



THE CULT CAR

Ten years after its debut, the Z3 roadster continues to inspire fanatical devotion. Prices are correspondingly high, but it's still possible to find a good buy without getting a beater.

By Mike Miller Artwork by Steven Cavalleri

The BMW Z3 has been a cult car almost from the day it was born, rivaling the 2002 for the devotion it inspires. That's as true today as it was when the first Z3 rolled off the assembly line in Spartanburg, South Carolina back in 1996, as evidenced by the fact that Z3 fans still gather by the thousands for the annual Roadster Homecoming at the BMW Manufacturing facility. The event has expanded to include the Z4, but it remains focused on the Z3 in testament to the earlier model's enduring popularity.

Interestingly, those who love Z3s aren't necessarily enthusiasts of BMWs in general. Many have never owned another BMW and probably never will, but they're enthusiastic about their Z3s in a way that owners of other BMWs rarely are about their cars.

For a perspective on the Z3 enthusiast community and an update on how the cars have aged, we talked to über-enthusiast Rachel Corey-Katz, who writes about Z3s for various publications, runs the Yahoo.com Z3 list and Z3ers.com and organizes the Z3 Fixit Day at Daniels BMW in Allentown, Pennsylvania. When we spoke to Corey-Katz, her Z3 was being packed for a road trip from New York City to the Nevada desert for Burning Man.

First, we asked her where to find Z3s in the U.S. "Anywhere you find a curvy road!" she said before adding, "The Z3 was born in the dot-com boom, and the Z3 community was born on the internet. Look online to buy a Z3, or before you pay big bucks for any Z3 repairs. There's usually a scrupulously maintained Z3 to be found, an inexpensive

repair and a couple hundred new friends waiting for you. There's a bunch of Z3 owner-made products to suit many needs. There also is a fine guide on Z3ers.com on what to look for in a Z3. Everything has been covered—that's the benefit of the seven-year lifespan and a 'parts bin' car with simple electronics and few frills."

Okay, so what *does* go wrong? "Generally speaking, the Z3 is inexpensive to maintain and a load of fun," Corey-Katz said. "The Z3 can be brought to a stop by problems with the radiator and water pump, but overall they are very durable cars. The biggest annoyance is the interior trim pieces. Our first 100,000-mile owners have pointed out that the passenger door pull tends to come off. Now we are starting to have problems with the clips that hold

The Z3 pantheon: From 1.9 to 2.5i

Model	Model Yrs.	Engine	Horsepower/Torque	Transmission
Z3 1.9	1996-1998	1.9-l M44 inline-4	138 hp/133 lb-ft	5-sp. manual/4-sp. auto

The first Z3 roadster appeared in 1996, powered by a 1,895cc M44 version of the 138-hp, 1.8-liter M42 inline-four also found in the E36 318ti/318i/318is models. The engine was equipped with maintenance-free rocker arm valve actuation and Bosch M5.2 DME engine management, both adapted from the V12 engine used in the 750i/850Ci.

The roadster could be specified with either a five-speed Getrag Type C manual or a four-speed THM R1 automatic transmission, the latter with three electronically controlled shift modes: Economy, Sport and Manual. A limited slip differential was optional. The Z3 suspension consisted of the familiar MacPherson struts at the front and an E30-derived semi-trailing arm setup at the rear, with anti-roll bars and twin-tube gas shocks at both ends. The rack and pinion steering was equipped with engine-speed sensitive power assist and an overall ratio of 13.9:1. Brakes consisted of 11.3-inch solid discs up front and 10.7-inch solid discs at the rear. "Z-Spoke" 7 x 16-inch alloy wheels with 225/50ZR-16 performance tires were standard.

Other standard features included halogen free-form headlights and fog lights, power windows and mirrors, cruise control, semi-power seats (with heating as an option), leatherette upholstery (leather was optional), air conditioning, an AM/FM/cassette sound system (CD changer optional) and a manual top. A small on-board computer and ASC+T traction control were optional, though the latter was not offered on very early production models.

For 1997, ASC+T became standard and a Harman/Kardon speaker system was offered as an option (starting with 4/97 production). For MY 1998 (as of 10/97 production), rollover protection became standard, the A-pillars were painted in body color and Sport seats became optional (in leather only). Premium Package was offered as an option and included four-way power adjustable driver's and passenger's seats, leather upholstery, wood trim and a power-operated top. The limited slip differential was no longer offered.

