

E31news

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E31 Chapter BMW Car Club of America

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Table of Contents

- ***From the Driver's Seat***
 - ***Bay Area 8er's Fall Drive***
 - ***SoCalEights: A day in the sun 9th Annual SoCal Vintage BMW meet***
 - ***Clarion Builds 850Ci***
 - ***The Dinan 8***
 - ***"Mates with 8's"***
 - ***Sunroof Settings***
 - ***Suspension Upgrades***
 - ***E31 Boot Actuator Replacement***
 - ***2016 E31 Chapter Treasurer's Report***
- ### *2017 E31 Upcoming Events*

SoCalEights WrenchFest,

February 4, Long Beach, CA fern.mora@socaleights.com

Southeast 8 Gathering – 10th Anniversary,

March 3 – 5, Mount Dora, FL se.8.gathering@gmail.com

SoCalEights Road Rally,

April 29, Long Beach, CA fern.mora@socaleights.com

E31 Tech Advisors

This is a list of E31 Chapter members who have volunteered to serve as E31 Technical advisors. Please call them for technical assistance, but also call at reasonable hours. If you would like to be added to the list, please let the Editor know.

Zach McCoy (any reasonable time EST) 317-506-7990
trouble shooting for transmission, ignition, top end engine

On the Cover

Thanks to Clarence Tang for his beautiful picture from the "Mates with 8's" 8-fest held this fall in Melbourne, Australia.



*by Roger Wray
President, BMWCCA E31*

...



It is hard to believe that 2016 is almost gone. It seems like just yesterday that everyone was starting to plan for the 100th year Anniversary of BMW and the big E31 Meeting. Many hours of hard work went into the event hosted by the local SoCalEights group, and their efforts were rewarded with a great meeting. Others around the country got together in 2016 and had fun and a great time. Thanks again for everyone's efforts to host local events!

I have been somewhat disappointed on the lack of response from BMW on our collective efforts to have the headlight adjusters remanufactured. As many of you know, we really need these parts so many can get their headlights adjusted within specs for state inspections. We will continue to work on this issue, and escalate it up the hierarchy until we get an answer.

Enjoy the review of the SoCal Vintage BMW Meeting. Congratulations to Alec and Armen for their awards!

Thanks also go out to JR Wappel for his information on the Dinan 8. JR has recently put up a new website dedicated to the Dinan 8. Also included are individual stories by Dinan 8 owners from our community.

Clarion has recently completed the newest Clarion Builds, where they take what they consider to be an excellent

automobile, and modify it with the latest and greatest components. Their last Clarion Builds, a BMW 2002, was auctioned off for more than \$100,000 with the proceeds going to charity. Their latest build – the BMW 850Ci – continues their tradition of building an outstanding automobile. We will have to see where it ends up. Congratulations to Clarion for selecting the 850Ci, and building a beautiful car.

We again have some international content for this edition of the E31 NEWS. Our Mates from Down Under held a get together and a write-up of their meeting is enclosed. Also, a picture of their cars by Clarence Tang graces the cover of this edition of the E31 NEWS.

2017 promises to be a great year for the 8s. Events are planned from Florida to California, and others are in the works. If you wish to put something together in your area, please let the chapter know, and we will offer whatever support we can.

Always remember, it is the cars that bring us together, but it is the people that makes us what we are! Thanks again for a wonderful 2016. The E31 Chapter Board Members would like to wish each and every one a very Merry Christmas, a Happy New Year, and a Joyous Happy Holidays.

A handwritten signature in black ink that reads "Roger".



A lineup of 8's from the Land Down Under

Bay Area Ser's Fall Drive

by Ed Rutkukas

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We met up in Sausalito at the Taste Of Rome cafe at 9:30AM. 5 cars showed up, Phil and his wife driving a fly yellow 850, Jon and wife driving a black 6 speed 850 5.4L hybrid engine, Galvin driving a stock blue 850, Ken with his beautiful newly repainted 840 and myself (Ed with my wife and son) driving a diamondschwartz 850 with my newly rebuilt engine, CSI mirrors and CSI body.



From Sausalito we followed HWY1 to Stinson beach, pictures were taken on the way to Stinson beach when we stopped half way for a view. Had delicious brunch at Parkside Cafe.



From there we jumped back on HWY1 north all the way down to Nick's Cove for Oysters and Beer:) It looks like everyone wants to meet up again next spring for another drive.



Toto, I don't think we are in Kansas anymore!

Cheers! Ed

SoCalEights: A day in the sun 9th Annual SoCal Vintage BMW meet

by Tom Jacobsmeyer

...

It was bright and sunny in SoCal...we would regret that somewhat later in the day. The day started with our usual meetup at the corner lot on Woodley Ave and Victory Blvd. at 7:30AM next to the famous Henry's Charbroiler, a notable local Greek restaurant, home of the breakfast gyro. Gathering before an event creates anticipation for the "roll-in" and pumps up the excitement for the event. It's always fun to chat and warmup with some catch-up and cartalk before we move out. We



were joined by 2 new members for the short trip down the street to Woodley Park in Van Nuys CA and they fell in line like troupers. SoCalEights has become pretty adept at the convoy from place to place; we've had a lot of experience with it over the years. We rolled out in an impressive line of 14 cars making it all the way down to the park entry before getting broken up into two groups (parking guys have no sympathy for an orderly line of Eights) as we rolled into the Woodley Park staging area.



By the time all the E31's had arrived we were 19 strong at the start, a pretty decent showing. Southern California seems to have the highest concentration of 8 Series cars in the world which makes for a great show when we roll in.

So after about 20 minutes we started the procession to the display area. This year was a bit of a problem in that the park had let its tending of the grass go. With the drought in SoCal they had not been watering the lawn much and the grass was pretty sparse. In spite of the slow speed the amount of dust that was created was pretty disheartening. Right after all the

cars were parked all the dusting implements came out of trunks everywhere. This was a pretty much the requirement for the day with most people giving up as a lost cause by noon. I know the SoCal Vintage BMW organizers were frustrated as well but they had no control over the city's watering plan.



After everyone was parked there were about 350 participants for the event. This (I think) is the largest crowd they have ever had and is one of the larger BMW events (Bimmerfest excepted) in the area. The number and variety of BMW's is pretty amazing. The meet is comprised of pre-1989 BMW's

and was pretty widely represented. This is the show that, last year, Mike Brewer of “Wheeler Dealers” wandered around buying parts for their BMW project show. Although there seemed to be fewer vendors this year, it is still a great show.



There was also a nice assortment of “unique” BMW’s, some meeting with the season, since Halloween is just a few weeks away. The creativity that owners express is always an interesting break from the beautifully restored models that are all over the show. There were several cars that could be described as rowdy. The 2002 conversion into an off-road, Mad Maxx version was pretty interesting. It garnered a lot of attention and was a crowd pleaser.



Mad Maxx invades the SoCal Vintage BMW Meet!



Did I mention it was a hot day? The temp soared in sunny SoCal. Shade, water and sunscreen were a must. The SoCalEights campfire (a figurative description here, not actual) gathered under a popup that offered some relief from the heat. We made excursions out into the Meet but made sure we all had water. Did I mention it was hot?



Congrats to Armen, for his Best of Show with his 6

When all the ballots were counted SoCalEights members scored the Best of Show-Armen D. (a member who brought his 6 Series) and Alec C. in his brand-new-to-him Hellrot, 1995 850 CSI won Best 8 Series (there were other non-SoCalEights E31’s there). Congratulations to Alec and Armen in keeping with the SoCalEights tradition of excellence!



Congrats to Alec with his Best 8 Award

Clarion Builds 850Ci

Courtesy of Clarion Corporation of America

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WHY A 1993 BMW 850Ci?

When BMW introduced the 8-series in US in 1991, the 850i (later renamed 850Ci in 1993) was arguably the most advanced production V12 automobile ever produced not just by BMW but by any other make. Introducing many firsts and establishing several modern standards, CAD designs and CAN bus architecture are just a few game changers credited to the 850's \$1-billion development program.



A true Grand Tourer by any definition, the flagship 8-series defied the stereo-typical GT cars of the era, as well as anything before or after, by featuring a silky-smooth 6-speed manual mated to a mighty V12. With low production numbers over a 10 year global run, the 850Ci is on its way to become an appreciating collectable thanks to its timeless graceful design, autobahn bred confidence, and pure personification of BMW as the Ultimate Driving Machine!

