends up in the engine bearings. The other filter is some steel shaving wound into a ball, but it doesn't intercept the incoming air/oil flow, as it's too pressed too low in the can. As most cans have the two hoses opposite each other the incoming gunk and flow is directly opposite the exiting flow path hoping it will drop as it enters. Our entrance and exit hoses are separated by the secondary filter so the gunk has no way of exiting except through the filter.

Without being wholly redundant, the oil catch can can be considered part of the Crankcase Ventilation (CCV). By pressure, volume flow, the engine blow-by enters the can, swirls, drops some gunk through the first filter, and then (in the MC2 design) exits through a 35-micron filter that stops the larger sludge from re-entering the exiting flow.

The supercharged (and "justa" Cooper) system uses 3/8-inch hose (the turbo uses 3/4-inch) as each engine requires different inner diameter for flow and such. As you can see from the ac-



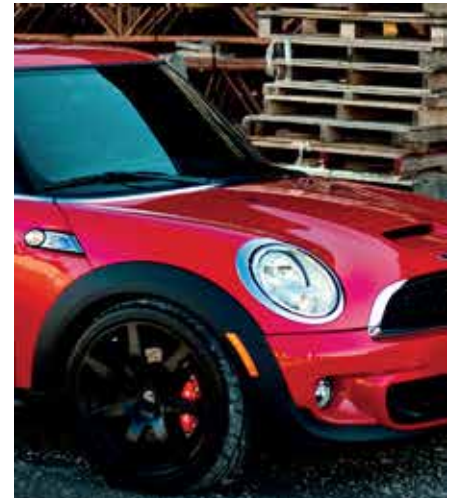
companying photo Murray's emptying less than 1/4 ounce into that cup. He says it's about 1/2-ounce monthly. As the can is about the size of a small energy drink, it holds about 5 ounces of engine crud. Some buyers empty oil and a few ounces of oily gunk due to their high-moisture conditions.



A MC2 subscriber's own experience is shown in the two-bottle photo. The left bottle is only 50 days of catch can collection in the Fall. The dipstick was between the full and half-full mark. The right bottle was over 20 days with Winter in process, and the oil dipstick at half full.

Our can is available from our General Store at www.mc2magazine.com for all three engine models, but not the newer N18 engines. We have not yet designed something cost effective that removes as much gunk as the older N14 turbo engines, so why would we charge you for something that is not effective enough!

The two prior catch can reports are in MC2 issues #41 and #43. If you would like a PDF of those reports for a friend, contact publisher@mc2magazine.com with the subject line of catch can PDF, and it's yours for free. ■



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Roadside Distractions: *Bears, Borders, Backroads*

Every five years East Meets West, so new MC2 contributor George Olson packed his classic and went in search of an adventure on the way to the Can-Am races and Mini meet...

■ Story and photos by George Olson



A road trip in a Mini is a bit like road trips I remember as a little kid: no air conditioning, no music reception on the AM radio, a stick shift, and no such thing as high speed cruising, the rolling-past-yesterday ribbons of road, and life along the way captured for a black and white album.

My trip began in my own 1979 Mini along a route from Portland, OR to Radium Hot Springs, BC, an eleven-hour drive. As I slipped from Oregon into Washington, from four-lane Interstate to two-lane state routes, I saw evidence of other road trips. First was a string of '50s Fords and Chevys, shined for a show somewhere. Next was a troupe of teardrop travel trailers, again, right out of the '40s or '50s. And then along came several very, very muddy pick-ups on trailers, going to some kind of mud-fest. Just a cool reminder that road trips mean different things to different people, but they were all enjoying their wheels!

I slipped back onto I-90 and into Idaho, and came upon a dozen or so police cars blocking the entire west-

bound lanes, with yellow tape everywhere. Googling around later, I discovered it was the scene of a shoot-out! Talk about the Wild West, there it was in the opposite lanes. I motored on.

In Radium for the night, I was warned not to stop for

bears along the highway en route to and beyond Banff National Park. I sort of scoffed, but then noticed a large display sign at the hardware store offering bear repellent! On the way over the Rockies through Banff and on to Calgary, I did see a bear, a small herd of mountain goats, and some deer. Somehow all those animals look bigger when you're in a Mini.

