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ELIMINATE DELAYS, NOT SUPPLEMENTS BY BOOSTING PROCESS ACCURACY

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IS FULL FRAME REPLACE A BODY, MECHANICAL OR FRAME OPERATION?

TECHNICAL

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MAKING SPRAY-ON BED LINERS PAY OFF FOR YOUR SHOP

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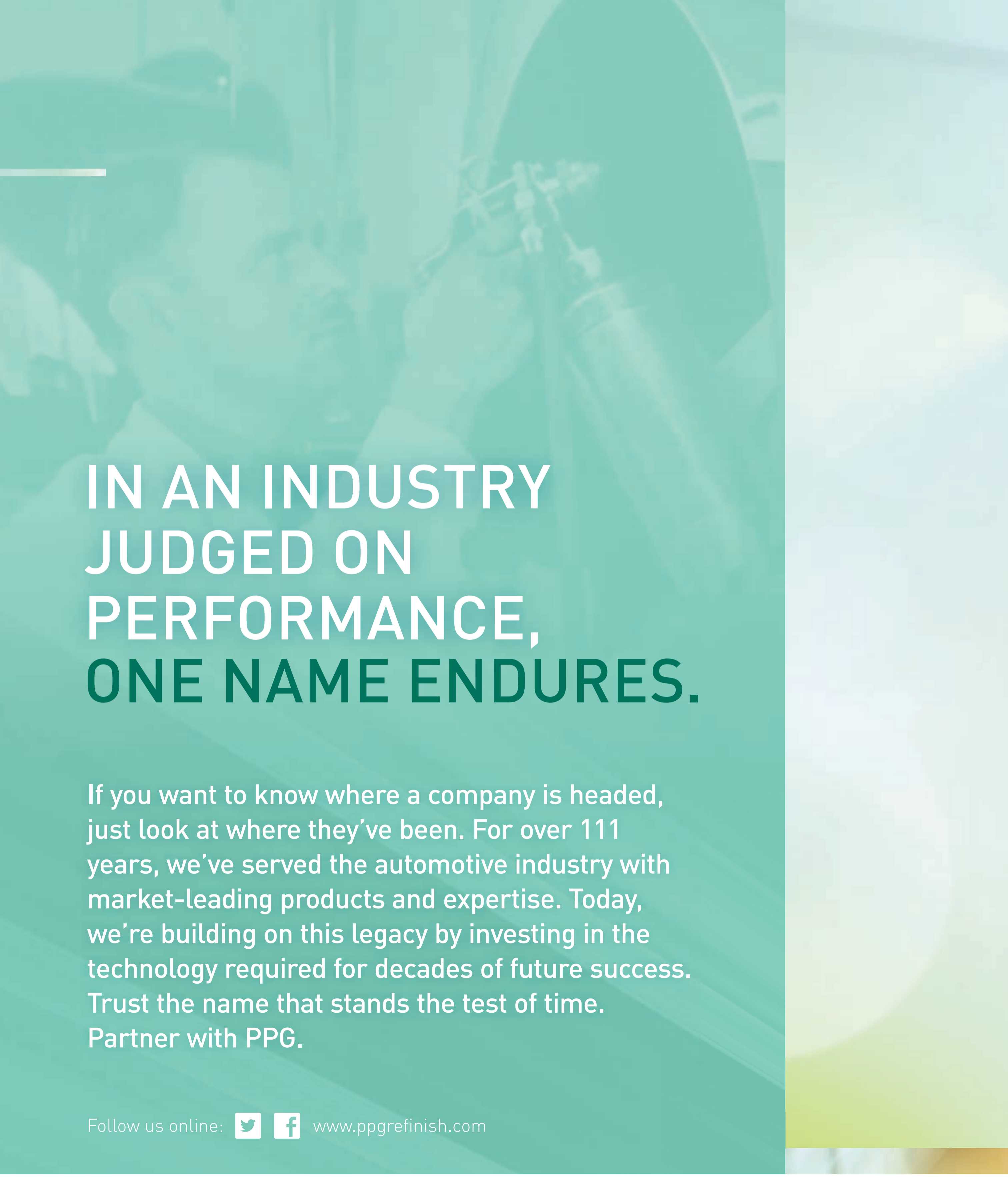

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ALL THINGS AUTOMECHANIKA CHICAGO

ANALYSIS

STAY RELEVANT, EDUCATED WITH EVENT TRAINING

BY **KRISTA MCNAMARA** | MANAGING EDITOR

Use opportunities like Automechanika Chicago to understand industry developments, changes.

WHY ATTEND?

GET MORE THAN TRAINING FROM AUTOMECHANIKA CHICAGO

10 Aside from the wide variety of courses from top trainers, there are other reasons to take time away from your shop and make it a long weekend in the Windy City.

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GET CERTIFIED IN CHICAGO

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WHAT IS ABRN COMMUNITY? The ABRN community is an online NETWORK for your business. It's a place to go to post articles, blogs, videos, photos and audio clips to share ideas with other collision repairers. Community content is used in ABRN's twice weekly e-newsletters. Check it out at http://workshop.search-autoparts.com

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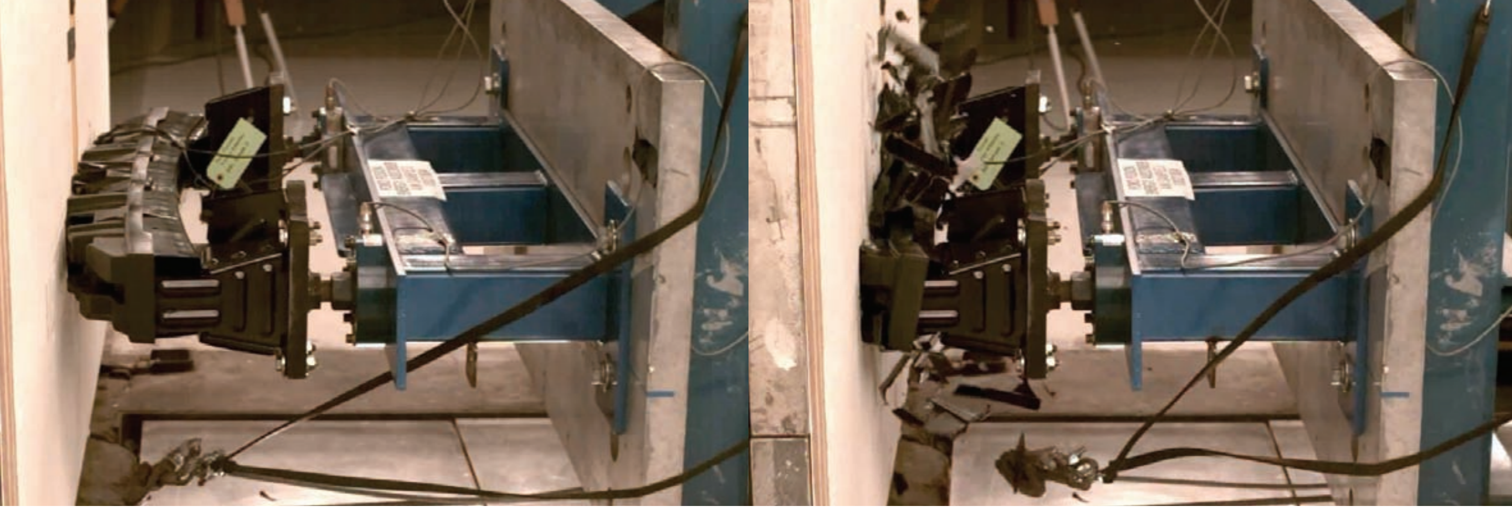

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MINDING YOUR BUSINESS

IMPROVE YOUR REPAIR PLANNING

BY **RICHARD FIFER** | CONTRIBUTING EDITOR

Eliminate delays, not supplements, by boosting process accuracy in your shop to identify all repairs and parts needed.

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We tackle spring training with a focus on Automechanika Chicago.

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JAMES E. GUYETTE / CONTRIBUTING EDITOR

30 Three generations of the Barbera family stick together to approach each workday with an affable sense of humor, accompanied by a can-do attitude that has translated into profits and industry success for the New Jersey-based shop.

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48 Create more variable control and efficiency for a more profitable paint department.

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MORE TECH COVERAGE

FROM ABRN CONTRIBUTING EDITOR **AL THOMAS.**

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abrn PRODUCTS

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Global Finishing Solutions' AdvanceCure System reduces drying times for any type of coating; and a new "Blade" option offers increased air flow and better vehicle coverage.

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73 Urethane Supply Company's new 6059-C Nitro Fuzer nitrogen plastic welder features an automatic switch that changes between air and nitrogen to save time when welding in the shop.

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MARCH'S FEATURED VIDEO

AUTOMECHANIKA CHICAGO TRAINING COMING SOON

[URL ABRN.COM/AMCTRAIN]

BLOG SPOTLIGHT

WHY SHOULD you attend Automechanika Chicago?

Select your scholarship, pick your classes and make your travel arrangements! Automechanika Chicago, April 24-26, 2015, in downtown Chicago is a training event you won't want to miss.

[URL ABRN.COM/AMCATTEND

automechanika CHICAGO

BLOG SPOTLIGHT

PENNSYLVANIA WILL soon have a new Insurance Commissioner. Michael Consedine, current commissioner and president-elect of the National Association of Insurance Commissioners, is stepping down to allow new Democratic Governor Tom Wolf to name his replacement.

[URL ABRN.COM/COMMISIONER]

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automechanika CHICAGO

April 24 - 26, 2015

McCormick Place, Chicago, Illinois

CERTIFICATION OPTIONS

GET CERTIFIED IN CHICAGO:

AUTOMECHANIKA CHICAGO OFFERS TRAINING PERKS

Automechanika Chicago Presents Motor Age Training Live is a world-class training event, offering more than 100 sessions led by 50 of the best instructors in the business. What could make it better? Certification. That's right — each class attendee receives an attendance certificate. Educators can use classes for CE credit requirements. Shop owners and techs — impress customers with those certificates hanging in your waiting area. Here are the certifications available:

ASE Certification

- There will be an onsite testing area
- Register on the ASE site, then look for Automechanika Chicago as a test location
- More details including room location, times coming soon

NATEF

- Technical course attendees can submit completion certificates for credit towards NATEF program accreditation training hour requirements
- Classes vary; see training list at ABRN.com/AMCschedule.

MACS Section 609

- The Section 609 EPA certification exam will be offered Sunday, April 26. A $15 fee will be collected at the door.
- Location to be announced

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SEARCH THOUSANDS OF BREAKING AND ARCHIVED NEWS ARTICLES TO STAY INFORMED

TRAINING IMPORTANCE

Stay relevant, educated with collision training

As the automotive collision and mechanical repair industries continue to develop and change, the need for training is ever more important to ensure technicians are properly educated to handle the challenges of today's vehicles.

Automechanika Chicago, April 24-26, 2015, offers 50 industry-renowned instructors teaching more than 100 courses over the three-day inaugural event at McCormick Place West. Register at www.ABRN.com/AMCregistration.

"With the industry changing at lighting speed, you have to attend events like Automechanika Chicago to stay current, or things will pass you by," says Mike Anderson, owner of consulting firm Collision Advice, and one of the trainers at Automechanika Chicago. "The shops that I see that are best in class in profitability, customer service, cycle time and all those other monitored areas that are vital are unequivocally the shops that are the most well trained and coached. There is a direct correlation between those who invest in employees for training and the profit and performance of their business."

Anderson is teaching two courses at the event, "Financial Best Practices" and "Continuous Improvement Best Practices."

"With continuous improvement, it boils down to creating a culture of improvement. Once you have this down, your shops can be more profitable, fix cars faster, have better cycle time and improved CSI," he says. "And with business financials, we need use profit and loss

>> CONTINUED ON PAGE 12

BREAKING NEWS

WHY ATTEND

GET MORE THAN TRAINING FROM AMC

Automechanika Chicago makes its U.S. debut in April, but aside from the wide variety of courses from top industry trainers, there are other reasons to take time away from your shop and make it a long weekend in the Windy City.

City and show organizers have made it easy to get to and from partner hotels to McCormick Place. "We opened dedicated bus lines. In addition to the surface streets, buses and cars coming into the building, we also have an incredible express bus lane that runs parallel to the trains, coming in through a dedicated tunnel that's only open during conventions to make the drive from downtown hotels to campus within seven minutes," Don Welsh, president and CEO of Choose Chicago, said in a video interview.

The loop will pick up

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>> CONTINUED FROM PAGE 10

STAY RELEVANT, EDUCATED W/COLLISION TRAINING

statements like we should, to not only see where we are making and losing money, but also to see where we aren't maximizing profits."

Thirteen-year industry veteran Gabe Richards, mechanical manager at Lehman's Garage in Eagan, Minn., is registered to attend a blend of management education and technical training.

"I want to be as knowledgeable as possible for my customers, act as a mentor to younger employees, assist my master techs and make the repair process easier," he says. "Customers want an expert working on their vehicle and that is what I want to convey."

Richards says he also values an opportunity to network with other automotive professionals who deal with similar challenges on a daily basis. He then uses these relationships to field questions, gather information or troubleshoot, he says.

Prioritizing industry training at the shop level drives a culture that values learning, and ultimately improves shop success.

"Automechanika plays a role in educating and training the collision repair industry, helping foster a culture of learning among technicians and shop owners globally. This learning culture is imperative, particularly considering the impending 'tsunami' of new vehicles, new technologies and new materials rapidly approaching the industry," says John Van Alstyne, CEO and president of I-CAR, who is supporting Automechanika Chicago with its presence on the show floor. "In a typical model year, automakers launch 65 or more new or significantly re-engineered vehicles. I-CAR continues to be a resource to help prepare today's automotive technicians and shop owners to help keep pace through up-to-date and continuous training."

Larry Montanez, ABRN Technical Editor and co-owner of P&L consultants, says technicians should attend training events like Automechanika Chicago for the sole reason these events exist — to further education. "We as an industry have no licensing in 98 percent of states, so we need to dedicate ourselves to bettering the industry through self policing," he says.

Montanez will be teaching "Aluminum Damage Analysis" during the Automechanika show, which will cover OEM joining methods for collision damaged aluminum intensive vehicles, along with the required equipment, tools and training that is needed. He stresses the importance of continued training in all areas of collision repair, and especially for aluminum repair. "Many are disillusioned or misinformed about aluminum repair and protocols," he says.

GET MORE AMC NEWS ONLINE

MOBILE DIAGNOSTIC TECHS REFUSE TO BE BEATEN

AMC OFFERS TRUE INTERNATIONAL FLAIR

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GET MORE THAN TRAINING FROM AMC

attendees at partner hotels, and there will be transportation from the hotels to Navy Pier for an opening night party on April 24 from 5 p.m. to 7 p.m. The event at Navy Pier is open to all attendees and exhibitors, and includes drinks, appetizers and entertainment.

Darrell Baker, Choose Chicago's vice president sales, trade shows, pointed out lists of attractions, including the free Millennium Park, Lincoln Park Zoo and Cloud Gate (the "Bean" where many people snap pictures), as well as Lurie Garden, the Skydeck Chicago in the Willis Tower, Lookingglass Theatres, Broadway in Chicago, Shedd Aquarium and Chicago White Sox, among many others, as places not to miss after show hours or for your families coming along for the weekend.

For those driving into the city, ChooseChicago.com has links to places where you can park should your hotel not have parking and lots where you can pay ahead of time. There are various public transportation options, from L Trains, buses and taxis to the high-speed Metra commuter rail train connects outlying suburbs to downtown.

In addition to entertainment and attractions, there are many dining options, all fitting various price ranges. "We have over 3,000 restaurants, taverns, bars and entertainment facilities in the downtown core. We have some of the greatest hotels in the world," Welsh says. "You're going to find a very dense, walkable downtown. Great shopping, restaurants, attractions, if people have time to take to the city in addition to being here for business."

Back on the business side, event organizers tried to make it easy to plan your schedule. Registration is open, and all courses are listed with times and other information at ABRN.com/AMCschedule. Brian Canning, a contributor to *ABRN* sister publication *Motor Age,* who has written about attending industry events, suggests writing out what you want to accomplish at the event, making that plan when registering and sticking to it once in Chicago.

You also can use the event to talk to owners and technicians just like you from around the country to see what they are doing in their shop and how they are solving problems and fixing vehicles. It's a great way to start an informal 20 Group.

"Getting out of your comfort zone is scary, but it is also an opportunity to see what is new and improving in the industry and make great contacts and identify viable solutions to the things that are affecting your operation," Canning suggests.

For those exhibiting at the show, Welsh notes laws — not contracts — for attendees and exhibitors that makes the site appealing. "Show managers and exhibitors can perform their own work in any size booth, using their own ladders or tools designated by MPDA," he notes. "Along with the reforms with our labor partners, that came to be one of the biggest changes. For the smaller exhibitors, that has a major change."

COLLISION PROS

TOYOTA

Dedicated to Promoting Quality Collision Repair of Toyota, Lexus and Scion Vehicles

Winter 2015

A Wealth of Experience

Meet Toyota's Collision Repair & Refinish Trainers

Toyota's Innovative New Approach to Estimating

Toyota Recommended Repair Procedures

Use Genuine Toyota and Lexus Parts

For Safety, Vehicle Longevity and Customer Satisfaction

Eric Mendoza, Collision Repair & Refinish Training Administrator

CP Winter 2015

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"Today, the collision repair profession is much more complicated and technologically advanced than ever before. A technician's toolbox contains the traditional tools of collision repair, but it now also contains non-traditional tools including software programs, Toyota training and more."

– Kathy Capozza

Tools for Success

EVERY COLLISION REPAIR PROFESSIONAL KNOWS that without the proper tools, doing a job right can be a challenge. In this issue of *Collision Pros* magazine, we give you a rundown of some of the valuable tools that Toyota offers to help you deliver superior collision repair.

The revolutionary estimating software known as Toyota Recommended Repair Procedures (TRRP) can help you change the way estimates are written in your shop. The new program provides you with a complete repair plan at the start of the estimating process, allowing you to eliminate the steps you don't need. TRRP is a valuable tool that can help eliminate guesswork and increase efficiency in your shop.

In this issue, you'll also have the opportunity to meet two of Toyota's Collision Repair & Refinish trainers: Eric Mendoza and Dan Hodges. You can read about their inspiring careers and the passion and excitement they bring to the classroom. Toyota's trainers are a reminder of the importance of education and that knowledge can be one of the most valuable tools in your toolbox.