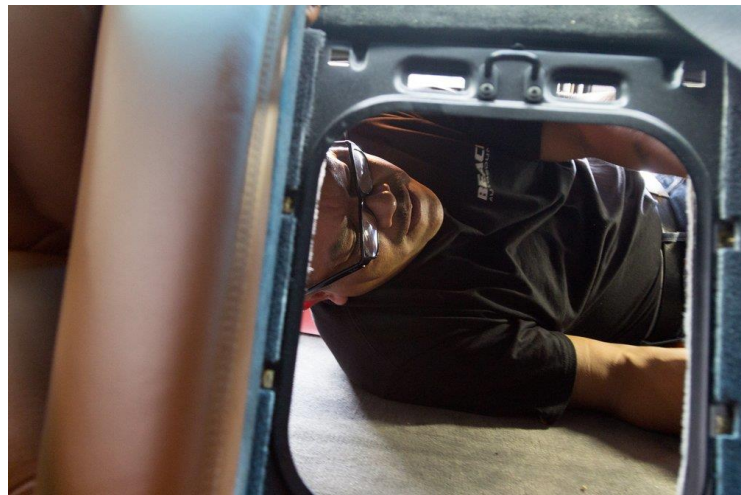


Color Change: Black to Blue exterior
Interior Change: black to spice leather
Automatic to 6 speed swap
Clarion Stereo Custom Install





Custom Clarion Touch Screen unit



Custom stereo installation by Beach Autosound



Interior port for trunk installed bass speaker



Swapping the pedal assembly from 2-pedal automatic to 3 pedal 6-speed by Coast Motorworks



Custom leather interior in Spice Leather by Westminster Auto Upholstery interiors



Brake upgrades with StopTech Brake rotors and StopTech Pads



Information provided by JR Wappel, Ryan Swail, and Greg Habel

Note: The first part of this article has been taken out of the original Dinan 8 Information brochure from 1991

...

The sun has barely risen and gently you stir, careful not to disturb anyone. Quietly you slip out of bed. You've got three hours to yourself before the rest of the world awakens.

Out there is that stretch of road.

Your heart beats a little faster as you think about it. You, that winding road and your car.

Welcome to the world of the Dinan BMW.

Dinan has been building remarkable BMWs for 12 years. BMWs that have caught the attention of a very select group; the automotive press. Read what the experts say about Dinan BMWs.

"It's a remarkably comfortable compromise, endowing the car with a more responsive character without hurting overall creature comforts" – Automobile, 1991

An 850i with a Dinan Stage 2 turbo and a Stage 2 suspension accelerates from 0-60 mph in 4.8 seconds and registered a 0.90 g on a skid pad. This puts it in the same league with such rare exotics as the ZR-1 Corvette and the Ferrari Testarossa.

This means that you can own the fastest accelerating, best handling coupe in the world and get exotic car performance without sacrifice. Now you don't have to give up the joy of driving to have a back seat and a trunk, which puts DINAN BMW's in a league even the exotics can't match!

This is our motto at Dinan "performance without sacrifice". We feel our customers expect ultra high performance along with the legendary comfort and reliability of a standard BMW.

Dinan strives to meet this goal with a staff of dedicated engineers and technicians consisting of: A chief research engineer in charge of new product innovation and theory; a mechanical engineer with a minor in petroleum engineering in charge of product development and emission certification; a prototype engineer in charge of designing and packaging of complicated systems; a design engineer in charge of product refinement and computer aided design; a hardware engineer in charge of electronic control unit design and development; and a software engineer in charge of control unit programming and refinement. The engineering staff is backed-up by a talented supporting staff of fabricators and

technicians. This makes Dinan a leader in the design and development of high performance BMW products in the US and provides our customers with a combination of performance, sophistication and refinement unparalleled worldwide.

Dinan Engineering 1991-> 850i E 31 Product line

- High Performance Wheels and Tires
- High Performance Suspension Systems
- High Performance Computer Chips
- High Performance Chip and Exhaust Package
- High Performance Chip, Exhaust and Intake Package
- Speed Delimeter
- High Performance Drive Line Components
- Limited Slip Differentials
- Naturally Aspirated Packages
- Turbocharger Systems with Electronic Fuel Management

HIGH PERFORMANCE WHEELS AND TIRES

No single performance product has as much effect on handling as tires and wheels. With that in mind, Dinan offers a special three piece, light weight alloy racing construction wheel for the 850. Practical street features like an extra thick outer lip for strength and resistance to bending have been incorporated into the design as well. The 9" wide Dinan wheels and hubcentric adaptors provide the ability to fit the largest wheels and tires possible on the car, thereby minimizing understeer, improving steering response and increasing overall grip. Since the same size wheel is used on both the front and rear, factory recommended tire rotations can be carried out as well.

Dinan recommends Yokohama AVS Intermediate tires for excellent all weather traction and high performance. The 16" wheel should be fitted with a 245-45-16 and the 17" with a 255-40-17. When used in conjunction with a Dinan Stage 3 suspension system, a 275-40-17 tire may be fitted to the 17x9 wheel as well. A Dinan performance specialist will be happy to discuss other tire options and your particular requirements.

16x9 Road Wheel \$649.00

17x9 Road Wheel \$699.00

Dinan Hub Extenders:

3/16: \$249.00

3/8, 9/16, 3/4: \$299.00

HIGH PERFORMANCE SUSPENSION SYSTEMS

Dinan offers the best performing, highest quality and most complete line of suspension systems available anywhere. There are now three Dinan suspension packages available for the 850i, each with increasingly higher performance handling characteristics.

Stage I Suspension System

The Stage I systems consists of lower, firmer springs and specially valved shocks and struts which had been carefully designed to complement each other. The result was a very nicely dampened ride, void of the excessive pitch and roll associated with the stock 8-Series suspension. For vehicles equipped with EDC (electronic damping control), Dinan offered a lower and firmer spring set, designed to complement the valving of the stock struts.

Stage I without EDC – \$1,264.00 (Lower Springs, Front Struts and Rear Shocks)

Stage I with EDC – \$379.00 (4 Lower Springs)

STAGE 2 Suspension System

Stage 2 adds larger antiroll bars to the Stage 1 system in order to further reduce body roll and increase steering response. Dinan antiroll bars are made of materials so superior that they are in a league by themselves. As an example, the antiroll bar bushings are made of high density synthetic rubber as opposed to the inexpensive urethane used by most manufacturers. Urethane requires regular lubrication, has a tendency to squeak and wears faster. Dinan simply does not believe in replacing any factory BMW part with one of lesser quality. You will see the difference in increased service life, quieter performance and exceptional handling.

Stage II without EDC – \$1,684.00 (Stage I Components + 27 mm Front and 16 mm Rear Anti-roll Bars)

Stage II with EDC – \$799.00 (Stage I Components + 27 mm Front and 16 mm Rear Anti-roll Bars)

Stage III Suspension System

The results of Dinan's research and development efforts become dramatically apparent with the Stage III Suspension System. Using a three plane suspension program, Dinan engineers discovered that the 8-Series' biggest geometric weakness was the front end. Stage III corrects the weakness by relocating the upper strut mounting point with a camber plate. The camber plates reduce under-steer, or the car's tendency to plow the front end, and also make it possible to fit larger tires and wheels, further reducing under-steer.

Stage III without EDC – \$1,884.00 (Stage I/II Components + Front Camber Plates)

Stage II with EDC – \$999.00 (Stage I/II Components + Front Camber Plates)

DINAN PERFORMANCE CHIPS

Dinan computer chips optimize fuel economy and emissions at light loads and as load increases the program gradually changes focus toward power. At wide open throttle chips are dyno-tuned for maximum power gains. Dinan chips increase fuel economy and power by optimizing fuel and ignition curves for supreme fuel. The Dinan 850i chip package on 6 speed cars includes two engine chips. The Dinan 850i chip package on 4 speed automatic cars includes two engine chips and a high performance transmission chip. The transmission chip matches transmission shift points to the engine's new power curve.

Performance Chips – \$495.00 (+33 HP @ 5,500 rpm's and + 34 Torque @ 4,500 rpm)

HIGH PERFORMANCE CHIP and EXHAUST PACKAGE

Dinan offers a dyno-tuned free flow exhaust system matched to the engine and designed to be compatible with a Dinan performance chip. This package is tuned for the optimum balance between maximum power and a mellow sporty sound. Dinan exhaust systems are manufactured from OEM BMW systems for a perfect fit and high quality.

On cars equipped with an automatic transmission this package includes a high performance transmission control chip to reprogram the shift points. This reprogramming takes advantage of the large increase in horsepower at high rpm resulting in faster acceleration. See the graphs for specific horsepower and torque gains.