Arriving in Calgary, I went directly to Murray O'Shea's shop to check on the race car we'd be towing to Mid-Ohio for the Can-Am Mini Challenge Races. As usual, some work was yet to be done, but the car was loaded on the trailer and we set off to collect the Mini woodie,

stow my car, and hit the Trans-Canada Highway, past the giant moose statue at Moose Jaw, World's Tallest Tepee at Medicine Hat, and eastward.



We got as far as Regina and came to the economic realization that we were pouring dollars worth of gasoline into the woodie every 150 miles, whereas if we put it on the trailer with the race car, it would not change the mileage of the tow van appreciably. At this point, we'd named the tow vehicle Savannah White, as a goofy nod to the TV hostess as well as the Chevy model!

Then came the drama of the border crossing into North Dakota. We were pulled aside for secondary inspection, all because Murray had set off the radiation detector when pulling up to the border checkpoint. Seems he'd had a stress test over a week before our trip and the material used in the test showed up! I had to stand apart from Murray on the tarmac, the border agent pointing a Geiger counter at me with no reaction. As he walked toward Murray, it came to life. After a thorough explanation of Murray's medical tests, we were on our way, into North Dakota for my first time, one of the last states to be checked off my list.

After that, it was mile after mile (no longer kilometer after kilometer) of corn and wheat and farmhouses and barns, not forgetting the abundance of oil rigs and huge trucks, tankers and long freight trains of Bakken shale oil. North Dakota is no longer the barren, flat, farming out-back of America, but the beating heart of oil field employment!



Racing, however, may not be very well known in North Dakota. At a gas station, a fellow filling his pick-up tank wandered over and asked what kind of car we had on the trailer. Told it was a race car (hello? Numbers? Roll cage? Five-point belts?) he said, "Oh, so like Baja?" I made hand motions along with an explanation to describe a road course, he then said, "Like forest paths?" He's probably still wondering about that little car and how or where it could "race." (Editor's note: He obviously has not seen the Prodrive-built MINI Countryman in action!)

As anyone on the road in a classic Mini knows, many passing cars—and there are many that are passing—mean cell phone photos, waving kids, smiling



adults, and even laughter. At stoplights, sometimes there was the inevitable, "I had one of those when I lived in England." At one point when I was following the van and trailer, we were passed by an old stretch limo with a spare tire tied to the roof, and later an SUV with what looked to be 24" rims. Both pretty odd from a ten-inch-wheeled Mini perspective!

On the last legs to the Mid-Ohio Sports Car Course for the Can-Am Mini Challenge races, we pulled one 19-hour day, interrupted only by finding any Starbucks with a big parking lot. Fuel doesn't just go in the gas tank on a road trip like

this. We explored the menu at many a Mcd's for nutritional value beyond burgers.

Arriving at Mid-Ohio, we found ourselves among more than fifty classic Minis at the event put on by the Ohio Mini Owners, so no novelty there. The story of the

Can-Am race weekend follows, and after such we headed back west, through Amish country, to almost retrace our tracks, but this time to Milwaukee, for the East Meets West Mini Meet reported on in the next issue of MC2.

With a disappointment in Kenosha, WI., the home of Snap-On Tools, as the museum and gift shop were closed for renovation, we motored through more small towns, tree-lined brick streets, corn fields, red barns and silos, rain storms, thunder and lightning, and a billboard advertising "The next generation of fertilizer." Ah, the Midwest! We also crossed the Continental Divide in North Dakota, at the dizzying altitude of 1,490 feet.

At one town, a mere dot in the road,

a sign announced Sykeston, Home of Travis Hafner. A Google search reveals that as a Cleveland Indian, he became the first player in Major League history to hit five grand slam home runs before the All-Star break. The things you learn on a road trip, not only about baseball, but small-town pride!

Once again, as our woodie sat untouched, secondary inspection at the border of the van was ordered, this time for a questionable logbook for the race car to prove its purpose in the U. S. We clicked off the kilometers with woodie loaded on the trailer again, the van covering 4,500 miles and the woodie 1,800 miles on Interstates, two-lane roads, one toll road near Chicago, pot-holed city streets, through burning sun and pelting rain and dark of night, apparently as impervious as a postman, both having no problems the entire distance.



