

Repair Insights

FOR INDEPENDENT BODY SHOPS

Genuine  | Parts



Oct - Dec 2010

NEW CHEVROLET VOLT

Extended-range electric vehicle
makes its debut.

More on the Volt Inside . . .

Info for first responders - page 4.

Volt's new Global Compact
Vehicle Architecture
shared with the
Chevrolet Cruze
- page 8.

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GM RepairInsights Online

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Convert aftermarket parts to Genuine GM Parts and earn unlimited rebates.

Earn VISA® Award Card Rebates and provide your customers peace of mind when you choose Genuine GM Parts.

Get started today . . .
this program is for qualifying collision parts purchases from July 1 to December 31, 2010!

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VISA® Award
Card Rebate

> HOODS

\$15 Fast-Cash
VISA® Award
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> FASCIAS
> BUMPERS
> HEADLAMP ASSEMBLIES
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> RADIATOR CORE SUPPORTS

Go to www.gmpartsfastcash.com or call 1-877-348-1822 for assistance.

To request a rebate:

1. Go to www.gmpartsfastcash.com. Log in to gain access to the website.
2. Follow the rebate submission steps.
3. Submit a claim for each unique invoice for qualifying GM Collision Parts.
4. Mail the printed online claim confirmation page with copies of the dealer invoice and your repair order and/or a copy of the estimate* to:

Genuine GM Parts Fast-Cash
2604 NE Industrial Dr. #230
N. Kansas City, MO 64117



Genuine  | **Parts**

*GM Dealer body shops only need to submit their printed confirmation pages and copy of estimates. The VISA® Award Card is issued by University National Bank pursuant to a license from VISA U.S.A. Inc. and may be used wherever VISA Debit Cards are accepted. University National Bank, Member FDIC.

Amidst Volt Excitement, GM Trains Eye on Safety Emergency responders targeted with electrical safety, extrication guidelines.

At the same time GM has been generating excitement about the Volt, it also has been hard at work spreading vital information about the vehicle among first responders.

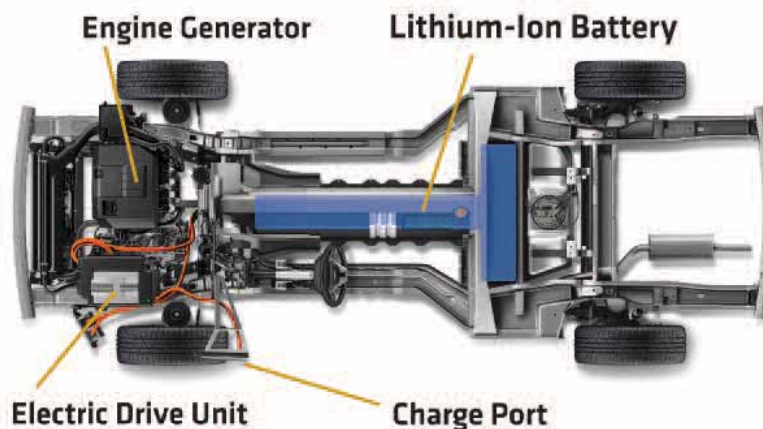
As GM readies its debut of the revolutionary plug-in electric hybrid Chevrolet Volt this fall, the company is focused not only on first adopters, but first responders as well.

The same electric propulsion technology and advanced structural design that places the Volt on the automotive leading edge poses a learning curve challenge to emergency personnel responding to any crash involving the vehicle.

Because of its complex electrical system capable

of generating high voltage, and a structural steel frame comprised mostly of high-strength steel (HSS), emergency first responders looking to quickly and safely extricate passengers must approach the Volt with far more care, precision and knowledge than they do with any other vehicle. Failure to follow proper procedures can result in not only a critical loss of time in freeing occupants, but possibly injury and even death.

In late September, GM, assisted by its training partner Raytheon, unveiled a Volt First Responder Guide. The comprehensive guide, patterned after those that have been produced for other GM hybrid vehicles that must also be handled with extreme care in crash situations, is now posted on the



Chevrolet Volt




First Responder Resource page of the GM Service Technical College site, www.gmstc.com/FirstResponder.aspx.