You can also read more about what makes Genuine Toyota and Lexus Parts special and why they can be preferable to aftermarket parts. And, you can learn how independent shops can benefit from CR&R training. Finally, with winter upon us, learn about corrosion protection to help ensure the longevity of the repairs you work on.

Today, the collision repair profession is much more complicated and technologically advanced than ever before. A technician's toolbox contains the traditional tools of collision repair, but it now also contains non-traditional tools including software programs, Toyota training and more. Toyota is committed to helping ensure that collision repair professionals have the tools they need to provide their customers with an exceptional repair experience every time.

Kathy Capozza
Wholesale Marketing Administrator Sr.
Toyota Sales and Marketing | Toyota Motor Sales, U.S.A., Inc.
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→ DID YOU KNOW: To properly use weld-through primer, thoroughly clean surfaces with a suitable wax and grease remover.

How to Fight Rust

THE WINTER MONTHS CAN BE HARSH—PROPER CORROSION PROTECTION CAN HELP GUARD YOUR CLIENTS' VEHICLES.

Winter brine—the mixture of magnesium and calcium chloride used on the roads in colder climates—can be particularly damaging and harsh on a vehicle. Even if you don't live in a cold climate, inadequate use of corrosion protection measures can contribute to the development of rust. During collision repair, incorporating corrosion protection measures like using weld-through primer, epoxy primer, seam sealer and cavity wax is an important part of helping to protect against the elements and ensure the long life of the vehicle you are working on.

When using weld-through primers, keep in mind that zinc-based primers are a more suitable material to use than copper-based primers.

WELD-THROUGH PRIMER

Weld-through primers are an important corrosion protection measure. When using weld-through primers, keep in mind that zinc-based primers are a more suitable material to use on Toyota, Lexus and Scion vehicles than copper-based primers. This is because these vehicles are manufactured using a zinc galvanizing process, and zinc primer bonds to the metal of the vehicles better. Zinc also seems more resistant to corrosion than other types of weld-through primers, such as those made with copper.

To properly use weld-through primer, thoroughly clean surfaces with a suitable wax and grease remover. Then, coat any bare metal areas that are going to be joined together but won't be accessible after welding with weld-through primer.

ADDITIONAL WELD-THROUGH PRIMER TIPS

- Ensure there is a thin, even coating of weld-through primer and that it is not clumpy or overly thick in some areas.
- Allow the weld-through primer to completely dry before you begin the welding process. This gives the zinc the opportunity to properly bond to the material.
- Some weld-through primers aren't solvent resistant and can be washed away during the cleaning process as the vehicle is prepped for primer and paint coatings. Test products beforehand to make sure they are compatible.

CORROSION PROTECTION TIPS

- Electro-deposition primer—also referred to as e-coat—is an excellent corrosion protection material and should be left intact whenever possible.
- Vehicle-specific seam sealer specifications are given in the Repair Manuals for Collision Damage.
- Clean the heat-affected zones around welds to remove burned or loose material and coat with epoxy primer and cavity wax if applicable.

For additional information about corrosion protection, see Collision Repair Information Bulletin (CRIB) #186, Corrosion Prevention for Collision Repair.

At the November 2014 SEMA show, Toyota captured the attention of the automotive industry with its new estimating system, Toyota Recommended Repair Procedures (TRRP). TRRP is an innovative approach to writing a collision repair estimate that has the potential to completely change the repair industry. Rather than starting with a blank sheet of paper, TRRP gives estimators a detailed repair plan. Estimators can then omit what they do not need for the particular job they are working on. TRRP relies on factory-recommended repair information to help collision centers provide safe repairs that meet original equipment manufacturer (OEM) criteria.

Toyota's Innovative New Approach to Estimating

"TOYOTA RECOMMENDED REPAIR Procedures provides a standardized approach to collision repair," says Rick Leos, Collision Program Developer, Marketing Division, Toyota Motor Sales, U.S.A., Inc. "With Toyota Recommended Repair Procedures there is no more guesswork and less opportunity to leave crucial information out of the estimate."

SEAMLESS AND INTUITIVE

TRRP will be released as an app in early 2015, with a version embedded into Mitchell Estimating software coming soon after. The app version accommodates collision centers that use tablets in their daily work. For PC users, TRRP will be available as a tab labeled "OE Repair Procedures" in the Mitchell Estimating software. This version seamlessly integrates into Mitchell's software so there is no disruption of the shop's normal workflow.

The new estimating technology has been thoroughly tested by collision centers around the country, resulting in software that is easy to use and has a simple, intuitive workflow. TRRP has estimating information for 29 Toyota and Scion vehicles from the present back to 2005.

EFFICIENT AND ACCURATE

TRRP has many benefits for users. TRRP gives collision centers a repair plan with everything they need to write a complete estimate, including information on parts that are non-reusable or one-time use only. The system cuts the time it takes to write an estimate down from a couple of hours to minutes. Plus, it saves estimators having to search multiple information sources to ensure they have all the necessary information and a complete picture of what the repair will entail.

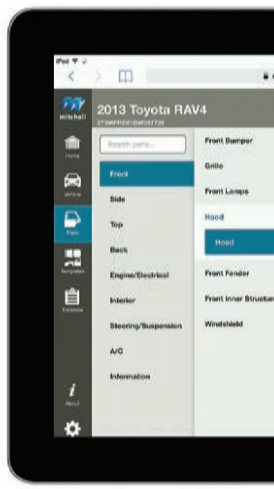
The new estimating system increases the accuracy of estimates by giving you all of the information you will need to complete the repair before you even start. The result is a reduction in supplemental orders and decreased cycle time because shops will spend less time ordering additional parts and waiting for orders to arrive.

Another great benefit of TRRP is greater transparency and easier access to factory-recommended repair procedures for collision centers.

"Collision centers are crucial partners in repairing and maintaining the high standards of Toyota vehicles," explains Leos. "We want to do everything we can to make sure they have the tools and information they need to perform this important job."

Finally, TRRP allows OEMs to take the lead in setting the standard for what is an acceptable repair for their vehicles. The hope is that the system will catch on in the industry and that other vehicle manufacturers will begin using a similar approach.

Accurate.



The new estimating system increases the accuracy of estimates by giving you all of the information you will need to complete the repair before you even start.

> "The ultimate goal of Toyota Recommended Repair Procedures is to help collision centers give their customers an excellent repair experience. The motivation behind the initiative is to help ensure safe, accurate repairs and create happy customers."
> – Rick Leos, Collision Program Developer, Marketing Division, Toyota Motor Sales, U.S.A., Inc.

Toyota Recommended Repair Procedures will be available through Mitchell International, Inc., a technology company that provides software solutions for the automotive industry. TRRP will be available to current users of Mitchell Estimating software. To find out more, visit www.mitchell.com.

ERIC MENDOZA: If you are considering attending training, Mendoza counsels, "Just do it. I have absolutely no doubt that anyone who comes to class will leave with information that will help them do their job better."

DAN HODGES: "If you're going to continue working on today's Toyota vehicles, my recommendation is to come to training because otherwise you are going to get left behind," advises Hodges. "The vehicles are evolving so quickly that manufacturer training is crucial. Show up to class with an open mind and be prepared to learn."

Toyota Trainers
A Wealth of Experience

TOYOTA'S COLLISION REPAIR & REFINISH (CR&R) trainers bring diverse career experiences and an exciting variety of skill sets to the classroom. Each instructor is unique, from their teaching philosophy to their technical backgrounds and industry experience. Yet, the instructors are all united by a love of cars, a passion for teaching and a strong commitment to the importance of Toyota CR&R training.

ERIC MENDOZA

"Instructor-led Toyota training is extremely valuable because it's product specific and teaches you to repair vehicles according to the manufacturer's specifications," says Eric Mendoza, Collision Repair & Refinish Training Administrator, Toyota Motor Sales, U.S.A., Inc. "You just don't get in-depth, hands-on, instructor-led training offered directly from the manufacturer that often. It's a special educational opportunity that everyone should take advantage of."

Mendoza is Toyota's newest trainer at the Torrance, California, campus. He came up through Toyota's Automotive Technology Trainee Program, which involves a series of six-month-long rotations through different specialty areas in Toyota's Quality Center. Earlier in his career, Mendoza worked as a Toyota Master Diagnostic and Repair Technician and as an Automotive Service Technician at various manufacturer dealerships. Mendoza has a Bachelor of Science Degree in Automotive Field Service Operations from Weber State University and an Associate's Degree in High Performance Automotive Technology, and is currently pursuing his Master's Degree in Instructional Design and Technology at California State University, Fullerton.

Mendoza's teaching approach is to make sure that everyone in the classroom gets a concept before moving on to the next topic so that no one gets left behind. When asked what he likes most about being in the classroom, Mendoza says he enjoys the mentoring aspect. Training empowers students and helps them have more control over their future and further their careers.

DAN HODGES

Students attending class at Toyota's training center in Jacksonville, Florida, will take CR&R courses with adjunct instructor Dan Hodges.

"I love sharing and interacting with the students because they remind me of myself when I was in the field," says Hodges. "I enjoy sharing what I know with them and also learning from them. There isn't a class I teach where I don't learn something new."

Hodges has had a long career in the collision repair industry. He's worked in dealer-affiliated collision centers and independent collision centers, and has even owned his own shop. Hodges has worked as a collision repair technician in shops and also as a manager, so he understands different aspects of the business. He knows the challenges that managers face as well as the issues that technicians can run into.

"I am a technician at heart still," Hodges explains. "I know that if you can't have fun, you can't learn. My approach is to help technicians be comfortable in my class so that they can get the most out of the training."

Hodges says that in all his years in the collision repair industry, he sees CR&R training as providing something unique to students. It gives them the manufacturer's recommendations on how to repair Toyota's cars the right way. When they leave class, they know Toyota's recommendations for how to conduct repairs, and they also know where to find important resources they need to work on Toyota vehicles.

Training Fast Facts

Toyota's CR&R training is offered at three state-of-the-art campuses across the United States: Jacksonville, Florida; West Caldwell, New Jersey; and Torrance, California. Instructor-led training courses are hands-on learning experiences where students can practice the techniques they are learning about. Toyota also offers electronic courses to students with a secure personal identification number (SPIN) free of charge. To find out more about Toyota training and sign up for courses, visit www.crrtraining.com. Profiles of Toyota's other instructors can be found in the Fall 2012 and Winter 2013 issues of *Collision Pros* magazine.

Find out about training at www.crrtraining.com.

Safety / Fit / Function

Use Genuine Toyota and Lexus Parts for safety, vehicle longevity and customer satisfaction

THE REPLACEMENT PARTS you use in a collision repair can have a huge impact on the safety and longevity of a vehicle and on customer satisfaction. Using Genuine Toyota and Lexus Parts helps ensure you are using parts of the highest quality that have been constructed for safety, fit and function.

"There are no substitutes for Genuine Toyota and Lexus Parts," says Eric Mendoza, Collision Repair & Refinish Training Administrator, Toyota Motor Sales, U.S.A., Inc. "Using Genuine Parts is just as important as using the right tools and techniques to get a job done. With Genuine Toyota and Lexus Parts you can ensure that you are using optimum-quality parts that have been manufactured to meet the original specifications of the vehicle."

Want to know more about why using Genuine Toyota and Lexus Parts is so important?

The following examples show what makes the performance, fit and function of Genuine Toyota and Lexus Parts superior to alternatives.

WINDSHIELD

Genuine Toyota and Lexus windshields meet the vehicle's original specifications for color, durability, thickness, noise muffling, UV protection, size and shape.

For vehicles with a Head-Up Display, Genuine Toyota and Lexus windshields are manufactured with a special combiner treatment and a unique wedge-shaped inner PVC film. Without these functions, the display will not work properly.

Windshields for vehicles with the Lane Keep Assist feature are expressly constructed to accommodate the Lane Keep Assist camera.

GRILLE

Genuine Toyota and Lexus grilles are constructed using the same or comparable materials as the original part, helping to ensure their durability.

For vehicles with Dynamic Radar Cruise Control, the emblem in the grilles is designed to be transparent so that the sensor can function properly.

Cruise control sensors are very sensitive and can be misaligned or malfunction if the surrounding areas of the grille are not precisely designed to accommodate them.

> **"For any parts that are integral to the structural integrity of the vehicle, using Genuine Parts is crucial. Using Genuine Toyota and Lexus Parts in these cases helps to ensure the safety and long life of the vehicle."**
>
> **– Eric Mendoza, Collision Repair & Refinish Training Administrator, Toyota Motor Sales, U.S.A., Inc.**

WHY GENUINE PARTS

High-quality Genuine Toyota and Lexus Parts are built with exceptional performance, fit and function in mind. There is no one-size-fits-all with Genuine Parts. Toyota and Lexus parts are designed to the original factory specifications of the part being replaced and are constructed specifically for the vehicle. In fact, many replacement parts are made with the same assembly line process and tooling that were used during the original assembly. This means you get a part that fits properly and works according to the original manufacturer's intentions.

Using Genuine Toyota and Lexus Parts is also about helping to perform a collision repair that results in a safe vehicle. Genuine Parts are constructed with the original safety mechanisms of the vehicle in mind. This means if you are replacing a part that is intended to absorb energy in a crash by crumpling in a certain way, the Genuine Toyota or Lexus Part you use as a replacement will function in the same way.

AIR CONDITIONING CONDENSER

Genuine Toyota and Lexus air conditioning condensers are manufactured to the specs of the original part, ensuring that refrigerant passes through the system at the correct pressure. If the pressure is incorrect, the entire system may not function properly.

BUMPER COVER

Genuine Toyota and Lexus bumper covers are constructed to the same specifications as the original part, helping to ensure a precise fit and beautiful finish.

For vehicles with a Blind Spot Monitor, sensors must be able to send radar waves through the bumper cover. Genuine Toyota and Lexus bumper covers are the appropriate thickness to allow the radar waves from these delicate instruments to pass through them.

THE BOTTOM LINE

Often a collision repair job comes down to one thing—price. While Genuine Toyota and Lexus Parts can sometimes be more expensive than their aftermarket counterparts in the short term, in the long term they pay off in a big way. For your customers, they can help maintain the resale value of the vehicle and help ensure that the vehicle will last a long time. For your shop, they can help make sure your customers are satisfied and happy. For example, if a customer returns with a defective part, you will end up needing to repair a damaged customer relationship in addition to fixing the vehicle.

A best practice is a method or technique that has consistently shown results superior to those

Training Focus: Independent Collision Repair Shops

IF YOU WORK FOR AN independent collision center as an owner, manager, technician or estimator, then you know how competitive the collision repair business can be. Wrestling with the sometimes opposing forces of running an efficient shop while maintaining customer satisfaction and staying on top of the latest technologies and processes can seem overwhelming. Toyota's Collision Repair & Refinish training can be a valuable tool to help you achieve all of your goals, no matter what role you play in an independent shop. Training is an important investment that, like an investment in a high-quality tool, can pay off over and over again.

Athletes train for the big game, why wouldn't you train for the big repair?

"If you've been trained, you know what you're doing and you're able to operate more efficiently and provide a better end product to customers. Training is an important tool that can help increase a shop's productivity and profitability."

– Chris Risdon, Technical and Collision Training Assistant Manager, Toyota Motor Sales, U.S.A., Inc.

achieved with other means.

"Stay on top of the industry and stay current with the technology. There are significant advancements in materials and manufacturing techniques occurring right now. It used to be that a dent was a dent. Now with high-tech materials and processes you have to ensure that your shop stays up to date with the technology and processes to be able to return the vehicle to its pre-collision condition."

– Chris Risdon, Technical and Collision Training Assistant Manager, Toyota Motor Sales, U.S.A., Inc.

Process

OEM REPAIR PROCESSES

Toyota's CR&R training teaches students how to repair Toyota, Lexus and Scion vehicles with information and repair processes that are directly from the manufacturer of the vehicle. The information students learn isn't generic—it's specific to the vehicles and technologies. That means technicians will never be left guessing if they are performing the repair correctly.

The training also teaches students how to access manufacturer repair information and where to find the information they need to work on Toyota, Lexus and Scion vehicles.

Learning

HANDS-ON LEARNING

A key difference between Toyota CR&R training and other types of collision training is that Toyota training is hands on. CR&R training provides students with the opportunity to practice the techniques they are learning on vehicles in the training center in a nearly one-on-one environment. CR&R instructors spend time with each student in the class while they practice. This helps ensure that students will be able to repair vehicles back at their shop with confidence and means that they won't have to practice techniques they have just learned on customer vehicles.

Confidence

CUSTOMER CONFIDENCE

CR&R training can help distinguish you from other shops. Everyone who attends CR&R training and demonstrates the ability to perform the tasks taught in the class receives a certificate of completion. This is a valuable way in which you can help create confidence with your customers. Given the choice between a trained shop and an untrained shop, customers are likely to pick the trained shop. And customers may choose your shop over another shop knowing that you've been trained on their particular vehicle.

Networking

NEGOTIATION WITH INSURERS

Furthermore, CR&R training can help you in your negotiations with insurers because you are more knowledgeable about the repair process and the factory recommended repair procedures. And, training gives you a connection to Toyota that can help you network and build relationships.

Course of Study: No matter what your specialty or what type of vehicles you work on, there is a course of study for you. Find out more at www.crrtraining.com

"You wouldn't hesitate to buy a welder, you wouldn't hesitate to buy a spray gun—why would you hesitate to buy knowledge?" – Chris Risdon

CP The Last Word

Refer to the training calendar at www.crrtraining.com for the latest training schedule.