The final chapter in the story was getting behind the wheel of my own Mini again, from Calgary

to Walla Walla, WA in thirteen hours, through the rolling golden wheat fields and near 100-degree heat of eastern Washington's Palouse, arriving at a friend's for a welcome dip in his pool, and a short drive the next day to Portland, totaling 1,700 trouble-free miles on my car. All in all, a great adventure driving two classic Minis to get to two great Mini events! ■



The Can-Am Mini Challenge 2014

A Race, A Reunion,
A Rollicking Good Time
says our roving reporter
George Olson...

■ Story & Photos by George Olson



Nick Swift lived up to his name in the Mini Challenge race, driving Andy Nelson's beautifully-restored, Swiftune-powered A-Series Mini Cooper S to a 2nd place finish behind Joe Huffaker's Sprite-powered, rear wheel drive, tube-frame national champion "Mini."

It was the drive of the day, and Swift's M3-class car also finished ahead of FIVE other M5-class cars like Huffaker's, as well as the top qualifiers in other classes in the 38 car field that took the green flag on the 2.2 mile road course the weekend of June 28-29th.

The Mini Challenge race was one part of an SVRA (Sportscar Vintage Racing Ass'n) weekend, The Mechanic's Bank Vintage Grand Prix of Ohio.

The Mini race is put on every five years by Canadian and U. S. Mini owners, and is officially called the Can-Am Mini Challenge. This year it was organized by Rachel and Andy Nelson, and Mike Kearney, whose Seven Enterprises (www.7ent.com) was the prime sponsor. The late

Charlie Pollett was instrumental in organizing the race as well; his name placed in memorial on several of the cars.

Classes were established to reflect modern SCCA race-prepared Minis as well as the simplest early race Minis, and modified cars between those two classes, with racers from nearby states, and those from the western states and territories, making 49 total qualifiers.

Rachel and the Ohio Mini Owners welcomed all the Mini folks with a BBQ and there were t-shirts in the crowd celebrating—or poking fun at—every-



thing Mini. During the drivers' meeting before the race, there were raffle prizes for the drivers, thanks to the event sponsors.

The event brought out several Minis with racing history, including five Minis that raced in the 1967 ARRC at Daytona. Four of those cars raced at Mid-Ohio, and the fifth, now owned by John Hedeem, Jr., was on display. John had owned the car for five weeks at the time of the race, and tells the story.



"I was at Import Carlyle talking to the (then) owner and he showed me pictures, but he didn't know the history of the car. I started researching because John Colgate's name was on it," John noted, explaining that Colgate was indeed part of the toothpaste family. "I contacted Colgate, and he responded right away, not having heard of the car in 46 years!"

Colgate was so interested in helping the new owner that he went into his attic and found all the records and photographs and mailed them to Hedeem. Downton Engineering (*fully detailed in MC2 issue #28*) had prepared the car, and even painted it white with a blue stripe, the American racing colors some adhered to back in those days. Having entered four races in '67, with four wins and four track records to his name, Colgate was more than just a rich gentleman driver.

This now-restored #45 race Mini is not the only oil spot in Hedeem's garage though; he also owns a '65 Austin Cooper S, a 1967 Austin Cooper S, a 1969 Austin Cooper S, and a 1964 New Zealand 850. His first car at 16 was a 1960 Austin Seven.

The others from that 1967 ARRC race at Mid-Ohio were #68 driven by Andy Nelson; #37 driven by John Wittenauer; and the Purple People Eaters, #51 driven by Michael Pinney and #61A driven by Robert Hoemke.

One long-time Mini racer made the Mid-Ohio Challenge event his retirement race and is hanging up his helmet after racing since 1960 and in Minis since 1967. Bob Beauchemin drove that first

RESULTS

Class M5: (First Overall) Joe Huffaker

Class M4 Bob Beauchemin

Class M3 (Second Overall) Nick Swift

Class M2 Greg Wold

Class M1 Rodger Soucy

49 cars qualified; 38 cars finished



Mini to the track, raced it, and drove it back home again. For this race, he built a Mini Sprint just for this event, sporting a paint job as wild as the "2" chopped and "2" channeled Mini body, and bringing it (towed, not driven) from Kamloops, BC.



