



38

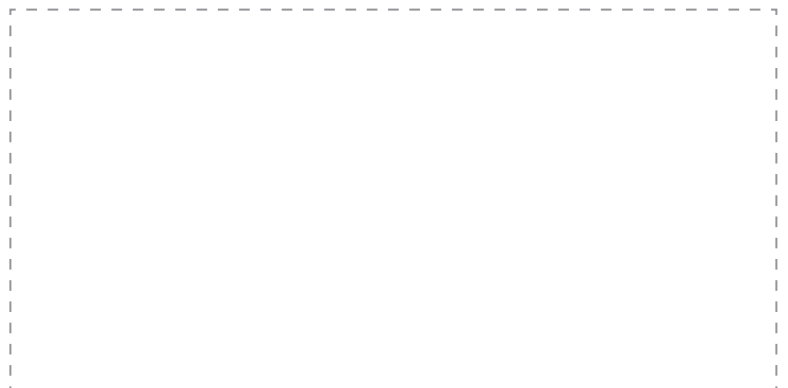
TACKLE COMMON SCANNING PROBLEMS

Understand the hurdles in this process so you can overcome them

44

READY, OR NOT?

Understanding the order of diagnostics, scanning and calibration services can help ensure a smooth repair process





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OPERATIONS

14 IDEAS WORTH SHARING

Collision repairers share shop-tested ideas that have improved an aspect of their business

JOHN YOSWICK // Contributing Editor

20 YOUR NEXT TECH IS WORKING FOR A COMPETITOR

Does your shop have what it takes to lure them away?

CHRIS "CHUBBY" FREDERICK // Contributing Editor

24 EMPOWERING YOUR CUSTOMER SERVICE REPRESENTATIVE

Give them the knowledge and tools they need to truly provide a service to your clients

JOHN SHOEMAKER // Contributing Editor

26 THE COLLISION EXECUTIVE A SIMPLE TECHNIQUE CAN IMPROVE YOUR SCHEDULING

Use historical data to help craft your process going forward

STEVE FELTOVICH // Contributing Editor

28 FINDING A FIX BUILDING A BULLETPROOF FILE FOR EVERY SHOP REPAIR

Just doing repairs correctly is no longer enough; you also need full documentation

MARK OLSON // Contributing Editor

30 ASA INSIGHT DATA ACCESS IS THE NEW INFORMATION AVAILABILITY

ASA encourages data access for repairers

BOB REDDING // Contributing Editor

automechanika
Commitment to > TRAINING

NACE automechanika
ATLANTA

36 INSTALLING A MENTORSHIP MODEL THAT WORKS IN YOUR BUSINESS

Today's technology does not allow us to learn on the fly as we once could. We have to make other plans to ensure our technicians are up to speed.

CHRIS CHESNEY // Contributing Editor

➤ SOCIAL INSIGHTS, WATCH & LEARN, TRAINING EVENTS

32 SHOP PROFILE BALANCING FORM AND FUNCTION

Shop builds award-winning customs with focus on latest technology

JAMES GUYETTE // Contributing Editor

82 THE LAST DETAIL MARKETING AND PROMOTING YOUR SHOP

Small actions can make a big impact on the customer's experience

KAREEM ABOUZEID // Contributing Editor



TECHNICAL

38 TACKLE COMMON SCANNING PROBLEMS

Understand the hurdles in this process so you can overcome them

SEAN GUTHRIE // Contributing Editor

44 READY, OR NOT?

Understanding the order of diagnostics, scanning and calibration services can help ensure a smooth repair process

BOB HEIPP // Contributing Editor

52 SUBCOMPACT SOLUTIONS

Repair steps guaranteed to keep small cars from becoming big headaches

TIM SRAMCIK // Contributing Editor

60 SECURING THE CONNECTED CAR

Connected cars are an integral part of our digital lifestyle, but is the data they generate secure?

TRACY MARTIN // Contributing Editor



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IN EVERY ISSUE



8

8 INDUSTRY NEWS

WEB-BASED VIDEO LEARNING, EVENTS CENTER LAUNCHED

**NABC PROGRAM EXPANDS WITH NEW PARTNERSHIPS
HOUSE HEARING TACKLES AVS, INSURANCE IMPACT**

79 COLLISION PRODUCT GUIDE

81 AD INDEX



SPECIAL SUPPLEMENT

TOYOTA COLLISION PROS

Toyota's 2018 Great Summer Rebate is featured in the latest edition of Collision Pros and online at toyotapartsandservice.com



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VIRTUAL TRAINING

WEB-BASED VIDEO LEARNING, EVENTS CENTER LAUNCHED

ABRN WIRE REPORTS //

➔ Dent Fix launched a new video-based educational platform and event information center on their newly enhanced website: www.DentFix.com.

