

# Project

## Why a convertible?

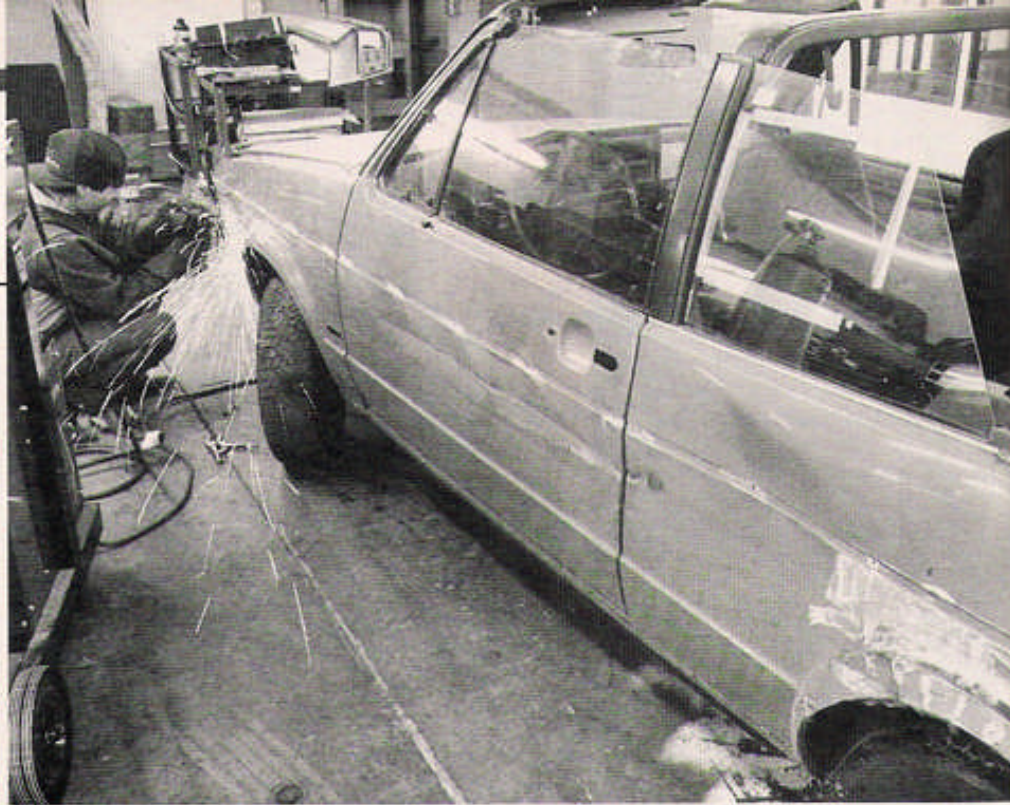
**P**roject California Cabriolet's time has come. We've never trained our sights on a ragtop with the intent to investigate potential improvements, but now seems like a great time to start. We're looking at it as a winter project that will result in an exciting car for next summer.

Using an older A1 chassis car offers us an opportunity to delve into the current generation of modifications for pre-GTI 1700 motors. Our Cabrio missed, by one year, a few of the GTI goodies that were fitted to later models, which include front and rear anti-roll bars, the 1800cc motor with factory big-valve head and ventilated front discs.

We think that an older Cabrio project will be interesting for another reason—price. With current ragtop sticker prices touching \$17,000, the \$6500 we paid for our project car certainly makes it a reasonable alternative. And, a heckuva lot of aftermarket technology can be applied for ten grand. Why was the purchase price so reasonable? The body's been dented on the drivers side; the paint is in mediocre shape; the odd bit of trim here and there is damaged or missing; and the top shows signs of wear and tear. The interior is in decent shape, however.

Our Cabrio came out of the Karmann factory in 1983, which was a good, if not great, year for VWs in general and Cabrios in particular. Our car features most of the good stuff—electronic ignition (no points to adjust) and Lambda control for good fuel economy. It has a five-speed, but with wide, economy gearing, not the performance-oriented close-ratio GTI gears. Suspension is standard late-model A1 chassis, with GTI-style strut towers and pigtail springs. The springs are soft, like the normal U.S.-made Malibu Rabbits, with rates about 16-percent softer than U.S. or European GTIs.

After buying the car, we discovered that the engine had been modified. It felt like a strong runner, even with 64,000 miles on the clock, and when we tested the car with the Vericom VC-2000 performance computer, we were surprised to find that the Cabrio turned in a 0-60 time of 10.4 sec. The Vericom offers a calculated guess at horsepower as one feature of its testing, so when our Cabrio checked out at 104 hp, we knew something fun-  
60/VW & PORSCHE



Anaheim Hills Auto Body caters to a well-heeled clientele, but they agreed to take on our project anyway.

ny was going on.

We tracked down the original owner of the car, a Finn and former rally driver, who had picked up the car at the factory on Volkswagens tourist delivery program. Seems that while he was over there he had a few neat items fitted to the motor, including 9.7:1 pistons, modified fuel injection, a trick cam and Euro-exhaust. The resulting package is a nice one, but our thirst for more performance means we'll eventually increase the power even more.



Cosmetic surgery, automotive-style. Our project's first step is having the exterior cleaned up and painted.