THE TRAINING CALENDAR WWW.CRRTRAINING.COM

WEST CALDWELL, NJ
03/10 504 Air Conditioning for Collision Repair
03/11 502 Body Electrical Diagnosis and Repair
03/17 908 IS C for Collision Repair
03/24 300 Welding Techniques for Collision Repair
03/25 301 Non-Structural Body Repair Techniques
04/07 601 Hybrid Collision Repair
04/08 602 Advanced Hybrid Collision Repair
04/14 460 Structural Body Repair Techniques
04/16 503 Steering & Suspension Analysis & Repair
05/05 200 Color Matching for Painters
05/07 250 Advanced Painting Techniques
05/12 101 Paint Finish Repair
05/19 300 Welding Techniques for Collision Repair
05/20 301 Non-Structural Body Repair Techniques

JACKSONVILLE, FL
03/02 601 Hybrid Collision Repair
03/03 602 Advanced Hybrid Collision Repair
03/04 504 Air Conditioning for Collision Repair
03/09 200 Color Matching for Painters
03/23 301 Non-Structural Body Repair Techniques
03/25 300 Welding Techniques for Collision Repair
03/26 460 Structural Body Repair Techniques

TORRANCE, CA
03/03 200 Color Matching for Painters
03/05 250 Advanced Painting Techniques
03/17 300 Welding Techniques for Collision Repair
03/18 460 Structural Body Repair Techniques
03/20 503 Steering & Suspension Analysis & Repair
04/01 601 Hybrid Collision Repair
04/02 101 Paint Finish Repair
04/13 300 Welding Techniques for Collision Repair
04/14 301 Non-Structural Body Repair Techniques
04/16 460 Structural Body Repair Techniques
04/22 908 IS C for Collision Repair
04/23 602 Advanced Hybrid Collision Repair
05/05 460 Structural Body Repair Techniques
05/07 503 Steering & Suspension Analysis & Repair
05/12 601 Hybrid Collision Repair
05/13 602 Advanced Hybrid Collision Repair
05/19 300 Welding Techniques for Collision Repair
05/20 301 Non-Structural Body Repair Techniques

For a complete training schedule and the latest information on Toyota's Collision Repair & Refinish training, visit www.crrtraining.com

TECHNICAL WEBSITES YOU NEED TO KNOW

crrtraining.com
Get Toyota and Lexus Collision Repair & Refinish Training information

autopartsbridge.com
Order all Toyota and Scion parts and components—clips, fasteners and decals—needed for a repair

techinfo.toyota.com
Get vital information you'll need to effectively service most Toyota, Lexus and Scion vehicles

toyotapartsandservice.com
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TOYOTA WHOLESALE PARTS

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Q+A WITH MIKE BRYAN

VICE PRESIDENT, COLLISION DIVISON
MARX GROUP OF ADVISORS

BRYAN HEADS THE COMPANY'S NEW COLLISION DIVISION, TALKS INDUSTRY CONSOLIDATION, FORECASTING

BY **KRISTA MCNAMARA** | MANAGNG EDITOR

***ABRN:* Why did Marx Group Advisors create its new collision division?**
MB: The collision repair segment has entered a period of great change and some challenges are unique, bringing to mind the expression "perfect storm." Caught up in that storm are thousands of baby boomer collision center operators who want to retire, but lack an exit strategy. That's why we saw the need to create a special Collision Division focused on helping operators think through their options and develop an exit plan.

***ABRN:* What is driving consolidation in the collision industry today?**
MB: The storm clouds started gathering as a whole generation of collision center operators began to think about retirement, not only because of age, but due to changing demands which included:

- The downloading of administrative tasks from insurers to repairers
- Insurers becoming more aggressive in performance measurement and pruning their networks of preferred repairers
- Advanced vehicle technology, including the use of multiple new materials, requiring costly new equipment, tools and training to carry out safe, correct repairs
- Greater OEM interest in how their vehicles are repaired. Their goals were not well aligned with those of insurers, so the collision repairer has been caught in the middle. For example, the OEM insisted on the use of OE parts while the insurer would authorize the repairer to use only aftermarket replacement parts.
- Difficulty in attracting and retaining skilled staff, particularly entry-level young people.

Also contributing is the fact that some operators are simply closing their doors and walking away. However, there is also a more positive side to the story:

Certain operators figured out how to at least live with these challenges by developing a profitable business model and replicating it across multiple facilities. MSOs (multi-store operators) work at several levels, starting with an individual operator buying out his local competitor. Further along are those that have grown within their region to maybe seven or 12 facilities. They may now be ready to sell out to a larger network wanting mass in that region. What makes this possible is the availability of cheap capital from private equity (PE) groups and the ability of MSOs to not only replicate their business model, but obtain cost savings through centralized administration. In addition, MSOs provide a consistent and reliable service for insurers across whole regions.

Meanwhile, PE firms are buying larger shops and regional MSOs to build their empire. These mega-firms have the clout to negotiate with the insurance companies, while smaller firms do not.

***ABRN:* What will the industry landscape will look like in 5 years?**
MB: Consolidation will continue. At one end of the spectrum will be facilities not trained in structural repair, but competent in panel repair and paint service. Others will specialize in the repair of certain makes because of commonality in the tools, equipment and repair processes involved. Some higher volume facilities will repair all makes and models. There will be greater recognition of collision repairer brands, perhaps as operators offer more services required at greater frequency than collision repair, in order to familiarize the customer with their brand well ahead of that once-in-seven-years collision. And the big will get bigger as investors decide it's time to cash out to others who have further growth ambitions.

Photo: Marx Group of Advisors

COLLISION REPAIR INDUSTRY Stats & Trends

50 industry trainers will present 100 classes during Automechanika Chicago, April 24-26, 2015 in downtwon Chicago.

FROM THE BLOG SPHERE

Correctly allocate labor operations for proper payment

Is full frame replacement a body, mechanical or frame operation?

BY **ARTHUR HARRIS** | ABRN BLOGGER

When replacing the full frame on a vehicle, mostly trucks and SUVs, there are many challenges that we face as repair shops. Space, parts delivery and coordinating outside vendors are just a few of these issues. If your facility has an in-house mechanic capable of performing the mechanical operations it makes the job easier; but still, this is a daunting task.

Removing the motor, suspension, then lifting the body off the frame are just a few items that need to be accomplished during this procedure so we have a mix of different technical skills required. The engine and suspension needs to be completed by a trained mechanical technician and removing the cab and other components, fenders, hood, bed need to be done by a body technician. I assume, like most repair facilities, that there are different labor rates for mechanical and body, but as we look at the estimating systems we are only allowed to allocate one labor operation to the frame replacement line. All three estimating systems require the user to allocate the labor operation for the frame replacement, but we can only use one labor operation and there are at least 2, sometimes more labor operations for the frame replacement. If you make the frame replacement a body operation, then all the mechanical items are not charged at the correct rate. Same goes if you charge mechanical for the frame replacement. Not all items are mechanical so the correct amounts are not reflected on the estimate.

The work around for this issue would be to determine how much of the procedure is mechanical

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Video marketing tips

By Gary McCoy

Having a video on the website for your repair shop may not be top of mind in your marketing toolkit. But it should be. A short, well done video that introduces customers to your business can be an effective way to drive traffic into your shop, especially among millennial customers who often prefer video to print.

A news release I recently received stated that online video marketing has become a staple. The article cited the 2014 Online Video Production Trends Report, which showed 81 percent of companies produce video content for their websites and 69 percent produce it for social media. Producing video is one thing. Doing it right is another matter.

"There are loads of marketing videos on the web now, and some extremely effective," says Jennifer Santoro, integrative marketing specialist and the so-called "chief happiness officer" for InVidz Smart Video Technology. "But there are plenty that just don't work."

Here's a summary of five things that Santoro says you should avoid:

1) The video takes too long to get to the point. Santoro says the attention span for video watching seems to be about 60 seconds. "Viewers don't want to hear a marketing message that goes on and on."

2) The video content is inauthentic. Santoro says never try to portray yourself or your company as something you're not. "Embrace who you are and what you actually offer; people will relate to and engage with that content."

3) Distracting noises on the audio. As a rule of thumb, Santoro says the visual can be substandard but the audio can't. "Visually you don't have to do anything fancy. A simple shot of you speaking in front of a nice background will never be distracting. However, distracting noises in the audio will kill your video every time." For repair shops, you can shoot a video in your bay or in your lobby. Just don't do it while noisy work is being performed in the shop.

4) The intention of the video is not clear. Similar to item number 1, "Never shoot a video simply because you think you're supposed to." As Santoro explains, "Before you ever pick up your audio equipment and camera, spend significant time clarifying the intention of the video and composing your script around that intention."

5) Viewers can't take immediate action. "The whole point of a marketing video is to get your viewer to take some sort of action," said Santoro. "Internet video marketing technology has advanced significantly with the dawn of smart video, which allows viewers to take immediate action directly from the video itself."

Remember to invite customers to your shops and perhaps provide an incentive, such as a free inspection. Continue at ABRN.com/VideoMarketing.

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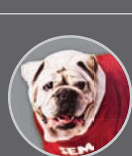
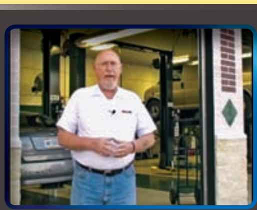


and how much is body, then create manual lines to reflect those times. We all know manual lines on an estimate can create several issues, the main being that the proper overlap may not be calculated if you create new lines or override a line.

This issue has been brought up too all three estimating systems, but currently they do not have a solution, aside from the manual line. If you visit the DEG website and click on the top 10 list, you will find this issue listed with Audatex, CCC and Mitchell. Hopefully the IPs will create a better solution in the near future than to add a manual line, but until then, that is the only way to make the estimate accurate to the operation.

Continue reading this blog at ABRN.com/FrameReplace.

abrn TOP VIDEOS



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• Find your newest tech with TalentMonger.com

TalentMonger.com is the newest way to connect collision repair technicians and the shops looking to hire them. Greg McVicker, site cofounder, speaks about the site's creation and what it can offer your business.
[ABRN.COM/MCVICKER]

• Techs! Increase your paycheck!

There are nearly 750,000 "professional" technicians in our country, but not all of them act professionally. Our role is akin to that of a medical doctor. My "patients" entrust their car to us. We have the responsibility to check the entire car and report any conditions that require attention. I suggest a few small changes to improve the professionalism of the industry for its betterment.
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automechanika CHICAGO APRIL 24 TRAINING

FRIDAY, APRIL 24

- **Unlock Your Potential with Effective Business Modeling**
  Presented by Matt Winslow, 8:30-11:45 a.m.
- **Optimizing Paint Material Profitability**
  Presented by Ryan Ross & Scott Wheeler, 8:30-11:45 a.m.
- **Continuous Improvement Best Practices**
  Presented by Mike Anderson, 2-5:15 p.m.
- **Welding for Success**
  Presented by VeriFacts, 2-5:15 p.m.
- **How the Automotive Industry is Changing Structural Repair**
  Presented by Shawn Collins, 2-3:30 p.m.

automechanika CHICAGO APRIL 25 TRAINING

SATURDAY, APRIL 25

- **Triple Win Clinic**
  Presented by VeriFacts, 8:30-11:45 a.m.
- **What You Don't Know May Close Your Business**
  Presented by Tony Passwater, 10:15-11:45 a.m.
- **Seam Sealer Matching Made Easy**
  Presented by Dennis Keicher, 10:15-11:45 a.m.
- **Aluminum Damage Analysis**
  Presented by Larry Montanez, 8:30-11:45 a.m.
- **Financial Best Practices**
  Presented by Mike Anderson, 2-5:15 p.m.
- **Maximize Paint Shop Profitability**
  Presented by Shawn Ryan, 3:45-5:15 p.m.

automechanika CHICAGO APRIL 26 TRAINING

SUNDAY, APRIL 26

- **Industry Town Hall**
  Presented by Pete Meier, 8:30-10 a.m.
- **Vehicle Security is More Than Just Keys**
  Presented by Skip Potter, 8:30-11:45 a.m.
- **Electrical Quick Diagnosis and Repairs**
  Presented by Rich Peterson and G. Truglia, 8:30-11:45 a.m.
- **Q&A with Eric The Car Guy**
  8:30-11:45 a.m.
- **Using Digital Marketing to Grow Your Business in Consolidation**
  Presented by Frank Terlap, 8:30-11:45 a.m.

Noteworthy

READER FEEDBACK TO ONLINE ARTICLES

Rob Dumais, owner, Streamline Collision: A customer had her vehicle towed to our shop; we paid the towing bill. The insurer is refusing to pay the tow bill because they state it is over their cap. Any insight?

Truman Fancher, manager, Truman Fancher Auto Collision Repair: The tow charge is to the customer, not the insurer. Your contract with your customer should state, as ours does, that they agree to pay all charges, which includes tow bills. Why in 2015 have we not figured this thing out guys? Insurers do not owe you for squat. You can't charge the insurer one dime. You can't hold a customer's vehicle unless the customer refuses to pay the tow charges.

Mathew Miller, owner, Eurshall Millers Collision Center: We have run into this before. The insured only had a set amount for towing reimbursement on their policy. The tow was more than that amount. The customer wasn't happy, but they made the choice when they opted for the cheaper rates. Collect what you are owed by the one who signs the repair order (the customer). Just make sure you are up front with the customer about what they owe and why.

Don Barnes, manager, Raceway Chrysler Dodge Jeep: It is your responsibility to insure when spending someone else's money that you find out the parameters. This angers tow truck drivers, but it insures customers and my company are not caught in the middle of tow companies and insurers. I think governments need to get more involved in tow regulations to protect consumers.

Mike Orton, owner, Missouri Collision Consulting: If I was the vehicle owner, I would request in writing for my insurer to show where the policy mentions limits. I think some adjusters use the tow-in policy, which does have limits, in place of tows due to an accident, which are covered.


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BY MIKE LEVASSEUR | COLUMNIST

mikel@keenanautobody.com

Hear the voice of the customer

CSI reports, like financials, tell the story of what is happening in each of your locations

There are two main tools I use to run our MSO from the 30,000-foot level: the financials and our CSI reports. You can't be in every location every day, and I don't think there's any better way to clearly know what's going on in your shops without having this analytical data.

The financials tell one key part of the story, but the CSI reports fill out the story, giving you a complete picture.

We began making follow-up phone calls to customers ourselves, in-house, years ago when we had just three shops. As we grew (we will soon be opening our 12th location), we instead hired an outside CSI provider. We actually tried two different providers over the years, but currently use TenPoint Complete, and they do a really good job for us.

TenPoint initially contacts our customers by email or text. If that's unsuccessful after 48 hours, they call the customer. Offering both options works well. Baby Boomers tend to respond more to phone calls, but the younger generations tend to take the survey via email or text. We've actually found the comments we get from the non-phone surveys are often a lot more detailed. While the phone agents may only be able to input some bullet points of what the customer is saying, we sometimes get full paragraphs from those responding electronically. Those great, detailed comments help us tremendously.

"ANYTIME A CUSTOMER ANSWERS 'NO' TO WHETHER THEY WERE KEPT PROPERLY INFORMED OR WHETHER THEY WOULD RECOMMEND OUR SHOP TO OTHERS, THE ESTIMATOR OR LOCATION MANAGER NEEDS TO SEND AN EXPLANATION OF WHAT WENT WRONG."

Every morning, the location managers, estimators and customer service reps all receive the survey reports from the previous day. Then once a week they get a summary of the CSI for the whole week. The reporting is fantastic, and I look at every one. For me, every survey question tells a story.

Customers are asked, for example, if they were completely satisfied with the rental car service they received. That's really important to me because if we start to see a drop off in the satisfaction with one rental company, we can set up a meeting with that company to try to figure out what's going on.

We also want their opinion regarding the overall quality of work performed on the vehicle. If come backs are reported, we know there's a problem with our quality control. Communication with our customers is extremely important so anytime a customer answers "no" to whether they were kept properly informed (or whether they would recommend our shop to others), the estimator or location manager needs to send me an explanation of what went wrong. This helps us constantly improve. The fact that our bonus system is heavily tied to CSI scores also keeps employees focused on this feedback.

Customers also are asked if their vehicle was done on time. If we see this slip below 90 percent at a location, we know there's a volume or throughput problem. The "communications" question and the "done on time" question go hand-in-hand; as long as your communication is strong, most customers will perceive their vehicle was ready when promised.

And lastly, we want to know if their vehicle was clean inside and out; that tells us how our detailers are doing.

The surveys also allow us to be proactive. The "Immediate Attention" report prompts us to address a customer concern as soon as we learn about it. We want to see both positive and/or negative comments to better assist our customers and staff regarding the overall performance of service, as well as the tasks at hand.

I sometimes get asked why I want to continue to touch every survey report, while upper management at some MSOs may just look at weekly or monthly summary reports. I think it's really important to know what each customer is thinking about our business. The surveys give you a focused picture of what is going on, and are as close to ground level as I can get while still working from the 30,000-foot level.

Tell Me What YOU THINK

If there's a topic you'd like me to address, I'd love to hear from you.

Mike LeVasseur is president and COO of Keenan Auto Body, which has 11 shops in Pennsylvania and Delaware.

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MINDING YOUR BUSINESS

IMPROVE YOUR REPAIR PLANNING

ELIMINATE DELAYS, NOT SUPPLEMENTS, BY BOOSTING PROCESS ACCURACY

BY RICHARD FIFER | CONTRIBUTING EDITOR

Bob Gilbert, North American Business Improvement & Process Consultant with AkzoNobel, also contributed to this story.

TO SOME, it is called repair planning. Others call it blueprinting, X-ray or strategic disassembly. The goal of this activity, whatever you call it, is to eliminate delays in the repair process. When additional damage is identified after repairs have begun, delays ensue – waiting for approvals and for more parts. The reduction or elimination of these delays will have the single largest impact in your attempt to decrease cycle time, which is arguably the most important KPI to both the vehicle owner and insurer.

Two aspects of this challenge to consider: first, many will argue that the complete "elimination" of delays is unrealistic. However, using "elimination" over "reduction" adds a sense of urgency and importance to our mission. If you prefer to use "reduction," then measure your current delays and set an exact target or goal. More on that in a moment.

The second is the timing of these delays. The goal is not to eliminate supplements. Some repair types require the use of estimates in the initial stages, so supplements will always be a necessary evil within the repair process. But only one supplement, which is the result of your repair planning process and happens before repairs begin, is necessary! Any supplements that happen after repairs have begun are a defect.

This brings us back to the "elimination vs. reduction" dilemma. The challenge with these words is that one is finite and one is open to interpretation. So do yourself a favor and clearly state the desired level of reduction by setting a SMART goal (Specific, Measureable, Ambitious, Realistic, and Time bound), such as this example - *We will reduce our supplements after repair planning from 50 percent to 10 percent or less within 120 days.*

Correct ineffective processes

As repairers realize their repair planning process hasn't reduced or eliminated delays, but has instead become just another

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bottleneck, they begin to look for other solutions. It's natural to then look at incorporating Lean principles such as 5S, Visual Management and Standardization to increase the effectiveness of their repair planning process. That was the original topic of this article – optimizing repair planning with lean. But then I called Bob Gilbert, AkzoNobel's North American Business Improvement & Process Consultant, because in addition to teaching AkzoNobel's Process Centered Environment (PCE) methodology to hundreds of repairers across North America, he has more in-shop, real-world-implementation experience than anybody I know in this industry. And he laughed at me!

"Please don't perpetuate the myth that Lean (or PCE) is the savior of repair planning," Bob said.

Most Lean principles will not make your repair planning process more effective! There it is. The ugly truth. .