The goal of the initiative is to gather all the repair knowledge the company has acquired over the last 39 years and provide an online resource where customers can learn how to use Dent Fix repair tools properly for a better repair and have an easy way to register for upcoming regional

educational seminars, events and trade shows. From proper panel preparation for aluminum panels to vintage Maxi videos, the new video section is both educational and fun.

"I am very proud of the work my team has done to accomplish the goal of providing our customers with the power to turn a problem into a solution," said Erik Spitznagel, CEO of Dent Fix.

The two pages available now for viewing are www.dentfix.com/videos and www.dentfix.com/events. 📺

BREAKING NEWS

PARTNERSHIP

NABC PROGRAM EXPANDS WITH NEW PARTNERSHIPS

➔ The National Auto Body Council (NABC) announces its First Responder Emergency Extrication (F.R.E.E.™) program is ready to kick into high gear with the addition of rescue tool manufacturers Hurst Jaws of Life and Genesis Rescue Systems providing instructors for NABC member-hosted extrication events nationwide.

NABC's F.R.E.E. program is unique in that it provides first responders with hands-on practice specifically on late model vehicles equipped with today's new car technology, including lighter weight, high strength steels, sophisticated electronics and multiple airbag systems.

With the resources of Hurst Jaws of life and Genesis Rescue Systems, two of the largest manufacturers of rescue equipment in the U.S., NABC can now offer more opportunities for NABC members to host F.R.E.E. events and provide valuable extrication practice opportunities to hundreds more first responders nationwide.

To support the increased demand

>> CONTINUES ON PAGE 10

TRENDING

ASA ANNOUNCES NEW 2018 BOARD

The Automotive Service Association, at its Annual Business Meeting May 2-4 in Orlando, Fla., announced changes to its Board of Directors. Chairman Roy Schnepfer looks forward to working with the new team. ABRN.COM/ASA18

GFS EXPANDS AFTERMARKET SERVICE, SUPPORT

Global Finishing Solutions has developed a new business unit that will better align departments to support growing aftermarket service and support customer needs. ABRN.COM/SUPPORT

WIN ELECTS 2018-2019 BOARD LEADERSHIP

The Women's Industry Network, at its Educational Conference in Indianapolis, Ind., elected the 2018-19 Executive Committee. All members are volunteers and work to develop women in the industry. ABRN.COM/WOMENELECT

VALSPAR OFFERS SUMMER TRAINING COURSES

This summer Valspar will continue to offer refinishers I-CAR certified training at its centers in Dallas, Detroit and Sacramento. The training focuses on paint technology and color theory. ABRN.COM/THEORY

FORD STEERS AWAY FROM SEDANS

Ford announced it plans to discontinue almost its entire North American line-up of cars — the Fusion, C-MAX, Taurus and Fiesta — by 2020. The portfolio will largely encompass trucks, SUVs and crossovers. ABRN.COM/FORDCHANGE

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SATA adam 2 – full size SATA guns	Price
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SATA adam 2 dock only Part No. 160788	Reg \$97 SPECIAL \$90

SATA adam 2 – SATAMinijet	Price
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SATA adam 2 mini dock only Part No. 160861	Reg \$97 SPECIAL \$90

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>> CONTINUED FROM PAGE 8

for F.R.E.E. events, State Farm has committed to providing the majority of the salvage vehicles for the program with additional support from Allstate. Each event typically requires three to four vehicles for approximately 40 participating first responders to practice their cutting and extricating skills.

"Auto extrication presents increasingly complex rescue challenges to first responders," said Mike Canon, Director of Rescue Sales for Hurst, Jaws of Life. "These new challenges include stronger and stronger ultra-high strength steels, more pressurized airbag cylinders, and more hybrid and electric vehicles on the road. It's critical that first responders train on new model vehicles that are not always easy to acquire. NABC and the F.R.E.E. Program present an excellent opportunity to do just that."


Shelby Howell, Administrator of Train-

ing, Genesis Rescue Systems, added: "Genesis Rescue Systems focuses on offering and participating in programs that help First Responders stay safe and save lives. With a strong focus on research and development along with engineering, we achieve a goal of producing an entire line of equipment that is ergonomically friendly, quick to deploy and easy for rescuers to do their job. Assisting the National Auto Body Council with their First Responder Emergency Extrication (F.R.E.E.) Program is a good fit for Genesis and a win, win for all stakeholders, rescue personal but even more important, crash victims."

NABC's F.R.E.E. program is offered to first responders at no charge as a community service and hosted at NABC repair shop facilities. The typical F.R.E.E. event consists of one-hour class instruction by rescue equipment experts, followed by three hours of hands-on extricating practice using the

latest equipment on late-model vehicles staged to simulate crash scenes.

