

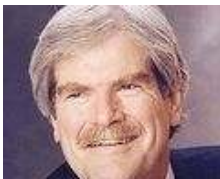


## CHAPTER "99" NEWSLETTER ASC-CA-NORTH



### Summer Plans NO MEETINGS UNTIL SEPTEMBER!

#### There's New Technology Coming



Keith Crain is editor-in-chief of Automotive News.

Long before we have figured out current technology, along comes newer, more sophisticated technology that tends to put everything else into the obsolete folder.

When it comes to technology, car companies do it backward.

Younger customers understand and want the latest and greatest in telecom devices, video games and computers -- whether in a car, a smartphone or a laptop.

Those younger customers are the first adopters because they love the technology and understand it.

But companies always seem to introduce the latest automotive technology on their most expensive models. That's backward.

The consumers who are the least interested in and least comfortable with the latest and greatest technology usually are older and richer -- and they are buying the vehicles that have the most high-tech equipment.

The array of technology on the Cadillac XTS is a great example of missing the mark for the consumer. By comparison, Ford squeezed high-tech offerings into the Focus, for example, aimed at consumers who understand and want the latest offerings.

By the way, BMW also had it backward when it introduced iDrive on the 7 series instead of the 3 series.

Car manufacturers say they have to put the technology on their highest-priced vehicles because the features are expensive. That's a bad idea that burdens the vehicle.

But even when Ford has the right features on the right car for the right demographics, a new-car delivery at the dealership takes longer because there is a lot to teach the customer.

It is difficult and sometimes dangerous to hop into an unfamiliar car in the rain and locate the simplest controls, much less try to program a GPS or some other device intended to make it safer to drive. It doesn't always work that way.

Technology in automobiles is a great thing. But what is intuitive to the electronics engineer might not be intuitive to the customer.

And it's even more critical to match the technology to the demographics. Overwhelming the wrong customer in his new car doesn't do anyone any good.

## The Rise of the Fake Engine Roar

To make engines sound better, some automakers are broadcasting motor noise through speaker in the cabin. Is this progress—or an affront to the purity of the engine note? (Could this will help Electric car sales?)

Anyone who's heard a Ferrari V-8 at full wail knows perfectly well that engines make music. But today, that vroom-vroom is getting harder to hear, thanks in equal parts to turbochargers that muffle the noise, increasingly insulated cabins, and government noise regulations.

Automakers are well aware that a snarly engine note enhances the behind-the-wheel experience—especially for sporty cars—and all sorts of devices have been used to let in this "good" noise. The Corvette's exhaust system has a valve that opens under full throttle and bypasses the muffler. The Porsche Cayman and the Ford Mustang both have "noise pipes" that connect the intake system to the cabin. These passive systems, however, are slowly being replaced with active systems that play a prerecorded track through speakers.

Case in point: VW's GTI used to have a noise pipe, but when the latest version appeared in 2011, the pipe was replaced with the Soundaktor. This system uses a hockey-puck-size speaker mounted on the firewall to generate extra noise. VW didn't exactly advertise the feature, and when word got out, the forums lit up.



"The Soundaktor is only there to lie to me," fumed one GTI owner on vvwortex.com when he found out his car has the system. "It's false advertising, plain and simple."

Andrew Wong is a 29-year-old engineer from Detroit. When he learned that his 2011 GTI had the Soundaktor, he simply removed it. Now he relies on an aftermarket exhaust system for better noise. "I want to hear the engine, rather than some version of the engine being played to me," he says.

VW mounts this speaker on the firewall of sporty models like the Golf R to enhance engine sounds.

VW is not alone. The new BMW M5, which ditched the sonorous V-10 for a twin-turbo V-8, plays an engine soundtrack through the car's audio system. From a carmaker's perspective, these active sound generators have definite benefits over a sound pipe: There's no need to cut a hole in the firewall or package a separate tube in the already crowded engine bay. Plus, the active devices allow a far greater degree of tunability and can be used to mask unwanted noise.

It remains to be seen just how far automakers will take these systems, but in the future, you may be able to toggle a switch that makes your Prius howl like it's got a V-8.

## 5 New Car Features That Aren't Really New

### Pushbutton Shifting

The 2013 MKZ, Lincoln's new midsize sedan arriving in dealerships this fall, won't have a lever in the center console that lets you shift between neutral, reverse, and drive. Instead, five electric pushbuttons electromechanically "shift" a conventional automatic transmission.