Much has been written, presented, discussed and taught regarding Lean, Six Sigma, Theory of Constraints and PCE in the collision industry in the last 8 years. While these methodologies have their differences, they all share a common goal – process improvement. So how can you improve a process without improving its effectiveness?

5S organization

Let's begin with 5S. This methodology is about creating workplace organization. It's about having the right tools and equipment where and when you need them. A repair planning work stall is ripe for the application of 5S. First apply the Sort phase by identifying the tools and equipment you need in that area – lift and/or floor jack, jack stands, good lighting, hand tools, parts cart, computer, estimating software, etc. The second phase, Set in Order or Straighten, is applied by identifying where the work will take place and where the tools and equipment will be located to facilitate ease of use. Shine, the third phase, shows up in your efforts to keep this work area clean, for example by returning tools to their home when done using them. The fourth phase, Standardization, can be applied by using visual management tools such labeling and outlining. This might be lines on the floor to identify where the parts carts go or placards on that parts cart that shows what should be stored on each shelf. Sustain, the last and hardest phase to implement, is there to keep this neat and orderly workplace from going to pot. Now let's apply 5S to the goal of repair planning to see if it makes it more effective. Remember, the goal of repair planning is to eliminate delays from the repair process and it does this by identifying 100 percent of the labor, parts and materials needed to repair the vehicle. Repair planning can still produce jobs that create delays later in the process, despite coming from a neat and orderly area.

Visual management

So what about Visual Management and Standardization? I have seen these tools incorporated into some very effective repair planning implementations. In one example, the shop put a bright yellow stripe on the floor behind the vehicle with the labels "Replace" on one side and "R&I" on the other. As the disassembly tech removed parts from the car he would place them on one side or the other of the yellow stripe. This meant the repair planner could wheel his computer cart to the new job when

DRIVING EXCELLENCE

By **I-CAR**

The ability to share knowledge in collision repair planning is a home run. The ability to apply it to the whole repair process is a grand slam. In all areas of the repair process, an organization that distinguishes knowledge as an asset holds the key to success. This is one important element of a 'Learning Culture,' which represents an organization's commitment to achieving excellence by harnessing the power of learning and knowledge. Lean processes and standard operating procedures are optimized in a learning culture because the "why" becomes just as important as the "how."

If production management is the helm of the repair process, then learning culture is the foundation that supports the process; the glue that brings everything together, according to I-CAR®. I-CAR is applying its learning culture expertise by debuting a class specifically focused on the topic in the soon-to-be launched Production Management role. This is the first new role added to I-CAR's industry standard Professional Development Program™ (PDP) since the program's launch in 2010. The Production Management curriculum will offer unique, holistic training for critical areas of production management including repair planning, workflow, team communication, processes and compliance – all areas that can contribute to complete, safe and quality repairs. This knowledge, combined with a learning culture, bridges effectiveness and accuracy across the board, improving organizational key performance indicators (KPIs).

Sharing the knowledge gained becomes equal to the importance of finding the right solutions. In a learning culture, the whole shop is maximized. Employees are engaged and inspired to think of the business as a whole – not just a car in a stall on a given day. Every action becomes interrelated with all the other actions and processes within the organization. A synergy is created that unleashes potential and drives KPIs for the ultimate benefit of the consumer. A learning culture is the breeding ground for excellence.

he was able and, without verbal input from the technician, know which labor operations to write and which parts needed to be replaced. As an additional quality control measure, the technician marked a green "X" with a grease pencil on all the parts to be replaced. This ensured that proper identification could be made even after the parts were cleared from the work stall.

This process does not mean that all the parts were identified, just the ones removed from the vehicle. There could still be a delay from damage and parts missed during repair planning.

Improving accuracy

We've established that an effective repair planning process will reduce or eliminate delays by identifying 100 percent of the labor, parts and materials needed to repair the vehicle. Let's replace effectiveness with accuracy and rephrase our dilemma – implementing Lean methodologies or principles will not make your repair planning process more accurate. They will, however, help make your repair planning process more efficient.

Lean doesn't increase the effectiveness of your repair planning process – setting a goal and measuring it does. If the goal is to reduce or eliminate delays in the repair process, simply measure any delays that occur and trace them back to your repair planning process. Identify how it occurred and, more importantly, discuss with the team how to update the process to avoid it in the future. People focus more attention on their actions that are being measured. We just identified yet another Lean-related principle — Kaizen, commonly referred to as Continuous Improvement — that is the lone Lean-related activity that will improve the effectiveness of your repair planning process.

Don't abandon your efforts to incorporate Visual Tools, 5S, Standardization and the other more popular Lean principles into your processes. Just know that their intention is to identify and/or eliminate waste from your processes, making them more efficient, not more accurate. If you want to increase the effectiveness of your repair planning process, measure the defects after repair planning (supplements) and use Kaizen to identify the cause and the solution to ensure it doesn't happen again.

If you've implemented a repair planning process but still experience a high percentage of delays due to multiple supplements, you may want to revisit your process. You'll probably find you're still estimating but just calling it repair planning.


RICHARD FIFER
CONTRIBUTING EDITOR

Richard Fifer is the North American Business Services Manager with AkzoNobel Coatings Inc. With AkzoNobel since 1994, he and his team are responsible for maintaining and developing the many tools and educational components of AkzoNobel's Acoat Selected Program for North America.

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SHOP PROFILE

A snapshot of one of the industry's leading shops

UNION COLLISION / UNION, N.J.

A family affair

Three generations stick together and succeed

BY **JAMES E. GUYETTE** | CONTRIBUTING EDITOR

Cheerfully embracing a united front among three generations, the Barbera family's Union Collision exudes high energy as they enthusiastically approach each workday with an affable sense of humor accompanied by a can-do attitude.

The people at this business appear to genuinely enjoy each other's company.

"Family is what Union Collision is all about," says Mike Barbera, who serves as co-manager along with his brother Nick. Also on the job are their parents, Barbara and Kenny, Grandfather Frank and a 19-year-old cousin just entering the industry as an apprentice body technician. The family atmosphere is further nurtured even among non-Barbera staffers with two father-and-son teams at work out on the shop floor.

"Each family member has his or her own strengths, which we utilize to the fullest every day," Mike says. "We are a normal family who happen to work very closely together. Of course, we get on each other's nerves at times – but we respect how lucky we are to be working together to achieve a common goal."

And that goal revolves around delivering quality repairs at fair prices.

"Our marketing message is not what we say but what we do," says Mike. "We treat every person who walks through our front door as if they are a friend. We always keep the customer's best interests in mind. We want everyone who comes to us to be a customer for life," he points out.

"This has worked wonders for our business," according to Mike, designated as the family's spokesman for this article. "Our customers trust us, and because of that they recommend us to their friends, family and neighbors. A quality repair done by people you can trust is what keeps our customers coming back time and time again," he says.

"Word of mouth and our reputation has been all we need to keep the business going so far. We do some repairs for gratis and in return those customers trust us when more extensive work is necessary," Mike explains.

"For example, if a bumper becomes dislodged from a vehicle, we will reattach that bumper for no charge. We will also buff and touch-up any vehicle upon request and ask for nothing in return except to remember us when they need any future car repairs," he says, adding that "these small but significant gestures show our customers that they can trust us, and our bottom line is not as important to us as the goodwill that these services generate."

AT A GLANCE

Union Collision
Name of shop

Union, N.J.
Location

Barbara and Kenny Barbera
Owners

1 shop, 5 buildings
Number of shops

36
Years in business

20
Number of employees

7
Number of DRPs

22,000
Square footage of shop

30
Number of bays

$2,808
Average repair order

44
Number of vehicles per week

Sherwin-Williams
Paint supplier

Car-O-Liner
Frame machines used

CCC
Estimating system used

www.unioncollision.com
Website

Located in Union, N.J., which is part of New York City's metropolitan region, "we serve the surrounding communities because this is where our family was born and raised. This is our home. We want to be able to help anyone who had the unfortunate experience of being in a car accident."

Reciprocal respect

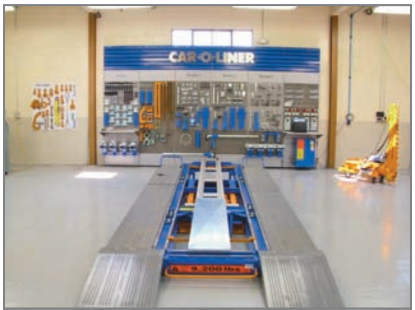
A strong wage and benefits package that includes a matching 401(k) plan, paid vacation and sick time plus full tuition reimbursement is augmented by a pleasant and positive work environment that encourages longevity among the staff. An apprentice program assists in attracting younger hires who begin their careers working after school, on weekends and during the summer, eventually culminating in full-time employment. The recruiting process tends to be relative – candidates are typically related to existing staffers.

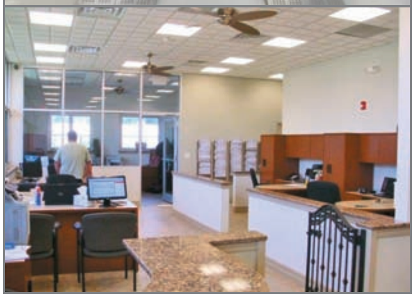
"We know what their parents bring to the table in terms of work ethic and skills, so it is a no-brainer to hire those that we know," says Mike. "Over the past 10 years, we have had little employee turnover, which is a huge advantage in our industry. Our employees know what we expect of them and we know what they expect from us," he notes.

"We all know that without great customer service we wouldn't have any customers. We enjoy the interaction with different people on a daily basis, and customer service comes naturally to all of us," Mike reports.

"We treat every employee with respect and, therefore, they reciprocate. Our employees are an extended part of our family. Without them the shop wouldn't be what it is today. They watch us interact with our customers and know how we interact with them. We expect that they follow our example," he says. "They have all been with us long enough to know how to treat those who come through our door. Everyone within our company treats others as they would want to be treated."

A focus on continuous and cooperative education assists in ensuring that the latest in sophisticated repair techniques are implemented throughout the operation. "Our longtime employees enjoy teaching, and it seems to form strong bonds between them," says Mike. "We also make sure that they learn from multiple employees so they can take what they learn and turn it into their own style of repairing a vehicle."





The Union complex consists of five separate structures in close proximity. An electrical fire several years ago ultimately resulted in a renovated office building that also houses the main work area.

"Although stressful at the time, we used this as an opportunity to redesign our shop and office," Mike recounts. Administrative space was doubled and the latest shop equipment purchased. "The fire forced us – but also helped us – to create a new shop better suited for the cars on the market today."

Another structure is exclusively utilized for ensuring flawless finishes. "Having one building dedicated to painting vehicles is a huge advantage. Not performing any bodywork in this building reduces the possibilities of any imperfections one may see in the final refinished job," he notes. "This stand-alone facility also allows us to minimize any chemical contaminates that might affect our final painted product."

Established in 1982, the business got its start when Kenny Barbera was working as a mechanic in one of the buildings on the property. Next door was Emmel's Body Shop; upon retirement, Emmel offered to sell the then-modest enterprise to Kenny, who leaped at the opportunity and subsequently embarked on ongoing expansion efforts.

Partnering with professionals

A policy of continuous improvement includes investing in state-of-the-art equipment and applying lean production techniques. The cars are disassembled and blueprinted upon arrival.

"We have taken the 'concept lean' and

made it work for us. It is a common sense approach to repairing a vehicle. We work smarter now as a result. We try to spend as much time as we can doing a proper estimate, often asking each other for our respective opinions on the repair. The better the original estimate, the more efficient the repair process will be for both us and the vehicle owner," Mike says.

"We also schedule vehicle repairs throughout the week and do not rely on the old 'in on Monday and out by Friday' routine," he elaborates. "We realize that we can only work on a certain amount of cars on a given day. The more time we work on them the less time they sit idle, which is best for everyone involved. Partnering with other professionals who excel in their field is how we hasten the repair process."

Some of the suppliers have been selling goods and services to the Barbera family for 36 years.

"They know exactly what we want in terms of customer service. We have formed friendships with them. Teaming with the correct dealers and vendors, who have knowledgeable and friendly employees, makes our job easier," according to Mike.

"We also order all parts by email, which gives our vendors a detailed list and helps to eliminate errors. Often we include photos of the vehicle and they suggest other parts or structures of the vehicle we may want to check. They work with the same makes and models day-in and day-out, and their knowledge of the vehicles and their construction aides us in the repair process," he says, adding that suppliers will frequently go to Union with their own personal vehicles.

"We take great pride in the fact that they deal with many different shops, some having their own in-house body shops, but still choose us to repair their cars. This reinforces how strong our bond is with our vendors, which only helps our customers."

Although the family strives to maintain amicable and smooth-running relationships with insurers, bumps in the road include insufficient labor rate reimbursements, pressure to procure low-priced parts and an insistence on overly quick cycle times.

"Some companies will call us multiple times per day to check on a vehicle's status in order to cut down on rental costs," Mike reports. "If they were concerned about the repair they would ask how it was going – not when it would be done. We are the ones who have to warranty our work, and we are the ones who have to sleep at night knowing we are fixing a vehicle that is going back on the road with a family riding inside of it. Their job is to pay to restore a vehicle to its pre-loss condition, and ours is to restore it. It is and should be as simple as that," he asserts. "We will never allow them to dictate how or when to repair a car, but it is an ongoing challenge that we face."

JAMES E. GUYETTE
CONTRIBUTING EDITOR

James E. Guyette is a long-time contributing editor to *ABRN*, *Aftermarket Business World* and *Motor Age* magazines.

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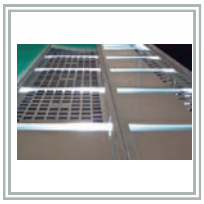
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PROFIT MOTIVE: YOUR COMPASS TO FINANCIAL SUCCESS

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BY TOM MCGEE | CONTRIBUTING EDITOR

A few years ago, I was making sales calls with a rep. Early in the day, I realized we were basically visiting the same shops I had visited with the previous sales rep in that territory. We pulled into the parking lot of a shop.

I told him, "I've already been to this shop. Here's what we'll encounter: Inside there is a large wood counter, almost like the bar on the show *Cheers*. The owner, an older version of Norm, will be sitting on a stool behind the counter. There will be no computer or anything electronic in sight. And he will not be interested in anything new."

Sure enough, Norm was still sitting there on his stool. Nothing had changed in the year since I had last been there. In today's world, you can't be Norm, especially when it comes to your marketing strategy. The cars don't just show up anymore. So let's talk about using community involvement to boost your business.

Vehicle technology challenges

We all know that vehicle technology is changing. Every day we are seeing how changes such as advanced high-strength steels, multiple airbags and alternative-fuel vehicles such as hybrid and electric vehicles are affecting the collision industry. But we often overlook how these same technologies are affecting our communities. Consider first responders. These heroes work every day to save the lives of people in our local communities.

When they approach the scene of a collision, vehicle technology has a direct effect on them as well. For example, where are the best locations to cut a vehicle with their extrication tools to avoid reinforcements or advanced high-strength steels? Where are the airbags and seat belt pretensioners? Where are the batteries and high-voltage lines on hybrid and electric vehicles? What do they need to know about hydrogen fuel cells?

The collision industry has the ability to provide training, awareness, practice and exposure on vehicle technology to our local heroes. At a minimum, go visit your local police and fire departments and make sure they know how to obtain the First Responder Guides available from the vehicle manufacturers. I recently discovered that the National Fire Protection Association (NFPA) has implemented an Electric Vehicle Safety Training project. This site, www.evsafetytraining.org, has free interactive training programs available to the fire service and also has a resource section that includes a depository of the vehicle manufacturers' First Responder Guides.

As you develop your marketing plan, consider building in an appreciation or fundraising event for your local first responders.

NABC vehicle extrication event

Hosting a National Auto Body Council First Responder Emergency Extrication (FREE) event provides local repair facilities with another opportunity to give back and strengthen community relationships. Many local fire departments are often tight on budgets and would welcome additional opportunities for first responders to receive ongoing training and practice. In addition, these live demonstrations are always crowd pleasers, enabling first responders to demonstrate their skills to the community. The result is a positive experience for all participants and spectators.

The FREE events include classroom training by an instructor from Holmatro Rescue Equipment. The highlight of the event is the cutting of salvage vehicles. Members of the fire departments receive valuable hands-on experience cutting vehicles with high-strength steels.

For more information, email FREE@autobodycouncil.org or call the NABC at 888-667-7433.

Support first responders

I would encourage you to conduct at least one first responder fundraiser or appreciation event this year. Sara Giddings, ATI Administrative Assistant, is also a volunteer at the Elkridge Volunteer Fire Department (EVFD) in Maryland. Sara, who is a firefighter/EMT-B, helped me in developing a list of suggestions that collision repair shops could consider for a first responder fundraiser or appreciation event. Try it free for a limited time by going to www.ationlinetraining.com/abrn1503.

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According to SEMA, 37 percent of the 2 million pickup trucks purchased annually in the U.S. receive a bed liner. Bed liners are the third most popular item pickup truck owners buy during the first two years of ownership.

MAKING SPRAY-ON BED LINERS PAY OFF FOR YOUR SHOP

BY **TIM SRAMCIK** | CONTRIBUTING EDITOR

When was the last time you considered adding a new revenue stream — specifically, one a bit outside traditional repair services?

There's a good chance it was quite a while ago. That's a real departure from where the collision industry stood 10 years ago when shops were more open to providing niche services, such as selling aftermarket accessories, paintless dent removal or detailing services. The focus for shops lately has been creating revenue by cutting costs and driving through more work with lean operations and multiple sites.

This focus obviously has produced significant results, though perhaps at the expense of outside-the-box business considerations that could benefit a number of shops. Adding a niche service like spray-on bed liners is a good example.

Each year more than two million consumers drive new pickup trucks off dealer lots. According to SEMA, 37 percent of those motorists will invest in some type of bed liner. Shops that don't sell or repair bed liners can send a lot of potential, and some very real, business out their doors and to competitors.

Serving this niche market isn't for every shop. Here's what you need to know before you dive into spray-on bed liners.

Business basics

Doing business in the spray-on market means partnering with a liner company like Rhino Linings, SEM, Line-X or Reflex, to name a few. Repairers become liner dealers who agree to purchase and use a range of spray-on equipment and products. Partnering with companies like Line-X entails becoming part of a franchise.

The tools, products, services and support from liner companies can vary greatly so you'll need to thoroughly investigate each company to see which offers your shop the

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Start-up costs

Initial investment can run from almost nothing to over $30,000, often depending upon how much business you expect. Spraying more liners increases the investment in product and sometimes the type of application equipment.