"Since the inception of NABC's F.R.E.E. program, we have had high demand from our member shops eager to support their local first responder communities," said George Avery, F.R.E.E. Program Manager. "The hands-on practice is invaluable to help prevent further injury to the victim or to the first responders themselves. Knowing specifically where and how to efficiently cut and extricate can make the difference in saving precious minutes and lives as well as the safety of the first responders. We are thrilled to have Hurst and Genesis come on board to expand the reach of the F.R.E.E. program."

For more information or to sign up to host a F.R.E.E. event, visit NationalAutoBodyCouncil.org, or contact George Avery, Program Director at g.avery@NationalAutoBodyCouncil.org. 

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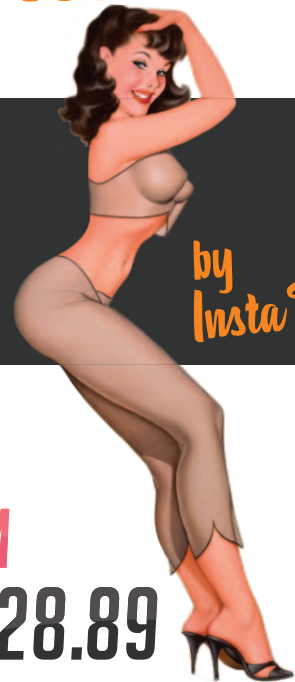


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LEGISLATIVE UPDATE

HOUSE HEARING TACKLES AVS, INSURANCE IMPACT

ABRN WIRE REPORTS //

The U.S. House of Representatives Committee on Financial Services' Subcommittee on House and Insurance recently held a hearing, "The Impact of Autonomous Vehicles on the Future of Insurance" on Capitol Hill. Witnesses included Ryan D. Gammelgard, State Farm; Sam Geraci, American Family Mutual Insurance Company; Ian Adams, R Street Institute; and Jack Gillis, Consumer Federation of America.

The hearing focused on the impact new vehicle technologies will have on the insurance industry. In particular, there was much discussion about data access and cybersecurity. In his testimony, Geraci said, "At American Family, we believe customers should have unrestricted access to their vehicle's operating data and the ability to share


that data with third parties, such as their insurers. Vehicle operating data will play an essential role in developing rates and underwriting policies."

Gammelgard also noted the importance of data access, "First, data access is a key issue for the insurance industry. Data access is essential to developing proper pricing and underwriting of vehicles, critical for liability determinations and, from the general public's perspective, important in determining the safety and reliability of technology."

Gillis raised a related question during his testimony when he asked, "Who will own and who will have access to the tremendous amount of pre-crash data that will be available in an autonomous vehicle?"

Although it is unlikely the Committee will address these issues in the 115th Congress, autonomous vehicle legislation in the

U.S. Senate does include some language that addresses data access. Senate Bill 1885, the AV START Act, has stalled in the Senate. U.S. Sen. James Inhofe, R-Okla., was successful in attaching an amendment to SB 1885 that requires a federal stakeholder committee, housed at the National Highway Traffic Safety Administration (NHTSA), to review data access and cybersecurity issues as they relate to autonomous vehicles.

The Federal Trade Commission is also included in this committee, along with stakeholders such as independent automotive repair shops. If SB 1885 is approved, the HAV Data Access Advisory Committee will report back to Congress on these most important data access and cybersecurity issues. ASA and other stakeholders support final AV legislation that includes the Inhofe data access amendment. 



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IDEAS WORTH SHARING

Collision repairers share shop-tested ideas that have improved some aspect of their business

JOHN YOSWICK // Contributing Editor

Looking for an idea to spark some improvement in some aspect of your business? Chances are, another shop owner somewhere in the country has implemented just the idea that will work for your shop as well. Here's a collection of concepts that might inspire the solution you're looking for.

Interacting with potential customers

Lefler Collision, which operates four shops in Indiana and Kentucky, hosts

"Ladies Night Out" at its shops, free events that promise to share "what every woman should know about vehicle care, repair and maintenance." The events include dinner and giveaways, and cover what to do if you're in a crash and information on why vehicle maintenance is so important.

The company also racks up some impressive social media interaction. A "cutest pet contest" on Facebook solicited nearly 2,600 posts and comments (and 455 shares) in less than a week, with entrants vying for a \$50 gas card.



LEFLER COLLISION'S LOGO for its "Ladies Night Out" events, which share what drivers should know about vehicle care, repair and maintenance.

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Giveaways of St. Louis Cardinal game tickets also result in hundreds of comments and shares.