These buttons on the dash trigger an electric motor that physically moves cables connected to the automatic's mechanical shift mechanism. In an ordinary car, the shift lever would be connected to a console- or column-mounted shift lever.

But we've seen this before.

Lincoln may be making a big deal out of the MKZ's feature, but pushbutton shifting is a century old. The idea surfaced early in the development of the automobile. Several small automakers fitted the Vulcan electromechanical gearshift systems to cars and trucks as early as 1913.

Chrysler popularized leverless shifting with the system it introduced in 1956. The pushbutton mechanism mechanically operated the automatic transmission via cables, eliminating traditional column- and console-mounted shifters. Chrysler offered pushbutton shifters on many of its cars and light trucks through 1964. Hundreds of thousands of vehicles sold in the 1950s and '60s had this feature.

Ford briefly toyed with pushbutton shifting with the Teletouch system offered on Edsel products (1957 to 59). Packard used the technology in its Touch Button Ultramatic of 1956. The more complex Ford and Packard solutions were unreliable and quickly went out of production. As a result, the technology never really caught on with the general public, so Chrysler dropped its push-button shifter too.

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### **Direct Injection**

As a way to save fuel by building smaller engines without sacrificing performance, more manufacturers are turning to gasoline direct fuel injection. Putting the fuel injector inside the combustion chamber (compared with placing the injector upstream of the chamber in the intake manifold) simultaneously improves efficiency and power. Direct injection is superior to traditional port fuel injection, throttle-body injection, and traditional carburetors, so it's not uncommon to hear automakers boasting about this tech.

However...

Mercedes-Benz introduced gasoline direct injection to the automotive world in 1955 on the now-iconic 300SL. The gullwing sports car used a system developed by Bosch, still one of the biggest companies building injection systems.

By the time the 300SL hit the road, Mercedes-Benz and Bosch had more than a decade of experience with gasoline direct fuel injection. In the 1940s the companies worked together to build engines for the Nazi Luftwaffe that could operate in negative-g flying maneuvers, and a reliable gasoline direct injection system satisfied this demand. And in diesel engines, direct injection goes back even further—to the 1920s.

But fuel injection controls of the 1950s weren't sufficiently well developed for direct injection technology to take off. Furthermore, it was a lot cheaper and simpler to use a carburetor.

### **Pushbutton Starting**

In new cars and trucks such as the Nissan Altima and Ford Escape, the traditional ignition key is disappearing in favor of a key fob and a dash-mounted start button.

The trend started on luxury cars early in the 2000s. Dash-mounted button starters have now migrated down-market to some of the most affordable vehicles coming to market.

If you think pushbutton starting is a new idea, though, you need to look back a century into automotive history.

In the early 1900s, cars didn't start with keys. You stood outside the vehicle and brought the engine to life by hand cranking it up to starting speed. This literal exercise left a person huffing and puffing and included genuine risk to life and limb. A back-firing engine could whip the hand crank from the operator's hand with force enough to break an arm or split a skull.

Henry Leland, founder of both Cadillac and Lincoln, commissioned Charles Kettering to develop a practical, affordable electric starter to improve the safety of early cars. Cadillac introduced the pushbutton electric starter in 1912. The electric starter saved lives, reduced injuries, and helped democratize automobiles—finally, people without the physical strength to crank an engine could drive.

The interface for electric-start systems varied through the decades. The old-fashioned dash- and floor-mounted start buttons eventually gave way to key-start ignitions that dominated the industry for almost 90 years.

### **Hybrid Electric Drive**

Hybrids captured the imagination of U.S. drivers around 2000. The funky-looking Honda Insight and Toyota Prius wowed Americans with fuel-sipping powertrains that combined gasoline engines with electric motors. Over the past 13 years, the number of vehicles with hybrid powertrains has grown from two to more than 20.

The first of the 21st-century hybrids focused solely on fuel economy, helping cement the hybrid's reputation as the stereotypical wheels of the eco-conscious. Today there are hybrid sports cars, full-size trucks, practical and luxury SUVs, and nearly all sizes and price classes of sedans.

Yet, this modern madness is really just the second wave of the hybrid

The world's first hybrid, the 1901 Lohner-Porsche featured components and technologies that mirror those found on contemporary hybrids, including electric wheel-hub motors, batteries, and generators.