"That paint job was inspired by Jeff Koons's BMW Art Car," Beauchemin explained, "It took 150 hours to do because each piece is cut individually." And he added, "It's my last race, so the car is for sale. I'm 75 and I'm tired."

Asked his best memory in his years of racing, Beauchemin reflected and said, "Winning first overall at Laguna Seca was pretty thrilling," but then added with a twinkle, "At Thunderhill I started last and lapped the field, and THAT was quite a thrill!"



and I've got a couple laying around."

So how did 75-year old near-retiree Bob Beauchemin do in the race? First in class and tenth overall ahead of some other well-known names best left unmentioned.

Now back to Nick Swift and the car he drove to second overall behind Huf-

faker's monster Mini. Nick says he's been racing Minis since he was 16, which with a little prodding he allowed was 30 years ago, and currently races regularly in England in FIA "Appendix K" racing, and has won the Goodwood Revival race for Minis.

He came to Ohio especially for his race, and to help tune Andy Nelson's car. Its first test was the Thursday before the meet and resulted in only some damper and suspension adjustments.

"If a customer

buys an engine, I'll help him set up the car," Nick said. "It's not just about horsepower, it's getting the power to the ground." Asked what effect his testing experience behind the wheel had on the car owner, Nick responded positively, "He (Andy) raised his game because I set the time first."

In assessing his racing in England and his first-time visit to Mid-Ohio, Nick was very complimentary, "Compared to British tracks, this track is the best! The surface is fantastic. It's a Mini track and it's brilliant, and it's challenging. It's the best kind of track."

As for Swifttune, it will be 50 years old next year, started by Nick's father who was a research engineer for Ford.

The owner Nick drove for is Andy Nelson, and Andy started restoring the car a year ago, with the experience gained from 12 years as an auto mechanic and painter (though he now flies for FedEx.)

He and his wife Rachel, the organizers of the Mini event, are long-time Mini owners, and Andy says his first one was a 1961 850 that he drove home before he even had a driver license. Referring to the current car, he said, "We had numerous Minis over the years, and we just went for higher quality with each one."



The class-winning car is certainly high quality. Andy explained it was Bob Kimes's Ohio car and had always been a race car and ran in the 1965 Monte Carlo Rallye, prepared by Arden Engineering. "We got it in Dayton (OH) and (the late) Charlie Pollett found it for us. It's now re-painted in Kimes's racing colors."

Even with a year to plan, Andy and Rachel still found there were last-minute things to do—such as receive a huge crate from England and install the complete engine and gearbox a week before the race! So in the car's very first race it finished ahead of every other front-wheel drive Mini!

And one of those other Minis was Andy's sister vintage car, the #68, in which he finished 4th in class and 14th overall. That car's first race was the Mini Challenge event at Laguna Seca in 2006.

Among the other racers was Sarah

Kahn, probably the youngest driver in the field, at 23. Of her racing, she says, "I started when I was 18, in an Alfa GTV, but I got a lot of track time in my dad's Mini, and it's always been my favorite car to race, hands down." At Mid-Ohio, she and her father were part of a group of four racing Minis, hers being #57.

As Sarah tells it, "My dad and his good friend obtained four Minis and sent them all to Huffaker to have them turned into matched Minis. This makes racing more fun since it's really a matter of who is the better driver, rather than who has the faster car." She added, "My mom actually thinks I'm safer in the race car with the harness and safety gear than I am on the road, and my dad just loves having a gearhead for a daughter." And gearhead Sarah is, with a Mechanical Engineering Bachelors degree and an Automotive Engineering Masters degree!

After driving a Ginetta and then the Alfa, she says of her Mini race car, "I



love that Minis are front-wheel drive! It makes turns much more fun and counter-intuitive. In my mind they are these little boxes that break all of the rules of a typical race car. The Mini Challenge was my first time driving Mid-Ohio and I absolutely loved how technical the track is, and its several turns keep things more interesting than long straights."

With that kind of enthusiasm, it's no wonder that Sarah Kahn was awarded the President's Choice Award for the SVRA's favorite Mini "because of my father passing racing down to me, which embraces the spirit of the Mini Challenge."

One of the significant highlights of the weekend was the group picture made on the front straight, with 50 Minis and drivers lined up in front of a couple photographers on ladders. Most racers, as one would imagine, are pretty competitive, and one of them, Keith Degauque, from Ontario, Canada, put it best when he joked to one of the photographers, "You managed to get fifty Type-A people to line up and do what they're told. That was amazing."