Thinking big in a small town

With a population of about 13,000, St. Marys, Pa., may be fairly small as far as markets go — not large enough even to break into the list of the Top 50 cities in the state. But that hasn't kept Sandy Buerk and her team at St. Marys Auto Body from thinking big. Since 2010, the shop has brought big names in country music to town for concerts that have become both a marketing opportunity for the shop as well as a way to give back to the community.

This year's concert featured Joe Diffie, who has had five No. 1 songs on Billboard Hot Country charts, including "Pickup Man" and "Bigger Than the Beatles." Headliners at previous concerts have included Merle Haggard, The Nitty Gritty Dirt Band, Sawyer Brown and Montgomery Gentry.

The shop sells tickets through its website, and the annual event regularly fills the 1,300-seat high school auditorium. Though costs generally exceed revenue, Buerk said it's designed not as a money-maker but a way to celebrate and bring the community together. A portion of the proceeds are always donated to a local cause, generally one connected with the local school district or senior citizens.

Don't get mired in the day to day

Like other shop owners, Cris Kuhnhausen of Fix Auto Springfield in Oregon knows there's value in developing and maintaining relationships with local insurance agents in the shop's market. That's why



CRIS KUHNHAUSEN

he and his business partner John Kimpton conduct regular continuing education classes for them.

But Kuhnhausen also knows how easy it is to

get so involved in the day-to-day demands at the shop that you put off making regular visits to insurance agents.

"The hardest thing to do is get yourself in the frame of mind to leave the shop," he said.

That's why he now stops in to see 8-10 agents each week right after another weekly morning meeting he attends away from the shop, before he ever gets to the shop that day.

"You're in a different frame of mind, before you get here and get involved with things here, so you can focus out there on working on the business, not just in the business," Kuhnhausen said.

Post the reminders your team needs

Tony Arbisi, vice president of Crash1 Collision Center in Rockford, Ill., last year started taking the quarterly "Who Pays for What?" surveys conducted by Collision Advice and *CRASH Network*, and realized he needed to keep the information from those surveys in front of his 20-employee team.

Each of the surveys ask about 25 not-included labor operations or other estimate line items, asking shops how regularly they bill — and are paid by insurers — for those items when they are necessary as part of the repair.

"We've been trying to develop ways to ensure we get paid for what we do," Arbisi said. "I print out the results of the surveys, and I put them in a binder for my entire team to look at. And we continue to talk about it non-stop with the estimators and everybody else."

Arbisi had previously printed out the survey results to put in a binder to share with employees. But earlier this year after the results of the refinish-related survey came out, he framed a copy of the pages of the survey that list and define the paint-related procedures the survey asks about.

"It's hung up in the alleyway to the paint department in our shop that everybody walks through every day," Arbisi

said. "It's to remind them when they are working on a car to write down supplement items on the folder for that job, whether it be tinting time or masking time or anything that's on that list. We need to remind ourselves that we need to get paid when we do those things."

Arbisi said efforts like that are helping the shop improve its numbers.

"We're waiting for the body-related survey results to come out, and we'll put those up, too," he said.

A unique benefit?

Looking for a new perk for employees or customers? What if you could fill their vehicles' gas tanks without going to a gas station? That's a service being offered by a number of start-ups like Booster Fuels, Filld and InstaFuel; use a phone app to request a fill-up, and a fuel truck comes to your business with gasoline competitively-priced in the market.

One shop in the San Francisco Bay Area (where the new mobile fuel companies all seem to be based and focused currently, although Booster Fuels serves the Dallas-Ft. Worth area as well) is topping off tanks as a thank-you to some customers, and any shop employees can get their vehicles fueled up (currently on their own dime) without interrupting their work simply by leaving their vehicles' fuel door open in the shop lot on days when fuel delivery is scheduled.

The shop owner (who didn't want to be identified) said he remembered reading years ago about a Texas shop that also owned a nearby gas station and filled customers' tanks as a courtesy to those referred by particular agents. But these new mobile services enable a shop to cost-effectively do something similar without owning a gas station or having to drive the vehicles to one.

Offer something that others aren't

Tom Fleming looked around his market in Oregon's capitol city of Salem and

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saw there weren't many shops equipped to repair larger vehicles like buses, RVs and Sprinter vans. So he added a 50-foot paint booth to his shop, Fleming's Body & Paint, and is considering adding a large truck frame rack.



TOM FLEMING

"Nobody is really going that direction, and now if you want to survive, you can't be just another guy waiting for the insurance work to come through the door," he said. "You've got to be different from everybody else."

Always on the look out for a good deal, Fleming said he found the booth for sale at an auction downstate. He paid just \$5,000, a fraction of its cost when new, and his employees volunteered to spend a weekend helping him dismantle it and move it back to the shop. He said a 2.5 million BTU heater can get the large booth up to 180 degrees to bake a bus or other vehicle in 40 minutes. Because few shops are equipped to handle that kind of work, he said, the shop can charge a premium rate.