Z3 2.3	1999-2000	2.5-l M52 TU inline-6	170 hp/181 lb-ft	5-sp. manual/4-sp. auto
Z3 2.5i	2001-2002	2.5-l M54 inline-6	184 hp/175 lb-ft	5-sp. manual/5-sp. auto

Four-cylinder BMWs exited the American market at the end of MY 1998, when the Z3 2.3 replaced the Z3 1.9 as the base Z3. The 1999 Z3 2.3 wore the flared rear bodywork from the Z3 2.8 and was powered by a 2,494cc, 170-hp version of the six-cylinder M52 TU (for Technically Updated) engine with Double VANOS variable valve timing. The motor was mated to a Getrag Type B five-speed manual or a THM four-speed manual with new Adaptive Transmission Control. The differential incorporated limited slip and the brakes were 11.3-inch vented discs at front, 10.7-inch solid discs at rear. The 16-inch "Z-Spoke" alloys and 225/50ZR16 tires from the Z3 1.9 continued as standard. Side-impact air bags became standard on all Z3s, including the 2.3, for 1999. Fog lights and cruise control were relegated to the option list, where they were joined by cross-spoke alloys wheels and an in-dash CD player in addition to the existing Premium Package, Harman/Kardon audio system, Sport seats, heated seats and on-board computer.

For 2000, the Z3 received a cosmetic freshening in the form of a reshaped trunk lid and fenders, L-shaped taillights and new 16-inch alloy wheels. The soft top received better insulation, interior materials were upgraded, a three-spoke M Technic wheel appeared, the center console was revised to include an analog clock (still digital with the optional on-board computer), the sound system was upgraded and two-stage front airbags became standard along with Dynamic Stability Control.

For 2001, the M52 engine was replaced by the M54, and the Z3 2.3 was replaced by the Z3 2.5i. Though the motor still displaced 2,494cc, new features included increased valve lift, a reshaped intake manifold and an electronic throttle. Power and torque increased to 184 hp and 175 lb-ft of torque, respectively, sent to the rear wheels via the familiar Getrag Type B five-speed manual or a new GM-sourced five-speed Steptronic automatic. Fog lights, cruise control and cupholders became standard, while an optional Sport Package grouped the Sport seats and cross-spoke alloy wheels. Remote locking was added in mid-2001, while the only change for the final 2002 models was the addition of an in-dash CD player as standard equipment.

the glove boxes to the dash and console. Obviously, the interior trim pieces are no big deal—just buy new from BMW. We're not talking Z8 prices here."

That reliability is undoubtedly part of the reason Z3 enthusiasts tend to remain so dedicated to their cars. Corey-Katz mentioned one such enthusiast, Lisa Cardenas, who moved from Pennsylvania to Wyoming in her Z3 and who persists with it despite the difficulties of owning it there. "She's written about having to drive to Utah to get to a BMW dealer and how she has to check the mountain passes before she can go anywhere in her Z3, and forget it in the winter," Corey-Katz said, "but it has never occurred to her to give up her Z3."

Finding a good one: It's difficult

For those wishing to buy a Z3 on the used market, that kind of devotion, as well as the car's enduring popularity, makes finding a good one at a reasonable price difficult. Ask any used car salesman: We spoke with several who buy cars at auctions for resale, and they reported that the Z3s they acquired were inevitably pre-sold. Moreover, prices tend to be on the steep side. *Bimmer* published an overview to the Z3 in issue #28, and prices haven't really declined as much as might have been expected over the four years to follow. Even where inventories are fairly high, real-world prices tend to be much higher than Kelly Blue Book values.

In addition, KBB prices vary widely by location. Finding the value of a particular car at kbb.com requires a zip code, so we entered a few at random to see how widely the prices would vary. According to KBB, the suggested retail value of a 1997 Z3 1.9 five-speed manual with 86,000 miles was \$9,925 in New York City—and in White River Junction, Vermont, Abercrombie, North Dakota, and Bovine, Arkansas. The same car is valued at \$11,000 in San Francisco, which indicates either the better mechanical condition of cars in milder climates or the greater popularity of roadsters in areas with the same.

Generally speaking, however, prices tend to be higher in big cities than in the hinterlands, which makes little sense given that cars tend to suffer more when driven in cities rather than the countryside. It also doesn't make sense given the usual laws of supply and demand. We think it comes down to what the market will bear.

In any case, KBB values for the Z3 are far lower than what you'll probably end up paying in the real world. They tend to be a little low for BMWs in general, but we found them way off when it comes to Z3s—something that again reflects the

The Z3 pantheon: From 2.8 to 3.0i

model's cult status among enthusiasts. Consider the chart that accompanies this article, then, accurate only with respect to the relative prices of various Z3 models.

Note, too, that the KBB definitions of condition fail to apply to Z3s. In most car markets, a high price means a car in excellent condition—as defined by a normal person. On a used car lot, “excellent” means the car has been detailed, with shiny paint, no dents, no warning lights illuminated and nothing broken. To a Bimmerhead or Z3 enthusiast, excellent condition means something far in excess of that. It means that a car has been maintained over and above BMW's scant maintenance schedule and that it needs absolutely nothing. It will pass the white glove test inside, outside and underneath. If a Z3 has been advertised in excellent condition and is priced accordingly, it really should be like new.

As we began scanning the market for Z3s being offered for sale by private parties, we noted three interesting factors that could affect both price and the purchasing process.