Exhaust System, Engine Chips (6 SPEED) \$2,495.00

Exhaust System, Engine Chips (AUTOMATIC), Transmission Chip \$2,695.00

HIGH PERFORMANCE CHIP, EXHAUST, AND INTAKE PACKAGE

Further increases in horsepower and torque are obtained by adding Dinan high performance intake manifolds. The manifolds are ported and polished using the extrude hone process, then powder coated black for a dramatic, high performance look. The Dinan chip, exhaust and intake package is 50 state emissions legal as well.

2 Intake Manifolds, 2 Engine Chips (6 SPEED), 1 Exhaust System \$4485.00

2 Intake Manifolds, 2 Engine Chips, 1 Auto-Transmission Chip, 1 Exhaust System \$4685.00

2 Intake Manifolds Only \$1990.00

DINAN SPEED DELIMITER

The Dinan speed delimiter is designed to eliminate the 155 mph governor. The new limit is now the engine rev limiter. The top speed will therefore be limited by the engine's power and gearing, not by some artificial limiter. Z speed rated tires are a must and Dinan Engineering HIGHLY recommends a suspension before removing the speed limiter. Operating a vehicle beyond 160 mph without proper tires and suspension is very dangerous.

TurboTronics 7 \$399.00

HIGH PERFORMANCE DRIVELINE COMPONENTS - AUTOMATIC TRANSMISSION

Once you have increased your engine output, Dinan has the drivetrain components necessary to ensure reliability and further increase performance. With an automatic transmission, improved reliability comes from an external cooler to reduce transmission fluid temperature. In addition a Dinan shift kit improves reliability and performance by making shifting more rapid and reducing clutch slippage.

Transmission cooler \$595.00

Shift Kit \$495.00

Improvements in performance come from a higher stall speed torque converter. The 850i original stall speed is 1900 rpm; Dinan raises the stall speed to 2400 rpm. The higher stall speed torque converters allow for a much faster acceleration from a dead stop by enabling the engine to rev higher before acceleration begins. This higher rpm puts the engine into its peak power range sooner. The Dinan torque converter retains the lock up feature in 3rd and 4th gears to maintain fuel economy at cruise.

High Stall Converter (EXCHANGE PRICE with \$1300.00 Core Deposit) Must be used with Transmission Cooler \$795.00

LIMITED SLIP DIFFERENTIALS

Dinan offers Limited Slip Differentials for improved handling and acceleration of the 850i. Limited Slip is not available as a factory option on the 850. In addition to enhanced performance, a Limited Slip Differential provides for improved traction in adverse weather conditions, such as snow and ice.

The 850i is factory equipped with 3.64 – 1 gearing on the automatic and 2.65 – 1 on the 6-speed transmission. In addition to adding Limited Slip, Dinan can also alter the gearing for improved acceleration or top speed emphasis. A Dinan performance representative can discuss your particular requirements to determine the appropriate gearing.

LIMITED SLIP DIFFERENTIALS:

2.65-1 (6 SPEED)** \$3200.00

3.15-1* \$2295.00

f3.64-1* \$2295.00

*Exchange Price (\$350.00 Core Deposit).

**Stock Differential must be shipped to Dinan for Modification

NATURALLY ASPIRATED PACKAGES- AUTOMATIC TRANSMISSIONS

To achieve maximum acceleration from a non turbocharged engine, a combination of power increases and drivetrain modifications are recommended. These packages are carefully matched and sold at a discounted price.

STAGE 1 1991-> \$5689.00 (2 Engine Chips, 1 Transmission Chip, 1 Exhaust System, 1 High Stall Converter*, 1 External Transmission Cooler, 2 Intake Manifolds**)

STAGE 2 1991-> \$5989.00 (2 Engine Chips, 1 Transmission Chip, 1 Exhaust System, 1 High Stall Converter*, 1 External Transmission Cooler, 1 Shift Kit, 2 Intake Manifolds**)

*Exchange Price (\$1300.00 CORE DEPOSIT)

** Exchange Price (\$2200.00 CORE DEPOSIT)

NATURALLY ASPIRATED PACKAGE-6 SPEED TRANSMISSION

STAGE 11991-> \$6780.00 (2 Engine Chips, 1 Exhaust System, 1 3.15-1 Limited Slip Differential*, 2 Intake Manifolds**)

*Stock Differential must be shipped to Dinan for modification

**Exchange Price (\$2200.00 CORE DEPOSIT)

DINAN TURBOS

If there is a product made by Dinan that truly shows their engineering prowess, their turbo systems are it. Because of a turbo system's complexity, most of our competitors do not even attempt to make a system. Dinan not only manufactures a system, Dinan uses leading edge electronic engine management technology to produce unprecedented power outputs. But at the same time it maintains the turbine-like smoothness of the stock V12.

"With the throttle planted, it offers the thrust of the space-shuttle Columbia." - CAR and DRIVER, JULY 1993

"Around town, it's as smooth as Tennessee sipping whisky: drive it with a light foot and its ferocious power is not apparent..." - CAR and DRIVER, APRIL 1991

TURBO SYSTEM STAGE 1

The 850i turbo must be experienced to be fully appreciated. The extraordinary smoothness of the 850i is enhanced by the turbo. In fact, the turbo gives such a turbine-like smoothness to the engine that makes it feel like an electric motor. Full boost is achieved at an incredibly low 2600 rpm. The engine produces 549 ft lbs of torque and 469 hp (SEE GRAPH FOR DETAILED HP AND TORQUE SPECS).

Dinan's expertise in electronic engine management is what makes it possible to achieve this level of performance and refinement. The Dinan 850i is a twin turbo, twin intercooled system with twin engine management systems. This carries through the BMW factory's original design theory and gives the car "limp home" capability. In the event of an electronic failure on one side of the engine, the other side will function normally. The brains of the Dinan system is its sophisticated engine management system. This engine management system comes with high flow turbo injectors, Dinan's Turbotronics 5 (a digital manifold pressure sensor) and new software to optimize the fuel delivery and spark advance. The engine management system also includes twin knock sensors to ensure reliability. This system is so sophisticated it enables us to run 10 psi boost with the stock 9.0 to 1 compression

TURBO SYSTEM STAGE 2

The Stage 2 system retains all of the features found in Stage 1. It adds to that system a Dinan exhaust system. This system is built from a BMW OEM exhaust for perfect fit. The stock exhaust baffles are then modified by Dinan to reduce backpressure and produce a mellow sporty sound. On the automatic equipped cars we also add a high stall speed torque converter. The stall speed is increased on the automatic from 1900 rpm to 2500 rpm. This allows the engine to rev to a point where it will make boost almost immediately. You can actually hot brake the car and make boost while you are stopped. This ability to get into boost from a stop dramatically reduces Q-60 times. The exhaust system increases power to an impressive 584ft lbs of torque and 511 hp. On the 6 speed this extra power reduces the Q-60 mph time to 4.6 seconds, a standing quarter mile in 12.8 seconds with a top speed of 190 mph.

On the automatic the combination of the high stall speed torque converter and the extra power produced by the Dinan

exhaust makes the car rocket from 0-60 in 4.8 seconds, a standing quarter mile in 13.0 seconds with a top speed of 160 mph.

STAGE 2 MANUAL \$19,495 (Turbo System, Engine Electronics, Speed Delimiter, HP Exhaust)

STAGE 2 AUTO \$20,995 (Turbo System, Engine Electronics, Transmission Chip, Shift Kit, Speed Delimiter, Transmission Cooler, HP Exhaust, High Stall Converter)

DINAN ENGINEERING WARRANTY

Turbo/suspension systems and rebuilt engines/transmissions have a 36 month/36,000 mile warranty from Dinan Engineering.

This warranty shall be null and void if:

- the vehicle is used in any competitive events or driver's school held on a racetrack.
- boost pressure is altered.

This warranty does not apply to the following items:

- a) maintenance services, oil changes and filters.
- b) belts
- c) mechanical adjustments or repairs which become necessary through normal use or wear and tear
- d) towing.
- e) damage attributable to negligence, improper treatment, or treatment contrary to the "Owner's Manual", or If engine succumbs to excessive detonation due to improper or defective fuel.
- f) damage occurring through corrosion resulting from weak coolant or improper accident damage repairs.
- g) damage to a component or assembly due to the installation of replacement parts with specifications that differ in any material respect from genuine BMW or Dinan Engineering parts.
- h) damage attributable to failure to perform maintenance services at the specified intervals or in accordance with the instructions in the "Owner's Manual". Proof must be provided by a paid invoice copy.
- i) any vehicle on which the odometer has been replaced or altered and the true mileage cannot be determined.
- j) friction material.
- k) brake rotor warpage
- l) clutch damage due to power shifting or abuse.
- m) light bulbs.
- n) items not installed, sold or repaired by Dinan Engineering.

