

Not Your Father's Battery

Volt battery is the size of a linebacker.

The Chevy Volt's T-shaped battery is definitely not your father's battery. Located down the center tunnel of the car and under the rear seats, it's roughly six feet long and weighs more than 375 pounds. Because of its size and location, the battery has to be treated as part of the vehicle's structure. Simulation data also indicates that the center placement provides greater protection to the battery.

GM engineers have developed a new computer algorithm to accelerate durability testing of the battery. This advanced computer program duplicates real-life vehicle speed and cargo-carrying conditions and compresses 10 years of testing into a roughly two-year period. Testing the long-term durability of the battery is taking place 24 hours a day, seven days a week.



Testing of the Volt battery takes place in the battery lab at the GM Tech Center in Warren, Michigan.

Did You Know . . .

that GM announced a strategic alliance and equity investment on May 1 with a second biofuels startup company? Boston-based Mascoma Corp. uses a biochemical process to make ethanol from wood and agricultural waste and is working on a process that will go directly from plant material to ethanol in a single step.

Chevy Volt: Traveling Public Roads and Hitting Its Mark

General Motors inched closer to making the Chevrolet Volt a reality in November 2010 as the vehicle's innovative gas-electric powertrain is being test driven for the first time on public roads and is hitting its target of 40 miles on pure electric power.

"Today is a big day," GM Vice Chairman Bob Lutz told Edmunds' AutoObserver last week. "Today is the first day it is running on the street on battery power."

Lutz said the Volt's powertrain, comprised of an advanced lithium-ion battery and a small gasoline engine, was installed into a mule (that is, test) vehicle and is being driven on public roads around the automaker's proving grounds in Milford. More important, Lutz said, the battery is hitting GM's goal of 40 miles on pure electric power.

"It is reliably meeting its objectives," Lutz confirmed. "Even with a rough calibration, even with the wrong drive unit, the wrong body, etc. etc., it has been hitting its 40 miles on electric power."

Source: *Edmunds.com*, May 14, 2008

Going Green: GM's Environmentally Friendly Vehicles

GM is releasing an average of one new hybrid model every three months for the next two years, including the Saturn Vue and Aura Green Line, and Chevrolet Malibu. This year, GM has introduced the Chevrolet Tahoe and GMC Yukon two-mode hybrids (the only hybrid system developed and built in the U.S. at our Baltimore, MD transmission plant) that get a 50% improvement in city mileage over gas versions. This level of performance earned the Chevy Tahoe two-mode hybrid the "Green Car of the Year" award at the LA Auto Show. Next year GM will launch three additional two-mode hybrid versions of the Cadillac Escalade, and Chevrolet Silverado and GMC Sierra full-size pick-ups.

What is two-mode?

GM's two-mode hybrid system uses an electrically variable transmission with two hybrid modes of operation. In the first mode, at low speeds and light loads, the vehicle can operate in three ways: electric power only, engine power only, or any combination of engine and electric power. The second mode is used primarily at highway speeds to optimize fuel economy, while providing full engine power when conditions demand it, such as trailer towing or climbing steep grades.

Around Grand Rapids

Summer Shutdown

The 2008 summer shutdown period runs from June 30 through July 13. Management has set aside one week (40 hours) of vacation entitlement to be applied to the plant vacation shutdown period. Vacation applications will NOT be accepted for the two-week summer shutdown period. Employees in a classification in which certain numbers of employees will be required to work may make known their desire to either work or be off during all or part of the two-week shutdown period. Such "applications" (shutdown work cards) **will be accepted from May 27 through June 11, 2008, and will be the only method of determining employees scheduled to work during the two-week summer shutdown period.** Modifications will NOT be accepted after the conclusion of the filing period.

Shutdown Work Cards may be obtained in the department office and the Personnel Department. Employees may volunteer to work all, or a portion of, the Independence Week Shutdown and/or the entire vacation shutdown week. Employees should complete and submit a Shutdown Work Card to their department clerk by the end of shift on June 11, 2008.

UAW-GM QN Suggestion Corner

	05/10/08-05/16/08	YTD
*Awards Paid:	27	377
\$ Paid Out:	\$ 1,979.94	\$150,509.62
Savings to GM:	\$ 0.00	\$753,869.70
*Tangible and intangible awards		

2nd-Quarter Suggestion Program Focus: Team Quality Suggestions

In the second quarter of 2008, the UAW-GM Quality Network Suggestion Plan focus is on team **quality** suggestions. At the end of the quarter there will be a drawing. Four team suggestions (three or more people) will each win \$500. The money will be split equally among the team members.

Safety Corner

Damaged PPE--What to Do With It

In 2007, GRMP had \$104,000 worth of sleeves and gloves unaccounted for. It was later discovered that a portion of this number was due to the elimination of an old-style Kevlar glove. However, we still have a significant number of unaccounted gloves and sleeves.

To be able to track all PPE through its entire lifespan in the plant, **no cut-resistant sleeves and gloves should ever be thrown away.** If the sleeves or gloves are damaged, then the PPE should be put in the blue damaged PPE containers that are hanging on the side of the PPE distribution centers (see picture). The PPE that is placed in these blue containers will be kept separate from the rest of the PPE and will be sent to cleaners for repair or disposal.

To help account for the rest of the PPE that was missing in 2007, we will have a "PPE Cost Recovery Day" on May 28 (today!). Immediately after the team meetings, we will take a 10 minute break for everyone on the team to go and search their area for PPE. We want to collect all the PPE that is not in a designated PPE bin. PPE that is tucked away in corners, laying on top of tool boxes, stuffed in lockers, or piled up in some corner of the basement should be taken to the dirty PPE bins located next to the team rooms. Our laundry company will count all the PPE that is returned from this cost recovery day. Hopefully, we will be able to make up for some of the unaccounted for cost in 2007.