First, a number of sellers seem to misidentify their Z3s when advertising them for sale. This seems to reflect the fact that a good portion of the Z3's audience weren't really car enthusiasts until the little roadster came along, and they don't understand the importance of getting the model designation correct when they advertise a car for sale.

We found, for example, an ad for an “MZ3 convertible” and another for a “Z3 hatchback,” neither of which exist, though the M roadster and Z3 2.8 coupe do. BMW is partly to blame for confounding owners with ever-changing nomenclature, but the bigger fault is the owner's for not knowing what the car actually is. Either way, it represents a good buying tool: As knowledgeable Bimmerheads, we can negotiate from a stronger position than someone who doesn't even know the name of his or her own car.

Second, the only “good deals” we could find on clean, well-maintained Z3s seemed to be for 1.9-liter four-cylinder and 2.3-liter six-cylinder cars with automatics—and even the so-called good deals are often over book price. This phenomenon indicates how well the cars hold value, and also that serious drivers are interested in Z3s—serious drivers generally buy manual gearbox cars.

Lower prices for the lower-powered models also reflect the traditional American preference for cars with more and more power, even with high-octane fuel at \$3.25 per gallon. That said, we think the Z3 1.9 with a five-speed manual is one of the most fun cars we've ever driven—the more power you put in a Z3, the more its chassis and suspension limitations are

Model	Model Yrs.	Engine	Horsepower/Torque	Transmission
Z3 2.8	1997-2000	2.8-l M52 inline-6*	189 hp/203 lb-ft	5-sp. manual/4-sp. auto
Z3 3.0i	2001-2002	3.0-l M54 inline-6	225 hp/214 lb-ft	5-sp. manual/5-sp. auto
Z3 2.8 coupe	1999-2000	2.8-l M52 TU inline-6	189 hp/206 lb-ft	5-sp. manual/4-sp. auto
Z3 3.0i coupe	2001-2002	3.0-l M54 inline-6	225 hp/214 lb-ft	5-sp. manual/5-sp. auto

*M52 TU from 1999, 193 hp/206 lb-ft

In late 1996, the Z3 1.9 was joined by the Z3 2.8. The new model was powered by an aluminum-block version of the 2,793cc M52 inline-six that produced 189 hp and 203 lb-ft of torque. A Getrag Type C manual and limited slip differential were standard, as was ASC+T traction control. Rear track was wider by 2.6 inches, while the bodywork was also correspondingly wider. Round-Spoke alloy wheels (still 16 inches, though a staggered 17-inch alternative was offered), ventilated brake discs and a new front spoiler distinguished the Z3 2.8 from its predecessor on the outside, while leather upholstery (upgradeable to extended leather) and wood trim set the 2.8 apart inside.

For 1998, the wood trim was relegated to the Premium Package, which also included a new power top. Sport seats became available as a separate option that year, while a Harman/Kardon sound system became standard. For 1999, the Z3 2.8 received the Technically Updated version of the M52 engine, which bumped peak horsepower to 193 hp and peak torque to 206 lb-ft. Siemens MS 42 engine management also became standard, as did side-impact air bags. Chrome wheels became a factory option that year, along with an in-dash CD player. A Z3 2.8 coupe also arrived in 1999, adding a fixed roof and rear cargo area as well as standard luxury items like premium Nappa leather Sport seats, wood trim (with aluminum-look as an option) and Double-Spoke 16-inch alloy wheels (with Radial-Spoke 17s as an option). An optional power glass roof panel (tilting but not retracting) was also offered.

For 2000, the Z3 2.8 roadster (but not the coupe) received a cosmetic redesign in the form of a wider rear end with a reshaped trunk lid and fenders, plus L-shaped taillights. To better distinguish it from the Z3 2.3, chrome grille slats, a body-colored front spoiler and chrome exhaust tips were now included on the more powerful model. Inside, the 2.8 got a three-spoke M Technic steering wheel while its soft top received better insulation and its center console got an analog clock (still digital with the optional on-board computer). The sound system was also upgraded and two-stage front airbags became standard along with Dynamic Stability Control.

For 2001, the Z3 2.8 became the Z3 3.0i when a 2,979cc M54 motor replaced the 2,793cc M52 TU in both roadster and coupe. Power increased to 225 hp and 214 lb-ft of torque, controlled by a new electronic throttle system and sent to the rear wheels via the ZF Type C five-speed manual or a new GM-built five-speed Steptronic automatic. Front brake disc diameter increased to 11.8 inches, while staggered 17-inch alloy wheels (7.5-inch front/8.5-inch rear) became standard along with chrome interior trim and cupholders. The optional Sport Package added two-piece Cross-Spoke Composite alloy wheels and Sport seats to the roadster. No Sport Package was available for the coupe, though the wheels could be ordered separately and Sport seats were already standard. Remote locking appeared in mid-2001. Aside from the standard in-dash CD player, the only major change for 2002 was an upgraded Sport Package option for the roadster that included restyled Cross-Spoke alloys, a mesh intake in the front air dam and brushed aluminum interior trim.