In the end, 38 cars finished the race, and every one of those drivers was a winner for having attended the 2014 Can Am Mini Challenge race, with memories to last, and improve with age, as all racing memories do. ■



Keep'em Running

*“The more I know about Minis,
the more I know I don't know about Minis.”*



Mini Steering Conversion Between Left Hand Drive and Right Hand Drive

A common question in the Mini world is how to convert from left hand drive to right hand drive...or vice versa. It is a simple question

to answer, and at the same time, a complicated one. Rather than answer a specific letter, I thought it easier to tackle the conversion at a rather simple level and at least mention some of the issues one will have to deal with; otherwise, this issue would be about changing steering on Minis from one side to the other and not much else!

The first question to solve is do you really want to go to the trouble? There are a lot better things to spend your Mini money on. I did my first conversion on one of my Minis decades ago just to see how to go about it. Since then I've never bothered with my own cars. If it starts out LHD, I leave it that way. If it starts out RHD, I leave it that way. OK. So you want to do it or have to do it because of some local law. (I haven't run into any such law in the U.S., yet, but maybe it is an issue elsewhere.) What's involved?

The short answer is that one would need, at a minimum, a new steering rack, a throttle pedal to match the desired set up, and brake and clutch pipes to match the new length needed. One can not take the old rack and flip it over, and the LHD and RHD pedals are shaped differently for clearance issues. In general, the parts used for the conversion are inexpensive compared to the time involved to make the conversion and then reset the front suspension alignment.

From there on, what has to be done or what should be done depends upon the year your car was made. As a group, the most difficult cars to change are those from about 1989 and later. These are the cars that used the "lay down" brake master cylinder in conjunction with the brake servo. That set up stays in place regardless of LHD or RHD unlike the brake (and clutch) master cylinders for all other cars that get moved to be above the corresponding pedals. And of these cars, the conversion from RHD to LHD is the hardest...if you can find the necessary parts.

The easiest swaps are those in the Mk III and IV range (except the Clubman/1275GT cars with the gauges in front of the driver). Probably the next easiest would be the MK II cars where you would have to deal with new door lock sets. Remember that the Mk I and II cars had an external lock only on the driver's side and an internal lock only on the passenger side. To do it right you can't just take door locks and swap them over. The Mk I cars are as easy as the Mk IIs, but I'd strongly recommend that a Mk II+ rack be installed in your Mk I which would mean you would have to buy and install Mk II+ steering arms.

The changes continue with wiper arm angle, getting turn signals to self-cancel, wiper motor location, issues with moving gauges on cars with the gauges in front of the driver, and other dash issues like those for late cars with a full dashboard that would have to be replaced with one for the new set up. There are even differences in the clutch and brake pedals that may be an issue in some cases.

Still want to make the change? Have at it! Get out your workshop manual and find a Mini friend who's done it before to help.

Q: Thick milkshake in my rocker cover! Help! Even though I take the Mini out frequently, I don't put lots of miles on it anymore, so it had been quite some time since I had done a complete tune up; including, checking valve settings. I removed the rocker cover and set it on my workbench and went on with the valve setting. When that was done I flipped the valve cover over intending to give the inside a quick wipe down before reinstalling it. I was surprised to find a thick cover of the most ugly looking milkshake-like stuff all over the inside. What is going on? —Milky Way, Canada

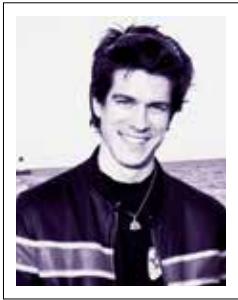
A: Ah. The old mayonnaise in the rocker cover problem! You could have a head gasket that is going bad allowing water and oil to mix. It is not likely, but it will not hurt to check the looks of the fluid in the radiator for any suspicious Exxon Valdez imitation. If you changed the oil while doing the rest of the chores it also would not hurt to take a closer look at what drained out.

However, having given you the possible bad news, I would be more likely to suspect that your current driving routine is probably the issue. Lots of short drives with the car never really getting warmed up will allow the oil and water mayonnaise to form. So, next time you make that short run to MacDonal'd's make sure you take the long way back so that the car gets fully warmed up and gets run at that temperature for a few miles.