"If a shop already has a dedicated area for applying truckbed liners, all they need to cover is the cost of application equipment, which can be less than $100," said David Vivian, product manager with SEM. "With such minimal start-up costs, shops can be profitable on their first liner. For shops without a dedicated area, start-up costs to add or convert an area will vary, but this is critical to protect other jobs from bed liner overspray. If the shop has enough demand, though, they should see a return on investment within the first year."

Training

Depending upon the company, expect 1-3 days of training either on-site or at the company's training facility. Be sure to ask about ongoing training for product updates.

"A shop should designate a lead technician and assistant technician for spraying truckbed liners," Vivian says. "There are different technologies that may apply differently, so the best way to learn is through concentrated experience. An annual training class is also a good idea, specifically to learn about new products."

Support

Expect to receive some help marketing your business, which can include everything from a listing on the liner company's website, ads and logos to individualized, search-optimized websites and support from dedicated marketing professionals.

Return on investment

This too will vary according to the company, type of liner application and the market price for a spray-on bed liner. Prices can range anywhere between $400 and $800 per job.

According to Rhino Linings, its dealers make approximately $250 per truck after chemical and miscellaneous costs. The profits and covered costs from a shop's first 17 jobs actually can pay for the initial investment of Rhino's least expensive dealer option. Even the most popular dealer package can be paid for in approximately six weeks when spraying a little over 20 trucks per week.

Financial factors

Initial equipment and product costs aren't the only numbers you'll need to look at. There are other cost and financial considerations.

For one, you'll need to consider if you have the available space. Spray-on liners should be applied indoors in a ventilated area the size of a standard bay. Because overspray will be a factor, you'll need to ensure applications won't end up on other vehicles or nearby work areas. This could mean investing in curtains and an exhaust system, like those used in your aluminum repair area. Bed liner companies often


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(Left) Count on spending 1.5 - 2 hours to complete a spray-on bed liner application. (Right) Bed liners come in a variety of applications that can include options such as UV and fade resistance and color matching.

sell their own solutions.

Additionally, your spray techs will need protective clothing and respirators. In most cases, you can use the same kinds of suits and breathing equipment your painters utilize. You'll also have to decide who is going to do this work. Techs, painters, detailers and other workers can be trained for this service, but they'll need to step away from their usual duties without affecting the flow of your traditional operations.

Perhaps the most significant consideration is the available service market. Repairers need to factor in the popularity of pickup trucks in their region and the number of nearby bed liner competitors. And several auto manufacturers have begun offering spray-on liners as options due to their popularity.

Jenny Clifford, marketing manager for Rhino Linings, suggests shops start tracking how many bed liners they outsource each month. She says shops also should talk to local car dealerships and see where they currently send their trucks. A working partnership can be made with local dealers on new pickup sales to capture a wider range of potential collision-related customers.

And once customer contact is established, understanding what those customers want is just as vital, Vivian says. "Let's compare John Homeowner versus John who owns a fleet of commercial trucks. They both want bed liners. But the guy who is going to be hauling bags of fertilizer and the occasional 2x4 may want a liner that is more aesthetically pleasing," he says. "For a guy who is hauling bricks or gravel all day, all he cares about is durability. These expectations should determine the type of bed liner applied."

Finally, shops need to consider how much revenue they want to make. As with other parts of their business, repairers should set goals and be prepared to aggressively pursue spray-on work.

Bed liners offer a host of other applications including anti-slippage protection for animal trailers.

Installation steps

When it comes to performing the actual liner installation, dealers spend the bulk of their time on prep work and work inspection.

The basic steps (supplied by Rhino Linings) for most products are as follows:

Step 1: Begin by removing the tailgate and placing it on a rack. Remove tie downs, plugs and other attachments. Be sure to protect the tailgate latch and rods when removing the tailgate access panel.

Step 2: Remove the bed bolts and other hardware from the truck bed. The bolt heads do not build good thickness and often are failure points. (Note: If the bed bolts are rusty and/or if there is risk of breaking bolts while removing, leave them in place. Make sure to sand rust off and prime them.)

Step 3: Clean the truck bed and tailgate. Wipe down both with acetone to remove any grease or dirt. Apply denatured alcohol to areas to be taped.

If the truck bed and tailgate have been repainted, check for good paint adhesion by performing a cross hatch test in a non-visible area.

Step 4: Mask the truck and tailgate to protect non-liner areas from overspray. Use proper quality masking paper for automotive use or a plastic car cover to avoid bleed-through. Similarly, use high quality automotive-grade masking tape and wire or fiber tape for trim lines.

Step 5: Sand areas to be sprayed. Scuff these areas using a cup brush and a 5-in. dual action or 5-in. palm sander with 60-grit sandpaper.

Using 80-grit sandpaper, hand sand all tight areas, edges and the entire over-the-rail area (if applicable). Check your work. No glossy areas should appear, especially along the edges.

If any rust is present, use a coarse 24 – 40 grit grinding disc to grind down to bare metal. Prime all bare metal areas before spraying.

Step 6: Final cleaning. Remove dust and grit either by vacuuming and/or by wiping down with acetone.

Step 7: Spray on the liner using the techniques from your training class. Depending upon the product, you'll need to spray on a specific thickness of liner.

If necessary, stand on a work stool high enough to give you easy spraying access into the bed.

Double check all hard-to-access areas have received a proper coating.

Step 8: Inspect the bed. Use a flashlight or bright light to ensure that the texture is consistent and that there are not any shiny areas.

Use a thickness gauge to determine application depth across the truck bed. Many liner companies note specific areas for these measurements.

Step 9: Remove the trim. Pull the wire or fiber tape soon after the spraying is completed. Be sure to pull the tape up at a 45 degree angle towards the truck bed to create a smooth transition from the liner to the painted surface.

Avoid lifting edges of freshly sprayed liner.

Step 10: Remove the masking. Inspect the vehicle for overspray and to ensure all masking tape and paper are removed. Remove any overspray using denatured alcohol and a rag.

Step 11: Trim any drips, especially along rail edges.

Step 12: Perform a final inspection of the liner texture and trim lines.

Step 13: Reinstall the removed hardware on the tailgate and bed. Reinstall the tailgate on the truck, making sure the tailgate closes properly.

Bed liners typically dry cure quickly. The truck can be returned to the owner in as little as an hour after the application. However, truck owners shouldn't place anything heavy in the bed for at least 24 hours to give the liner the opportunity to fully cure.

Product options

A final benefit of selling spray-on liners is the variety of offerings. Some bed liners can be color matched to the vehicle and others offer benefits such as UV and fade resistance.

Some dealers also sell liners as vehicle undercoatings and protective coating for the tops of RVs; the floors, bumpers and fenders of off-road and other vehicles; and the floors of animal trailers, where they prevent damage and slipping.

Bed liner companies regularly roll out products to meet a host of market needs. If your shop joins this industry, you could be looking at a filling a niche that is both stable and steadily expanding.

Additional uses

Spray-on polyurethane coatings are not just for truck bed liners. They also protect fenders, bumpers, floor boards, nerf bars and trim. In fact, whole vehicles have been sprayed. The same polyurethane spray can be applied to emergency vehicles, commercial transport, heavy construction, agriculture equipment and boats.

Spraying polyurethane serves two purposes: First, it adds years of service by preventing scratching, rusting and chemical contamination from deteriorating standard OEM paint. Second, it can create a roughed-up, anti-skid or anti-slip surface.

Some coatings, using a similar spray system, have been applied to military and private vehicles for blast mitigation.

The television show *Mythbusters* tested myths about bed liners in 2011 and confirmed it to be an adequate protection against dents in minor crashes (applied on a car), dog bites (applied on a jacket) and explosive blasts (applied on a wooden or brick wall).

Only two types of coatings are mentioned so far, but additives can be added to coatings to provide different characteristics. Although this is about truck bed liners, the protective coatings can be applied in many other environments and have a variety of needs and purposes besides a simple truck bed liner.

It is becoming more popular to coat the exterior of vehicles and boats. This is because there are more companies competing in these markets, and therefore developing better solutions. So now you see companies like Rhino Linings, Line-X, Spray-Lining.com and Scorpion providing solutions for exterior and colors. These solutions also transfer over to the interior of boats because of the waterproof and anticorrosive properties that polyurethane and epoxy hold. So revenue can be obtained from multiple different industries, not just the pickup owners.

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Tim Sramcik has written for *ABRN*, *Motor Age* and *Aftermarket Business World* for more than a decade. He has produced numerous news, technical and feature articles covering every aspect of the collision repair market. In 2004, he was recognized for his work by the American Society of Business Publication Editors.

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TRAINING IN FOCUS

BEST PRACTICES IN THE MIXING ROOM

STANDARD OPERATING PROCEDURES CREATE MORE VARIABLE CONTROL, EFFICIENCY AND ULTIMATELY A MORE PROFITABLE PAINT DEPARTMENT

BY **ALFRED THOMAS** | CONTRIBUTING EDITOR

The job of a lead painter in a collision shop is challenging. Besides being responsible for things like color match, gloss, texture and cleanliness, lead painters must keep current on the latest state, federal and local laws regarding the materials they use. They must effectively supervise their staff, manage stock and materials and always be aware of the schedule. This type of multitasking is difficult even for the best managers.

In painting, there are numerous variables that painters can't control. To compensate, they must pay strict attention to the areas they can control, such as the painting room. There are many variables that must be controlled, but are often overlooked. Painters spend so much time engrained in the routine of working in the mixing room — mixing formulas, cleaning equipment and recycling solvent — that things they know should be checked or maintained are sometimes pushed aside in order to get the job finished. Too often, the paint job suffers as a result. Some of the more difficult-to-correct and costly mistakes, such as a corrupt bank, can happen when even slight errors are made, and the consequences may not be apparent until long after.

As with many items in the collision repair industry, if a plan is made and a standard operating procedure (SOP) is developed to routinely check the mixing room and all its variables, consistent formulas and color match can be maintained. Paint shop SOPs are critical. Paint shop margins are very lean, so maintaining a strong profit margin takes work. Processes must be effective and take up as little production time as possible. As with a routine for changing oil, it is often "Pay now, or pay more later."

Regulatory requirements

Depending on your shop's location, paint mixing rooms may have mandated requirements, and you should check state and local requirements to comply with your area. The Environmental Protection Agency (EPA) publishes a document for best practices in the mixing room ***(FIG 1)*** with topics including storage guidelines, personal protection


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equipment suggestions, ventilation requirements and equipment maintenance.

The EPA warns against open containers. All containers must be sealed when not in use. Not only do open containers waste money, but they also allow Volatile Organic Compounds (VOCs) to vent to the atmosphere. Even waterborne paint has co-solvents — agreeably much less — but it too contains solvents.

Whether your shop mixing room is a manufactured one attached to the booth or not, its ventilation should be maintained. The filters, both intake and exhaust, should be checked and changed regularly. Solvent vapors are generally heavier than air, so they will lie at the bottom of the mixing room. The ventilation should be drawn off from the floor and brought in from the top or at the upper end of the wall.

Paint vapors are generated in the mixing room; and though we may not notice them as much as in the booth, an air-purifying respirator with an organic vapor cartridge should be worn at all times ***(FIG 2)***.

Keep the mixing room free of dirt, spills and clutter. Dirt in the room will find its way into the mixed paint, so to avoid that, the room should be cleaned on a regular basis ***(FIG 3)***. The toner mixing rack should be maintained as well. The machine and all other potential spark-producing objects should be bonded with ground straps. Even static charges from plastic containers could be catastrophic. Empty containers should be disposed of as they accumulate, as mixing rooms can quickly become cluttered, leading to potential mishaps. Spills should be cleaned up, according to local requirements, immediately.

As toners or other supplies are used, a tracking system for restocking should be established. Toners should be kept in a logical order on the mixing machine, and as soon as they are used, the spout should be cleaned and placed back on the mixing bank. If all the toners for a formula are taken off the mixing bank, or if a toner is not replaced as it is used, grabbing the incorrect one is more likely. Paint materials are costly, and if a partly mixed formula must be discarded, it severely impacts profits. Toner lid fit should be checked regularly, as should the mixing bank for proper operation.

Scales should be kept clean ***(FIG 4)***, level and calibrated at all times. Some scales have leveling feet that can be adjusted. If the scale does not have a level on it, it should be adjusted with a small torpedo level, both with pan off and on, to ensure the pan supports are not holding it at level. Some scales will indicate a fault code such as "L" when the scale is not level.

The pan and paint table should be kept clean. Though a scale will zero out the weight of a spill, if the paint is not in the can, it is not in the mix. The scale should be calibrated according to the manufacturer's recommendations, and if you do not have tools or knowledge to do so, your jobber can likely do it for you. If the scales pan has dried paint on it, it could be either out of level or calibration. The accuracy of a scale, especially when mixing small amounts of paint, is critical to the color match.

Personal protection equipment

Wear chemical-resistant gloves, clothing and eye protection. Skin and eyes are vulnerable to absorption of toxic chemicals present in many products in the mixing room. Many of these chemicals, which may be an irritant to the skin and eyes, also can be absorbed into the body and cause damage to internal organs.

Remember that nitrile or butyl rubber ***(FIG 5)*** will protect you; latex does not. Eye protection should consist of either a full-face protector over safety glasses ***(FIG 6)*** or goggles. Splashes can get past safety glasses alone.

Handling waste

Practicing waste reduction in the shop not only helps the environment, but also reduces business material and waste disposal costs.

By mixing only the amount needed for a job and using an HVLP spray gun, which has higher transfer efficiency, you will cut down on materials used. Most paint companies offer a calculation program on their computerized systems so the correct amount for the job can be mixed. If your shop doesn't have this program, most paint companies can tell you the average amount of ounces needed to paint a panel. The painter can then do the math and not mix up excess amounts of materials.

Automated gun cleaner

Gun cleaning machines save both the environment and money. Designed to reuse cleaning solvents, they have covers to prevent evaporation and provide a clean gun with less hands-on work, allowing the painter to multitask. Guns should be pre-rinsed before they are put into the machine.

Solvent recyclers

Though not mentioned in the EPA publication, a solvent recycler will take old solvent and remove the majority of the non-solvents in the material, leaving two products: reusable cleaning solvent and 'still bottoms" to dispose of, which is significantly less than what was put into the machine.

Mixing

The mixing of a formula should be done with care. Each manufacturer has recommendations for how and when their paint should be agitated. However, there are some coatings that should not be overmixed. Some brands of waterborne paint only require a slight rocking of the container before pouring into a formula, for example. Each painter should know and follow the recommendations of the manufacturer for their shop's specific product.

Toner bank

As stated earlier, the toners should all be turning when being agitated. Some mixing machines have a yellow plastic piece that bounces as the paddle turns in the toner can, making it easy to see when it is not turning; others must be checked more closely. Dented cans or incorrectly fitting lids may also keep the toner paddle from mixing. Most mixing banks have room behind the toner that is used to store spares of a color. Those spare cans should be stored upside down to minimize pigment settling; when a can stored in this manner is turned upright and the agitating lid attached, it is easier to suspend the components than if they remained stuck to the bottom.

Shelf life

Though shelf life is not an issue with most solvent-borne paints, which can last for years, waterborne toners will go bad if not used in time. Painters should check with their jobber or manufacturer for their brand's time recommendation.

Corrupt bank

A corrupt bank occurs when a toner is poured off without being agitated, or before it is in correct suspension. A toner poured off in this corrupt state will cause a formula mix that does not

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match. But more importantly, the colors mixed with that corrupt toner are likely to not match either. This mishap can occur without being noticed, and the painter may look for other possibilities before discovering that the bank has one or more corrupt toners. Even if a painter suspects a corrupt bank, finding the culprit toner is difficult. The painter must correlate the common toners to the mismatch formulas in order to replace them. This is a difficult and tedious process that can be avoided by proper agitation. Some paint manufacturers recommend that new toners be placed in a shaker for as long as 30 minutes before attaching an agitation lid and placing it on the mixing bank.

Pouring the toner

Though there are computerized ***(FIG 7)*** pouring machines for precisely mixing formulas, most of us still do it manually. Formulas, especially small ones, must be mixed precisely. Every number must hit correctly. Even if the computer will re-calculate the pour, there may not be enough room in the container, and if the correct amount of paint was calculated, the recalculation will overmix the amount needed.

The toner should be held so the pour hits the center of the container ***(FIG 8)***, and the can should not be rocked back and forth to control the amount of paint that comes out. It should be held so the paint will freely flow out when the gate is opened with the thumb or finger ***(FIG 9)***. The pour can start at a fast rate and be slowed down by partially closing the gate as the amount reaches the correct weight. Some scales may need to catch up with a fast pour, so be careful as you near the desired amount. Pour precisely. If you believe that + or –1 is OK, you may get away with it sometimes; but the times you don't will be costly.

Labeling

If the paint is mixed just before it is used and the precise amount calculated and used, there may not be a need for labeling. But if it is mixed on one day and used on another, the container must be labeled. If there is more than one painter or if painters' helpers edge in some parts with paint, waiting for the job to be completed, the mixed paint must be labeled. Silver is a common color, for example, and though silvers may each appear to be quite different on the vehicles, they may be hard to distinguish as liquids. Labeling is not only required by law, but it is a wise practice.

EPA 6H Rule

A federal Environmental Protection Agency (EPA) regulation has mandated that all facility painters follow the EPA Rule 40 CFR Part 63 Subpart HHHHHH (EPA 6H Rule). On Jan. 9, 2008, the EPA accepted a new standard known as the HAPS 6H Rule to reduce the public's health exposure to hazardous air pollutants (HAPs). The agency's main objective is to significantly lessen the amount of HAPs released into the environment during paint stripping or surface coating operations. During such work practices, the most dangerous chemicals, namely, methylene chloride (MECL), cadmium, chromium, lead, manganese and nickel compounds, represent significant risk to employee health if proper engineering and administrative controls are not in place.

Because the requirements are extensive, the EPA allowed existing two years to reach compliance. Body shops should review KPA's 6H checklist to ensure that their paint spray operations are compliant with the EPA 6H rule. Here are some helpful links:

ABRN.com/EPAPaintStripping
ABRN.com/KPAchecklist
ABRN.com/EPA6HRule
ABRN.com/Rule6H

It may seem that all of these procedures, if done as recommended, could hinder productivity. However, making an SOP, attaching the appropriate time intervals and carrying them out as designed will save valuable time. Mixing room routines make a paint department more efficient and profitable by reducing the chance of color mismatches. With a well thought-out process, the variables that can be controlled will be.

