

fast times

the newsletter of **Bavarian Autosport**

summer 2003



After



Before

The photo at left shows our 99 323i with stock suspension. The photo above was taken after we installed the Bilstein PSS9 adjustable coil-over kit. Notice how nicely it hugs the ground now, and how the unsightly gaps between the top of the wheels and the fenders have been eliminated.

G-Whizzz: Introducing The Bavarian Autosport/G-Power Project Car.

As you may have seen in our latest Spring & Summer catalog, Bavarian Autosport is now the exclusive North American importer for the German tuner G-Power. To give this exciting product line the introduction it deserves, we thought we would take a stock BMW, add some performance and styling upgrades (including G-Power Daytona II wheels and G-Power GP/M aerodynamics), and transform a "plain Jane" into a more powerful, better handling, better looking street machine worthy of its heritage.

After several weeks of searching for just the right vehicle, we finally found what we wanted – a totally stock, 1999 323i, with lots of miles, in very good condition. (In Bavarian Autosport red, no less!) During the next several weeks, we will be installing multiple upgrades on it and documenting the procedures in photographs. You'll be able to follow the progress of this project car and witness the changes here in our newsletter, as well as on the web.

As of this writing, our R&D team had already performed two upgrades:

- Installed clear lenses all around (parking lights, sidemarkers and taillights).
- Replaced the stock suspension with a Bilstein PSS9 adjustable coil-over kit.

The change in appearance is remarkable. Using the adjustability features of the coil-over kit, we lowered the ride height by two inches. Not only does the 3 series look better, the handling is much tighter and more precise. We then set the shock rebound rate on Level 4 (out of 9, with 9 being the softest). We've been driving on the street with this set-up and find that it provides an amazingly comfortable ride; quite close to stock and not harsh at all – a testament to the PSS9's popularity. In the next project car update, we test a variety of free-flow exhausts. Stay tuned...

Welcome to fast times!

The creation of a Bavarian Autosport newsletter was inevitable: BMW enthusiasts have an unquenchable thirst for knowledge, and Bavarian Autosport is an almost bottomless well of BMW information. (The folks who work here at Bavarian are BMW enthusiasts themselves and have more than 200 years of Bimmer experience between them.)

The purpose of this newsletter is to provide you with some useful BMW information. It may be a "heads-up" about doing some overlooked maintenance on your beloved Bimmer (see "Cabin Microfilters" on page 7), or a step-by-step repair guide (see "Changing Brake Pads" on page 2).

This newsletter also gives us an opportunity to tell you about new products that arrived too late to be included in our catalog (e.g. *Pirelli's new tires on page 7*), and to go into more depth than we are able to in the catalog (e.g. *floor mats on page 4 and the BassLink on page 6*).

Again, welcome to *fast* times. We hope you enjoy it. Let us know what you think!



Mark, Dave & Pete

"I Did It!"

Having never done a brake job before, Martin was a little apprehensive, especially since the 325i was his seven-year-old son's favorite ride...

see story on page 2

fast times table of contents

Changing Brake Pads	2
"I Did It!": My First Brake Job	2
Bavarian Profile: Ken Brown	2
Gearing Up For Summer Sun	3
The Ultimate Mat Comparison	3
Product Focus: Infinity BassLink	4
New: Pirelli PZero Nero & Corsa	5
Changing Cabin Air Microfilters	5
Parts Smarts: Plan Your Project	5
Replacing Antenna Masts	5

BAVARIAN
autosport
PRODUCTS FOR BMW ENTHUSIASTS

"I Did It!" My First Brake Job.

Martin Kastenbaum of Texas takes loving care of his 1995 325i. This past March he determined his Bimmer needed new front brake

rotors and brake pads. So he called us and spoke with phone rep Ken Brown (*profiled below*). Martin wanted to know if he could change the rotors

and pads himself. Not only would this save some money, it would be a fun project to do with his 7-year-old son, Jordan (who loves the 325i so much, he has already asked if it can be his car when he's 16.)

Ken told Martin that if he felt comfortable jacking the car up and using some hand tools, he could accomplish the feat in a couple of hours. So Martin ordered two front rotors and a set of Pagid brake pads. Having done the brakes on his own 325i, Ken knew you didn't want to do this job without a new brake sensor wire and brake disc



bolts on hand, so he recommended adding these to the order. Martin agreed, his parts were shipped that day and arrived three days later

as promised. Martin and son started the job but reached a point where they weren't sure of how to do the next step. Working on something

as critical as brakes, Martin didn't want to take any chances, so he dialed Ken again. As Martin later recalled, Ken walked him through the rest of the procedure over the phone in a matter of minutes.