Give back in a memorable way

Nu-Look Collision, which operates 16 shops in the Rochester and Syracuse, N.Y., areas, each year selects three families in need to each receive a \$100 grocery store gift certificate each week for 20 weeks starting just prior to Thanksgiving. Over the last five years, Nu-Look has donated \$36,000 in gift certificates to 18 families, and received a lot of positive publicity in the community.

Take the right risks

Having opened his sixth location this year, just over four years since he acquired his first, Bret Bothwell of Central Auto Body in Portland, Ore., is clearly not afraid to take chances. One of his best decisions, he said, was converting a former tire shop into the company's flag-

ship store given its location at one of the busiest intersections in the city.

"It has the most signage. It's the most recognizable," Bothwell said of the Southeast Portland shop. "It put us on the map. If I had been scared and didn't have the courage to proceed, we wouldn't have this location. We'd be less known. We'd have fewer contracts."

One other idea Bothwell implemented at the location: The shop's screw-drive compressor is located in a small separate area that houses the shop's detailing department.

"That compressor generates a ton of heat, so we installed a fan in that room," he said. "In the summer, the fan sends the heat out the roof. In winter, a fan in the door allows us to heat the detail area with heat from the compressor."

Put a face on your business

Schaefer Autobody Centers each month posts to its website (www.schaeferautobody.com) and on social media a brief profile of one of its customer-facing employees — estimators, managers, customer service reps — at one of its 11 shops in Missouri and Illinois. The posts highlight each of the employees' strengths, their career path at the company, and what customers or co-workers say about them. Each piece welcomes readers to contact the employee at their particular Schaefer Autobody location.

Eliminate the start-and-stopping

Melanie King-Salgado said she went through "lean training" and transformation at a former employer in the industry, but she began implementing it at Auto Art Collision Specialists in Escondido, Calif., where she is now general manager, in recent months.

"I was really excited to bring it to the table here and say, 'You guys are doing so great, but this will be like gasoline to the fire,'" she said. "I've been talking about it with everybody, kind of warming them up to it for the past couple of years, but

toward the beginning of this year we really started implementing a lot more of the techniques."

The shop has worked on the "5S" process of ensuring the shop

is uncluttered and organized and that technicians have what they need close at hand. She has purchased parts carts to improve the accuracy and efficiency of parts handling. And she's brought in a site consultant through the shop's paint provider to help ensure they are using the company's 7,500-square-foot production space efficiently.

"That's probably my biggest constraint here, the square footage," she said. "You can only do so much with the square feet that you have. So I want to utilize it to its full potential. I had a few ideas of where I wanted to move and structure things, but I wanted to get that second opinion from someone who works on that on a daily basis."

King-Salgado said ultimately it's the blueprinting process — completely tearing down a vehicle to prepare a single comprehensive repair order before production begins — that has shown technicians what "lean" means for them.

"You really see the difference when they start working on the car only when they have everything they need," she said. "That's what really gets your technicians on board: When they can actually work on a vehicle and they don't have to stop. Your efficiency, your cycle time, everyone can see it improve right off the bat. They can see, 'Wow, I only had to work on that vehicle for a day and a half and it's in paint already.'" 📧



MELANIE KING-SALGADO



JOHN YOSWICK is a freelance writer based in Portland, Ore., who has been writing about the automotive industry since 1988. info@crashnetwork.com



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YOUR NEXT TECH IS WORKING FOR A COMPETITOR

Does your shop have what it takes to lure them away?

CHRIS “CHUBBY” FREDERICK // Contributing Editor

We are all aware of the technician shortage in our industry. There are likely more shops out there looking for a tech than not. One thing we need to realize is the tech we are looking for is currently working for someone else. With the supply and demand situation what it is, if a tech is not currently working, that's an elective choice. Do we really want to hire a tech who is not working right now? It would seem to me that individual would not be hungry, motivated or responsible.

That being said, the tech we want is currently working for a competitor. So

how do we attract them to come to us, and away from where they are? Let's listen to veteran ATI coach Steve Privette explain how it is done.