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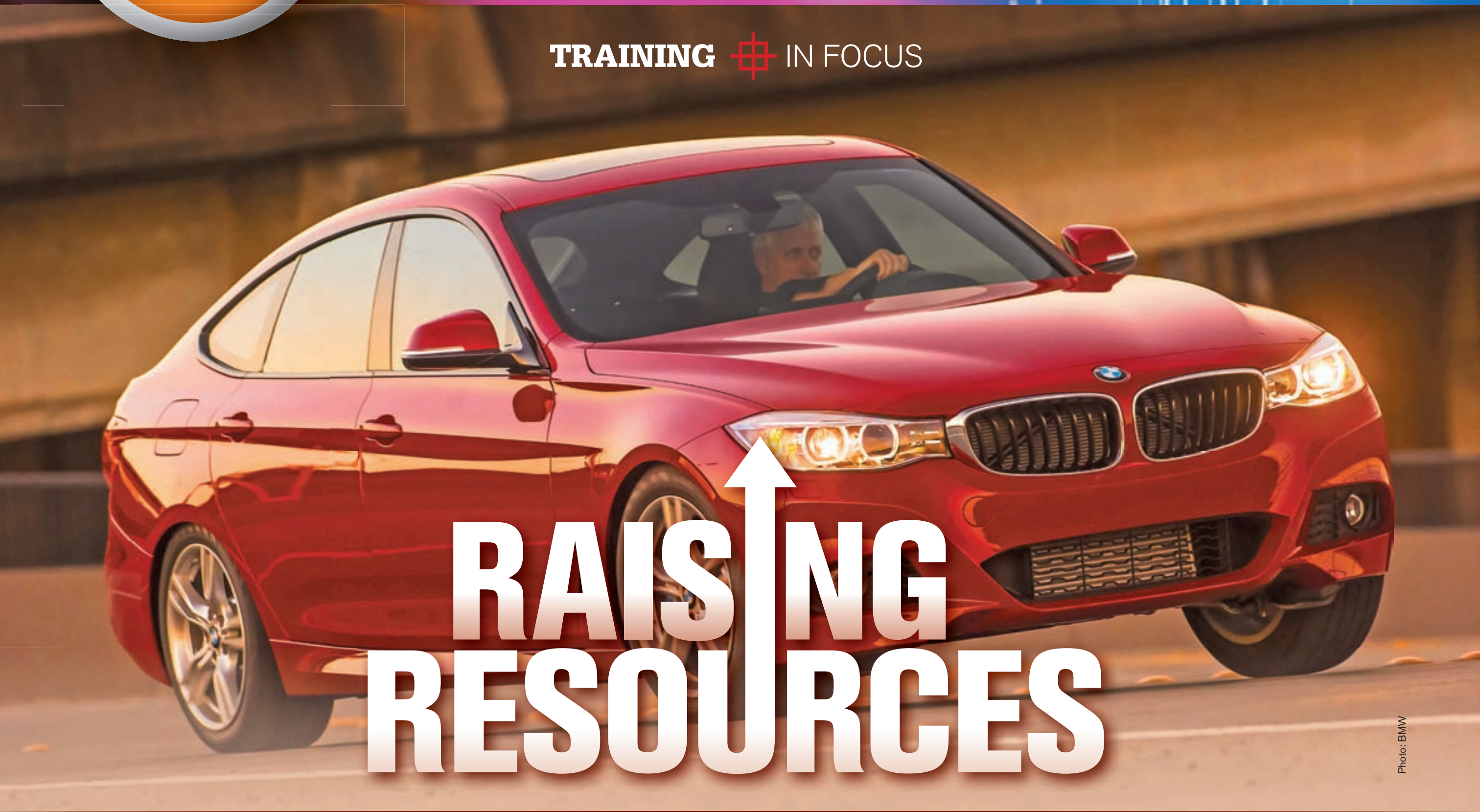

Photo: BMW

RAISING RESOURCES

When vehicles with new body styles, such as the 2015 BMW 335i, hit the market, all the necessary repair information may not be immediately available.

PREPARE FOR THE TIMES OEM REPAIR INSTRUCTIONS AREN'T AVAILABLE

BY TIM SRAMCIK | CONTRIBUTING EDITOR

Around the time Mayfield Collision Centers was being named the winner of the 2014 Top Shops contest, the shop faced a repair dilemma that could put the best of shops to the test.

A 2015 BMW 335i arrived with several deployed airbags and damage to the frame rail. The 335i features an all-new body style, but that in itself wasn't a problem for Mayfield. The Bedford Heights, Ohio-based business is an I-CAR Gold Class shop, holds multiple OEM certifications and has plenty of experience working on BMWs. After performing the damage analysis and blueprinting the repairs, the shop discovered there were no OEM instructions for repairing the structural damage. Even the measurements specifications for the frame weren't available.

Mayfield couldn't risk calculating on its own how to do the work. They were dealing with ultra high-strength steel and needed to know the exact materials. They needed to know whether the damaged parts could be sectioned or would need to be replaced. They weren't going to risk making a decision that could have compromised the vehicle's safety.

Unavailable OEM repair instructions aren't a common repair issue. But it is one that can halt a shop in its tracks and impact schedules while creating a negative customer experience. Fortunately, there's plenty a shop can do to prepare for and rectify these situations, namely by building other repair resources. These resources can benefit a shop in a number of other ways, as well.

Rich resources

Typically, when a shop can't locate OEM information and must begin an investigation, its first two stops are the manufacturer and a dealer. Getting help directly from the manufacturer can be difficult (especially if you're not a dealer shop) and take time that might be better spent elsewhere.

Mayfield Location Manager Mike Kapis started his search with a call to a local BMW dealer. (Mayfield built much of its business working with dealerships.) However, the dealer also was unable to access the necessary information.

Kapis then turned his attention to industry contacts he had picked up as part of Mayfield's longtime involvement with a 20 group. Through the group, Kapis had met the manager of a BMW shop in California. Kapis sent out an email to the manager, shortly thereafter received the information he needed.

Kapis explains that the manager had the information because his shop was BMW certified and works almost exclusively on BMW models. "He had access to a lot more materials than another shop would," says Kapis.

Kapis also believes that the California shop possessed the information because the BMW 335i had been available on the West Coast longer than in Ohio, giving California shops more immediate repair opportunities and therefore a greater need for information. (Notable here is the course repair information sometimes must travel before it becomes widely available.)

Regardless of why the information wasn't immediately available to most repairers, Kapis says the point here is to be prepared for these occasions, no matter how common they may be. "You need resources you can turn to," he says.

Twenty Groups can be particularly effective since they're comprised of shops that share vital information on areas such as business numbers, marketing, cost cutting and lean operations. They encourage repairers to form close ties and assist each other.

Lefler Collision and Glass Chief Operating Officer Eddie Dietz and owner Jimmy Lefler have decades of industry experience and numerous industry contacts. Lefler takes some of his most important repair questions to a 20 Group.

Photo: Lefler Collision and Glass

Jimmy Lefler, owner of Lefler Collision and Glass, a multiple ABRN Top Shops contest winner, similarly turns for help first to his 20 Group, where he can ask for help from other successful businesses.

"Whenever we've had any questions, I can send out an email to the group," says Lefler. "It's amazing how many replies come across my computer in 30 minutes. Sometimes a dozen will show up."

Industry guru Mike Anderson works with the Lefler 20 Group and regularly offers his assistance. Lefler says he and other members can contact Anderson for help and take advantage of the vast network of contacts and resources Anderson has built over his career.

Making contact

As beneficial as 20 Groups are, most shops don't take part in them. However, there are still other places they can look for OEM information.

Lefler suggests online repair forums,

Is your shop trained and ready to repair the 2015 Ford F-150? If not, you can still help F-150 owners by directing them to a certified shop.

Photo: Ford

particularly the technician's forum for ALLDATA. Lefler reports that his business has posted questions on the forum and received timely responses from other techs who have dealt with similar repair issues.

There are, of course, a number of other online repair forums available. However, most shops probably will do best by sticking to those run by repair providers, unless they already are familiar with a forum where the missing information can be recovered in a timely manner. The sheer number of repair forums available online can make information searches time intensive, meaning that shops would be better off turning to another source.

Lefler notes that vendors can be particularly valuable. Whether they're selling paint, parts or other shop supplies, vendors work with a number of shops, industry experts and instructors who might have the necessary information. If these sources don't, they might know someone else who will.

Granted, conducting a search that involves touching base with a number of people and moving from one source to another might seem like a great deal of trouble to access repair instructions. Kapis and Lefler say it's simply part of the job. Kapis notes that he doesn't worry about challenges such as missing data because he knows he has a number of resources to turn to.


Industry consultants like Mike Anderson can help shops set up 20 Groups and provide a number of repair resources.

"I have a Rolodex full of people I can call," he says.

Considering the growing complexity of collision repair work and the business itself, having these resources has become a necessity, says former shop owner and industry consultant Ben Bailey.

Bailey says repairers should take advantage of the numerous opportunities they have to build their sources. He recommends shops take part in national and state repair associations, along with industry groups such as the Collision Industry Conference and the Society of Collision Repair Specialists. He says I-CAR classes also are good meeting points, as are trade shows such as NACE.

"I tell shop owners to make a point of collecting business cards from everyone they talk to and jot down a few things about the person on the back of the card," he says. "I guarantee those contacts will pay off sometime because no one survives alone in this market today. No one."

Acting locally

Contacts can continue pay off even after information is recovered or when it is widely accessible. Due to the increasing complexity of vehicle engineering, shops need local contacts they can turn to for repairs they may not yet be prepared to handle.

"We've yet to come to a bridge where we've found something we can't fix," says Kapis. "But when it comes to something like certain Audi models or the new F-150 — where few shops have been certified and trained — we let customers know we might not be the best repair option."

The 2015 Ford F-150 is significant because the latest version of the nation's top-selling vehicle is poised to become the most popular aluminum intensive vehicle on the road, raising the odds of its being in a collision. Mayfield is opening an aluminum repair center certified to work on Jaguar and Land Rover models, so it's well suited to handle aluminum work on high-end vehicles. Yet, Kapis is reluctant to work on the new F-150, for now.

"If one came through our doors today with a serious hit, we'd have to think about it," he says.

Bailey says repairers need to be prepared to recommend shops that may be a better option to handle specific work. This way a repairer still aids the customer in some way, he says.

Some shops may be uncomfortable working with nearby businesses who also are their competitors, but Bailey says repairers need to realize that both parties benefit from this kind of cooperation.

TIME TO JOIN A 20 GROUP?

Twenty Groups have been around for some time and proved their value many times over to shops looking to increase their revenue and productivity and improve all parts of their operation. Unfortunately, some shops believe these groups are geared only to the most elite businesses and have dismissed any thought of joining one.

In reality, 20 Groups have been springing up across the county and are suited to a wide range of shops. Interested shops can join one through a number of sources, including many paint vendors and consultant companies such as Collision Advice and Square One Systems. Shops need only review the available groups and their requirements and be prepared to dedicate time each month to take part. Shops also need to be ready to open their books and share their financial numbers (typically to shops in noncompeting areas).

The time and effort invested is significant, but the payoff is multiple sources of new ideas, information and help, along with 19 industry experts a repairer can go to with questions at virtually any time. Members also share in an important lesson for thriving in the industry: If you want to find repair resources, be prepared to be one.

"Commiserating on a few repairs a year isn't going to put anyone out of business," he says. "Successful shops learn they stand to gain more than they give away when they help others."

Shops looking to be more successful gain ground each time they add one more contact and one more resource, he adds.

TIM SRAMCIK
CONTRIBUTING EDITOR

Tim Sramcik has written for *ABRN*, *Motor Age* and *Aftermarket Business World* for more than a decade. He has produced numerous news, technical and feature articles covering every aspect of the collision repair market. In 2004, he was recognized for his work by the American Society of Business Publication Editors.

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The telematics impact

Today's technicians need to understand computers; tomorrow's techs need to grasp wireless offerings on a whole new level

Looking less like an automobile dash and more like a jet fighter cockpit, Volvo's flagship XC-90 is packed with telematics technology like Apple's CarPlay.

IMAGE : VOLVO

BY **PETE RUDLOFF** | CONTRIBUTING EDITOR

It seems like the latest buzz word in our trade is telematics. Everywhere you go, people are dropping this 10-letter word about as much as John Travolta said groovy back in the 70s.

While not a new concept, some believe this is potentially the next big challenge for the auto body and repair trade. Currently, there are multiple legislative efforts worldwide that are being looked at and enacted that will impact how cars get fixed and who will be fixing them. Should we be concerned or is this getting blown out of proportion by those who don't know any better? Half the folks I talk to simply do not know if they need to run from telematics or embrace it.

One of the fundamental problems with conquering any telematics issue is no consistency on what telematics even is. Maybe we should start there!

Dictionary.com defines telematics as "the branch of science concerned with the use of technological devices to transmit information over long distances."

The consensus of those within the automotive industry is to consider telematics to be anything getting broadcast out of the vehicle to a third party that does not own the car. For simplicity, we will be discussing just the vehicle aspects of telematics and how or if it impacts independent body and repair technicians in our shops.

Frost & Sullivan analysts forecast the aftermarket for OBD-II telematics to develop into a $1 billion industry by 2020.

IMAGE : GENERAL MOTORS

The OnStar shark fin antennae is found on just about every GM vehicle currently produced and is one of the fundamental hardware pieces for telematics communication.

IMAGE : GENERAL MOTORS

With OnStar's 4G LTE connection, the vehicle acts as a mobile hub, giving customers easier access to apps and services that require a high speed cellular or data connection.

IMAGE : THINKSTOCK

For vehicles equipped with OnStar, drivers only have to touch a button on the rear view mirror and they are connected to a live person who will help them with whatever their need is.

Today, revenue is driven almost exclusively by usage-based insurance. More than a million drivers nationwide use OBD-II devices to qualify for insurance discounts based on speed, location and other behavioral data captured from the vehicle and transmitted to underwriters. Over the medium to long term, other industries, such as fleet management will develop.

In the beginning, there was OnStar. The company was formed in 1995, and products launched in 1996 for some of the 1997 model year Cadillacs. OnStar was picked up by five other manufactures from 2002-2005. During its early years, it was mostly used for turn-by-turn GPS and crash alerts. As time and consumer demand grew, more features were added including remote door locking, GPS tracking if reported stolen, remote ignition disabling if stolen and even video chats and streaming through WiFi, powered by Verizon. Because of its proven track record, vehicle owners may even be eligible for insurance discounts due to the theft recovery options.

As far as impact on the auto repairer goes, OnStar is simple. With only a handful of wires, the OnStar system has been proven to be overall quite robust and rarely requires repair in the aftermarket.

Where OnStar does have an impact is in remote diagnostics and customer acquisition and retention. More than six million OnStar customers receive a monthly email with a health status report on their car, as well as service recommendations, including advising the vehicle be taken to a local OEM dealer for service.

We don't see a high volume of OnStar-related problems as the systems are pretty robust, but we do see minor problems every once in a while. A year back, we had a job in for a customer who had received his monthly OnStar email and it was continually stating that his GMC 3500 needed to return to the nearest dealer due to an unspecified engine concern being reported. The customer contacted OnStar and they were unable to elaborate as there were no codes associated with the issue.

Instead of choosing his local dealer shop, our customer asked us to look into it. In a short time, we found TSB 08-08-46-004A, indicating aftermarket components could cause the resulting recommendation for service needed. After interviewing the customer, we discovered he had installed an aftermarket software upgrade to the ECM to improve engine power. Removing the software and monitoring OnStar emails showed that the issue was resolved. After two months, the customer decided that he wanted the extra power back, so he reinstalled the software and reported back to us that the engine concern returned in his monthly email report from OnStar.

As modern technicians, we already need to know how computers work in order to diagnose networking issues, but tomorrow's technician will need to understand computers at a whole new level of wireless communication. Viruses, electrical interference and criminal hacking are a few concerns that no doubt will show up in our bays in the future. Get ready for a whole new level of training, but also a new level of opportunity in finding alternate revenue sources.

Customers are buying connected cars because they want to be connected. As these cars enter the repair sector, it will be our job to keep them connected.

Telematics is not going away. In fact, over the next 10 years we will see it expand at an unprecedented rate. It will impact our trade significantly. No more so than fuel injection, Supplemental Restraint Systems, emissions systems or J2534 all did. There will be a learning curve as with all technologies, but nothing to be afraid of and nothing our trade cannot adapt to.

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Pete is a technician, instructor, technical writer and co-owner of Pete's Garage Inc. in Newark, Del., which is a friend to the general repair auto shops. He created the Delaware Training Group to bring techs together for education.

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Working on PowerStroke diesels by the book

Diagnostic flow charts can be the right tool for the job – if used properly!

BY **MARK DEKOSTER** | CONTRIBUTING EDITOR

FORD has 10-, 11- and 12-step procedure sheets that its technicians are required to fill out for hard start/no start concerns on 7.3/6.0L PowerStroke engines with that under warranty. Ford also had a similar procedure sheet for these engines when they had performance concerns, and the technicians had to fill them in for warranty as well. These sheets worked well to find concerns in a timely manner. Experienced technicians could sometimes skip steps or jump to a certain step based on product knowledge and experience, but even they typically followed the procedure as each test step builds on the last. Jumping too far ahead might find the concern, but that is luck as opposed to skill.

What do I mean by that? The idea behind these charts is a logical test procedure that should find the concern in a timely fashion. It also makes sure that you don't test something that appears bad because of another failure that you missed.

The idea behind this system is that you keep going until you find the concern and fix it. Also, accessing Ford service information is important. Each one of the following test steps has detailed procedures and specifications in the service manual.

Step 1: Visual Inspection

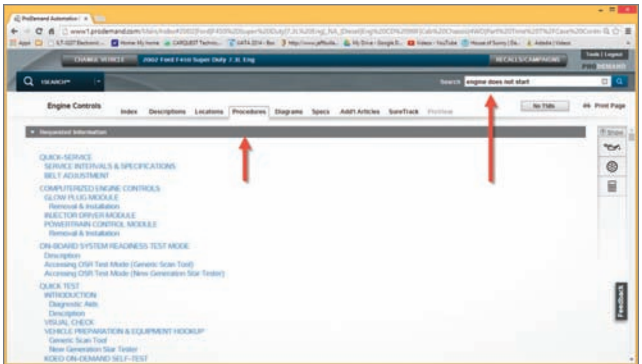
Make sure the engine is mechanically sound: the batteries, cables, starter and alternator are working correctly. If the vehicle is a true no start, then at least make sure the batteries and cables are good.