After he hung up, Martin and Jordan completed the job, started the 325i and tested the brakes. Everything worked perfectly! Father and son couldn't have been happier with their success. Not only was it a great shared experience, they saved a few hundred dollars over what a repair facility would have charged them.

If you've done some work on your BMW that you originally thought was a little beyond you (especially if we help with advice and/or parts), tell us about it. If we use your story, we'll send you a \$50 savings certificate! You can e-mail your triumphant tale to IDidIt@bavauto.com, fax it to 800.507.2002 or send it to: I Did It!, 275 Constitution Ave., Portsmouth, NH 03801. We look forward to hearing from you!

Bavarian Profile Ken Brown

Ken is one of our phone reps here at Bavarian Autosport. He has been with us for 4 years and in that time has helped literally thousands of BMW owners like Martin Kastenbaum (story above). Ken has worked on cars for more than 16 years (he just turned 30) and currently drives a 1992 325i, which we use as a rolling laboratory from time to time. Some of the new products Ken has tested for us include Scorpion exhaust, Zex nitrous system and RaceLogic traction control. If you have any questions about your BMW or the products we sell, feel free to call Ken or any of our friendly, knowledgeable phone reps at 800.535.2002.



from our Tech Team do it yourself

Changing Brake Pads. *⚡*

With a few standard tools and an hour of your time, you can enjoy the satisfaction of a new task accomplished... and save yourself a chunk of change.

Parts needed:

Brake pads
Brake sensor wire
Noise Free quieting compound
Stalube caliper grease

Tools needed:

Jack stand
7mm allen wrench
Medium size flat-bladed screwdriver
Large slip-joint pliers or a C-clamp

The procedure outlined below is typical of most BMWs from the early 1980s through today. If you have any questions, feel free to give us a call.

NOTE: Prior to installation, apply Noise Free to the backs of the pads. This can be done at anytime, as long as you allow one hour for the compound to set.

To begin, loosen the wheel lugs, jack up your BMW and support it with a jack stand under the frame rail or suspension crossmember, then remove the wheels.



1 On the inside of the caliper, find the two rubber guide bolt sleeves and remove the protective, plastic caps.



2 Use an allen wrench to remove the two guide bolts. Clean and lubricate bolts with Stalube caliper grease. Set aside.



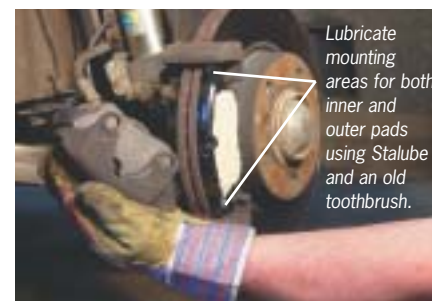
3 Use the flat-bladed screwdriver to pry off the anti-rattle clip (left), then pry the caliper from its mounting bracket (right).



4 Remove used brake pads. NOTE: inside pad is secured into caliper piston with spring clips; outside pad just slides out.



5 Use slip-joint pliers or a C-clamp to press the caliper piston back into the caliper bore.



Lubricate mounting areas for both inner and outer pads using Stalube and an old toothbrush.

6 Install brake pads and sensor wire; mount caliper and install guide bolts, caps and anti-rattle clip; remount wheels. Test brake pedal before going on road.

Gearing Up For Summer Sun

One of the best things you can do to maintain the look and value of your BMW is to protect it from the damaging effects of the sun. Ultraviolet (UV) rays from the sun can fade your BMW's paint and trim, dry out leather seats, fade interior fabrics and cause your dash and rear deck to peel and crack. If you don't protect your BMW from the sun, you'll pay for it one way or another – either in lost value when you go to sell or trade it, or in repairs. (A paint job and/or new upholstery can be very costly.) Here are a couple of inexpensive products that can help you preserve your investment in your BMW.

Windshield Sun Shade



If you leave your BMW in the sun for a few hours each day (e.g. at work, the beach or the mall), you should have a Bavarian Autosport windshield sun shade. Not only does it protect your BMW's interior against damage and fading, it keeps the cabin cooler so it's not

sweltering when you return. Plus the AC doesn't have to work as hard. Great, you say, but what makes your sun shade different from the ones I see in department stores? Two things:

1. Ours is custom-cut to fit your year and model BMW precisely. No generic sizing with gaps on the sides or top. No holding it up with towels or tape. Just unroll it, slide it into place and flip down the sun visors.
2. Like all Bavarian Autosport products, our sun shade is backed by our two-year/24,000 mile satisfaction warranty.