Dinan only warranties labor if Dinan does the installation. If a part fails which Dinan installed Dinan will pay Mitchell manual

time for the repair. If there is no Mitchell manual time, reimbursement will be made based on Dinan time. If Dinan did not install the component, Dinan will only warrant the part. The installer must warranty their own labor.

OPTIONAL DINAN ENGINEERING POWERTRAIN WARRANTY

The purpose of this warranty is to supplement the portion of the factory warranty voided by the installation of a Dinan Engineering turbo system and/or suspension system. These are components not manufactured by Dinan Engineering. All Dinan manufactured components come with a 3 year/36,000 mile warranty.

COVERED COMPONENTS

Engine - Cylinder block and heads, all internal lubricated parts, intake manifold, exhaust manifold, timing gear cover, flywheel, harmonic balancer, valve covers, water pump, oil pump, fuel pump, oil pan, engine mounts, seals and gaskets.

Transmission - Case, all internal lubricated parts, torque converter, vacuum modulator, transmission mounts, oil pan, clutch plates, bearings, seals and gaskets.

Drive Axle - Housing, all internal lubricated parts, axle shafts, propeller shafts, universal joints, rear axle hub bearings, supports, constant velocity joints and half shafts, seals and gaskets.

Front Suspension- McPherson struts (including hydraulic portion of strut), bushings, ball joints, spindle and spindle support, steering knuckle, wheel bearings and seals, stabilizer shaft, idler arm, linkage and bushings.

Electrical- Electronic fuel injection sensors, control units and sensors, fuel injectors, electronic ignition module.

COST TERM OF WARRANTY:

The cost of the optional warranty is \$4,000. The term of this warranty is 3 years/36,000 miles, whichever comes first, starting from the original in-service date and mileage of the vehicle. Price will be prorated based on mileage used previous to date on contract.

This labor warranty coverage applies to repairs of failed components only, not updates or improvements.

For more information on Dinan warranties contact our sales department.



In 1991 BMW released the 850i into the US market. This 2-door coupe featured much of Munich's best engineering and was a marvel of its day. Power came from a 5.0L dual over head cam V12 putting out 296 horsepower through either a 4-speed automatic or 6-speed manual transmission. This supercar had a base price of \$87,xxx.

BMW later expanded the 8-Series line up with the addition of the 840ci (V8) and 850CSi (Motorsport tuned V12). Just over 6,500 8-series cars reached the US between 1991 and 1997 with only 225 examples of the 850CSi.



Dinan Engineering is a performance and racing shop that was founded by Steve Dinan in 1979 and is located in Morgan Hills, Ca. They are currently the only after market tuner that sells parts through BMW dealers and don't void the factory warranty. Their racing program has been very successful in Grand-Am racing in both the GT and DP classes.

The Dinan 8 is a completely transformed 8-Series BMW that was built in extremely limited quantities. These cars came in three flavors Stage I/II, Stage III, and Stage IV depending on

how much the customer wanted to pay and how much performance was necessary.



There were only two Stage IV cars built (known as the SuperCoupe) with one being completely destroyed over seas. These cars started life as stock BMW 850CSi's and recieved a CA smog legal 750+ hp twin turbo V12, Stage III suspension, upgraded brakes, and custom carbon fiber body work. Prices are believed to have been around \$250,xxx for such a car.

Dinan is thought to have only produced three Stage III cars which make 625 hp through a 5.6L twin turbo V12. These cars received the Stage III suspension and upgraded brakes, but started life as 850i/ci cars and didn't receive any custom body work. Of the three cars produced, two of the current owners are active in the 8-Series community online.



Owner's Story – J. R. Wappel

My Dinan 8 started life as a 1991 BMW 850i. It is one of only 265 cars produced in Gletscherblau (Glacier Blue – Paint Code 280). It has a two tone gray leather interior.

The car was originally purchased by PGA Pro Mark Calcavecchia who had Dinan perform the Dinan 8 transformation which included Stage II twin turbo system (525 hp / 589 ft/lb tq), Stage III suspension, and the performance wheel / tire package. It is one of only 50 cars to receive the Stage II package (30: 8-Series cars and 20: 7-Series cars).

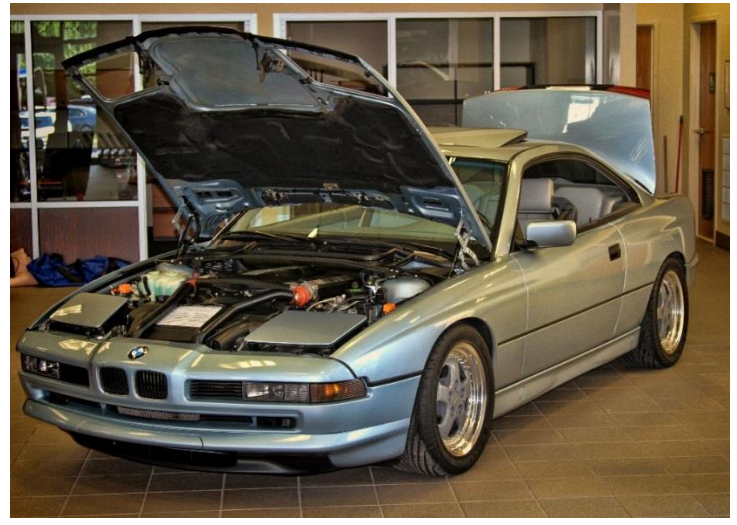


- Custom Engine Management Software
- Extrude Honed Intakes
- Bored Throttle Bodies
- HP Exhaust System
- Custom Transmission Software
- High Stall Torque Converter and Shift Kit
- Speed Delimiter
- Larger F/R Sway Bars
- Lowering Springs
- Sport Shocks
- 3.64 Limited Slip Differential
- Light Weight 3-Piece Wheels made by DP Motorsports
- Performance 275-40-ZR17 Tires
- Dinan 8 Badge

Original Pricing in 1991
\$92,100 (Base BMW 850i)
\$24,995 (Stage II Twin Turbo System)
\$2,185 (Stage III Suspension)
\$4,500 (Performance Wheels and Tires)
\$123,780 TOTAL

Modifications:

- Twin Turbos, dual air-to-air intercoolers, and all custom piping



This car has been featured at the Greenwich Concours D' Elegance, Scarsdale Concours, Bimmer Fest East, Import Nationals (2nd in Class), Patroon Concours (1st in Class), and many other local shows.



Steve Dinan, a well-known BMW tuner, turned his attention to the E31 8 Series soon after the 8er was introduced in Frankfurt in 1989. In a recent interview with Chris Knauer, he revealed the following production information:

- Stage 2 M70 5.0L TT = 45
- Stage 2 M73 5.4L TT = 1
- Stage 3 M70 5.6L TT = 4 (1 lost; Hong Kong owner, vehicle parted out)
- Stage 3 S70 5.6L TT = 1
- Total TT's = 51

In addition, Dinan converted about 30 M70 E31 8er/E32 7er V12's from 5 litres to 6 litres. Unfortunately, these were problem-plagued conversions which resulted in many of these cars with failed engines. Dinan eventually perfected the 6 litre conversions, however, the market evaporated and went to Powerplant Racing of South Carolina which produced 7 cars. The known Dinan 8er/7er's 6 litre cars were either back-converted to M70 5 litres through a new engine or salvaged.

With 15 Dinan 8 TT/6L cataloged, the registry is officially activated. In cooperation with Chris Knauer, the Dinan 8 TT/6L Registry Agent from Dinan8.com, the Registry will be continually updated with the shrinking inventory of Dinan TT's still on the road.

The Dinan TT Registry is available for viewing for registered 8er owners.

For more information about the Dinan 8 visit www.dinan8.com.

Owner's Story – Ryan Swail.....



My introduction to the Stage III E31 Dinan TT was somewhat accidental.....back in early 2006. I had just gotten my then White 93 6 speed 850 to where I wanted it condition and mod wise and was just starting to really enjoy the car. It was absolutely perfect mechanical and cosmetic condition with about 75k miles, a rare 93 6 speed that I had modded with a 3.15 rear end, SS brake lines, M parallel wheels, painted calipers and a few other mostly cosmetic add ons. Anyways, it all came to an end one night when I was T boned by a kid in a

Honda that blew a stop light and totalled the car. Even though the car took a hard hit I walked away unscathed, a testament to the build quality and rarely tested safety aspect of these great cars.

