

Repair Insights

FOR INDEPENDENT BODY SHOPS

Genuine  Parts



JAN-MAR 2012

ALSO IN THIS ISSUE

- > Genuine GM Parts purchase incentive programs extended into 2012
- > Upfitted vehicle resources are worth a look
- > Leading with Connect and Cruise, Chevrolet Performance emphasizes versatility, choice at SEMA 2011
- > San Antonio resto shop owner respects tradition as he chases perfection

Still the Best in Truck Leadership, Design and Performance

- ▶ GMC Sierra, Chevrolet Silverado

More on the GMC and Chevrolet Trucks inside including service procedures



More resources at
www.genuinegmparts.com



CONTENTS

GM Promotions Update

4



GM OE Service Parts Update

5

The latest word on product development and technologies.

Repair Industry News & Updates

7

Get state-of-the-industry perspectives from GM insiders.

The Technical Side

9

Discover new ways to approach service and repairs.



Business of Repairs

10

New ideas that can benefit how your shop operates and profits.

Genuine  | Parts

GM RepairInsights Online

More Genuine GM Parts resources and links.

Download this issue and past issues of GM RepairInsights magazine at...

www.gmrepairinsights.com



GM RepairInsights Headquarters
2604 N.E. Industrial Dr., #230
N. Kansas City, MO 64117
Email: bdavid@proactgroup.com
Compliments of your GM dealer.

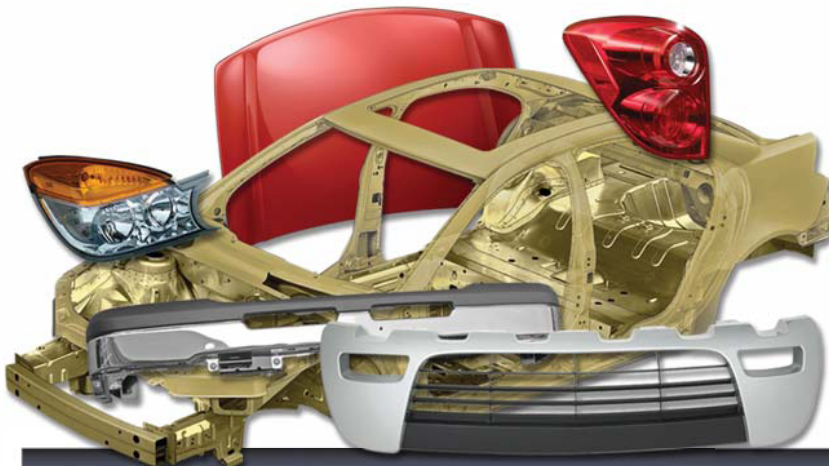
We invite your input and suggestions.

Please address letters to the editor to the above address. Letters submitted imply the right to edit and publish. Every effort is made to ensure the accuracy of the information in the offers contained in this magazine. However, printing and typographical errors may occur. These are not intentional and are not the responsibility of GM, any dealer or the companies or individuals who create, produce and distribute this magazine. Offers and pricing may change at any time without prior notification. The descriptions and specifications in this publication were in effect at the time of approval for printing. General Motors reserves the right to change specifications without notice and without obligation. Published letters do not necessarily reflect the opinions of General Motors or General Motors Parts. General Motors, Detroit, MI 48202.

© 2012 General Motors • All rights reserved.

Genuine GM Parts Fast-Cash Rebates

Fast-Cash Rebates extended until June 30, 2012!



\$15 Fast-Cash Visa® Award Card Rebate

- > HOODS
- > FASCIAS
- > BUMPERS
- > HEADLAMP ASSEMBLIES
- > TAIL LAMP ASSEMBLIES
- > ENERGY ABSORBERS
- > BUMPER REINFORCEMENT BARS
- > RADIATOR CORE SUPPORTS

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!

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

For faster service, rebate claims may now be faxed to 816-268-5280 or emailed as a PDF to claims@gmpartsfastcash.com. (See back for complete instructions.)

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.



www.gmpartsfastcash.com

GenuineGMParts.com

Genuine  | **Parts**

GM Promotions Update

Genuine GM Parts purchase incentive programs extended into 2012.

Genuine GM Parts will continue to offer independent body shops the opportunity to save coming and going on OE parts purchases in 2012.