Our windshield sun shade is normally \$39.95, but it's on sale now through August 31 for \$34.95.



Ultimate Car Cover

If you leave your BMW in the sun for extended periods of time (e.g. if you travel a lot or commute via mass transit), we recommend protecting it with our Ultimate car cover.

- It protects both the paint and the interior against UV damage.
- It's custom-cut to fit your BMW like a glove.
- It packs up small – about the size of a 12-pack of soda – so it fits easily in your trunk.
- It has cinch straps that run under the bumpers to keep the cover secure in high winds. (If the sun gets hot where you live, you probably have thunderstorms, too.)
- It comes with a lifetime warranty – if it ever wears out, we'll replace it for free. (Most other covers have warranties that end after one or two years.)
- It's on sale now through August 31. Normal cost is \$199.95 to \$259.95, depending on the size of your BMW. Now it's \$179.95 to \$239.95.



Summertime is bare skin time! Don't let your BMW's shoulder strap cut into your fun. Our embroidered shoulder pad prevents the stiff nylon from irritating your skin, or leaving a red mark, or making your shoulder hot and sticky. It features a double-layer of padding (not a single layer like the cheaper versions) and full-length Velcro closure. The cost for one is \$9.95, but you can save a couple of bucks by getting two for \$17.90.



“which mat is right for me?” the ultimate floor mat comparison

A customer writes, “I need some new floor mats, but I'm having a hard time deciding which kind to get. What's the difference between 32 oz. and 54 oz. (besides the obvious 22 oz.)? How do your mats compare to the BMW floor mats? Please advise. JB.”

When we describe a floor mat as “32 oz.” it means one square yard of the carpeting used to make that mat weighs 32 ounces. Generally speaking, the more the ounces, the more “plush” the carpeting. So what makes one carpeting weigh more than another? It's usually one of two things (or a combination):

1. The density of the weave (number of strands of yarn per square inch).
2. The loft (height of the strands of yarn).

All three of our carpet floor mats are custom-cut to fit your BMW precisely. Rhino mats are designed primarily to be functional and are a little less expensive. Our Plush mats and Ultimate mats are also functional but have more style and are much more comfortable under foot.

As far as the BMW factory floor mats are concerned, we've never been able to find an ounce rating for the carpeting. However, as you can see from the photos below, the factory mat (far right) isn't even as thick as our Plush mat, yet a set costs \$25 more.

Oh, there's one more big difference between our mats and factory mats – the warranty. Our Rhino mats have a 2-year warranty, while both our Plush

mats and Ultimate mats have lifetime warranties; if they ever fail or wear out, we'll replace them for free. What kind of warranty do you get with BMW factory mats? They won't say, but we doubt you would get a brand new set of mats for free if you brought yours back two months later, let alone two years or more.

We hope we've answered your questions, JB. If you simply want functionality, our Rhino mats are an economical choice. If you want some style, too, our Plush mats are a better choice. But for the ultimate in luxury and durability, get the Ultimate mat set. (P.S. Now through August 31, you can get an Ultimate mat set for the same price as the BMW factory mats – \$124.95 – that's a savings of \$15.

Photos enlarged for comparison; not actual size.



Rhino mat – \$79.95 set.

32 oz. Plush mat – \$99.95 set.

54 oz. Ultimate mat – on sale for \$124.95 set.

BMW factory mat – \$125 set.

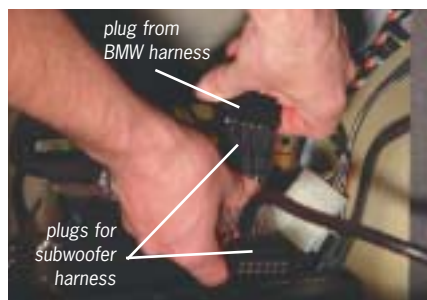
How easy is this?
do it yourself

Installing Our Subwoofer Kit. ✎

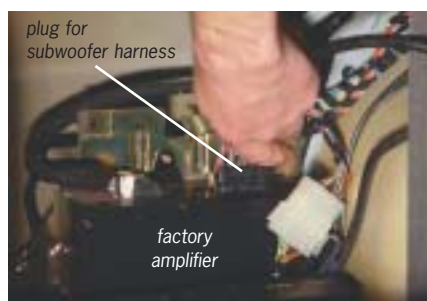
In our catalog we tell you that installing our subwoofer kit is as easy as 1-2-3. Well, now we have a chance to show you how easy it is. The car is a 1999 528i (just like Charlie Morgan drives – see his testimonial below):



1 Access the factory amplifier. (1999 528i shown: the amplifier in your BMW may be in a different location.)



2 Unplug the factory wiring harness and plug it into the back of the subwoofer harness.



3 Plug the subwoofer harness into the factory amplifier.

Your BassLink is now wired and ready for sound. (Just remember to mount it so it doesn't slide around in the trunk.) And if you want to use the remote bass level control, you'll need to run the included wire from your dash to the trunk. That's it!