I started my search for a new 850 but it became exhausting since I didn't want to have to start modding and putting time into another car and it was sooo hard to find that perfect combo of color, manual box, condition and interior that I was looking for. Lo and behold I get a call from a local friend of mine from the Roadfly E31 forum (Mr Craig) who had a black 850 CSi and who had spotted something I "might" be interested in.....a Dinan E31 TT located in South Dakota of all places....Sioux Falls to be exact. He had actually found it in an online ad for an RV dealership in Sioux Falls where the owner was selling it for a friend. It sounded interesting so I called the owner not expecting too much to be honest other than a hacked up Laguna Green E31 with tacked on Dinan badges. It turned out to be quite the opposite, the owner was quite the car collector and the 1992 E31 was part of it, 17K original miles since new, custom built by Dinan Performance in their California facility, never driven in rain and kept under a sheepskin car cover in a heated 5 car garage while not being driven. The owner knew Steve Dinan personally from an earlier custom TT E32 750il build that Steve had completed for him.

Apparently the story was that the owner bought the 850 brand new as a birthday present for his wife, she drove it for a week and told him she didn't like it and to take it back. Since he bought it outright he drove it himself for a month but got bored with it and decided to talk to Steve Dinan about modifications. Apparently the conversation was something like this....

owner - Steve, do you remember the 750 that you TT'd for me?

Steve D - Yes, why, want another one done?

owner - Sort of, have you done any turbos on the new V12 E31 coupe yet?

Steve D - Actually, we are working on that project, why do you ask?

owner - Well, I want you to build me one. I have a car with 900 miles on it but I do have some strict qualifications for the job, so if you can't meet them let me know and we can forget it.

Steve D - Ok, keep talking.

owner - I'm not going to haggle on the price but it better meet my requirements.....Minimum 600 Hp on 93 pump gas, has to look stock, be driveable and last of all....better not break because I WILL drive it and if it breaks you fix it on your dime, can you do it?

Steve D - Well, yes I think we can but EVERY system on the car will need modified to match the Hp, brakes, tranny, drivetrain, suspension.....EVERYTHING.

owner - Done, I'll have the car delivered.



Ryan's TT as purchased

The modifications took almost 18 months to finish and cost almost \$105k over the cost of the actual car. After the car was delivered the owner took it out for its first test run and returned disappointed. He called Dinan and said "this car isn't making 600Hp, fix it". Steve asked how do you know because we tested it here on the Dyno and it made over 625Hp. A technician was dispatched and apparently discovered that the height discrepancy between California and South Dakota threw off the tune and made the proper adjustments which were retested with a drive and accepted by owner. The car did come with 2 sets of ECU chips, one for 93 octane (625Hp) and the other for 110 octane race gas. I have never installed the race gas chips.



Anyways, back to the purchase conversation.....he didn't know any of the technical details but rather gave me the name/number of his mechanic who took care of his modified collection fleet.

I spoke to the mechanic who assured me that the car got top notch documented care, never got wet and was checked over 100% top to bottom during every shop visit and any defective or suspect items replaced, expense no option. I called the owner back, agreed on the price and booked 2 tickets to Omaha Nebraska for my friend (co-driver) and I for the next weekend. We arrived in Omaha in early April 2006 a few days before my birthday and drove up to Sioux Falls to check out the car.



The car was actually outside the local Mercedes dealership and I had instructions to see the service manager. The car looked low and mean, had gold BBS mesh wheels, a large wing on the back which I thought was unflattering but otherwise looked like a stock slushbox 850i. I asked the service manager did he know the car/owner and he said that EVERYONE in town knows the owner and that all his cars are pristine and maintained with no expense spared. I asked him to put her on the lift for underside inspection and it was then I saw that the car was spotless, no leaks, stains, rust or scuffs, factory fresh with a few added details.....huge intercoolers, lowered air intakes, larger swaybars, huge brake rotors and calipers, Bilstein shocks, twin 3" mandrel exhaust with twin resonators and no cats going back to stainless magnaflow mufflers. The car sounded surprisingly quiet with absolutely NO hint of enhanced performance.

The service manager asked if I wanted to take it out.....I was stunned but he indicated that the owner had approved a test drive and was on his way. He did caution to not "jump on it" as it can get away from you pretty quick and will scare the crap out of you so I exercised caution on the drive down the street from the dealership.

To be honest, my first drive was VERY disappointing in that it drove like a standard 850 auto with no indication of the monster beneath. In fact, I had went about 2 miles and had turned around to head back when the monster appeared by accident. My friend asked "well, what do you think?"....I said, "I think it sucks, there's no 600Hp in this thing". At that point driving down a 4 lane highway I got stuck behind a slowpoke in each lane and couldn't get past, I admit, I was a tad frustrated and disappointed with the car and its performance (or lack of it) so first chance I got to pass I took it....running about 60ish I stepped into the throttle with some urgency then IT happened.....to me, the car started acting "strange".....gauges are strange, rpms are way up, steering feels vague, I hear a whooshing sound kind of like a hair dryer held beside your ear and then she starts to fishtail sideways.....my friend yells "what the hell are you doing?".....I'm actually confused for a few seconds then I realize the car is spinning the rears at 60+ Mph!! Once I realize what's happening I ease up and get the steering under control and she straightens up.....Holy Shit what a rush! I FINALLY found the 600Hp!!

Now that I know, I drop the hammer a few more times in a more controlled fashion and the space shuttle acceleration kicks in.....WOW, what a car. I slow down and gingerly pull into the dealership with huge smiles on both our faces.....the Service guys know it....big smiles all around, car in one piece and front seats need valet cleaning but consider it Sold - Sold.

The owner asks how I like it and we chat for a while, says he's getting older now and his wife wants him to cut back on the "go fast" collection which he says he will.....but only some. He asks if I know anyone that wants to buy 2 of his for sale toys.....a 96 Suburban with a Lingenfelter supercharged 454 big block and a 42 foot Formula with twin supercharged 454's.

He says he's glad the car went to someone who will appreciate it and take care of it like he did, we exchange the check, sign the title and shake hands.....he wants me to see his latest "toy" before I leave. He takes me out and I look it over.....its a Jeep of sorts, I've never seen one, large exhausts center of the back bumper.....what is it? A Jeep SRT8, sorta fast but I'm getting bored so its going to Hennessey next month.....I hope I'm like that when I'm 76 if I reach it...what a great old guy.

Specifications:

92 Dinan Stage III E31 TT 625Hp 666Ft lbs torque.
Purchased 4/06 17k miles now 34k miles

Known Modifications:

- 5.6 CSi shortblock and pistons
- Dinan headers with 3" twin exhausts, resonators (no cats) Magnaflow SS mufflers
- Ported heads/Cams, ARP head studs, 32lb Hr fuel injectors
- Twin 3.5" intercoolers with hard piped intakes
- Relocated air intakes
- StrongStrut shock tower brace
- Stainless brake lines with ATE Dot 4 "blue" fluid
- Euro 850 CSi twin piston brake calipers and discs front and rear
- Dinan sway bar and Bilstein shocks
- 4HP22 tranny with heavy duty shift solenoids / Heavy duty driveshaft / LSD rear
- Custom Dinan ECU software / twin knock sensors in center console
- Twin IHI oil cooled turbos with HKS recirculating BOV's 14 Psi boost each turbo
- Twin boost gauges in glove box
- MK Motorsport MK1 wheels 9" front and 11" rear.

I have just went thru an entire engine bay refresh this year (2016) and replaced water pump, new fuel pumps/filters, new 32lb injectors, new FPR's and fuel lines, new wires plugs and

coils, new air filters, radiator, fan clutch and blade, crank sensors, cam sensors, alternator, hoses, belts, tensioners, Tstat, O2 sensors and conversion to Evans Waterless coolant.



My intention now is to re-powder coat the intercooler pipes and install later model rear seats and sill plates. The car has been featured in 2 magazines, BMW Car and Bimmer magazine.



BMW AG Official 850 Csi photograph

"Mates with 8's" - 8-Fest from the Land Down Under

*by Theo Hoff's
Pictures by Clarence Tang
Melbourne, Australia*

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There's a bunch of "M8's with 8's" in Melbourne, Victoria Australia that get together a couple of times per year for a drive day and lunch. The recent November event saw a dozen or so owners meet at a gas station on the Peninsula Freeway for a scenic hour long drive to The Balnarring Bakery on the Mornington Peninsula for lunch with a live Jazz band.



An 8 in Ford Focus Orange!



Cars included Lee Simos's 850 Ci, one of just three sold by BMW Australia (rumor has it there are a couple more personally imported), one of Vic Kojadelian's two six speed manual 850's, the Orange one a 480 plus Horsepower 6 liter stroker and also the only 6 speed 840 in Australia owned by the photographer of the group, Clarence Tang. Also a show stopper was Doctor Rob Pavlov's recently completed concourse 98 840 with Alpina wheels and sporting the Ci body kit which was a standard feature on 1996 and later 840's sold in OZ.