Step 2: Check oil

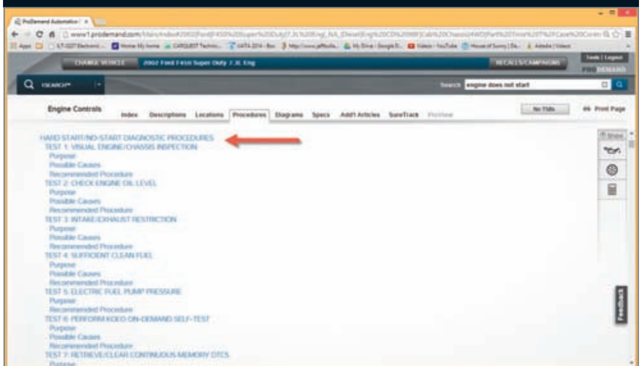
The 7.3/6.0 PowerStroke uses a HEUI (Hydraulic Electric Unit Injection) injection system. The injectors use engine oil to operate, and bad oil equals bad operation.

We all know that the wrong viscosity oil can cause cold weather cranking concerns, and that doesn't change just because you have a diesel. In fact, diesels are even more susceptible to this than gas engines. I've known many Ford diesel technicians who change oil as part of their analysis process. You might even need to consider having an oil analysis done.

Viscosity, contamination and level all are important. When



Finding the Hard Start/No Start procedure in ProDemand start by identifying the truck and then do a search for Engine Does Not Start.



Detailed description of how to do each test in this procedure for the 7.3 PowerStoke.

I was with Ford, I took a 2002 Excursion with a 7.3 to an off-site training session. The vehicle developed an oil leak and lost two quarts before I knew it had a leak. I figured it out as the truck started doing a buck-jerk at low speed cruise and took longer to start. I checked the oil and found it was down just two quarts. That was enough to begin to cause concerns. The 6.0 has a different oiling system and is not as susceptible to low oil levels causing running concerns like the 7.3 but still will have similar low/contaminated oil issues.

Recommended oil for both engines is 15W-40 above 32°F

IMAGES: MARK DEKOSTER

and 10W-30 below 32°F. Make sure that the oil also meets the Ford WSS specifications and API service classifications.

Step 3: Intake, exhaust restrictions

The 7.3 engines have an exhaust backpressure control on the turbo. This system is designed to close the exhaust outlet down to keep as much warm exhaust in the engine during warmup and extended idle during cold weather conditions. This is a flap that is opened and closed by the PCM directing oil pressure to one side of a piston. If this flap is stuck closed or if the flap has broken off the shaft so it opens and closes by itself, you will have an engine that can't breathe well enough to start easily. It will also have very poor performance.

The 6.0 engines have a variable rate turbo and when it malfunctions the concern typically is performance related, but can also effect crank times.

Most of these engines have filter minders on the air box, which is a way to check for intake restrictions.

Because of the age of these trucks you may also be dealing with a Charge Air Cooler concern. Any turbo system is susceptible to some oil seepage as well as blow by gases. This oil mist can condense out in the CAC and over time begin to plug off the passages. Poorly filtered air can allow dirt to enter and combine with any oil that may be in that cooler and cause blockage.

Step 4: Sufficient clean fuel

In step one you were asked about fuel and fuel quality. This step is a more formal look at the fuel that is in the truck. Is it actual diesel fuel? Is it road use rated? Is it a summer or winter blend? A "quick" test is when the truck won't start in cold weather, but once it warms up in your shop starts fine. This might be related to the glow plug system as well but summer fuel in the winter will want to gel. Is the customer playing with bio or waste something?

When was the fuel filter replaced? Is there water in the fuel? Of course the real kicker: Is it out of fuel? Yes this actually happens more often than you would like to think.

Step four can often be done in combination with the steps five and six, fuel system delivery on the 6.0L.

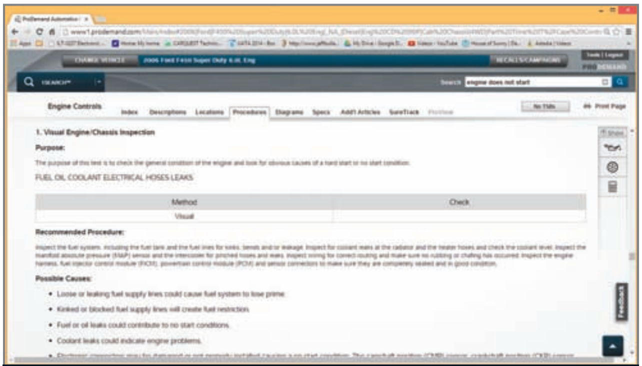
Step 5: On the 7.3L

Testing the fuel system on each engine is looking for the same things. It is the same in that we are looking for a specific pressure at the injectors (as close as we can get a gauge) and we back track through the system to find our concern.

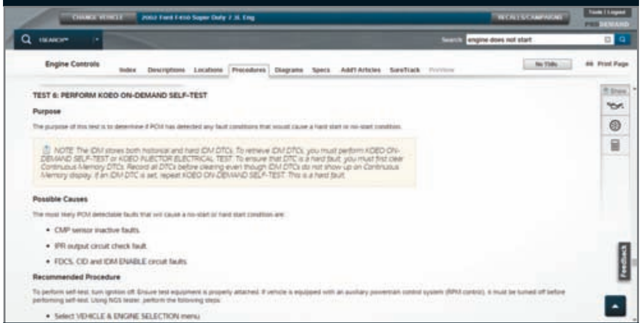
For those of you who use a scope as a primary analysis tool, you might wish to do some quick tests on the electrical side of the system. Using a low amp probe, check to see if the pump is powered up by the PCM. What is the current draw and pump rpm? If these are suspicious, check for power and ground at the pump.

Tech Tip: These testing procedures might drain even good batteries. Make sure that you use a quality battery charger that can maintain at least 12.5 volts during testing and will never exceed 15 volts.

You should have confirmed that the batteries are good and if not replaced them back in step one. If you could not start the truck, you don't know whether the charging system works, but you will have confirmed the engine is mechanically sound



Step One Visual Inspection, look closely and you will find many of your problems.



The scan tool test procedure for the 7.3L warning about performing the order correctly so that you do not erase codes before you ever see them.

so you can justify the new batteries. Yes, bad batteries will cause hard start, no start concerns, even with jumpers or a charger.

On the 7.3L, you will check for fuel pressure at each cylinder head. Pressure should be within specifications and should also be within 3 psi on each head. You will use a single gauge with a tee handle valve to switch between left and right heads.

On the 6.0L you can check at the filter housing. If the pressure is low here you are asked to check pressure into the filter housing on each engine, then pressure at the pump outlet and finally on the suction side of the pump.

The 6.0L circulates fuel between the filter housing on the top of the engine and the Fuel Pump Module assembly located on the frame below the driver's seat. Ford will ask for a clear line to be spliced into this return to check to see if the system has air in it. If you have put a new filter in the truck, it might take the equivalent of driving for several miles to bleed the air out. If you have not touched the system you may be pulling air into the system from somewhere.

Step 6: 6.0L fuel system inlet restrictions

Running these tests also is where the extra step comes from in the procedure

Performing the combustion gases in fuel system test on a 6.0L PSD.

The correct way to connect a fuel pressure gauge on a 7.3L to check each head for fuel pressure. One gauge with a T handle to switch between heads. Spec is 45psi minimum, typical pressure is 60psi. If you see more than a 3psi difference in heads begin looking for a leak.

sheet on the 6.0L engine. On the 6.0L, the fuel pump suction test for tank inlet restrictions is step six, while on the 7.3L it is part of step five.

Next steps

For this part, steps six, seven and eight are for the 7.3L KOEO continuous injector self-test and KOEO injector test. Also, steps seven, eight and nine are for the 6.0L KOEO continuous injector self-test and KOEO injector test.

The 7.3L has two modules that control the injection system, the PCM and the IDM. Communication with these modules is very limited with the IDM and more robust with the PCM. Because of this, checking for codes is done out of order from what we have done on Fords for many years. You're probably in the habit of checking continuous first and clearing and then doing KOEO and KOER. On the 7.3L, if you do that, you will clear any IDM codes without ever seeing them.

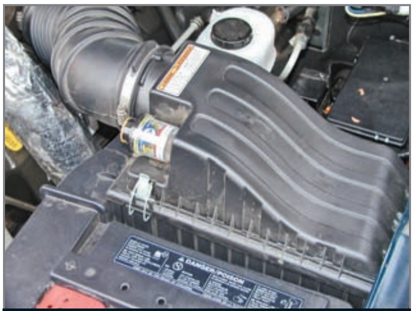
IDM codes are read during KOEO but are cleared in continuous codes. So you do a KOEO (step five) and record all codes. Then without clearing the codes go right into checking Continuous Memory Codes (step six). Record those and now clear codes.

Run the KOEO Injector buzz test and see if any IDM codes appear. If they do, these are hard faults. If there were IDM codes before and none come back, then they were memory codes. Repair and then clear codes before moving on.

The 6.0L has a FICM controlling the injectors and it is a more powerful module with bi-directional control with certain scan tools. The procedure for this engine is the same and repairs need to be done and codes cleared before moving on.

Step 9: Scan tool checks

The 7.3L worksheet calls out four PIDs to monitor during cranking: VPWR, RPM, ICP and FUEL_PW. VPWR is the main power into the PCM you may wish to monitor this with a scope as well. The book calls for at least 8V during crank. I personally think the spec should be 9V minimum, as many modules are prone to shut down at 8V and definitely will as voltage drops lower than this. It is important to stress the need for good batteries again. At 7-plus volts, the engine might be cranking at a speed that sounds fast enough and might actually



Early model air cleaner on a 7.3L with the Filter Minder gauge.

Late model 7.3L with the glow pug module. It is the silver box with the light green and black connectors.

The quarter inch square head bolt is removed to access the fuel rail on the 7.3. Connect an adaptor and tube to your pressure gauge. This is the right head and is just behind and below the alternator bracket. Heads are the same on this engine so the port for the left head is at the back of the engine under the Intake and Turbo tubes.

be fast enough if the system voltage was higher.

RPM checks to see if the crank sensor, but wait as there is only a cam sensor on this, the 7.3L engine. This test is to see if the PCM sees the cam sensor and that it is actually turning at a 100 rpm minimum cranking speed.

Injection Control Pressure (ICP) during normal operation means this PID will vary between 750 and 3500 psi. The default is 500, and if it never goes higher, then the PCM is not controlling injection pressure or there is a massive oil leak keeping pressure from being able to be built up.

Tech Tip: Monitor the IPR PID, Injection Pressure Regulator as well. This is the PCM command to the High Pressure Oil system. The default value is 14 percent, and if it does not change, then the ICP won't either. The maximum value you will see on this PID is 65 percent, which is calling for maximum oil pressure. The PCM must see the rpm signal before it will control this system.

For FUEL_PW Fuel Pulse Width, injector on time, both of these engines use a variable pressure fixed pulse width fuel control. Therefore the on time will usually by approximately 3 milliseconds except during crank, acceleration and deceleration. The amount of fuel sprayed into the engine is controlled by varying the oil pressure to the injector. If the value does not change, then the PCM is not controlling the system.

If the value is changing it is possible that the PCM is trying to control the system but the request is not received by the IDM due to wiring faults, corrosion or faulty box issues.

The 6.0L has additional PIDs to monitor during what is step 10 for this engine. They are B+, FICMPWR, FICMVPWR, FICMMPWER, RPM, ICP_DES, ICP, IPR, ICP, FUEL_PW and FICMSYNC.

B+, FICMPWR, FICMVPWR are checks to see that the modules are getting power, like the 7.3 8.0v minimum, more is better.

FICMMPWR is the available voltage to operate the HEUI injectors. These run at a voltage less than the 7.3L, but still enough to be cautious when electrically testing injectors.

ICP_DES, ICP, IPR, ICP, FUEL_PW are checks to see if the PCM is getting information from the sensors and attempting to control the fuel delivery system.

FICMSYNC the 6.0L has a cam and crank sensor. The 7.3: only had a cam sensor. On the 6.0L, the PCM is looking for both signals and comparing when they occur. If the PCM loses either signal the engine may stall if running and may also be a no start.

Case in point

A 2007 F250 was hard starting and stalling at low speeds but would run well at higher rpm. During certain crank and idle conditions the FICMSYNC PID would toggle between yes and no. During yes, the engine would start and run.

This engine uses a variable reluctance sensor for CMP and CKP. If these sensors do not create enough amplitude the signal is not recognized by the PCM. In this case, the CKP sensor signal was dropping below threshold at low rpm. The fix? Clean the mounting for the sensor. Rust had built up under the sensor and moved it away from the crankshaft increasing the air gap and causing the signal to drop out at low rpm.

When you pull up these sheets through Ford's website or get the information from one of the other data suppliers you will note that the number of PIDs on this list is different from year to year. As the modules in the truck became more robust and scan tool software changed, more PIDs are available to us.

Steps 10 and 11: Check glow plug operation

The early 7.3L engines had a relay on the engine that looked like the Ford starter relays of days gone by to control the glow plugs, certain late model 7.3L and the 6.0L engines use a module. Glow plug on time is determined by the PCM and is based on engine oil temperature, ambient temperature and altitude. Most of the time, the early 7.3L systems turned on if conditions were correct and then cycled and turned off until the next key on.

On the systems with module control, the glow plugs could turn on at any time the PCM decided they should. Typically, when the glow plugs are on, system voltage is controlled and limited to less than 13 volts. On vehicles with dual alternators, the second alternator usually is disabled during glow plug operation.

Ford suggests various tests for this system. Some of them are of little value such as a resistance test on the relay contacts or circuits. Always test these circuits under load and voltage drop them, and use an inductive ammeter to check for current draw.

Tech Tip: When you test these components, be aware that glow plugs are easy to damage by leaving them on too long. Set up and perform tests quickly so that you do not damage good plugs.

Tech Tip: Check a known good glow plug for current draw for comparison to suspect glow plugs.

Tech Tip: At the beginning of this article we discussed confirming that the electrical system was good. Electrical components cannot work correctly unless all power and ground connections are clean, tested, and known to be working without excessive resistance.

Step 12: Combustion gas in the fuel rail

This last test is checking for leaking gaskets allowing combustion gasses into the fuel rail. The test first checks to see if there is a leak. If there is you are then directed on how to determine cylinder head and then actual cylinder(s) that are at fault.

As you gain experience on these engines, you might be able to skip to certain tests or do several at once. This overview of the process is designed to assist you in learning how to effectively work on these engines and becoming the go-to tech for PowerStroke diesels in your shop and town.

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Mark DeKoster has been fixing or teaching people how to fix cars for over 30 years. He has been a tech, trainer for Snap-on and Ford Motor Company, and currently is an associate professor at Ferris State University. He is the lead instructor in The Automotive Management Degree Program.

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Servicing the Chevy Volt

The Chevy Volt is an increasingly popular hybrid choice. Here's how to help your Volt customers keep them running at their peak.

Figure 6

IMAGES: G. JERRY TRUGLIA

BY **JERRY "G" TRUGLIA** | CONTRIBUTING EDITOR

THE CHEVY Volt is an extended range vehicle that is similar to a hybrid vehicle because it also uses an internal combustion engine (ICE). However, the Volt's ICE is not used in the same way as a conventional hybrid's ICE, but rather uses the ICE as a generator to charge the HV (high voltage) battery. The Chevy Volt's first model year was a 2011 model that was not properly portrayed to the motoring public. There were many that thought that the Volt was a fully electric vehicle that would run out of electricity and leave them stranded.

The fact is that the Volt is a vehicle that can be charged and driven on pure electricity up to 51 or so miles without

using a drop of fuel. As a Volt owner, my first (a 2011 model) as well as my 2013 vehicle have provided 51 miles on pure electric after one full charge, depending on the outside temperature and road condition. My average fuel mileage for both vehicles has been about 127 mpg while driving the vehicles normally on roads in New York and along the East Coast. There are others who live in a friendlier climate that excludes cold weather and snow and have much better miles per gallon results. My friend Scott Brown is one such person, living in sunny California. Scott, who owns a 2013 Chevy Volt, has achieved 276 mpg ***(FIG 1)*** as his lifetime average.

Take a look at the data from his Volt app that displays a total of 38,124 total electric (EV) miles out of the vehicle's total miles of 43,868. Scott drives from his home to work, which is about 50 miles away. When he arrives at work, he plugs his Volt in a local parking garage where he is able to fully recharge his Volt and drive back home on full electric power. Now, not everyone is Scott; there are many Volt owners who run out of electricity and have to use the Volt's gas engine. If a Volt owner needs or wants to drive further than the expected EV projected miles, they can do so because the vehicle's ICE will kick in and take over, recharging the HV battery as it moves the vehicle.

Service opportunities

In order to recommend service to a Volt owner, you will need to be familiar with the vehicle along with understanding the dash and the center stack display (screen that is located in the middle of the dash, ***FIG 2***). Starting with the dash ***(FIG 3)***, there are many of the same symbols that you already are used to such as engine oil, engine coolant temperature, charging system (12-volt), ABS, gas gauge, low fuel warning, speedometer, PRNDL, odometer, electric parking brake, TPMS warning, MIL, compass, door/ hood open, forward collision alert, lane departure warning, Stabilitrak, seat belt, airbag, traction control, turn (directional) signal, high beams, cruise control and security. These are the ones that you might not be familiar with: HV battery gauge stack located under the fuel gauge (left side), total vehicle range (left side under HV battery stack), driver information center (lower middle under average miles).

There is a dash selector nob located to the left of the steering wheel that allows the driver to select information such as trip A, B, messages, vehicle tutorial, etc., and a driver efficiency gauge (round ball/earth) that is green when you are driving efficiently and yellow when you're not. It also communicates charge door open, charge cord connected, wait to refuel (this message displays when the fuel system is pressurized, having you wait to refuel the vehicle by delaying the unlocking of the fuel door) or ready to fuel (this message will display when the fuel system is depressurized and ready to refuel). There is a driving mode selector that also is indicated on the dash. The different modes are Normal (the default drive mode that will use the vehicle's battery power up first before switching to the ICE), Sport mode (used for responsive acceleration while reducing electric range), Mountain mode (used for climbing long or steep grades) and Hold mode (only available when the vehicle is being used on electric, this mode places the remaining battery charge into a reserve for the driver to use as desired).