Bump The Competition

With the Bump The Competition (BTC) program, Independent Body Shops (IBSs) have the chance to purchase thousands of parts needed for GM vehicle body repairs at prices competitive with non-OE parts.

Under the program, participating GM dealers receive an IBS repair estimate from an insurer and check it against

a list of Genuine GM Parts that fit the bill. The IBS is quickly told which aftermarket parts specified on the estimate could be replaced with the superior OE part at the same price.

With more than 4,400 part numbers now part of the BTC program, chances are good that many GM repair jobs can utilize more Genuine GM Parts. With the price differential eliminated, IBSs can be free to make the logical parts choice.

The roster of commonly used collision repair parts eligible for BTC pricing continued to grow in 2011. Some 300 were added during the year, a number that included a small introductory sampling of maintenance and repair products that could factor into collision repair work.

Genuine  | Parts

“Bump The Competition” Program

Getting Genuine GM Parts at aftermarket competitive prices is easy.

1. Send a complete insurance repair estimate to your dealer.
2. Your dealer will review and notify you about Genuine GM Parts that are eligible for “Bump The Competition” discounts.
3. Place your order and take advantage of the savings!

OE Service parts quality, fit and performance at competitive prices . . . why choose anything less?

Now over 4,000 part numbers are available in the Genuine GM Parts “Bump The Competition” program.

Ask your dealer for program details.

Eligible OE Service parts sold at “Bump The Competition” prices.

CATEGORY	QUANTITY OF PART #S
Lighting	600+
Fascias	400+
Mirrors	370+
Wheels	330+
Bars, Absorbers	240+
Doors	200+
Fenders	180+
Grilles	170+
Radiators, Condensers	160+
Panels	160+
Supports, Brackets, Braces	140+
Hoods	95+
Windows, Windshields	85+
Rods, Struts, Fans, Hubs, Belts	80+
Moldings	60+

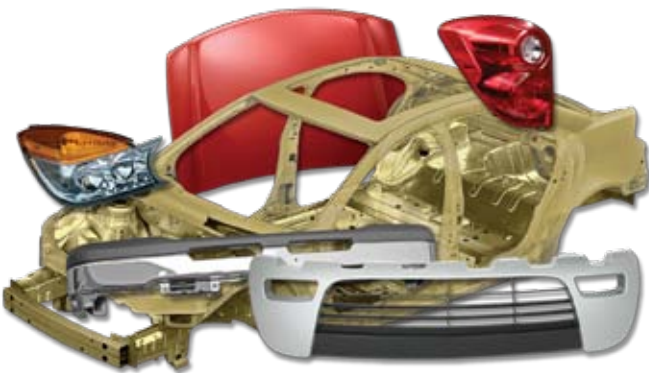
GM OE Service Parts Updates

“This program enjoys huge dealer participation and usage and it’s working well for many independent body shop customers who have a chance to get better fitting parts and improved cycle time while improving customer satisfaction,” says Amy Buzan, wholesale dealer channel specialist for Genuine GM Parts. “It’s likely that more parts will be added during 2012.”

Visa® Award Card Rebates with Fast-Cash

Meanwhile, there’s also a chance to save on purchases of Genuine GM Parts after they’re purchased. With the Fast-Cash Rebate program, extended once again at least through June 30, 2012, IBSs can claim \$15 rebates on qualifying parts purchases.

Applicable to select hoods, fascias, bumpers, head and tail lamp assemblies, energy absorbers, bumper reinforcement bars and radiator core supports, Fast-Cash provides another incentive to bypass lower-quality aftermarket, non-OE parts.



The \$15 rebate per qualifying part purchase is redeemable in the form of a Visa Award Card that can be used like cash. To claim the rebate, IBSs can submit claim forms by mail, fax or email. Electronic submissions are easily made via the dedicated Fast-Cash website, www.gmpartsfastcash.com. Full details on the program are also available at the site.

Upfitted vehicle resources are worth a look.

GM makes it easier for Independent Body Shops (IBSs) to get the information they may need when confronted with an “upfitted” vehicle in collision repair job. At www.gmupfitter.com, a site targeted primarily at specialty upfitters, IBSs can access detailed information about the likely design, structure and construction of upfitted vehicles. Such information can be critical in performing repairs not only correctly and efficiently, but safely as well.

