

TECHNOLOGY IN OUR LIVES

42-Volt Technology: Key To Cars Of The Future

(NAPS)—Imagine walking up to your car, having the door unlock and swing open all by itself. You get in and the door closes automatically as your favorite music begins to play. The cabin temperature adjusts to your personal preference, while sensors determine if the windshield and mirrors need to be heated. Need to make minor adjustments? Just say the word.

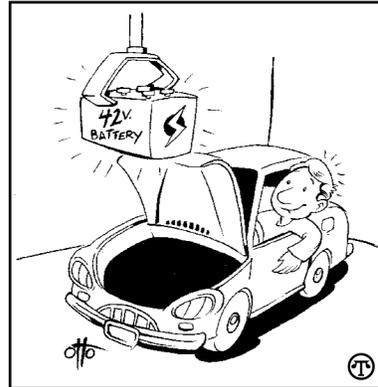
While this may sound like science fiction, it's actually the coming evolution of automotive technology, according to the Society of Automotive Engineers' (SAE) report, *42-Volt Systems: Technology Implications for the Automotive Industry*.

Since the 1950s, vehicles have operated on 12-volt systems. Advancements in passenger comfort, interior electronics, fuel economy and emissions, however, demand additional power—and an upgrade to 42 volts is seen as the best way to run these systems.

"The increase in available power will allow engineers to develop new systems to change the vehicles of the future," according to the SAE report. "Future needs in the areas of safety, passenger comfort, emissions control and fuel economy are expected to require more electronics."

DaimlerChrysler Advance Technology Specialist Fred Miesterfeld says the greatest achievements will be in fuel economy and passenger comfort.

"Converting to a 42-volt system would improve engine efficiency," he says. "It would also allow for more speaker power, supply more heat to window heaters and seats and provide more efficient steering control."



Advanced electrical systems will make it possible for new vehicles to do more, in both performance and passenger comfort.

According to the report, consumers can also expect to see electronic steering, brakes, water pumps and air conditioning systems, all due to 42-volt technology. However, the immediate cost of converting vehicles to 42-volt systems is sizable.

"It will require new facilities, components and manufacturing processes throughout the entire supply chain," says Miesterfeld. In fact, electronics are expected to account for 35 to 40 percent of the cost of high-end vehicles during the next 10 years.

While full implementation across all car lines may take up to two decades, consumers can expect the first "all 42-volt" cars to be in the high-end luxury segment within the next seven to 10 years.

For more information on SAE, 42-volt technology, careers in automotive engineering, new products and standards, and other engineering information, check out the Web site at www.sae.org.