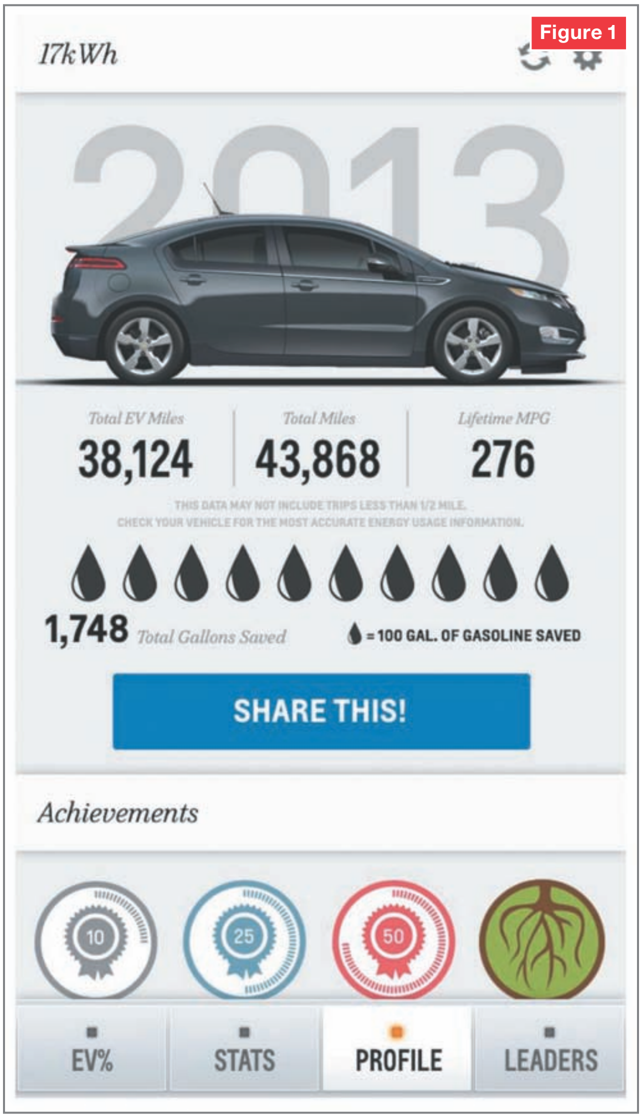

Figure 1

An example of when to use this mode is if the vehicle is going to be driven at high speed that will deplete the HV battery charge at a faster rate than lower speeds. If the hold mode is selected, the vehicle's HV battery power is held in reserve until the vehicle is being driven at lower speed where the HV battery power can be used more efficiently resulting in better mpg average.

Another thing that you should be aware of is when to use L (low) on the vehicle. The owner might not be aware that this range should be selected while driving down a hill or in heavy stop-and-go traffic if they want to use the vehicle the most efficient way possible, resulting in the best miles per gallon.

A helpful thing to know is if the 12-volt AGM battery or key fob battery goes bad is how to move the gear selector to neutral. To start a Volt or place the transmission in neutral, you will need to open the dash storage panel, located on the center top of the dash, and remove the rubber mat. Take the key fob and press the silver button to extend the metal key and insert it in the key slot. Once the key is in the slot, the transmission lever can be moved to the neutral position.

If you want to start the vehicle, just press the Power button. The key slot also can be used to program other key fobs by placing a recognized key fob in the cup holder. Once the recognized key is in the cup holder, insert the key into the driver door lock and turn the key five times to the unlock position within 10 seconds. Next a message will be displayed in the Driver Information Center on the dash that displays Ready for Remove #? (the next number remote to be programmed for the vehicle). Press and hold the Power button until the Driver Information Center displays the new key fob is Ready.

Other oddities of the Volt that need to be noted are some of the messages that will appear in the center stack display such as a message that engine maintenance has to be performed. This message will appear often because the ICE tends to go unused for a long period of time. One of the concerns is that the fuel in the 9.3 gallon capacity tank will become stale. I experienced this myself the last time I had to refuel and saw this warning message appear ***(FIG 4)*** on the dash and center stack display. In the 13,000 miles that we've driven the Volt, we've only used about 70 gallons of premium fuel, and most of that was used during cold weather.

Because the fuel usage is so low, some Volt owners have a concern on what happens to the gas in the fuel tank. The GM engineers addressed this concern by installing a bladder style fuel tank that is pressurized in order to keep the fuel fresh. The Volt automatically will notify the driver by displaying the "Automatic Engine Maintenance" that will alert the operator if the engine has not been operated in six weeks. This function runs the engine to keep it properly maintained and lubricated. Automatic Fuel Maintenance ***(FIG 4)*** alerts the operator that the engine will run to use up some of the older gasoline in the tank if it's 1 year old. If the fuel in the tank is more than 365 days old, a message will also be displayed reminding the operator to add some fresh gas.

Volt maintenance

On my current model Volt (13,000 miles driven), I've performed two tire rotations, routine fluid checks, rear lens (both had to be replaced due to condensation inside them), one oil change that I performed only because the oil was in the engine just more than a year old (the oil life still had 50 percent or more left), and a computer software update to the latest Volt calibration. Scott, on the other hand, had the following maintenance performed in the 43,000 miles he's owned his: one oil change, four tire rotations, one wheel alignment (due to a steering rack issue), right rear tail lamp assembly due to malformations of the lens, one software update for multiple modules, electronic parking brake, radio stack going blank and delayed departure mode software change that charges the HV battery.

Obviously before performing an oil change make sure that the vehicle is off (no ready indicator) and properly set the lift at the lifting points on the vehicle to prevent damage. Unlike other hybrids, the battery on the Volt is located on the centerline and is T-shaped. Performing an oil change will require refilling the engine with 3.7 quarts of GM Dexos 5w30 approved oil. A word of caution here – there are oils that say they meet the specification but are not GM approved. You can find out for sure by checking with the GM website, www.gmdexos.com. Avoid damage to the oil pan ***(FIG 5)*** by torqueing the drain plug to 14 Nm. As with every oil change service, you should check the levels for the windshield washer fluid, brake fluid, transmission/transaxle and all three cooling systems (engine, HV battery and HV electronics). The vehicle brake system uses the standard DOT 3 brake fluid that is checked and filled via the master cylinder reservoir.

The transmission needs to be checked with the vehicle off first followed by opening the hood so the ICE will run, followed by removing the transmission oil fill cap that is located on top of the transmission. GM recommends that the engine idles for at least five minutes to ensure that the dampener/converter is full as well as making sure that the transmission fluid warms up to 104-140°F (40-60°C).

It is also recommended to move the gear selector through the PRND at least two times then back to P before removing the transmission oil filler cap. With the engine running, remove the transmission fill cap that is located on the top of the transmission. Next remove the oil setting plug (located next to the

Figure 2

Figure 3

Figure 4


Figure 5

drive axle) until a slow drip is visible since there is no dip stick. If the fluid needs to be replaced, remove the drain plug that is located on the bottom of the transmission and fill the unit with 9.4 (8.9L) of Dexron VI.

The cooling system is actually three different systems ***(FIG 6)***. The engine coolant reservoir is located on the right side of the vehicle's engine compartment. The cooling system reservoir for the HV battery is located on the radiator support to the left front of the engine dip stick. The HV power electronics reservoir is located on the radiator support to the right of the oil cap.

All of the cooling systems use Dex-Cool in a 50/50 mixture with the engine using a mixture with drinkable water, while the HV battery and power electronics need a 50/50 Dex-Cool mixture with deionized water only. The A/C system utilizes an HV compressor that uses GM Polyolester (POE) refrigerant oil to prevent compressor failure and or loss of HV isolation. The vehicle has a maintenance free AGM 12-volt battery that should be charged only with an AGM charger capable of providing a proper charge to prevent damaged to the battery.

The brake system on a Volt is the run-of-the-mill, normal four-wheel disc brake system that is serviced with the same repair procedures as other vehicles. The only service that might need to be performed on the brakes will be removing rust build up from the rotors and lubricating the calipers since the pads will not wear out for a very long time.

The scan data ***(FIG 7)*** on the vehicle is more abundant than most other vehicles, because it has many different data PIDS. There is even a second OBDII port: the normal one that is located on the left side and one on the right side of the vehicle. Both sides use pins 4 for ground and 16 for power but they use different pins for CAN. The main or normal left/driver side CAN uses the normal 6 and 14 pins while the right/passenger side uses pins 3 and 11 for CAN. The passenger side connector provides access to a HV energy management CAN bus and also is used for service programming of specific modules.


Figure 8

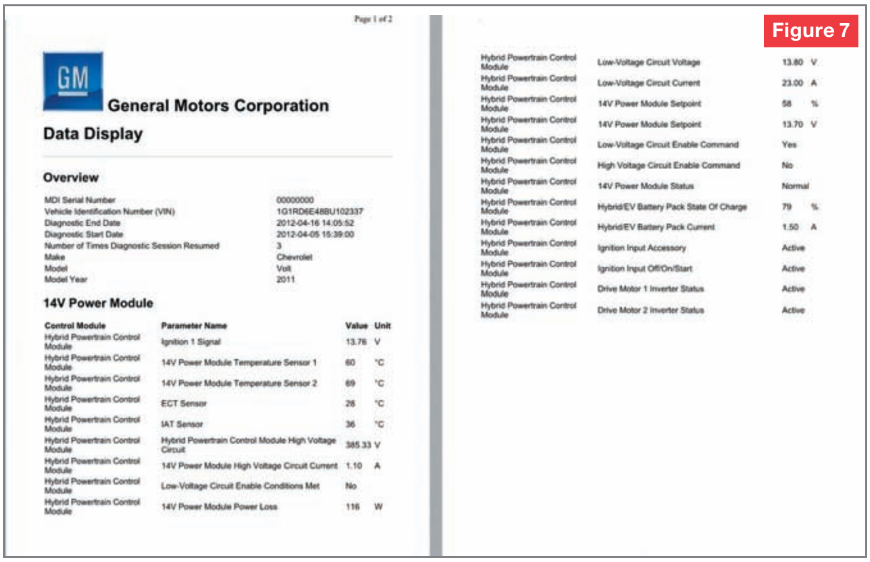
Figure 7

Page 1 of 2

GM General Motors Corporation

Data Display

Overview

MDI Serial Number	00000000
Vehicle Identification Number (VIN)	1G1RD6E48BU102337
Diagnostic End Date	2012-04-16 14:05:52
Diagnostic Start Date	2012-04-05 15:39:00
Number of Times Diagnostic Session Resumed	3
Make	Chevrolet
Model	Volt
Model Year	2011

14V Power Module

Control Module	Parameter Name	Value	Unit
Hybrid Powertrain Control Module	Ignition 1 Signal	13.76	V
Hybrid Powertrain Control Module	14V Power Module Temperature Sensor 1	60	°C
Hybrid Powertrain Control Module	14V Power Module Temperature Sensor 2	69	°C
Hybrid Powertrain Control Module	ECT Sensor	26	°C
Hybrid Powertrain Control Module	IAT Sensor	36	°C
Hybrid Powertrain Control Module	Hybrid Powertrain Control Module High Voltage Circuit	385.33	V
Hybrid Powertrain Control Module	14V Power Module High Voltage Circuit Current	1.10	A
Hybrid Powertrain Control Module	Low-Voltage Circuit Enable Conditions Met	No	
Hybrid Powertrain Control Module	14V Power Module Power Loss	116	W
Hybrid Powertrain Control Module	Low-Voltage Circuit Voltage	13.80	V
Hybrid Powertrain Control Module	Low-Voltage Circuit Current	23.00	A
Hybrid Powertrain Control Module	14V Power Module Setpoint	58	%
Hybrid Powertrain Control Module	14V Power Module Setpoint	13.70	V
Hybrid Powertrain Control Module	Low-Voltage Circuit Enable Command	Yes	
Hybrid Powertrain Control Module	High Voltage Circuit Enable Command	No	
Hybrid Powertrain Control Module	14V Power Module Status	Normal	
Hybrid Powertrain Control Module	Hybrid/EV Battery Pack State Of Charge	79	%
Hybrid Powertrain Control Module	Hybrid/EV Battery Pack Current	1.50	A
Hybrid Powertrain Control Module	Ignition Input Accessory	Active	
Hybrid Powertrain Control Module	Ignition Input Off/On/Start	Active	
Hybrid Powertrain Control Module	Drive Motor 1 Inverter Status	Active	
Hybrid Powertrain Control Module	Drive Motor 2 Inverter Status	Active	

If you need to power down a Volt to perform any work on the HV voltage system or remove any component that involves removing a part that is located near a HV component, you will need to locate and remove the ***(FIG 8)*** manual disconnect lever. The manual disconnect lever is located in the center console under a white cloth like cover. Before working on HV system make sure to use Personal Protection Equipment (PPE) and remove the manual disconnect lever and cover the exposed high voltage opening with UL listed insulation tape rated at a minimum of 600 V. Wait five minutes before attempting any work on the HV system until the HV capacitors have discharged. Use service information and a MegOhm meter to check and make sure that the HV voltage is not present.

No start after collision

I had a friend of my call me with a problem he encountered on a 2013 Chevy Volt that was in a slight fender bender. Even though the air bags were not deployed because there was only minor damage, the vehicle would not start. The dash displayed a "NO POWER" message, which means that the ICE or electric engine will not move the vehicle even though the battery level was more than half full. My friend John was using the MDI/GDI 2 and selected the scan tool's Read Vehicle Wide DTC and ID Information that provided no DTC information in any of the modules. He thought that there had to be a DTC somewhere since the vehicle was displaying a message on the dash, so he checked each individual module only to come up with the same results, no DTCs. John called me asking for help that I was able to provide through networking with another friend who works for GM. My friend Chris explained to me that there are two latching DTCs that will not appear in the DTC select of the scan tool but rather in the Special Functions section. Once you're in the Special Functions of the scan tool, go into the HPCM (Hybrid Powertrain Control Module) and HPCM2 (Hybrid Powertrain Control Module 2) and Clear Secured Trouble codes in both modules followed by cycling the ignition, then press the Power button to start the vehicle.

I hope this article provided you with a better understanding of the Chevy Volt and what to expect when you have to perform service on this vehicle. One last thing, take a look at my last 30 days miles per gallon average; it's a great vehicle to drive and own!

G. JERRY TRUGLIA
CONTRIBUTING EDITOR

G. Jerry Truglia, president of Technicians Service Training, has been in the auto repair business for a long time as a tech, shop owner and nationally recognized trainer/author. He founded TST to bring affordable training to his fellow techs and shop owners.

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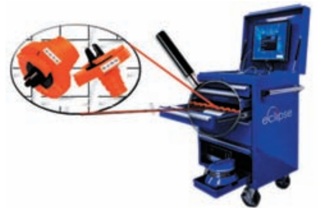

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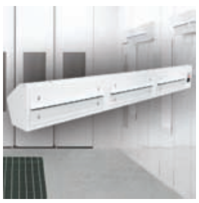

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THE LAST DETAIL

IT'S TIME TO STOP THE NONSENSE

Extend clearcoat to the natural breaking point for lifetime paint warranties – and get paid for it

Late last year, the Society of Collision Repair Specialists (SCRS) wrote to seven major paint manufacturers and asked for each company's recommended procedure for applying clearcoat to qualify for a lifetime refinish warranty. Specifically, SCRS wanted to know if there is an acceptable procedure to tape, melt or blend clearcoat mid-panel rather than extending it to the natural breaking point.

All of the paint companies responded in writing that you must extend clear to the natural breaking point in order to qualify for the lifetime refinish warranty. You can read all of their responses on the SCRS website by visiting ABRN.com/SCRSpaint. Then look for the link to "2014 Clearcoat Response" for each paint manufacturer).

"Applying clearcoat to the entire panel is a requirement for coverage under the Axalta Coating Systems warranty for collision repair finishes," that company's response to SCRS states. "This approach helps produce a durable repair that will not weather prematurely."

"(F)or PPG Lifetime Limited Paint Performance Guarantee purposes, the clearcoat application must extend to the nearest panel edge or break point," that company stated.

That means if you put a quarter panel on and there's a roof molding along the roof rail, you have to extend clear all the way to the natural breaking point, all the way down to the A-pillar. Or if you put a quarter panel in, you may have to clear the rocker panel all the way forward if there's not another natural breaking point. And if there's not a roof molding, for example, you have to do an "up and over," clearcoating the roof and the other quarter panel.

> "Insurers, are you trying to tell me you know something the paint companies do not?"

The paint manufacturers are not alone on this. Some auto manufacturers have issued position statements that concur.

"Ford Motor Company does not condone or recommend the procedure of clearcoat blending," the company's document states in part. "The preferred process – and the one Ford approves – is to blend the basecoat color as necessary and then clearcoat the entire panel."

Toyota and Volvo have similar published statements; other automakers do not address the issue directly but do state that the paint manufacturer procedures – which include the statements saying that not extending the clear to a natural breaking point is not a warranted repairer – should always be followed when repairing their vehicles.

Yet I still hear from shops, "Mike, the insurance companies won't pay me for it." Insurers, are you trying to tell me you know something the paint companies don't? Are you saying you know something the automakers don't? It's time to stop this nonsense.

As with other topics like this, three questions will help you demonstrate to an insurer that the process needs to be done and is therefore something for which shops should be compensated.

Question 1: Is it required to fully and properly repair the vehicle? Go to the website above and get copies of your paint company's statement showing what is required if the insurer and customer expect a lifetime refinish warranty.

Question 2: Is it included in any other labor operation? A quick review of your estimating system guide will tell you that it is not. The Mitchell International procedure pages, for example, state that, "It may be required to extend the application of clear to the nearest panel edge or breakpoint. The performance of this operation is NOT INCLUDED in the Mitchell refinish labor time."

Question 3: Do the estimating system providers provide a pre-determined time or calculation method for this procedure? Here the answer varies. If a time or formula isn't provided, I suggest you submit an inquiry at the Database Enhancement Gateway website (DEGweb.org).

And remember when you do clear the aperture all the way forward, are you charging to remove and reinstall the door weather strips at the top of the roof rail so you don't get a hardline? Are you charging to remove and reinstall the windshield molding or to precision mask the front windshield to prevent overspray?

Shops, insurers and customers all want lifetime refinish warranties, and the paint companies have been very specific about the need to extend clearcoat to the natural breakline in order to achieve a warrantable paint job. It's time for insurers to stop asking shops to do anything less.

Mike Anderson, *a former shop owner, currently operates CollisionAdvice.com, a training and consulting firm.*

If you have an business issue or question you'd like Mike to address, email him. mike@CollisionAdvice.com

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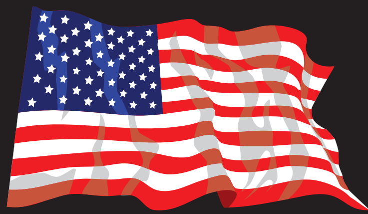

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