In many cases, if a tech is looking to leave his current job, it is usually for one or more of these five reasons:

1. Money
2. Time
3. Convenience
4. Environment
5. Relocation

In our search for a tech, we need to be focused on these five motivators. Your ads need to touch on all of these areas to give you the best chance of finding your

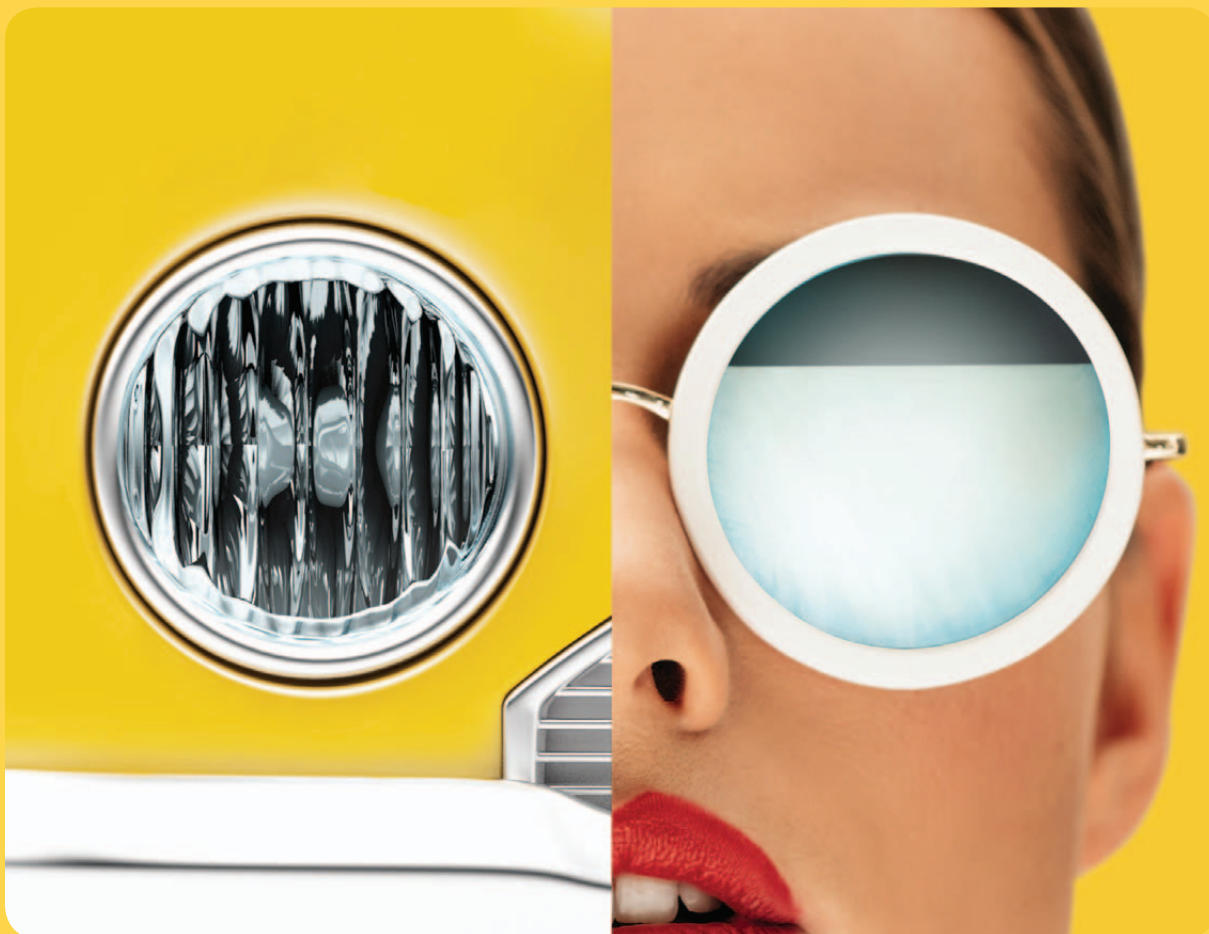
next technician. Let's look at each.

Money

In many cases, the most popular reason a tech is searching for a new shop is for more money. Let's face it, if we don't pay them well, someone else surely will. In our search, we certainly do not want to use words like "competitive pay" in our postings. The word "competitive" equates to average. They can get average anywhere, and if a tech is searching based on more money, he or she will fly right by your posting with that description. How about this instead: "Industry top pay for the right individual." That will pique the interest of a



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tech searching for more money. Another idea is to offer a hiring/signing bonus, which can be paid out over service time. Are you thinking you cannot afford to pay more? Realistically, you can't afford not to. You may have to adjust your labor rate to compensate for paying more, which is what every industry does. As costs go up in any business, this gets passed along to the consumer. If you view yourself as the best shop in town, you should be able to pay the best and charge the best. Are you the best shop in town?

As important as money is, many techs are not as motivated by money as we would think. There are many that are more motivated by the next reason.