“Upfitted” vehicles that have been modified for specific commercial uses and applications by third parties may pose special challenges for collision repairers.

Not only do such vehicles typically come from the factory specially constructed to accommodate upfitting, but their added-on structures and components also can fundamentally affect what happens to a vehicle in a collision.

While they may rarely come through a repair facility, damaged upfitted vehicles do have to be inventoried and assessed more carefully. In particular, independent Body Shops not affiliated with vehicle dealers may be at a notable disadvantage when it comes to fully understanding an upfitted vehicle’s design and underlying structure.

Detailed manuals and reference publications in PDF form are available on the site. In addition to an overall introduction to such vehicles, links are provided to documents on body; chassis; electrical; paint and sealing; and entire best practices.

A thorough understanding of how an upfitted vehicle was designed for safety, reliability, integrity and compliance with regulatory requirements can help IBSs see what may not readily be visible on a damaged vehicle, and chart a path for repair.

A good example of some of the peculiarities of an upfitted vehicle is evident in 2007-2010 Chevrolet Silverado and Sierra pickups.

With a pickup box designed for upfitting, the trucks have

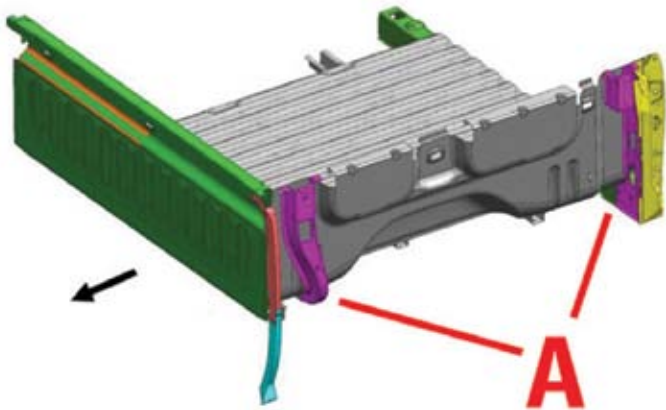
GM OE Service Parts Updates (cont'd.)

added structural members that provide load paths directly to the platform crossrails and into the vehicle frame. In some cases, depending on how the vehicle has been upfitted, spacers may have been added under the toolbox area in the structural hard points to take up any gap.

These and other types of modifications not readily apparent can yield vehicles far different from anything an IBS typically encounters. Learning as much as possible up front about how these vehicles are built can pay dividends down the road.

Weight Restrictions for Pick-Up Box Add-Ons	
Equipment	Maximum Weight
Ladder rack and cargo	750 lbs. (340 Kg)
Cross toolbox and cargo	400 lbs. (181 Kg)
Side boxes and cargo	250 lbs. per side (113 kg per side)

The combined weight for all rail-mounted equipment should not exceed 1,000 lbs. (454 kg).



A. Load bearing structural members



GM Cargo Management Option mounting points



Repair Industry News & Updates

Leading with Connect and Cruise, Chevrolet Performance emphasizes versatility, choice at SEMA 2011.

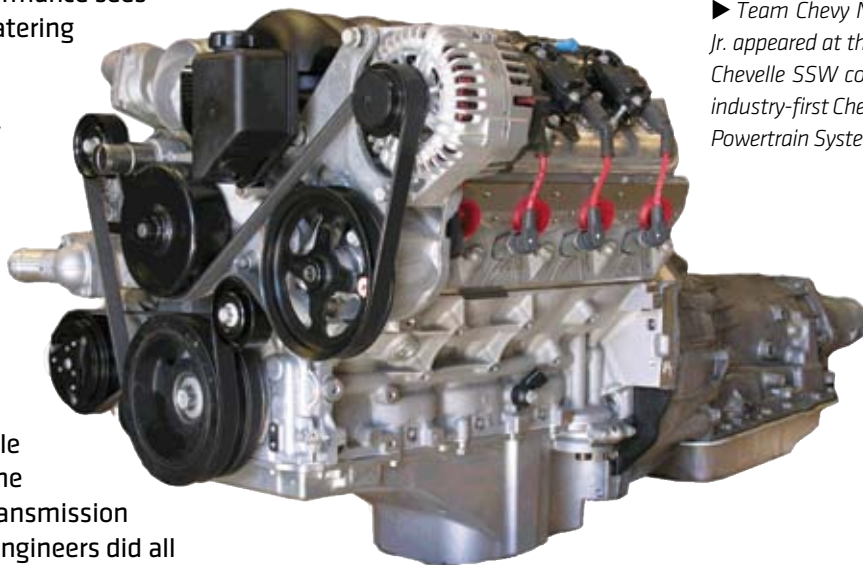
Touting Dale Earnhardt, Jr.'s endorsement of its groundbreaking new powertrain kit concept, Chevrolet Performance used the November Specialty Equipment Manufacturer's Association (SEMA) show to emphasize a clear commitment to the varying needs of the high-performance builder/enthusiast community.