First step is bodywork and paint. Already the car has been stripped at Anaheim Hills Autobody, where Pat Smith is preparing the car for the repair work, a complete respray and a few little custom mods. We'll be taking an in-depth look at this prepping, priming and painting process in our next issue. We know our VW will be in good company among the Bimmers, Porsches and Mercedes that make up the clientele at Anaheim Hills.

We looked into fitting all of the

# California Cabriolet

newest factory Cabrio body parts, but they're expensive. Just getting all the pieces to make our car look new would run around \$3000—before installation and respraying. As a more reasonable alternative, we're going to fit European bumpers and a BBS body kit, imported by Automotive Performance Systems. The black bumpers won't have the monochrome look of the late models but will look a lot trimmer than the current chrome monsters.

After the cosmetics are completed, we'll delve into suspension upgrades. First, we'll check out the condition of components like wheel bearings and ball joints. We plan on using the newest shock absorbers from Koni. Adjustable front and rear, these gas shocks were developed in conjunction with Neuspeed and include new, rear adjustable shocks that are a Neuspeed exclusive. They'll give us something no other shock can offer: Koni quality in an adjustable shock. Neuspeed's latest spring set is developed specifically for the Cabriolet and will work hand in hand with their 22mm front and 25mm rear anti-roll bars. We're especially concerned with chassis stiffness, even though the stocker is considerably stiffened over the hardtop VWs. The important lower end of the suspension will be reinforced with a Techtonics

triangulated stress bar. On top, a Neuspeed stress bar will do the honors.

We'll be making changes in quite a few other aspects as well. In the engine department, we'll be taking a look at the current generation of bolt-on power items for the early cars. We'll do factory mods and upgrades where possible, including a hydraulic cylinder head conversion from Techtonics and a knock-sensing ignition. One of our goals is to keep things as clean and legal as possible. This means that our only choice for a high-performance exhaust will be to fit a Techtonics catalytic converter downpipe ahead of a sport exhaust. Brakes will be upgraded to one of the new "Big Brake" kits on the market, or 4-wheel discs, or possibly both. And certainly, the stock wheels and tires will give way to something that offers better grip. We'd also like to swap our wide 5-speed for a close-ratio gearbox, and we're certain that all of the shift-linkage bushings will require replacement.

I can still remember the first time I drove a Cabrio. It was an '83 press car borrowed from VW of America. That first drive was, appropriately, through the winding roads of Beverly Hills. And


I say appropriately because southern California has been a traditionally strong market for open-top cars, especially the VW Cabriolet, which has become as ubiquitous in Lotusland as 3-series BMWs. As a former MG owner, I've had a few fears regarding ownership of a convertible. That first Rabbit Convertible drive disproved most of those fears. Safety? The VW engineering team built a genuine roll bar into the design. Wind noise and leaky side curtains? The tight-fitting, insulated top designed at Karmann delivered the kind of noise and weather protection found in hardtops.

And the disadvantages, you might ask. Are you crazy? A car this fun has disadvantages?

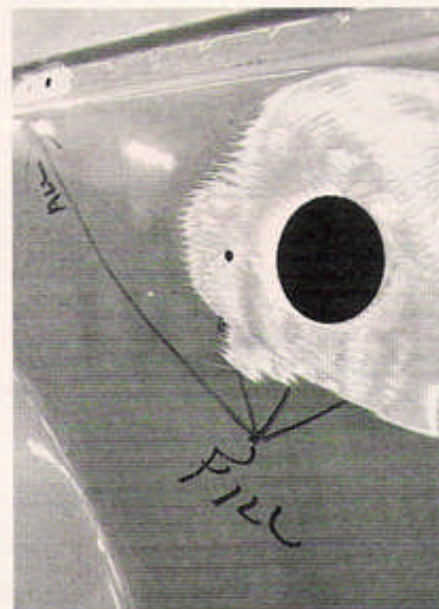
The lack of trunk space is definitely one. It makes the Cabrio less practical than a Rabbit with its large hatchback, or a Jetta and its cavernous trunk. It'll make installing a good stereo a bit more tricky, but some clever audio technicians have already given us some ideas.

Weight is another concern. The laws of physics are undeniable: A heavier car is slower, harder to stop and more difficult to make handle well. We'd always been under the impression that any Cabrio was a bit on the tubby side, but a trip to a certified public scale told us we were wrong: Our Cabrio, in stock trim, weighed in at 2160 lb with a half tank of gasoline. That's close to the 2100-lb early Jetta, and quite a bit lighter than the 2500 lb of the later A2 cars. One reason for the light weight being the '83 Cabriolet contains somewhat less sound-deadening material. Another is that our Cabriolet doesn't have air conditioning or power steering.

Our final concern is chassis stiffness. The standard example holds true: Try to twist a shoebox with the lid on. Doesn't bend much. Now try the same with the lid off. Very flexible. That's the basic problem with a Cabriolet. When you chop the top off the boxy Rabbit body, the car becomes springy. This is contrary to what a good suspension system needs. VW and Karmann engineers have gone to a great deal of trouble to stiffen the topless A1 chassis. A close look under the rocker panels reveals added reinforcement, but further chassis stiffening is needed to improve the car's handling.

That, then, is the general forecast for Project California Cabriolet. Stay tuned for all the details. 

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Getting the body ready for the BBS aero-kit.

How to find a good body and paint shop? Check out their work; it's the only surefire way.