Z3 1.9

The M roadster and coupe pantheon

Model	Model Yrs.	Engine	Horsepower/Torque	Transmission
M roadster	1998-2000	3.2-l S52 inline-6	240 hp/236 lb-ft	5-speed manual
M roadster	2001-2002	3.2-l S54 inline-6	315 hp/251 lb-ft	5-speed manual
M coupe	1999-2000	3.2-l S52 inline-6	240 hp/236 lb-ft	5-speed manual
M coupe	2001-2002	3.2-l S54 inline-6	315 hp/251 lb-ft	5-speed manual

In 1998, BMW debuted an M version of the Z3 roadster. The M roadster was powered by the same 3,152cc S52 inline-six found in the U.S.-spec E36 M3. Though horsepower was fairly modest (for an M car) at 240 hp, peak torque was an impressive 236 lb-ft. No automatic transmission option was available, just the familiar ZF Type C 5-speed manual also used in lesser Z3s (and the M3). Nor was any traction control available on the 1998 models, though they did receive a mechanical limited slip differential.

BMW M upgraded the Z3's suspension and brakes, the latter to the M3's ventilated discs sized at 12.4 inches front/12.3 inches rear. Staggered M Road Star alloy wheels were mated to 225/45ZR-17 (front) and 245/40ZR-17 (rear) performance tires. The spare tire was replaced by an M Mobility System flat-fix kit.

The exterior was fitted with a more aggressive front fascia (without fog lights) and restyled rear bumper over four individual exhaust outlets. The M roadster's two-tone (or all black) interior incorporated heated Nappa leather Sport seats, a power top and Harman/Kardon audio system. Special M features included the three-spoke steering wheel, illuminated shift knob, special door sill plates and a trio of auxiliary gauges in the center console.

For 1999, the M roadster was upgraded with ASC+T traction control and clear turn signal lenses. It was joined that year by an M coupe, which mated the M roadster's drivetrain and chassis (with revised suspension settings) to closed coupe bodywork. Both models continued for 2000 with few alterations aside from chrome grille slats, revised colors and a better-insulated soft top for the roadster.

For 2001, both roadster and coupe got a new powerplant: the S54 engine first seen in the E46 M3. From a displacement of 3,246cc, the new motor produced 315 hp and 251 lb-ft of torque via high-pressure Double VANOS, Bosch MS S54 engine management, direct ignition and six individually controlled electronic throttles. DSC became standard to handle the extra power, and a Tire Pressure Monitoring system was added for safety. The alloy wheels were given a new finish, the gauges received gray dials and a chrome-trimmed auto-dimming rear view mirror became standard. The only change for 2002 was the standardization of the in-dash CD player.

M roadster



brought to light. If we were going to buy a Z3, it would be a Z3 1.9.

Third, we found lots of low-mileage examples and relatively few high-milers. We found examples with fewer than 5,000 miles, which is rare in any car more than three years old and virtually unheard-of in the BMW world—most Bimmers rack up miles like Los Angeles taxicabs. For many owners, the Z3 was a second or third car,

which can also mean that most escaped wintertime or wet-weather use, another good thing for used car buyers.

What's out there now?

Since the Z3 is effectively too old for CPO consideration—we only found three among hundreds of listings that combined the Z3 and Z4 models—we're left to scour the private sector for available Z3s. We

searched bmwcca.org, craigslist.com and roadfly.org, disregarding as always any ad with no price as well as those that appeared to be from used car dealers.

As expected, the BMW CCA classifieds revealed a few super well-maintained examples, mainly M variants. Only one Z3 was listed, but it had an automatic transmission. Illustrating how far the actual asking price of extremely well-maintained examples can stray from book value was the S54-powered **2001 M coupe** in classic Titanium Silver metallic with black leather, 19,500 miles, with the original tires for \$35,000. In Florida, the car was said to be "in pristine condition inside and out," but unless the owner could show us that the car had been maintained above BMW standards we might shy away at that price.

Another S54-powered **2001 M roadster** caught our eye in the club classifieds because of its color combo: Estoril Blue metallic with black-and-blue leather. On the downside, the owner wants \$31,000 for a car that has covered 42,000 hard New Jersey miles and has a new top and a Pioneer head unit. Both of those items could indicate break-in damage, but we wouldn't want to judge the car too quickly, especially in that spectacular color scheme. We'd want to know more about it, but we'd probably be more inclined toward the Florida coupe.