The engineering of the first hybrid was so significant that, even though it was decades old by the 1960s, NASA studied this vehicle as the space agency developed the Apollo program's Lunar Rover. The thinking behind the first hybrid was so solid and practical that the series hybrid design is used to power many modern railway locomotive engines.

Engineered by Ferdinand Porsche, the hybrid electric Lohner-Porsche remained in production until 1906, beating today's generation of hybrids to market by about 90 years.

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### **Where Am I**

**I am getting this letter out a bit early. I will be leaving for the Bonneville Salt Flats Friday 10th and will be there all next week.**

### Head-Up Display

A staple of military and commercial aircraft since the end of World War II, Head-Up Display (HUD) instrumentation is now available in some luxury and performance cars. While the first displays were monochrome, full-color displays are now available.

Automotive suppliers such as Continental AG are now making full-windshield designs that do more than display selected instrument readouts. These concepts enhance driving safety by highlighting on-road threats in the driver's field of vision, improving nighttime vision, and highlighting critical road signs.

General Motors first introduced production HUD instrumentation in 1988 on the Oldsmobile Cutlass Supreme. The first displays were monochrome and spread to other GM models including Buicks, Pontiacs, and Cadillacs.

While crude by today's standards, the systems helped drivers keep their eyes on the road by projecting vehicle speed and other vital data into the driver's field of vision.

### Some other you may remember also....

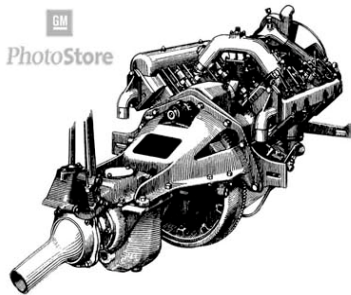
Vacuum assisted shifting on '39 Chevy

Locking steering wheel '37 Ford, ignition worked with toggle switch until you locked it.

Hill holder - '41 Studebaker had that feature—It too held brake line pressure until the clutch was released.

Starter that worked off the throttle pedal on 40s Buick

A switch on the floor operated with your foot to change radio stations '46 Ford



### The Very First Chevrolet V8

Chevrolet Series D V8 engine deserves some attention. 288 cubic inches, overhead valves, crossflow heads... and it was manufactured 38 years before the small-block Chevrolet engine. That's right, Chevrolet had an OHV V8, generating an excellent-for-its-time 55 horsepower, back in 1917! Chevrolet was absorbed by General Motors that year, and the Series D was dropped when The General's marketers decided to make Chevrolet its low-priced marque... but imagine what might have been, had early hot-rodders become accustomed to cheap V8s in the decades before the Ford Flathead V8.

Actually, Cadillac had the first U.S. production V-8 in 1914...L-head (flathead), however.

## HISTORY LESSON. In 1923, who was:

1. President of the largest steel company? - 2. President of the largest gas company? - 3. President of the New York Stock Exchange? - 4. Greatest wheat speculator? - 5. President of the Bank of International Settlement? - 6. Great Bear of Wall Street?

These men were considered some of the world's most successful of their day.

Now, 80 years later, the history book asks us, if we know what ultimately became of them.

The answers:

1. The president of the largest steel company, Charles Schwab, died a pauper.
2. The president of the largest gas company, Edward Hopson, went insane.
3. The president of the NYSE, Richard Whitney, was released from prison to die at home.
4. The greatest wheat speculator, Arthur Cooger, died abroad, penniless.
5. The president of the Bank of International Settlement, shot himself.
6. The Great Bear of Wall Street, Cosabee Livermore, also committed suicide.

However, in that same year, 1923, the Racing Champion and the winner of the most important auto race, the Indianapolis 500, was Tommy Milton.

What became of him?

He raced until he was 50, died in 1962 at the age of 95. He was financially secure at the time of his death, having won what would equate to \$14,500,000 today

**The moral: Screw work. Race cars.**

## CODE of ETHICS

1. To promote good will between the motorist and the industry.
2. To have a sense of personal obligation to each individual customer.
3. To perform high quality repair service at a fair and just price.
4. To employ the best skilled personnel obtainable.
5. To use only proven merchandise of high quality distributed by reputable firms.
6. To itemize all parts and adjustments in the price charged for service rendered.
7. To retain all parts replaced for customer inspection, if so requested.
8. To uphold the high standards of our profession and always seek to correct any and all abuses within the automotive industry.
9. To uphold the integrity of all members.
10. To refrain from advertisement which is false or misleading or likely to confuse or deceive the customer.

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