Theo Hoff's, "Mates with 8's" group founder is currently finalizing amalgamation into the BMW Club of Victoria for an official 8 Series chapter.



Sunroof Settings

by Tim Meeks

...

The sunroof is controlled by the sunroof module. The module contains all load circuits and is connected directly to the sunroof drive. The module is allocated to the vehicle by means of encoding.

Components

- Sunroof module

The sunroof module contains the following components:

- DC motor with attached step-down gear mechanism (worm drive)
- Two integrated position sensors (Hall sensors)
- Electronic control
- Switches

The sunroof is operated by means of a switch with five different switch positions:

- Lift (switch pressed)
- Slide OPEN (push back switch)
- Close (push switch forward)
- Slide OPEN - press and hold
- Close - press and hold

The five positions are transferred via three lines to the sunroof (SHD) module (earth signal). Automatic mode, which opens or closes the sunroof completely, is triggered by pressing and holding the switch in "slide OPEN" and "close" position. If the switch is moved towards "Lift" when the sunroof is open, the roof moves automatically to the end position "Lift open". The process can be interrupted by pressing the switch again.

Functions

Position detection and anti-trapping protection Two position sensors (Hall sensors) register the number of motor revolutions and thus determine the position of the sunroof. The drive is switched off on reaching the relevant end position.

The torque of the drive is constantly calculated from the pulses sent by the position sensors and the power consumption of the motor. The torque increasing to above a certain value is interpreted as trapping. The characteristic data (characteristic curve) for the anti-trapping protection are defined in the coding data. They are written into the control unit during the encoding procedure.

The anti-trapping protection is active in the "close" direction when the sunroof is open between > 4 mm and <200 mm. This function is active both during normal closing (switch not over-pressed) as well as during automatic operation and

convenience closing of the sunroof. The anti-trapping protection is deactivated in the case of a fault by overpressing the switch in the close and hold direction.

The closing procedure is interrupted if trapping is detected and the sunroof is opened for approx. 1 second.

Important

The anti-trapping protection is no longer active when the sunroof is opened by less than 4 mm.

Initialization

Initialization of the sunroof involves recording the mechanical end positions (standardization) and learning the characteristic curve for the anti-trapping protection.

On sunroof modules with the diagnosis index 01 and 02, the characteristic curve for the anti-trapping protection is specified by the coding data. A separate procedure for learning the characteristic curve is not necessary.

On sunroof modules with the diagnosis index 03, the characteristic curve must be learned after standardization by means of a special process from the module.

Standardization

Since the position transmitters are integrated in the sunroof module, they do not have a fixed allocation to the sunroof mechanism. In order to achieve this allocation, the module must register the mechanical settings and store them internally. This procedure is termed standardization. Only the "close" and "lift" functions can be run with a sunroof that is not standardized.

The standardization is executed when the sunroof is moved into the mechanical stop of the position "closed" or "lift". The stop is detected with an overshoot time of approx. 1 second.

New standardization is necessary after conducting repairs on the sunroof. Set the sunroof in the "lift" end position for standardization purposes. On reaching this position, press and hold the switch in "lift" for at least 15 seconds. The old data is deleted and new standardization values stored. Brief activation of the sunroof drive indicates that the standardization is being run.

Note: if the sunroof stops before reaching the end position, keep the switch pressed and wait for at least 15 seconds (deletion of standardization values). The sunroof then

continues to move. Keep the switch pressed for 1 second when the sunroof reaches the end position.

Anti-trapping protection characteristic curve

On sunroof modules with the diagnosis index 03, the characteristic curve for the anti-trapping protection must be learned after standardization.

The following procedure is necessary in order to learn the characteristic curve: after standardization, release the operating switch and, within 5 seconds, press it again to "Lift" and keep it pressed. After approx. 5 seconds, the sunroof is fully opened and fully closed. During the process, the mechanical forces are recorded in the system.

The switch must be pressed during the entire procedure.

When the "sunroof closed" position is reached, the learning of the characteristic curve is finished. The operating switch can now be released.

Important

So that the anti-trapping protection functions reliably, the standardization and learning of the characteristic curve must be run after all repair work on the sunroof!

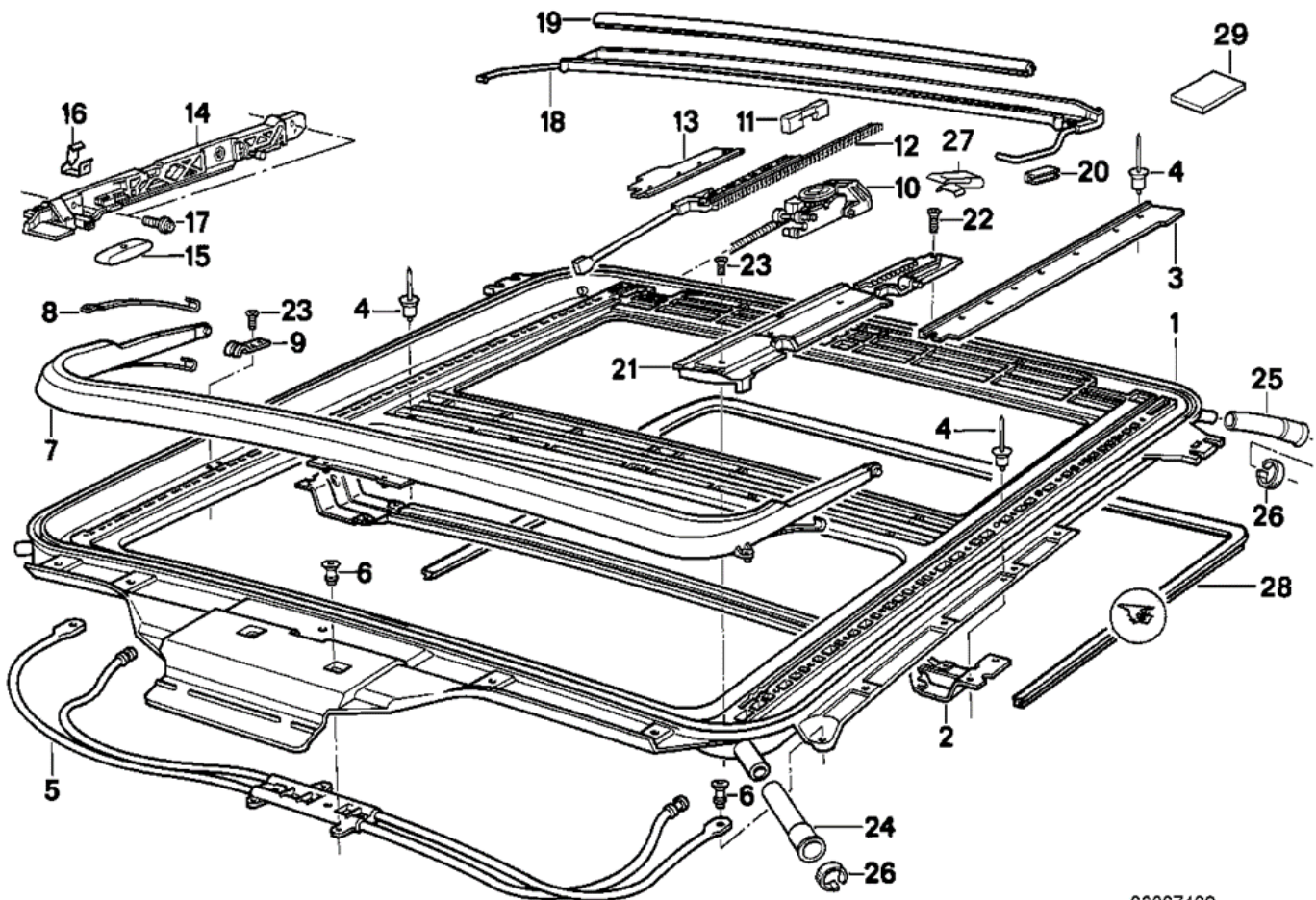
Convenience operation

In the same way as the power windows, the sunroof can also be opened or closed together with locking or unlocking the vehicle.

Convenience opening takes place when the lock cylinder is held in the "unlock" position for longer than 3 seconds or when the appropriate key on the remote control is pressed for the corresponding length of time. Convenience closing takes place when the lock cylinder is held in the "lock" position for longer than 2 seconds or when the appropriate key on the remote control is pressed for the corresponding length of time.

The functions can be activated or deactivated by encoding. Reference:

<http://www.bmw-planet.com/diagrams/release/en/zinfo/SCM0198FB46541001.htm>



00007499

Suspension Upgrades

by Omar Butt, MD PhD
Swaybar Balance Graph from Bimmerboards.com

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Part I: Suspension Basics

So you want to upgrade your suspension. The 'jury' is far from out on what to do, and how to do it. All of this is pretty well established now.