Note that both of those cars fall within the price range for M roadsters that we published back in August 2002: \$30-35,000. Clearly, these cars haven't lost much value in the intervening four years, though we did find one that had in the CCA classifieds. Also in New Jersey, this S52-powered **2000 M coupe** was priced at just \$26,000. In Titanium with black, it had a scant 19,600 miles, Dinan software, new Toyo T1R tires and "documented fluid changes." It also had a Tri-Flow muffler, which is too loud for our tastes. Maybe the original muffler would get thrown into the deal for this much ching.

Cheap deals on Craigslist

As is usually the case, most of the bargains were on Craigslist. We found our ideal cheapskate's four-cylinder five-speed Z3 on Craigslist San Francisco Bay Area: a **1996 Z3 1.9** for just \$9,000. In silver over black with 107,000 miles, this car was said by its owner to have had "all recommended maintenance," which probably means not much was ever done. Still, this Z3 might be more of a bargain than its already low price would indicate, since its Menlo Park owner also stupidly divulged, "Baby on the way! Wife says car must go!" We'd bet \$7,000 cash would take this Z3—maybe

Z3 Maladies: From major to minor

The Z3 (or E36/7 in BMW chassis-speak) enjoys a stellar reputation for durability, mainly because there's just not much to break on these cars. BMWs are notorious for having problems with any part that has an electronic control unit, and the Z3 is blissfully free of the traditional BMW gizmotronics that confound owners and technicians alike. But these little roadsters aren't perfect—they do, after all, share many parts with other E36 variants.

The four-cylinder M44 engine is bulletproof. While it was mildly dumbed down from its origins in the E30 as the M42 (having lost its sexy forged crankshaft), it's no stretch to say the M42 was overbuilt for its power output. Following in that engine's wake, the M44 has very few problems. A periodic tune-up is all it usually requires, something a skilled do-it-yourselfer can perform in about an hour.

Expect to replace the thermostat periodically—they break and stick open, and then the engine runs too cool. Expect to have to replace the valve cover gaskets when you change the spark plugs. If the valve cover gasket leaks, it makes a mess of the spark plug wires, which then have to be removed and cleaned. Expect to need a timing chain—M44s driven in anger do wear out timing chains, and you'll know you need a new chain when a new tensioner doesn't quiet the chain.

All six-cylinder engines in Z3s have the same horrible water pumps, thermostats and radiators as they do in the roadster's sedan and coupe cousins. We recommend a new water pump and thermostat every 60,000 miles as preventive measures, and—if you can stomach the cost—a new radiator every 90,000.

The S54-powered M roadsters and coupes are so rare that we really couldn't find any information on problems with them, except one interesting tidbit: While the S54 is the same engine that launched more than a few connecting rods in the E46 M3, S54s don't tend to blow up in the late-production M coupes and roadsters. The difference? A red-

line set at 7,600 rpm instead of 8,000 rpm as in the E46 M3. There you go: We said all along that the 8,000-rpm redline was too high.

Though it's rare, a problem can occur in which the **five-speed manual gearboxes** lose the fifth gear detent. It's easily repaired, but the gearbox has to be removed from the car.

The Z3 is infamous for problems with the **fuel level sensor**. Fold the right seat forward—is there a cut in the carpet back there, one that's diagonal and about six inches long? If so, the car has had a new sensor and fuel pump installed—it's a one-piece deal. The fuel pump itself is fine, but the sensor gets munged up from sulfur in the fuel and causes erratic fuel gauge readings. New sensor/pump assemblies are updated with gold-plated contacts. That's the quick fix...but it doesn't always work forever. What does work forever is using a good fuel system additive on a regular basis.

Z3s are also infamous for **funky window operation**. If the windows don't work at all, that's a sign the switches are worn out. Unfortunately, we can't just spray contact cleaner in the Z3 switches like we can in other cars—they have to be replaced. If the window works erratically, it needs a new front guide.

Power tops are the bane of BMW convertibles. If you can buy a Z3 with a manual top, do so.

Finally, there's the biggie: Yes, Z3s suffer from **rear floor failure**. But it's not nearly as bad as on other E36s, and it happens in a completely different location. On the Z3, the welds break around the differential mounting and frame areas of the floor (you can see a photo of this by visiting <http://www.thelargeglass.com/bmw/subframe/>). We feel this is the result of a design or manufacturing defect; BMW, of course, disagrees. In any event, the aftermarket has an excellent repair kit, which of course requires expert welding and corrosion protection. Randy Forbes sells the repair kits; contact him at erandyforbes@aol.com. —Mike Miller



M coupe

even \$6,500 if that baby on the way turns into "Baby about to pop out right now!"

Craigslist also brought us an enchanting 1999 Z3 2.8 roadster in San Rafael. In triple black with a five-speed and 59,000 miles, this car looked very clean in the photos. We'd have to go look at it just because it was triple black, and if everything checked out we'd easily part with \$17,000 to get it.