Along with a new Connect and Cruise Crate Powertrain System that simplifies the task of ordering and installing crate engine/transmission/controller packages, Chevrolet Performance talked up new crate engines, controller kits, fuel pumps and the rebirth of a historic concept car at the event.

Connect and Cruise, which now consists of two engine/transmission kits – the LS3/4L65E and the LSA/4L85E – was formally introduced in the form of a restored 1970 Chevelle SS coupe Earnhardt helped GM engineers design. Outfitted with the LSA/4L85 package, the Earnhardt Chevelle was constructed from a GM-licensed reproduction body from Dynacorn International, Inc. It also sported a broad mix of trim and interior parts from other licensed GM Restoration Parts suppliers.

But the vehicle's chief role at SEMA was to promote Connect and Cruise, an initiative Chevrolet Performance sees as central to a strategy of catering to the subset of rebuilders and enthusiasts who value pre-selected, plug-and-play powertrain solutions. While many enthusiasts like the challenge and versatility associated with selecting and matching powertrain components on their own, others want to avoid that.

"You can save time and money by purchasing a single kit, while also eliminating the guesswork of matching a transmission to a powerful engine – our engineers did all



► The Connect and Cruise Crate Powertrain System consists of a supercharged LSA engine and 4L85E automatic transmission combination that is factory-engineered and matched with all the electronic control modules, wiring harnesses and other key components.



► Team Chevy NASCAR driver Dale Earnhardt Jr. appeared at the 2011 SEMA show with a 1970 Chevelle SSW coupe he helped design with an industry-first Chevrolet Connect and Cruise Crate Powertrain System.



Repair Industry News & Updates (cont'd.)

the work,” says Jim Campbell, GM’s U.S. vice president of Performance Vehicles and Motorsports.

By purchasing everything needed in a kit through Chevrolet Performance dealers, customers get all they need for a quick, reliable installation with a single part number.

“Based on the feedback we were getting from the enthusiast community we put these complete packages together to help take the mystery out of the entire process, which may be important to some people,” says Cliff Cohen, marketing director for Chevrolet Performance. “There’s still a market for traditional engine-building processes and the usual work that restorers and rebuilders do. This is just taking the mystery out of it for those who want a simpler process.”

Chevrolet Performance carried on the theme of blending simplification and high performance with other announcements at SEMA 2011.

- A calibrated controller kit allowing easier adaptation of 2007-2009 versions of the 5.3L V8 to a range of hot rod projects;

- Another groundbreaking LS high-performance engine, the LS376/525, which marries the racing-derived ASA camshaft with the LS3 6.2L production engine. It now stands as the most powerful production-based crate engine in the Chevrolet Performance portfolio.



- An LSA controller kit that improves installation and operation of the 556-horsepower supercharged LSA crate engine in older vehicles.

- The high-volume fuel pump module used in the



2012 Chevrolet Camaro ZL1 will be sold through Chevrolet Performance, giving Camaro builders access to the very latest Camaro fuel delivery technology.

Leadership in Trucks Continues

GMC Sierra and Chevrolet Silverado define truck appeal, durability and performance.

With both brands offering a broad and diverse line up of trucks ranging from job-ready Work Truck models to the luxury rides, the GMC Sierras and Chevrolet Silverados personify the American trucking experience.

Chevrolet Silverado

With a broad range of body styles, efficient powertrains and connectivity technology, the Chevrolet Silverado can be configured for just about any job – whether hauling equipment and a crew to a job site or towing a camper for a weekend getaway. The Silverado 1500 lineup is built on GM’s full-size truck architecture, which supports a smooth ride and confident handling.