The guide is a detailed, fully illustrated primer covering metal cutting techniques and tools; identification of key electrical components; and methods of safely disabling the electrical system. It is designed not as a training manual, but as a ready resource for first responders, covering information essential to their safety and that of vehicle occupants.

As the Volt debuts in select markets this fall, GM is bringing those guidelines to life in a series of hands-on first responder outreach workshops. Patterned after a live Volt extrication demonstration by the

Chicago Fire Department at the 2010 Fire-Rescue International Conference in Chicago in August, the workshops will show the precise steps, techniques and tools required to disable the vehicle's electrical system,


cut battery cables, stabilize the vehicle and efficiently cut through steel. Additional local workshops will begin to roll out with the car later this year in Detroit, Los Angeles, San Francisco and Washington, D.C.



Information on GM vehicles for Emergency Rescue/First Responders

- Information to assist First Responders in learning about vehicles and systems that may affect how GM vehicles perform in an emergency situation, such as:
 - Specific systems in GM vehicles
 - GM's alternative powertrain vehicles (hybrids; fuel cells)
 - "Contact us" for questions and recommendations
- Free of charge
- Downloadable
- Printable

Go to www.gmstc.com
Click on the **FIRST RESPONDER icon**



Much Focus on the Volt at 2010 NACE

GM took its Volt education outreach program to the International Autobody Congress & Exposition (NACE), Oct. 10-13 in Las Vegas. Aware that collision repair specialists will also have a keen interest in understanding how to safely work with the Volt, GM contributed content for the Oct. 12 I-CAR Technology Showcase clinics, one focusing on vehicle-specific collision repair procedures, the other on hybrid vehicles. In addition, GM disseminated information about the Volt's high-strength steel components. A Volt side panel and frame rail made of HSS was on



display in the GM booth, and Randy Boyd, GM Global Aftersales Mechanical Engineer, delivered a talk called: **Identification and Repair of High Strength Steels on General Motors Vehicles.**

Although the nature of the challenge that collision repairers face with the Volt is different from that of first responders, GM believes its first responder information can be of value to Independent Body Shops (IBSs). At the same time, though, GM also has been working closely with Raytheon, I-CAR and its GM dealer network to bring collision repairer-specific information on repairing the Volt and other hybrid vehicles to the IBS community.

Bump the Competition, OEC CollisionLink and GM dealer services getting the spotlight at NACE.

When there's a chance to get the best and pay less – all in one package – GM Parts believes you can't be reminded often enough.

That's why the Bump the Competition (BTC) Conquest program was front and center at the NACE show held in early October in Las Vegas.

On the hunch that not all collision repairers are taking full advantage of all the program has to offer, GM stocked its NACE booth with resources designed to tell the full Bump the Competition story.

Through program literature, computer kiosks and GM experts, booth visitors learned how habitually routing GM vehicle insurance repair estimates to GM dealers can yield big dividends. The message is that even if the parts needed don't match up with the BTC list of some 3,500

Genuine GM Parts, part numbers are priced to compete with non-OE aftermarket parts. The estimate gives the dealer a chance to show Genuine GM Parts can be competitive outside the program's scope.

"Even parts that might not be on the BTC list may still be priced to offer a good value," says Carol Balgenorth, senior analyst for the Wholesale Dealer Channel, GM Customer Care and Aftersales. "By always sending in the complete estimate you give the dealer an opportunity to see what they can do."

Chances are, though, your dealer can find a way to make BTC work for you. That's because parts on the BTC list are ones commonly used in GM repairs and thus targeted for pricing competitive with non-OE parts. The BTC list spans 10 categories, ranging from lighting,

Genuine  Parts THE RIGHT PART – THE RIGHT

GM COLLISION LINK

One click for the one original.

GM OUTLET SHOP

Original fit, aftermarket price.

BUMP THE COMPETITION

The right fit, the right price.

FAST-CAS

Original Equi



The Technical Side

wheels and fascias to fenders, grilles and hoods.

But the critical first step in getting those deals is relaying insurance repair estimates to the dealer. Once your estimate is transmitted, by fax or via the OEConnection CollisionLink online OEM parts ordering platform, your dealer takes over. In no time, you'll have a detailed rundown of Genuine GM Parts options.