But we would pass on the Sapphire

Black with red 2002 Z3 2.5i roadster in Redwood City with 42,000 miles for \$21,000, only because the ad was completely full of crap. It said the car had "snake-skin leather," silver metal "Vegas M" interior parts and custom wheels, but in fact it was all stock...not that we would want snakeskin upholstery or Vegas anything in our Z3. Oh, and the owner also says it has a "Dynan chip" that makes it "faster than a

3.0." This is another baby-on-the-way sale, unless he was lying about that, too.

As expected, the best Z3s were herded into good old Roadfly.org! There we found a gorgeous-looking 1998 Z3 1.9 roadster in Bright Red with black leather, a five-speed manual and 71,000 miles for just \$12,000. Located in Bethlehem, Pennsylvania, this car had some very nice factory accessories including carbon fiber interior trim, wind

Performance Mods: Upschporten der Z3

Where Upschporten der Z3 is concerned, we say: Reinforce the floor and have at it!

As we mentioned in *Maladies*, the Z3 (E36/7) is prone to this structural problem just like other E36 models. Though we consider the **rear floor failure** a design/manufacturing flaw and don't think it has anything to do with stiffening up the suspension with aftermarket parts, we also know that it can be hastened by the type of sportive driving that often accompanies such an upgrade. Regardless, we think it would be wise to reinforce the floor of any Z3 variant with sporting pretensions.

Before you start upschporten suspension parts on any car without a roof, it is first necessary to be aware that firming up the ride quality will also **increase cowl shake**. You have to be ready for that before fitting firmer shocks, larger anti-roll bars or shorter, firmer aftermarket coil springs. Cowl shake is not an issue with the coupe versions of the Z3, which are immensely more rigid.

Like all contemporary Bimmers, Z3s are set up by the factory to understeer: The more power they have, the more BMW wants them to understeer. Understeer is a friend to untrained drivers—and an annoyance to the rest of us. Getting rid of it means using different anti-roll bars, and many sizes are available. Each will have a different effect on handling, since BMW and the various aftermarket tuners have differing philosophies when it comes to anti-roll bar tuning.

BMW employs subtle anti-roll bar diameter differences to tune the balance between body roll control, understeer and ride quality. German cars in general have big front anti-roll bars because they flatten out body roll. As the front anti-roll bar is stiffened, oversteer is reduced/understeer is increased. It's the converse at the rear, where stiffening the anti-roll bar increases oversteer/reduces understeer. Here's what the cars are born with:

Z3 1.9 roadster: 22.5mm front/14mm rear

Z3 2.5i and 2.8 roadsters: 24/15mm

Z3 3.0i roadster: 25/15mm

M roadster: 23/18.5

Z3 2.8 and 3.0 coupes: 26/17mm

M coupe S52 engine: 23/19mm

M coupe S54 engine: 23/18.5mm

As you can see, owners wishing to perform subtle handling tweaks can do so effectively and inexpensively with Original BMW anti-roll bars from different models. You could even buy used parts, since anti-roll bars do not wear out. You can also see that BMW really tried to strike a balance on the M roadster and coupe, giving the cars a little understeer and a good amount of body roll control.

Where the aftermarket is concerned, H&R brings us a 28/19mm setup, flattening body roll and allowing understeer. Dinan Engineering, as usual, has a unique approach to Z3 anti-roll bars, going for more of a balance between controlling body roll and reducing understeer, with 27/22mm bars for the non-M versions and 22/22mm adjustable bars to balance the M cars. Eibach sold 28/19mm Z3 anti-roll bars, but they're no longer available. If you drive fast on highway and track, I'd recommend flattening the cornering at the expense of understeer with a stiffer front bar. If you autocross, go with Dinan bars to reduce understeer.

The same three companies sell **shorter, firmer aftermarket coil springs**, all of which lower the car. Eibach springs drop the Z3 roadsters and coupes by 1.2 inches front and 1.0 to 1.2 inches rear, while H&R springs drop ride height by 1.5 inches front and 1.25 inches rear. Dinan's website only says the cars are lowered "modestly"—does that mean it happens in a dressing room?

Shocks should be replaced along with coil springs. The original shocks are probably tired by now, and swapping to aftermarket springs will make you want to drive the car in a way that tends to stress the

shocks more highly. Use Bilstein HDs with stock coil springs, Bilstein Sports with shorter, firmer aftermarket coil springs. Koni adjustable shocks are also available, and those included with Dinan suspension packages are specifically tuned by Steve Dinan. TC Kline also uses Konis—he raced Z3s for a number of years, and he developed some outstanding track suspensions for those inclined to do the same.

Tech Q&A is often asked **which is better, Bilstein or Koni?** That's a tough question, because the answer is really, "Better for what?" The Bilstein design allows the front shocks to run a lot cooler, and their damping characteristics at high speeds are legendary. They are extremely durable shocks that generally don't wear out on Bimmers. On the downside, Bilsteins ride firmer than some people like on washboard U.S. roads, and they cost more.