Product Focus: Infinity BassLink

When we set out to develop a bass upgrade for BMW sound systems, we contacted a bunch of BMW enthusiasts who are into music and asked them the same question: If you could design the ideal subwoofer for your BMW, what would the requirements be? No two people gave us the exact same answer, but nearly all the answers contained these three criteria: it had to be compact, it had to be powerful and it had to be easy to install.

When we heard Infinity's BassLink for the very first time, we knew requirements #1 and #2 had been met. The challenge then was to take care of #3. Fortunately, we happen to have some people here who know a thing or two about BMWs and electronics. We engineered an installation harness that makes BassLink a snap to install in most BMWs. (See "do it yourself" at left.)

BassLink takes up less than one cubic foot of trunk space (0.75 to be exact), yet produces incredibly clean and detailed bass output. And it can be mounted vertically or horizontally to suit the shape of your BMW's trunk and the desired sound.

The BassLink unit consists of a 10-inch subwoofer, 10-inch passive radiator and a 200-watt Class D amplifier housed in a rigid polymer enclosure. All have been carefully engineered to work together as a unique, integrated system. The BassLink system features a servo-control circuit that continually monitors the voice coil's position in the magnetic gap and prevents the distortion that occurs when a conventional woofer is overdriven. By integrating cone-excursion information with the instantaneous demands of the music, BassLink can extract full and deep bass from an enclosure smaller than any before.

BassLink includes a fixed, 2nd-order, high-pass filter that eliminates the possibility of over-excursion below F_b , the resonant (tuned) frequency of the vented box. This allows the excursion-monitoring circuit to focus on the excursion at the more meaningful frequencies at and above F_b . Translation? A significant increase in bass output.



User-adjustable controls allow you to set the system's response to achieve optimum performance based on your BMW's cabin gain or transfer function. These controls include: a 0- or 180-degree phase switch; a continuously variable electronic low-pass filter that is adjustable between 70 and 100Hz; variable input sensitivity; and Bass EQ that provides for adjustments between +3 and -6dB. BassLink's frequency response in a typical vehicle is 20 to 100Hz (± 3 dB), but this varies according to the vehicle and user adjustments. At maximum gain, the system can accept inputs as low as 250mV. Combined, these features give you the capability to adjust BassLink's performance to suit your BMW's body style: In other words, vehicle-specific tuning.

For even more control, each new BassLink includes a remote bass level control. This allows you to modify BassLink's output from the driver's seat. You can adjust the bass to suit your mood or your passengers, whether you're jamming down a winding road all by yourself or on the way to a nice restaurant with family or friends.

The Bavarian Autosport subwoofer kit is available for most 3 series 92 thru 98, 5 series 89 thru 03, 7 series 88 thru 01, Z3 thru 4/99 and X5 with DSP. It is available with black or clear housing. The original price is \$549.95 for black and \$574.95 for clear, but they are on sale now through August 31 for \$499.95 and \$524.95, a savings of \$50.

"Do the words absolute joy mean anything?"

Here's some feedback Chris Dragon at Infinity received from Charlie Morgan, a sound installation professional who happens to drive a 99 528i:

"Got back from the NAMM show in LA to find a BassLink here. Installed it last night prior to going home. Do the words ABSOLUTE JOY mean anything? This box is incredible. In the trunk of my Bimmer, separated from the passenger compartment by steel and a rear seat made of thick leather, this thing still punches BEAUTIFUL and MUSICAL bass into the car with dynamics and sustain. The VLF response brought a whole new level of listening to music in the car – there are bass pedal notes on track 8 of *Sailing to Philadelphia* (Mark Knopfler) that energize the entire

interior of the car. If I were a bass player, this is the sound I would want people to hear. WOW!

AND – I can still put two sets of golf clubs in the trunk of the car. You have a winner here, Chris.

Send me the bill – use my name as someone who believes this is one incredible piece of equipment – and as you know, I have stood in front of walls of subwoofers with tens of thousands of watts applied, so I am spoiled!"

Charlie Morgan, President
Morgan Sound, Inc.
Lynnwood, WA

do it yourself

Replacing Electric Antenna Masts.



Replacing a bent or broken antenna mast is something you (yes, you!) can do yourself. All you need is a Hirschmann replacement mast and a wrench.