Maintenance Tip: Like the LHD/RHD question above that comes up often is one of wanting to change out Mini seats to aftermarket seats or even seats from another type of car. There are lots of options, but being one who likes the stock ones (especially the early ones—OK, that makes me one of the minority) I'm not a good source for seat swap out answers. If you're serious, I suggest you do some Mini forum searching out there in cyber space. Here's a place to start: on the Mini Mania web site, www.minimania.com/home. cfm. Use the SEARCH option near the top of the page. Set it to FORUM and type in "front seats that fit a Mini saloon" and you'll get to a thread that may help.

Remember, "Don't leave your Mini at home!" ■

Save the Wave...or is it Already Too Late?



Here is a question for debate—is the MINI wave dead? It seems the more I wave at other MINI drivers the

less attention I receive in return. Like the argument over run-flat tires, MINI enthusiasts will tell you that less MINI drivers are inclined to acknowledge a fellow MINI owner with the oh-so-friendly open-palmed greeting. As of late, my attempts have failed to gain even a smidgen of conscious thought from the recipient MINI. The obvious question to be asked here is—What Happened? What changed to the culture of MINI drivers that a wave has now become a thing of the past?

I don't want to end up going off on a rant here, but what had seemed once a "MINI Thing" has now become something us older MINI owners talk about as if we were remembering when we didn't have cell phones, or we actually played outside in the street, or the time before the Internet...How we ever survived those days is beyond me, although it did come up in conversation the other day that mine is the last generation (Gen X'ers) to know what it's like to not be a prisoner to social media (another rant for another time). Here are a few reasons I believe that (as sad as I am to say it) the MINI Wave...is dead.

Has MINI become mainstream?

When the New MINI launched over 10 years ago, it attracted a certain "crowd". It had appeal to those individuals who were a little more passionate, a little more flamboyant, a little more...social. Throwing a cheeky salute to a like-minded driver was the equivalent to sharing a secret. It said, "I like your style...nice choice..." and "I'm having fun, and I know you are, too!" The early adopters are always like that though. With few MINIs on the road, excitement couldn't be helped when spotting another one of the tribe. It

also made those who owned one of the Classic Mini's pine for the feeling such an icon of the motoring world embodied. The new MINI laughed in the face of convention, and those who got it recognized it in others. Remember "SPOTTED" cards? If you were ever lucky enough to receive one of those little gems you might as well frame it. Now we have the F56; it still resembles a MINI, but I expect R56 and R53/R50 owners will now have a common bond in their opinions on the 3rd gen design. This is a song that has been sung before eh? (I'm looking at you Classic Mini guys).

So many MINI's...

Fingers can be pointed at new MINI owners simply not knowing or caring. According to goodcarbadcar.net there were 41,915 MINI's (all models) sold in the USA, and 3,946 (all models) sold in Canada during the 2013 calendar year. Now obviously the U.S. hunger for autos is quite a bit more sizable than Canada's but I will remind you that Toronto has FIVE MINI Dealers within spitting distance of each other (or, to put it into more Canuck friendly language, 'slap-shot' distance of each other). With an ever-increasing lineup of models and variants the shine to this new penny has really begun to dull. A simple Google search casts evidence to this as hits from forum go back to 2010 asking if people still waved. Those of us who do wave will get behind it and proudly proclaim that we will always wave to fellow MINI drivers regardless, but the truth is that very seldom is it met by anything more than a cold blank stare.

When is a MINI...no longer a MINI?

Before I get an inbox of hate mail (that's staff@mc2magazine.com), hear me out. I have NEVER received a wave from a Countryman driver. In fact, I have been met with more puzzled looks from Countryman owners than any other demographic. Maybe it's because the people buying this kind of MINI have a different outlook to MINI ownership, or perhaps it's because they don't relate to their 2-door

brethren. I propose the theory that the majority of Countryman owners drive with the mentality that they own a car and not a MINI. Don't get me wrong, I am sure they enjoy the vehicle very much. Countryman owners are just oblivious as to what they really have.

Could Mods be the wave's saving grace?

For those of us who have some cosmetic work done, seeing another MINI whose owner has taken the time to make it stand out might be the last hope for the wave.