Konis can overheat and they eventually wear out, but they ride smoothly and cost less than Bilsteins. They're also adjustable, which allows driver or technician to fine-tune the ride softness vs. performance trade-off. Some technicians, however, loathe adjustable shocks because their customers will demand never-ending adjustments. Steve Dinan simply marks his favorite Koni setting so the owner can play with it and later return to baseline. Konis also allow Dinan to tune the bump stop; front Bilsteins have an internal bump stop, which isn't tunable.

Most of our advertisers carry some sort of **software, cold air intake and performance exhaust system** for every Z3 variant, all of which provide incremental power increases in return for varying investments. Power increases vary by model, but none of them are huge—just incremental. Note that Z3 cold air intakes tend to live very low in the front of the car—perfect for sucking in water if you drive through standing puddles. Don't, or you'll hydrolock the engine, destroying it.

Because the engines in Z3s were also used in regular 3 Series cars, anything you can do to a 3 Series, you can do to a Z3. **Superchargers are available**, but they're not cheap. Be prepared to spend a lot of money on forced induction if you want the fastest Z3 you can build.

Wheel and tire options are plentiful for the Z3, but you have to be very careful about mixing and matching wheels from other cars. Note that there are five different Z3-variant bodies—four-cylinder roadsters, six-cylinder roadsters, M roadsters, Z3 coupes and M coupes—each of which has different tire clearance. To get the right wheels and tires for the one you own, call one of the tire warehouses advertising in Bimmer or e-mail Tech Q&A.

Correct tire sizes are as follows: 195/65-15 or 205/60-15 on the 1.9; 205/60-15, 225/50-16, 225/50-16 or 225/45-17 on the six-cylinder cars. M cars can take the stock 225/45-17 front and 245/40-17 rear, or 225/40-18 all around. There are some 19-inch sizes available, but you're getting into risky waters there. Correct 19-inch size is 235/35-19, and man do they ride hard.

Brake upgrades are easy, too. Many of our advertisers sell slotted or drilled rotors, including excellent ATE Power Discs, and big brake kits are available from a number of noteworthy vendors—they're plentiful because the Z3 uses the same front suspension setup as the regular E36.

U.S.-specification **Z3 halogen headlights** kind of suck. The fix is to replace them with European-specification halogen headlight assemblies, which are not cheap but totally worth the money.

Don't forget to visit www.leatherz.com and www.hmsmotorsport.com for Z3 accessories.

Last is something that probably should come first: **Original BMW accessories**. By hook or by crook, get the BMW Z3 Accessories Catalog from your BMW parts department. BMW has tons of cool stuff for the Z3, including trunk storage solutions, trunk racks, interior and exterior trim, wheels, hardtops, windscreens for behind the seats, tonneau covers and more. Get this catalog!—Mike Miller

blocker and CD changer. It was Zymöled twice a year and has a Remus muffler, but the clincher is that its owner's manual was signed by Dr. Burkhard Göschel, father of the Z3—it's a very good sign that its seller even knows who Göschel is. Even though we're not much for red, we kept going back and looking at the pics of this car.

Problem is, for a mere \$1,500 more we could have the green manual gearbox Z3 2.8 roadster from Durham, North Carolina with 65,000 miles and a supercharger. Now, there are supercharger kits and there are supercharger kits, so we'd have to see the installation and test drive the car to see if it's worth even a lousy \$13,500. It's possible that the owner is trying to unload a problematic money pit, but since the ad also said "will trade for Harley," he's probably just cashed up. Why else would he put \$20,000 into this Z3 and sell it for a pittance?

We mentioned that it was still possible to find Z3s with very low miles, and indeed we found two on Roadfly. Both of these ads reveal a level of anal retentiveness that would astonish even Freud. It would be downright frightening to live with, but it's exactly what we want a seller to exhibit when we're buying a used car from him.

First, we were mesmerized by the Atlanta Blue with tan 1999 Z3 2.3 with just 4,400 miles for \$21,900. The car has one of the rare factory hard tops and is being sold by its original owner. As the ad reads, "Seat covers always used. At the time of purchase, the manual soft top was retracted, a towel was placed over the rear window for protection and the dealer installed the matching hard top. That was the last time the soft top was up. The original floor mats and tonneau cover have never been used and are stored in plastic (rugs used). Other

features/options/dealer installed items include magnetic rear rock guards and 3M clear nose/hood/mirror bra." This sounds like a brand-new Z3, and we'd be happy to take a trip to St. Petersburg, Florida to look at it, even in common Atlanta Blue.

Another "new" car was the S54-powered 2001 M coupe in Sapphire Black with black leather and only 2,410 miles for an understandable \$43,000. It's in Cincinnati, and the original owner says the car will be "on jack stands until sold, new as delivery day, never seen rain, never sat in sun, always garaged, with one dealer 750-mile inspection. BMW battery tender included. No mods ever to this collectable performance coupe." The seller kind of turned us off by adding the condescending, "Serious inquiries only," and he made it clear that hagglers are not "serious." Still, for those of us who missed the chance to own a great and rare S54-powered coupe when new, here's a second chance—if the seller deems you worthy.