Time

Many of the techs you are looking for are currently working five or more days per week, and some of those days include weekends. These days it appears more and more employees value their time just as much — or more — than money. One of my members was getting very minimal response to his tech search, so we decided to modify the listing he was running to say “four- or five-day work week, your choice.” His responses increased a good bit, as he was getting interest in the four-day work week option. We talked about this and decided that getting a good tech four days per week was better than currently zero days a week. Long story short, that shop owner ended up doing four-day work weeks for all of his techs, and just added another tech for full weekly coverage. He hasn't experienced a work force issue since. Also, this helps with the convenience for the tech, as he would only need to commute to work four days per week as opposed to five or more. A potential tech who is on the fence about coming to work for you due to distance might be swayed by commuting one less day weekly. Do not underestimate the value techs hold with respect to time.

Convenience

This one is the one we have the least control over. Some techs are searching for a change due to a long commute. We of course cannot move our shop to where the tech is, but we can offer to assist with the costs related to his/her commute by helping with fuel expense and/or even offering a car to drive for the right individual. These can be worked into a pay plan. Also, as mentioned before, you can offer a four-day work week to help compensate for the commute.

Environment

There's nothing worse than spending the majority of your waking hours in a negative environment. It wears on you every day and can become very toxic. There are techs out there who make good money, the hours are fine, and the shop is convenient, but the negative environment drives them out. When we are posting ads, let's make sure we project the opposite. Things like, “Come be part of the family,” or “We BBQ/grill for lunch every week.” Is your shop an enjoyable environment to work in? Do you focus on recognizing and rewarding your employees, knowing that only through them can you succeed as a business? Another environment category is a dirty shop with outdated and/or nonworking equipment. This, too, can drive a tech out. Is your shop clean and have updated working equipment? If so, let's list that in our posting. Something like, “State-of-the-art equipment,” and/or “Clean, organized shop.” If not, let's get it clean with updated equipment to attract techs.

Relocation

When we are searching for a tech, let's make sure we are using sources that will attract from all over the country and not just local sources. You never know when the perfect tech for you may be looking to relocate into your area. Consider a statement like “Relocation assistance available for the right individual.” This can

work similar to a hiring bonus where you would pay their moving expenses over time after they have been employed with you for a while.

Finding technicians is getting harder every day as our seasoned techs are slowly retiring and the number of people entering our industry is dwindling. This problem is not going away and only promises to get worse. The shops that are willing to adapt to the needs of technicians are the ones that will have technicians. The shops that say they won't pay the most, won't offer four-day work weeks, won't be convenient, or won't create a positive, clean environment also won't have technicians. Which are you going to be?

The Automotive Training Institute and many economists are predicting a slowdown in the general economy starting in the third quarter of 2018 and into 2019. When this happens, your customers will slow down buying new cars and the automotive repair business will grow quickly. Everyone will be looking for more techs, but the smart shop owners will have them on board before it happens.

If you are like many shop owners and are unsure of what the best interview questions are that you need to ask, we have them for you. Simply go to www.autonlinetraining.com/2018-04 for a limited time and we will give you the interview questions that can make the difference between hiring the next superstar or someone who just sounds like one! 📖



CHRIS “CHUBBY” FREDERICK is the

CEO and founder of the Automotive Training Institute. ATI's 130 full-time associates train and coach more than 1,500 shop owners every week across North America to drive profits and dreams home to their families. Our full-time coaches have helped our members earn over one billion dollars in a return on their coaching investment since ATI was founded. This month's article was written with the help of ATI Coach Steve Privette.

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JOHN SHOEMAKER //

Contributing Editor

How often do you think customers are rerouted to another person in your business? Is it always necessary?

I was in a collision center lobby waiting for the manager within earshot of the customer service representative (CSR). I listened to her answer the phone and within seconds she said, "Let me check." She put the call on hold, summoned the

needed person and transferred the call. After watching this routine four or five times I asked her what the inbound calls were about. She told me they were mostly customers wanting a status on their vehicle repairs. I glanced over to her computer and saw she had access to the shop's management system, so I asked if she knew how to look up status, to which she answered, "No." About that time the manager was available, so I told her I would talk to her later.

During my discussion with the manager I asked why the CSR was only

transferring calls and not really providing any customer service. He said they like to have one point of contact for the customers, and they have always had her transfer calls to the estimator handling the repair. He said he only hired her to answer the phone and wasn't sure she could give good repair updates.

While we were talking, we were interrupted several times by the CSR asking questions about a phone call she had on hold. I looked at the manager and said, "If you empowered her to give repair updates

you might not get interrupted so much." He looked at me and said, "She does call me an awful lot." I suggested he make a note each time his CSR called identifying what it was about, what action he had to take and if he really needed to be involved. I also asked him to have all his office staff make the same notes for his review.

