

# technology TODAY

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## Retractable Hardtops

**H**AVE you recently noticed a sudden increase in the number of adrenaline-pumping sporty automobiles on the main streets of your local community? I started to notice the trend this past March and had my suspicions confirmed when I read "Boomers, Start Your Engines" in the June 26 US



Photos courtesy of Alan Pierce

News & World Report. US News photographically featured the Mercedes SLK throughout the issue's cover story. However, it didn't delve into what makes the

SLK unique and why it is flying out of Mercedes showrooms.

Since September is the traditional roll-out month for new cars, this month's column will look at the SLK's roof design, which is definitely unique and not found on any other production vehicle. This Mercedes is truly two cars in one. It's a sports coupe that turns itself into a fully open roadster in 25 seconds. The SLK has a retractable hardtop that folds up into a rather small trunk package at the touch of a button.

**Hardtop history.** The road to this article was filled with many potholes as I explored numerous car features to select a topic for this month's column. Paul Tadeushuk, a Mercedes-Benz Sales Representative at Prestige Motors, in Paramus, NJ, helped me realize that the SLK's retractable hardtop was a great topic for this month's column. Gary Souders has spent a good deal of time researching the development and early history of the retractable hardtop, and he was an excellent source of information for this article.

Although General Motors originated the idea of a hardtop convertible in 1948,



they never developed it into a production vehicle. In the 1950s, Ford Motor Company spent \$20 million using post-World War II technology to perfect the retractable hardtop. In 1951, Ford completed a 1/8th-scale working model of the top. In 1953, they completed a 1/3rd-scale model, and in 1955, they completed a prototype retractable hardtop Lincoln Mark II concept car. The Ford Motor Company finally introduced the retractable hardtop in 1957.

**Keeps out rain.** Ford built about 48,000 hardtop Skyliner model vehicles under the Fairlane and Galaxy logo. The Skyliner, discontinued in 1959, had



water leaks and mechanical problems. I am glad to report that the Mercedes SLK's roof is free of mechanical problems and very watertight.

The modern retractable hardtop Mercedes SLK is assembled in Osnabrueck, Germany, using a fully integrated roof system and surrounding car structure designed and built by automotive supplier Karmann GmbH. In 2002, the Mercedes SL will become the next Mercedes vehicle to receive a folding SLK-style roof.

If Karmann has its way, future models of many cars will soon have their own retractable hardtop. At the 2000 Detroit Auto Show, Karmann displayed its new three-section rigid retracting-roof system on a four-passenger vehicle ([www.karmann.com/internet/kar\\_web.nsf](http://www.karmann.com/internet/kar_web.nsf)).

**Back in America.** To make the Karmann dream a reality, Karmann USA Inc. has built an engineering center in Livonia, MI, to work with American automobile manufacturers. Karmann already has plans and prototypes for top mechanisms, system electronics, and the rigid-body structures for retractable hardtops for sport utility vehicles, minivans, and even stretch limousines. The limousine and sport utility designs have transparent plastic panels that retract and stow themselves behind the last seat section of the vehicle. To view the past and place the future in perspective surf the following sites:

[www.ghgcorp.com/jbowyer/SLK%26FORD.html](http://www.ghgcorp.com/jbowyer/SLK%26FORD.html)  
[www.freeyellow.com/members/skyliner](http://www.freeyellow.com/members/skyliner)  
[www.karmann.com](http://www.karmann.com) @

## Recalling the Facts

1. What company developed the first retractable hardtop?
2. What do you think are the advantages or disadvantages of a retractable hardtop over a conventional ragtop convertible?
3. Name three vehicle categories that might soon have their own retractable hardtops.

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