GMC Sierra

The 2012 GMC Sierra lineup features Vortec powertrains, backed by fuel-saving, six-speed automatic transmissions. They help Sierra models deliver among the industry’s best fuel economy and performance – including up to 22 mpg on the highway for the Sierra XFE and up to 23 mpg on the highway with the segment-exclusive Sierra Hybrid.



GMC Sierra HD Frame

The Technical Side

Chassis and Suspension Details

- **A coil-over-shock front suspension** delivers linear handling characteristics on all road surfaces.
- **A rack-and-pinion steering system** provides precise control and strong on-center feel.
- **A Hotchkiss-type rear suspension** provides superior isolation and ride with a splayed arrangement for the shock absorbers.
- **Four-channel ABS is standard** on all models and is linked to the StabiliTrak electronic stability control system to help mitigate the occurrence of rollover events.
- **StabiliTrak electronic stability control** system is standard on all models and now includes electronic trailer sway control and hill start assist.
- **Wide front and rear tracks** – 68.1 inches (1,732 mm) front/67 inches (1,702 mm) rear – enhance handling and vehicle stability for a more confident road feel.
- **A stiff frame** reduces vibrations transmitted to the passenger cabin, while the strength and accuracy of the fully boxed frame also enable precise mounting and tuning of chassis and suspension components.

Even though the 2012 Chevrolet Silverado and GMC Sierra are new vehicles, extensive service and repair information resources are a click away at www.gmtechinfo.com – *Electronic Service Information*. Technicians and shop owners can log on to the site to gain access to subscription services for service procedures and repair manuals. A complete Service Manual is accessible 24/7 through a subscription to the site.

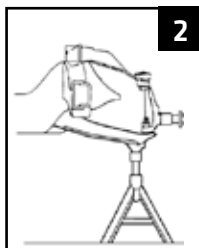
Free collision repair procedures are also available by going to www.genuinegmparts.com.

Upper Control Arm Replacement (2500, 3500)

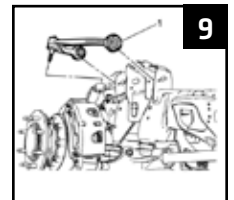
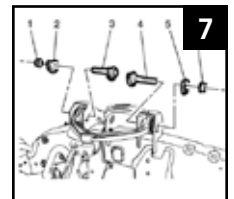
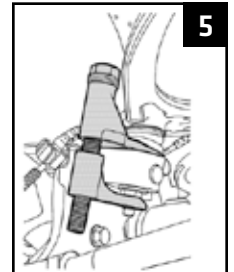
Special Tools: J42188-B Ball Joint Separator
For equivalent regional tools, refer to Special Tools

Removal Procedure

- 1 Remove the tire and wheel. Refer to *Tire and Wheel Removal and Installation*.
- 2 Lower the vehicle and support the lower control arm.
- 3 Remove the front shock absorber. Refer to *Shock Absorber Replacement*.

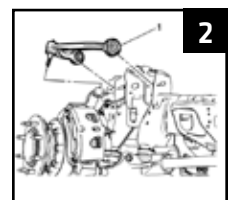
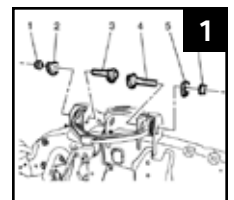


- 4 Loosen the upper ball joint nut, but DO NOT remove.
- 5 Using the J42188-B separator, remove the upper control arm from the steering knuckle.
- 6 Remove the J42188-B separator and the upper ball joint nut. Discard the nut and replace with NEW only.
- 7 Remove the upper control arm nuts (1), (6) and the adjustment cams (2), (5).
- 8 Remove the adjuster bolts (3), (4).
- 9 Remove the upper control arm (1) from the frame.



Installation Procedure

- 1 Position the upper control arm (1) in the frame.
- 2 Install the upper control arm bolts (3), (4) and the adjusters (2), (5).
Caution: Refer to Fastener Caution .
- 3 Install the upper control arm nuts (1), (6) and tighten to 260 N·m (192 lb ft).
- 4 Install the upper control arm to the steering knuckle.
- 5 Install the NEW nut to the upper ball joint stud and tighten to 50 N·m (37 lb ft).
- 6 Install the front shock absorber. Refer to *Shock Absorber Replacement* .
- 7 Raise the vehicle and remove the support for the lower control arm.
- 8 Install the tire and wheel. Refer to *Tire and Wheel Removal and Installation*.
- 9 Verify the wheel alignment. Refer to *Wheel Alignment Specifications*.