Lowering Springs Combos:

Front Spring stiffness Guide:

(Soft) Racing Dynamics < OEM < Dinan < Mtech* = H&R < CSI < Eibach (Stiff)

Rear Spring stiffness Guide:

(Soft) Racing Dynamics < H&R Rear < OEM < Cut OEM Rear = Eibach Rear < Mtech Rear < CSI Rear < Dinan SIII rear (Stiff)

Springs Setups are listed with the proper F/R rate balance in order of softest to stiffest Front spring (realize soft is a relative term, all are stiffer then stock and I have not included those less then stock):

- H&R Front/ Cut OEM Rear = H&R Front/ Eibach Rear
- H&R Front/ Euro Mtech Rears = Euro Mtech Front*/ Euro Mtech Rears
- H&R Front/ CSI Rears
- Dinan Fronts/ CSI Rears
- Dinan Fronts/ Dinan SIII rears
- CSI Front/ CSI Rears
- Eibach Front/ Euro Mtech Rears**
- Eibach Front/ CSI Rears
- Eibach Front/ Dinan SIII rears

Note: Racing Dynamics and H&R Rear springs should be avoided!

*Same rate, but less drop then H&R fronts

**I have not worked out the balance on this setup of springs yet

Shocks (Softest to stiffest):

- OEM Standard
- Bilsteins Revalved with the "comfort" setting (NOTE still stiffer then stock)
- CSI Front/Rear (available from any dealer...last I checked with discount they come to around 1600 for a pair of just fronts)
- Bilsteins Sport

Make sure to get the CSI secondary shock absorber as well

Swaybars:

Cost no option:

- Finding a set of GregK bars (Stiffest made for the E31, at 28.6F/20.6R but VERY rare.)
- Kmac sway bars from OZ (28.5F/19R)

Cheaper options:

- Later cars: CSI 27Front/ 17Rear (available from any dealer)
- If you have an early car, then either E32 SPORT front bar or better yet, the E32 Dinan bar (available at discount currently from Dinan!); For rears you have to really hunt to find an upgrade bar. Talk to 8Eights, he knows who it was that made the upgrade rear bar....I think it was Gpower?

"Other"

- Either Mwrench or Kmac camber plates
- Strut bar** (either Strong strut or MK Motorsports; both function nearly equally)
- Rear shock tower supports from Wuffer (a must for rear shock tower integrity)
- Rear shock bushings are in development with Phoenix motorsports

*The strongstrut/any other strut bar DOES work. First realize it is not to limit vertical flex, as many incorrectly assume, rather lateral flex which the E31 does suffer, albeit slightly, from. Even BMW realized this, and that is why later cars were given the "cross brace" lower front (and why early cars cannot use later swaybars and vice versa). As such, you will see the most improvement with early, pre-cross brace cars. Cars will the factory cross brace will also benefit, but not nearly as much.

Part II: Technical Data

Special Thanks to Mwrench and Rod

The goal with a good suspension setup is to reduce understeer. Our cars have quite a bit "out of the box." Understeer can be addressed by either stiffer rear springs (relative to the front) or stiffer rear sway bar (again relative to front). Use the OE as a baseline, and work toward less understeer.

Spring Comparison %F-%R (again, higher the %Front value, more understeer)

- OEM: 43F-57R
- Euro MSprings: 44F-56R
- CSI: 40.5F-59.5R
- H&R(with H&R rear springs): 54.5-45.5 (yes, the frequency balances out backwards! This IS bad, given the stress from the undersprung spring!)
- Eibach: 54.5F-45.5R (yes, the frequency balances out backwards as well! This is not bad thing though, just balance it out with a proper swaybar step!)

- H&R (with OEM rear springs): 50F-50RH&R (with cut rear springs): 47F-53R

Sway Bar Comparison

The key here is to divide the Front/Rear and compare the ratio to the OEM setup. Use this with the F-R balance mentioned above to choose the best swaybar (over vice versa the best spring setup) for your desired driving:

E31 Front/Rear Sway Bar Balance							
	OE	Mtech	Csi	Dinan S1*	GregK I*	GregK II*	Kmac*
Front	24	25	27	27	27	28.5	28.5
Rear	15.5	15.5	17	17	19	20.6	19
F/R	1.548387	1.612903226					
BIMMERBOARD.com			1.588235294	1.588235294	1.421052632	1.383495146	1.5

*Adjustable bars that allow tuning of the actual F/R ratio, and as such the value can only be an approximation of the actual.

Sway Bar Discussion

27F/19R is the best setup for the commonly run spring setups, with (the better) 28.5F/19R the best setup ideal only for those with stiffer rear springs like the Euro Mtech or CSI (or higher stage Dinan as listed above).

The GregK GenII kit (28.5F/20.6R) was originally designed to compensate for the H&R incredibly weak rear spring (which should never be used today anyway). In short, the GenII was an answer to a question (soft H&R rears excessively increasing understeer) that has a better answer (using cut OE rear

springs). Thus, today a full GenII should only really be run with Eibachs, but even then I personally would rather 27F/19R, or even better, 28.5F/19R with the rear springs swapped for CSI rears.

Summary

What does this all mean? Based on the data, you cannot simply choose parts and put them together. Sure it will drive just fine, but you will be setting your car up for far too much oversteer if you are not careful. Best bet is to balance your suspension around your desires and expectations.



E31 Boot Actuator Replacement (Trunk for us Yanks!)

by Tim Meeks

...

Includes emergency unlock instructions

This problem started when I shut the boot (trunk) and it failed to latch, the boot could be opened even if the central-locking was activated. Although the alarm would go off, this was hardly secure. A similar actuator failure could also fail to unlock the boot which could be just as annoying, although the boot could be opened using the emergency routine.

I guessed that the actuator had a problem, so here's how to get to it. First, remove the carpet on the left-hand side and move the right-hand carpet from around the CD player - remove the lower carpet.



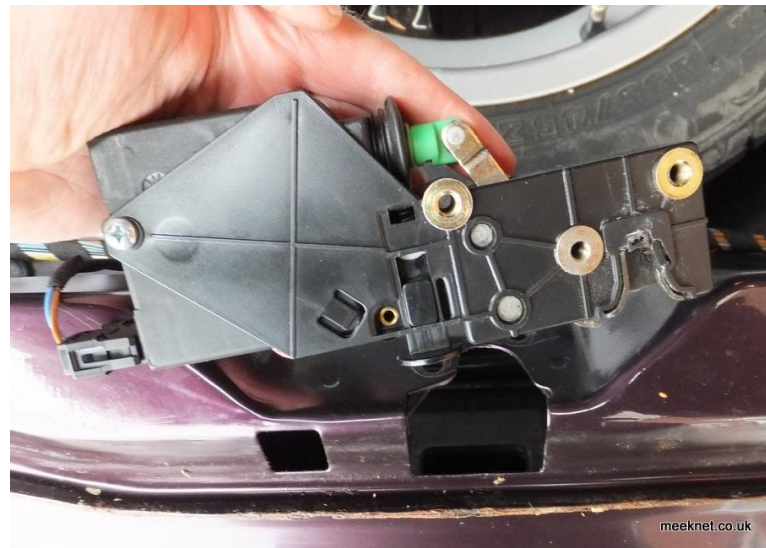
Partially remove the rubber seal starting at the center - you may find some rust here due to water ingress, I did and used WD40 on a cloth to wipe it away and to protect the area:



The plastic trim that houses the actuator is held in place with six expanding rivets. These usually have a plastic 'stalk' that is pushed through the rivet to release them, in my case the stalks were missing, someone must have been in there already! I found the easiest way to remove them was to use a screwdriver to tilt them slightly so that I could get some purchase from underneath:



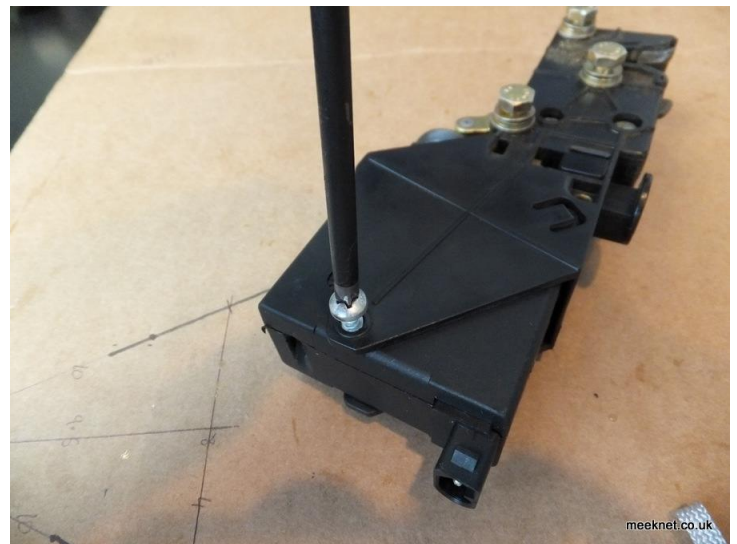
When all six rivets have been removed, tilt the trim forwards so you can get access to the loom hangers, unhook the loom and remove the trim:



In my case, the actuator is retracting under power (when the door handle is lifted), but did not extend as it should to allow the boot to lock again. I bought a complete assembly from EBay, but decided to take it apart anyway:

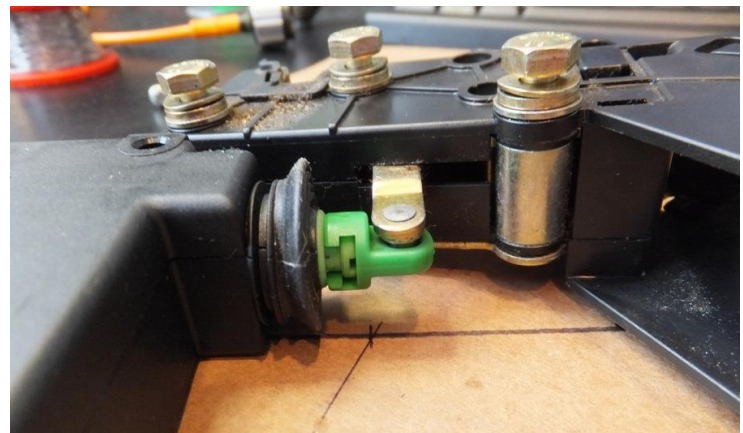


The actuator and lock assembly is held on by three bolts, each with three washers. Use a sharpie to mark the bolt positions:



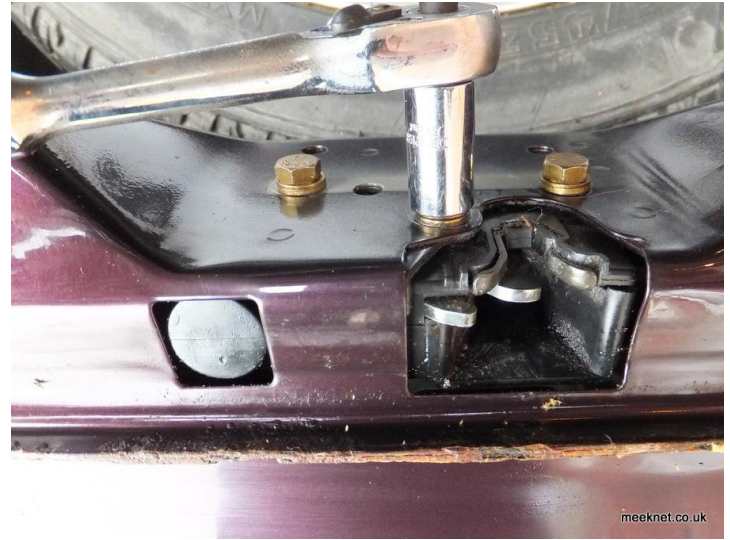
The actuator is linked to the latch by this green coupling, it can be pulled apart by sliding out sideways:

The actuator can now be removed by moving it to the left and downwards, press the connector tangs to disconnect:

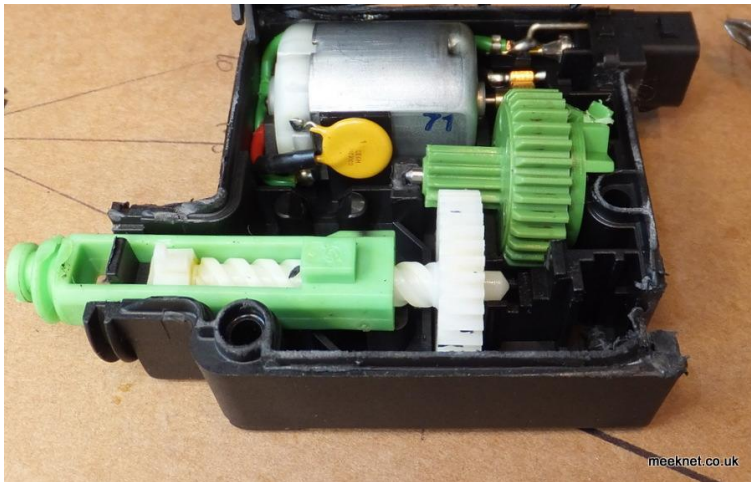




but keep the original latch as it looked in better condition. Replacement is pretty straight-forward, align the bolts using the sharpie marks:



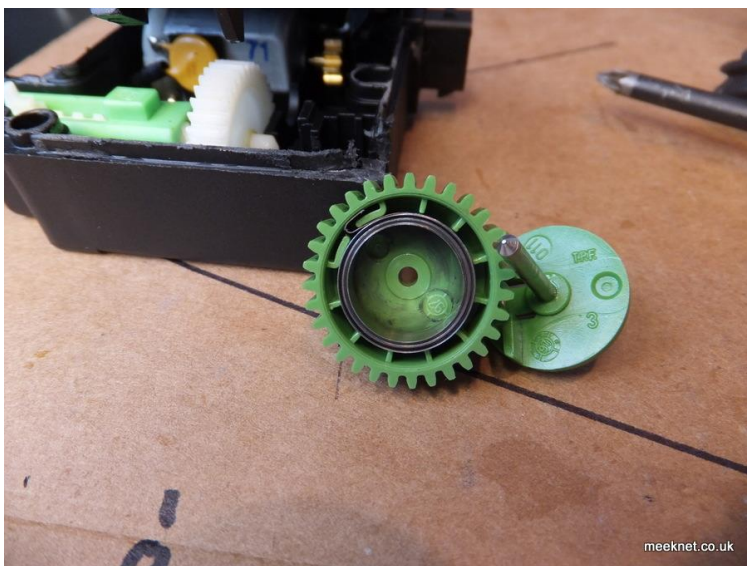
It isn't designed to come apart, but a bit of screwdriver-levering and a small wound later it ripped open:



Remember to hook the loom into the trim panel otherwise it will not fit correctly:



The green gear in the center contains a clock-spring which should extend the actuator – mine was snapped where it joined to the stator:



With the rivets re-fitted and the trim in place, slot the carpet into the ends of the trim:



The actuator itself can be replaced separately, it is around £90 from BMW (67111392020). I decided to use the new actuator

Emergency Boot Opening Procedure

While fiddling with the actuator and latch, I had a look at the emergency opening procedure and how it worked. As the actuator and latch is in the body of the car and the handle and lock is in the boot there is a mechanical link between the two for use in emergencies such as when the battery goes flat or the actuator completely fails.

Here's how it works:

Put the key in the lock and turn anti-clockwise by 45-degrees:



Let the key return and then remove the key from the lock - press the button upwards:



When the lock is pressed upwards, this shaft moves downwards from this position:



To this position:



This shaft bypasses the actuator and releases the latch via this:



You can test the emergency operation at any time - using the emergency procedure does not use the actuator so the test is valid even if everything is working correctly - it's a good idea to test the procedure while you don't need it just to make sure it works! All done, time for a cup of tea



BMW ALPINA B12 5.0 COUPE

2016 Treasurer's Report

by Jon Nelson
BMWCCAE31 Treasurer

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Following is the Preliminary Treasurer's Report for FY 2016.

2016 was a growth year for the BMW Car Club of America, E31 Chapter. Revenues were stable and the retained earnings increased due to the retirement of the 2014 founding loan from the BMWCCA. Membership was also stable at just under 100 members.

The following financial information for 2015 is considered "preliminary" as the details have not been submitted to the National and will not be "final" until the BMWCCA makes its request of the membership chapters (later in the Spring along with the annual IRS filing).

Jon L. Nelson
Treasurer

Cash on hand (12/16/2016)	\$1,121.44
Cash on hand (12/31/2015)	\$514.29
Net equity change	\$607.15

Total Revenues	
Membership rebates	\$1,457.36
Events and other	\$185.00

Total Expenses	
Insurance	\$205.80
Postage	\$164.65
Miscellaneous Expenses	\$664.72



1991 850i (CB42282) owned by Dylan Leff. It is a beautiful example and currently has covered over 200,000 miles.

MORE SMILES PER HOUR.



**BMW Car Club
of America
E31 Chapter**



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P.O. Box 8324
Columbia, SC 29202**