Before ordering a new mast, check the nylon retractor cord at the base of your antenna mast to see whether it is smooth or has teeth (see photo above). You'll need to order the same style.

To remove your old mast, turn the radio on to extend the mast as far as it will go. With a 12mm wrench, fully loosen the threaded bushing at the base of the mast. Turn your radio off and



Close-up of nylon retractor cords with teeth (top) and without.

on again; the mast and cord should feed all the way out of the assembly.

To install, insert the new cord and turn the radio off. (NOTE: If the cord has teeth, make sure the teeth are facing the rear of the vehicle.) The cord and mast will be pulled into the antenna assembly. Tighten the mast bushing and try the radio a few times to check that the antenna is operating smoothly. Use Hirschmann antenna wipes regularly to maintain the antenna's smooth operation.

We carry a full line of complete Hirschmann electric antennas, too. Your phone rep will be happy to help you choose the model that's best for your BMW.

Changing Cabin Air Microfilters.

Most BMW owners are very good about changing their engine's air filter, but they rarely change the cabin air microfilter. (If your response is, "I didn't even know my BMW had a cabin air microfilter," you're not alone.)

The size and shape of these filters vary widely from model to model, as does the step-by-step procedure for changing them. On the 5 series 97 thru 03, for example, you simply raise the hood, locate the two filter boxes (they're next to the firewall), open them, take out the old, dirty filters and slide the new ones in. The 3 series 99 on is pretty simple, too. On the 3 series 92 thru 98, however, the filter is behind the glove box, making it a more involved process.

BMW now recommends that these filters be changed every 15,000 miles (down from 30,000 originally). The photo above shows the cabin air microfilter we pulled out of our 1999 323i project car next to a brand new one. Once you install the new microfilter, you'll notice that the car smells fresher and the AC works better. Most BMW cabin air microfilters cost less than \$30. You can order the correct cabin air microfilter for your year and model online at www.bavauto.com or through your Bavarian Autosport phone rep, who can also tell you where to locate the filter on your vehicle.



Top: cabin air microfilter from 99 323i after approximately 30,000 miles. Bottom: new cabin air microfilter.

Plan Your Project Completely.

One of the things we pride ourselves on here at Bavarian Autosport is our ability to handle emergency orders.

Unfortunately, most of the emergency orders we process don't have to be emergencies – they're usually caused by a lack of planning. All too often, customers will put pressure on themselves, their mechanics and our parts delivery system because they don't plan ahead. For example, they suddenly realize at 4:00pm that their Bimmer's going into the shop tomorrow, (or maybe it's already up on a lift), and they don't have one of the parts they need. So they call us in a panic, order the part and pay \$20 or more for overnight shipping on a \$5 item.

Parts Smarts.

"All too often, customers will put pressure on themselves, their mechanics and our parts delivery system because they didn't plan ahead."

Or we have to send the item directly from the manufacturer, which can cost even more.

While we love being a hero, we would much rather have you or your mechanic equipped in advance. And sometimes we just can't make those emergency orders happen (e.g. when FedEx has already made their last pickup for the day). When this occurs, we feel bad, you aren't happy, and your mechanic is mumbling something about charging for lost time.

With some careful planning on your next BMW project, you can avoid adding to everyone's stress level – and save yourself some real money in the process!

New Product: **Pirelli Tires**

This past April, we were invited to Road Atlanta to test Pirelli's new PZero Nero and PZero Corsa on several high-performance cars – BMW, Mini, Porsche, Panoz, Mercedes, Audi, Lexus and others. (Yes, it was a tough duty, but we gutted it out in the name of research.) Now, three months later, we've finally caught our breath and are able to report that these tires are hands-down two of the best UHP (ultra-high performance) tires on earth:



NEW! PZERO CORSA

- Absolute grip for the track – legal on the street.
- Designed to stay "glued to the asphalt" in dry conditions yet performs well in wet.
- Tread pattern of "transverse waves" supports directional acceleration on the straight, disperses wetness and provides "racing slick" shoulders for maximum adhesion in the corners.
- Innovative compound adapts to suit operating temperature.



NEW! PZERO NERO

- Specifically designed to enhance performance modifications; ideal for wheel/tire upgrades.
- Extra load carrying capacity for fully-optioned sports sedans and heavier, power-tuned BMWs.
- Asymmetric tread design; exclusive styling.
- Precise cornering and excellent grip – even at the limit.
- High resistance to aquaplaning.

Both of these new Pirelli tires are available now through Bavarian Autosport. Please call for applications and available sizes.