This example of **Upper Control Arm Replacement (2500, 3500) for the Chevrolet Silverado and the GMC Sierra** is just one of many found in the Service Repair Manual. By following the proper repair procedures, technicians can ensure that each vehicle maintains its solid performance and uncompromised safety features for the life of the vehicle.

Business of Repairs

San Antonio resto shop owner respects tradition as he chases perfection.

Jeff Lilly's dogged pursuit of perfection in the art of classic vehicle restoration seemingly knows no bounds. Heck, he even talks of perfecting the execution of perfection.

"I'm a perfectionist, but I like to be efficient," he says.

In the quest for flawless restorations, rehabs and modernization projects, Lilly, owner of Jeff Lilly Restorations in San Antonio, Texas, strives to give customers full value for the considerable sums they plop down. And he wants to justify the expenditure every step of the way, not just at delivery.

"We take a lot of photos as we move through projects so we're able to show customers, who mostly aren't local, and who are paying by the hour what we're doing and prove the work was done," he says. "I'm always reminding my techs to document what they're doing with pictures that document the progress."

In a shop that has separate, dedicated structures for key project phases on a compound dubbed "The Resto Ranch," there's much to catalogue. From the initial tear down and parts and mechanical inventory phase through the body preparation, sanding and painting and on to upholstery and final assembly, the company puts each project through a set of disciplined paces.

"There are only two things we don't do here: internal balancing of engines, something usually done in advance with engines we install, and the plating of

nickel, copper and chrome to bumpers," he says.

An area of special emphasis in most projects is body structural and cosmetic work. Lilly strives for museum-quality paint finishes and structural fits that can hold up to the closest scrutiny. With resto-mods the majority of his work, Lilly is typically working with classic car customers who want to show-off, enjoy and even hand vehicles down with pride.

To achieve the perfect exterior look, he puts a premium on the painting phase – from prep to color selection to final application. An expert in the block sanding technique who learned it as a boy working for his father, Lilly and his crew devote scores of hours to cultivating a base that will yield a pristine finish.



“You can only produce a paint job so good with a spray gun that doesn’t end up having ripples,” he says. “The key is using block sanding and refining the finish. I want to push the envelope in that area.”

Lilly’s signature on classics often extends beyond producing a finish far outside original factory specs. He also takes artistic license in tinkering with bodies, even with designs considered too perfect to touch. But on the Chevelle, dubbed the Flying People Purple Seater, Lilly left everything intact except for a tow-hitch bumper, which was changed.

“We approach some of these projects with the idea of ‘what would I have done as a GM engineer in 1969?’” he says. “So sometimes we’ll reduce the size of the quarter panels, change the look of the back end, the roofline and the wheel wells. But we’re careful not to customize to the point of it being a ‘hey, what happened here’ situation.”

The voice of a perfectionist, no doubt. But one who clearly uses the pursuit of perfection to honor the bloodline of the classics he’s entrusted with and the dreams of his customers.



On a recent showcase resto-mod – a rare 1970 Chevelle SS wagon outfitted with a GMPP Ramjet 502 engine – Lilly spent 100 hours on block sanding before painting it a custom shade of purple. That prep, combined with his usual exhaustive consideration of color choice, produced a finish with the versatility to show up well in any lighting condition, a typically high priority for his projects.

“If you pick the wrong color or shade, especially with some colors like purple, it can be bad. My goal is to pick a color and produce a custom mix that pops in all lighting situations, dusk or dawn, low, high or fluorescent light. Normally I look for saturated colors, and in this case the purple shade was a very deep one that really pulls you in.”

Jeff Lilly, Jeff Lilly Restorations, San Antonio, Texas

Genuine  | Parts

Genuine  | **Parts**

**We're one stop. For your shop.
Genuine GM Parts. Plus all the
associated parts you need.**

CLIP AND PLACE BY YOUR TELEPHONE

*Give us a call for Genuine GM Parts and
associated collision repair parts. All at one
convenient location.*

Genuine  | **Parts**