Remember the term you-ification? I once used this lingo to sell the R56 and its variants to prospective new owners, but back then MINI was still the mark people looked to when they wanted something different. The owners of modded MINI's might be the last vestige for a wave in the MINI world. If there is any type of owner who could keep a small portion of it alive it would be them. The flip side to this coin is the fact that a modded car has a stigma attached to it. Like everyone who drives one is a 'Boy Racer' fast and furious type of personality when in fact, most owners are merely enthusiasts who enjoy, appreciate, and prefer something that is unlike anything else. This is the mentality of which those early adopters of MINI came to the table with.

There can be some truth in the ranting of those who say MINI has watered down the brand with so many variants...maybe the fact that very few MINI owners wave these days is the result of this. All I know is that as long as I see another MINI, I am going to wave. Maybe someday it will be you (faithful reader) who is coming my way. Do me a favour—don't forget to wave back.

Let's 'Save the Wave!'—I'm sure I saw a sticker somewhere...

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SIZE MATTERS



Estate Cars, Pick-ups and Trucks

In the beginning, the Mini was designed to be a basic people mover. It didn't take long to realize how versatile and adaptable the Mini was to being so much more...

Less than two years into production (1961), the first addition to the expanding Mini lineup was the estate car (station wagon on this side of the pond). Austin had the Countryman, and Morris badged it the Traveller. Deluxe versions even had wood trim added to the exterior. Another variation of the estate car was the panel van. Having no side windows or rear seat, it provided some security and additional storage. The flat floor was an added advantage due to the front wheel drive layout. It had good commercial success for tradesmen in the UK market.

With the success of the estate car, someone at BL decided to cut the top off the back end and make a pick-up truck. Rated at a quarter-ton, some of these mighty-mites were called upon for much more

than their modest factory limits. Many were fitted with campers and others were converted to ice cream trucks and food service vehicles. By the end of the third year of production, Mini's model lineup had increased to four separate vehicles! Now the Mighty Mini could do much more than haul a family of four...it could deliver flowers and groceries, provide roadside assistance, haul tools and supplies for plumbers and electricians, and do it all economically and in stylish fashion! Never before had one basic vehicle filled so many market segments. It was truly another incredible feat for one of the most humble of automobiles—that began from a sketch on a cocktail napkin.

Sir Alec only had basic objectives—fuel economy, affordability, and convenient size with maximum benefit. Mini's versatility quickly branched out beyond his wildest dreams. Within two years the little economy car had become a successful race car, family car, and utility vehicle...and things were just getting started! ■

Top left:
1/18 Morris Mini Traveller (Kyosho out of production), 1/45 Austin Mini Countryman (Dinky 1964), 1/43 Morris Mini Traveller with surfer dude and longboards (Corgi 1965)



Top Right:
1/43 Ice Cream van (Oxford 2010), 1/43 Expandable camper (Spark 2012), 1/43 Castrol van (Oxford 2009), 1/43 Pick-up (Cararama 2005), 1/130 van (Model Planning 1990)



Bottom Left:
1/43 Royal Mail vans with postman & letterbox (Corgi 1995)



Bottom Right:
1/43 Police van with constable & dog (Corgi 1966), 1/43 "Vote for Someone" van with Crier, billboard & loudspeaker (Corgi 1965)



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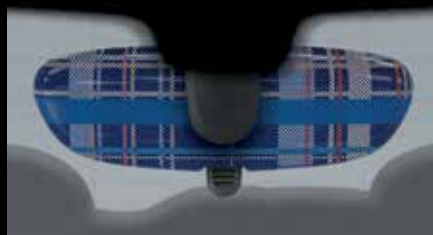


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Speedwell Blue Mirror Caps



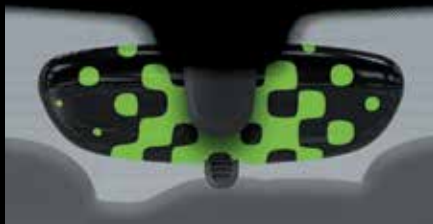
Speedwell Blue Rearview Mirror Cover



Speedwell Blue Roof Graphic



Vivid Green Mirror Caps



Vivid Green Rearview Mirror Cover



Vivid Green Roof Graphic

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