Over 3,500 part numbers are now available in the Genuine GM Parts "Bump the Competition" program

Eligible OE parts sold at "Bump the Competition" prices.

Lighting	Over 330 part #s
Wheels	Over 290 part #s
Fascias	Over 280 part #s
Bars	Over 100 part #s
Fenders	Over 100 part #s
Mirrors	Over 90 part #s
Grilles	Over 80 part #s
Supports, Brackets & Braces	Over 70 part #s
Windows, Moldings & Doors	Over 50 part #s
Hoods	Over 45 part #s

*Ask your GM Dealer for a complete list of "Bump the Competition" parts and program details.

www.genuinegmparts.com

GM Parts Web site set for repurposing and expansion

A GM Parts Web site that was previously a portal for information relating solely to GM Collision Parts, will now expand to incorporate information vital to service centers that work with mechanical parts that come under the Genuine GM Parts Powertrain umbrella. The major additional focus will be on providing technical resources and information for GM Engines, Transmissions, Transfer Cases and Components.

The Web site www.genuinegmparts.com is being repurposed and redesigned to be a more complete resource for those who purchase and install Genuine GM Parts – both collision and/or powertrain.

"Our goal with the redesign is to improve the user experience for our collision repair target audience and also enhance the site by adding GM Powertrain-related information," says Cindy Schafer, digital marketing manager on the GM Parts wholesale marketing team. "The site has been devoted to collision, but we've now broadened it to entail powertrain and at the same time we've improved the look, the content and navigation tools."

Virtually anything relating to GM Collision or Powertrain Parts that is of notable interest to Independent Service Centers (ISCs) and Independent Body Shops (IBSs) will eventually be available at the improved site. The content will be geared heavily to information that repairers need to know to help them perform high-quality repair jobs on GM

FIT – THE RIGHT PRICE

GENUINEGMPARTS.COM

Your source for parts from the source.

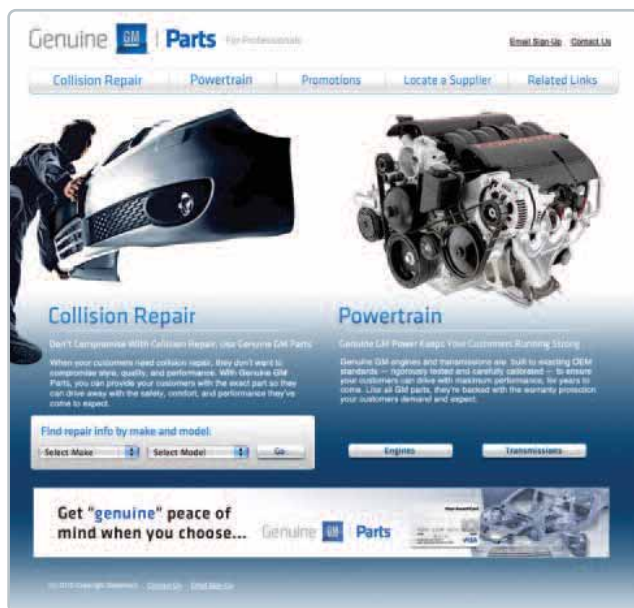
ASH REBATES
Equipment rewards.



The Technical Side (cont'd.)

vehicles; there will be no product ordering features on the site.

“Our aim in providing both product and marketing information will be to help repairers learn more about the GM products they’re ordering before they order them,” says Schafer.



New resources and features will encompass everything from product-specific technical and warranty information, official position statements and product marketing materials to dealer locators, training videos and links to other related websites. A search function will also be added to allow users to quickly find their way to the information they need. Additionally, there will be direct links to other sites, such as ACDelco and GM Performance Parts, as well as other resources in the form of newsletters and literature.

The new site will be unveiled in two stages. The first phase, a soft launch, incorporating a redesigned home page and new site navigation features, coincided with the NACE show in early October. Then, in December, the new GM Powertrain-related components of the site will be added as the new site is officially launched.