For those of us with smaller budgets and less exacting requirements, Roadfly offered an S52-powered 1999 M coupe with some tasteful mods in Yardley, Pennsylvania. Advertised at just \$23,900, this 79,000-mile Dakar Yellow and black model could probably be had for somewhat less, maybe \$21,000. Why? Because even though it looked fine in photos, the wheels showed some curb rash on two wheels and a ding in the door. The seller wants to remove the subwoofer and amp before he sells it, too—we always find it weird when the car isn't quite ready to go when a seller places the ad, and we'd try to use the seller's lack of preparedness to our advantage.

Besides, a Dakar Yellow coupe would look absolutely stunning in the garage next to our Dakar Yellow R1150R motorcycle. ☘

Kelly Blue Book Values, Z3

THE VALUES LISTED below are for Z3 (E36/7) coupes and roadsters sold by a private party in "Good" condition (i.e. free of mechanical defects and visual blemishes, no rust, clean title, etc.). Prices were valid in Bimmer's home zip code of 94949 on August 10, 2006. All prices are for cars with standard features and manual transmissions. To find the Blue Book value of an individual car, see www.kbb.com.

2002 (60,000 miles)	
Z3 2.5i roadster	\$15,935
Z3 3.0i roadster	\$19,890
Z3 3.0i coupe	\$19,240
M roadster	\$23,165
M coupe	\$22,165

2001 (60,000 miles)	
Z3 2.5i roadster	\$14,650
Z3 3.0i roadster	\$17,995
Z3 3.0i coupe	\$17,420
M roadster	\$21,070
M coupe	\$20,095

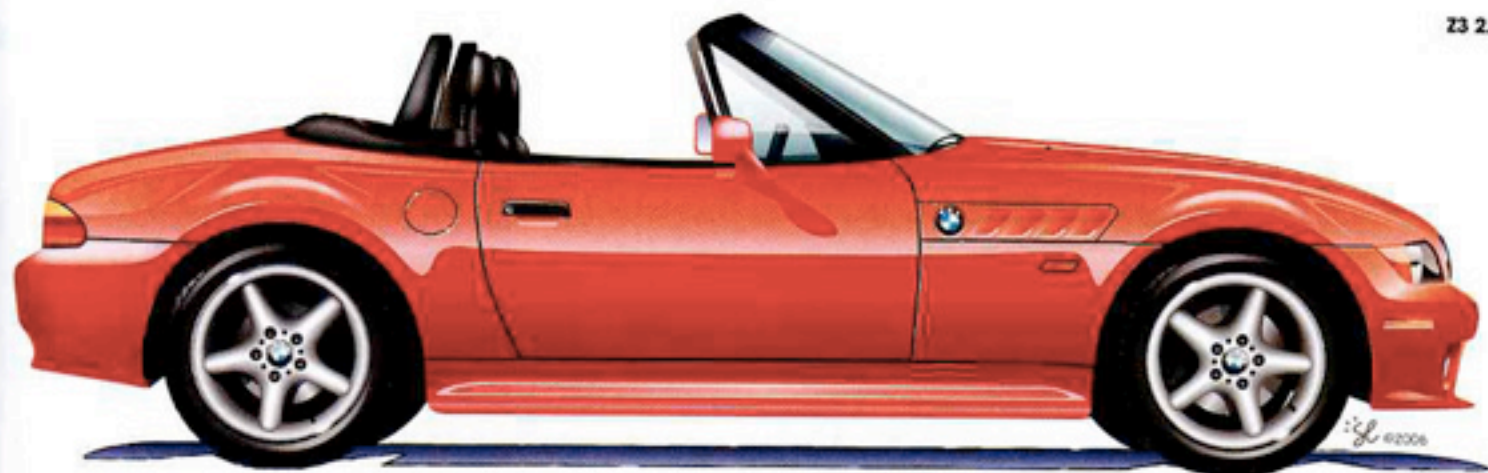
2000 (75,000 miles)	
Z3 2.3 roadster	\$12,500
Z3 2.8 roadster	\$15,315
Z3 2.8 coupe	\$14,815
M roadster	\$17,915
M coupe	\$17,115

1999 (75,000 miles)	
Z3 2.3 roadster	\$11,300
Z3 2.8 roadster	\$13,725
Z3 2.8 coupe	\$13,435
M roadster	\$16,335
M coupe	\$15,635

1998 (75,000 miles)	
Z3 1.9 roadster	\$9,530
Z3 2.8 roadster	\$11,510
M roadster	\$13,910

1997 (75,000 miles)	
Z3 1.9 roadster	\$8,650
Z3 2.8 roadster	\$10,250

1996 (75,000 miles)	
Z3 1.9 roadster	\$7,700



Z3 2.8