“We want to be able to better engage with independent shops comprising our Wholesale Parts Channel, and give them the ability to find everything they need while at one site. We believe our new Web presence for Genuine GM Collision and Powertrain Parts will accomplish that and more,” Schafer says.

High-Strength Steel a Key Component

GM's new Global Compact Vehicle Architecture debuts in Volt, Cruze.

With the curtain now rising on two of GM's big bets for the future – the Chevrolet Volt and the Chevrolet Cruze – the groundbreaking nature of their rollouts are drawing attention.

The Volt, of course, stands out as the first plug-in electric vehicle. And the 2010 Cruze affirms Chevrolet's commitment to building refined, fuel-efficient vehicles.

Less publicized, though, is the fact that both are the first to be built off of GM's new Global Compact Vehicle Architecture. The new design platform was conceived to offer a more flexible, globally competitive and cost-effective template for making vehicles.

While the new platform spans a range of critical design elements, it incorporates structural features certain to be of interest to collision repairers and service providers.

Front and center at the GM Collision Parts booth at the International Autobody Congress & Exposition (NACE) in Las Vegas in early October, the vehicles' key structural features revolve around the use of advanced high-strength steels (HSS) and designs that give essential structures the ability to both protect and be easily repaired or replaced.

In both vehicles, variants of ultra high-strength steel (UHSS) and dual-phase steel are used in differing amounts and locations in critical center pillars, header panels, floor reinforcements and structural components to limit the crush zone and protect the passenger compartment in the

event of a crash.

Although the design of the Volt and Cruze structure is similar, the Volt uses different variants of

advanced high-strength steel in structural components that surround the passenger compartment and the front and rear impact zones. The Volt employs steels classified with a different yield strength than the Cruze structure.

With both vehicles' construction, the critical implication for body shops is to ensure positive identification of the type of steel being repaired or replaced. Extra care should always be taken when repairing and welding advanced high-strength steels, and that's particularly true when the steel is present in structural components. The presence of advanced HSS in impact zones may determine



2011
Chevrolet
Volt Body
Structure

the repair or replacement guidelines utilized.

Serviceability was a factor in the design of both vehicles' bumper impact systems. Aluminum impact systems are part of both vehicles, a design that allows for ready replacement. In the Cruze, however, bumpers are attached with process welds and fasteners. In the Volt, welds must be replaced with either MIG welds or structural rivets to maintain structural integrity.

The Cruze and the Volt, as vanguards of GM's new Global Compact Vehicle Architecture incorporates new materials and technologies which will present techs a new set of challenges as the vehicles begin cycling through repair shops. But by taking time to understand the changes, closely following recommended repair procedures and using GM original equipment replacement parts, the learning curve should be shortened.

WHAT IS THE VOLT?

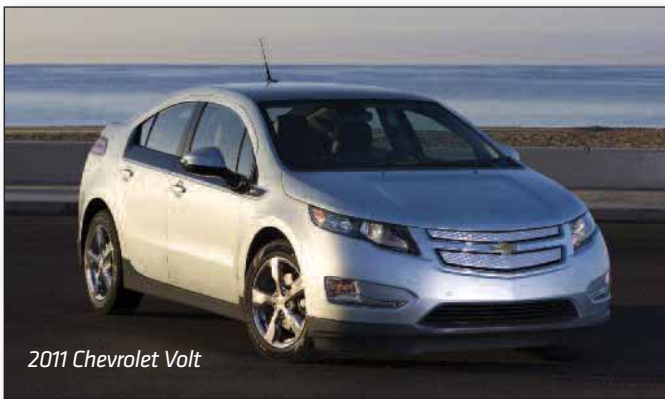
The 2011 Chevrolet Volt is a front-wheel-drive, four-passenger Electric Vehicle with extended-range capability. It uses electricity as its primary power source and gasoline as its secondary source to power the vehicle.

The Chevrolet Volt represents a significant departure from conventional hybrids. With the Volt, the wheels are turned by an electric drive unit, whereas in conventional hybrids the wheels are turned by an electric motor, a gasoline engine, or both. For short trips, the Volt runs on battery power



alone. For longer trips, additional electricity can be supplied by an internal combustion engine generator.

For additional information on the technology behind the Volt, go online to <http://media.gm.com/product/public/us/en/volt/tech/charging.html>



2011 Chevrolet Volt



2010 Chevrolet Cruze

Business of Repairs

Texas Restorer uses a full toolbox, including GM Powertrain, to fulfill customer dreams

Every so often, Adrian Britton of Ramsey's Rods and Restorations in Ft. Worth, Texas is reminded that the classic vehicle restoration business is about more than powertrains and paint jobs. At its deepest level, it's really about people – their memories, dreams and, yes, fantasies, some most personal.

Restoration work on a jet-black 1957 Chevrolet Nomad with an attitude was nearing the stage where it was time to talk about the interior. "Bucket seats, right?" Britton asked the client, in not so many words. Well, not quite. "No," was the customer's reply, Britton says. "I want bench seats so my lady can sit next to me."

Britton instinctively knew how important that request was to the customer and making sure customers are happy is always at the top of the list.

Ramsey's customers are a select group of no more than about a dozen a year lucky enough to get slotted in a shop that's produced its share of award-winners, including a 1955 Bel Air Sport Coupe named "Best Modern

Restoration" and displayed by GM in 2005.

To the untrained eye, what the 31-year-old company does to restore classics and build custom rods in fine detail might indeed look like sleight of hand. But it's really just the product of professionals who share owner Stephen Ramsey's passion for automotive classics, notably "Tri-Fives" – 1955-1957 Chevrolets – and have the know-how and supplier contacts to execute both true-to-history restorations and "resto-mod" jobs for demanding customers.

All of that and more came into play with the '57 Nomad project. Representative of many of the projects it takes on – limited in number annually because the company refuses to "stack up projects like cordwood" for quality control purposes, says Britton – the resto-mod job brought a classic back to life with a modern twist. The Nomad job wasn't constrained by price as much as creativity, and it demanded patience and painstaking attention to detail to bring it to fruition.



Britton, left, and lead tech, Kevin Penhaker, with a shop specialty, a 1950s-era Chevrolet Nomad.

The restored 1957 Chevrolet Nomad used a GM Performance Parts LS3 crate engine and a 4L65E transmission.



“The owner found the Nomad stored in a barn and although in pretty good condition, it still needed a lot of work,” Britton says. “We faced a big challenge in restoring the original fit and finish and also in mating current technology to an old body style.”

But thanks to Genuine GM Parts, the project wasn't as formidable as it could have been. Working closely with its longtime local GM dealer, Britton was able to work through various powertrain options and eventually arrive at a solution that far exceeded original expectations.

“The owner liked the idea of putting modern technology into an old beauty, and we originally talked about a 350/290 crate engine, but that was going to require some special motor mounts,” he says. “What we went with was something even better: a LS3 Corvette engine that our dealer was able to arrange to pull right off of the assembly line. I think at the time it was the first LS3 that didn't go into a Corvette.”

While mating an LS3 and a GM Powertrain 4L65E, along with a Currie 12-bolt rear-end, to a 50-year old vehicle frame was no picnic, it was typical of the GM Powertrain solutions that Britton values for their relative ease of installation, performance and warranty protection.

“Rather than spending tens of thousands of dollars to build custom motors that don't have a good warranty, I can go to my GM dealer and get a product that's the right fit for my performance-minded application without breaking the customer's budget,” he says.

After 11 months of work, more than three dozen consultations with GM Powertrain, a six-figure price tag that encompassed \$15,000 in body work and paint, \$8,000 for an interior and \$3,200 just for a custom radiator, Ramsey's Rods produced a flawless rendition of a 1957 Nomad.

Well, nearly flawless. Shortly after taking delivery, the owner had a problem. The transmission was a bit jerky, creating shifts that were, well, sort of rough on the occupants. Britton got the car back, made a few adjustments to the RPM shift point and the problem was solved. He was sure he had really fixed it when he had a later encounter.

“At a car show a few months later I happened to run



A close-up of the LS3 crate engine installed in the black 1957 Chevrolet Nomad.

into the owner's girlfriend,” Britton says. “She came up to tell me that the car now shifts really nice.”

Mission accomplished.

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