I guess I got his interest up. He called me a couple of days later to tell me their lists were getting awful long and asked how he could train his CSR to be the main point of contact. Most management systems have tutorials online on how to review repairs in progress, how to determine a customer promise date and how to text or email customers. I explained that I-CAR has an Intro to Collision Repair program designed for front office staff. These online courses can train a CSR to become familiar with collision industry terms and help understand potential customer questions.

I visited the shop about a month later and saw the CSR looking up a repair on the management system and giving a caller the customer promise date. I asked her when she started doing that, she replied, "about a week ago." Then she added, "I feel like I have a job now." She also was doing rental car updates as well as keeping insurer-driven communications updated. I just smiled and went in to talk with the manager.

Throughout our 30-minute meeting, we were not interrupted once. After we finished I said, "Your CSR seems happy she is able to answer customers' questions and provide a service to them." He told me his days were not as chaotic and then he handed me a big stack of paper. "I saved these for you," he said. "You would not believe the number of times my estimators, production manager and I were interrupted by simple phone calls." I looked over the notes

and comments seeing most of them addressed simple questions that did not need higher level input.

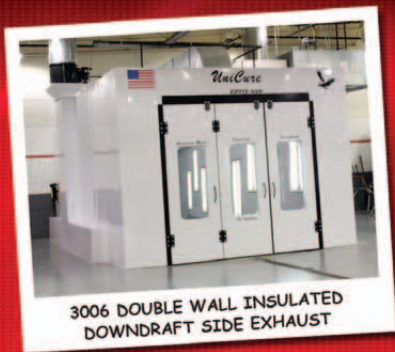
Most of the time, people we employ want to do more. As the CSR mentioned, she felt like she had a job now. This is a clear indication that empowering people also provides them job enrichment. Nobody wants to feel helpless; they want to be involved and make a difference. Using only online training, webinars and tutorials, this shop's front office CSR position changed drastically, their CSI increased and the estimators felt they were more productive.

Would this work in your shop? 



JOHN SHOEMAKER is a business development manager for BASF North America Automotive Refinish Division and the former owner of JSE Consulting.

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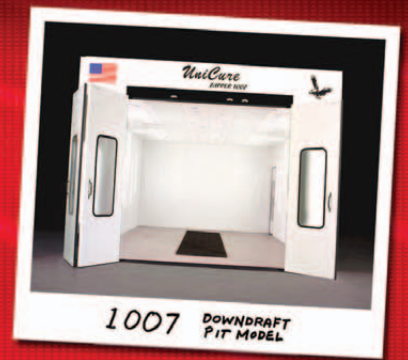


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PREP STATION

A simple technique can improve your scheduling

Use historical data to help craft your process going forward

Improving scheduling at your shop starts with something you should have at your fingerprints: historical data. Unless you've radically overhauled your production system in some way, data from your last year or two will show you the amount of work your shop actually produces, rather than what you just THINK it produces.

For each month of your historical data, add up how many jobs (or "units") you actually completed. Divide this number by the number of work days in that particular month. Run these numbers for at least the last 12 months, and to get a good basic average of how many units you actually produce, run them per day, per week and per month.

Another number you should pull from your historical data: How many of those jobs on average each month were unexpected tow-ins or drop-offs?

Running these numbers for more than one year can also help you spot seasonal differences. If you're in the Northeast, for example, you know you're likely going to have more tow-ins in December than you do in August.

That's really all you need to get started. Now take out a calendar page for next month. You know how many jobs on average your shop can produce for each week of that month, so that's how many jobs you should schedule in for each week.

But you also know how many tow-ins or drop-offs to expect, on average. Will this vary a bit, week by week? Of course. But to not allow space on the schedule for those, when you have historical evidence of how many to expect, is just foolish. If you've typically seen an average of eight such jobs a month in the past, put two a week on your calendar, and schedule your drivable vehicles in around those. If those tow-ins show up, they won't create chaos and missed deadlines. If they don't show up, you can always call a customer scheduled for later to see if they want to bring their car in early. Few customers would ever complain about that.

I'm sometimes asked if looking at just average "units per month" is sufficient for good scheduling, or if shops should look at the number of labor hours on those vehicles, or the type of hit (light, medium or heavy). I'm a believer in just sticking with car count. Unless a vehicle has been fully blueprinted, the number



STOP BRINGING EVERYTHING IN ON MONDAY MORNING.

of labor hours on a preliminary estimate isn't likely accurate enough to help with scheduling. An average number of units per month, if derived over a year or more, will include a mix of light, medium and heavy hits. It's a simple system that likely will get you a lot closer to efficient scheduling than most shops currently are.

But here's the other important aspect of better scheduling: Stop bringing everything in on Monday morning. Think about the stress that puts on your administrative staff, having all those cars arrive at nearly the same time. Meanwhile, your paint department may be staring at the four walls of an empty paint booth — until later in the week when that whole glut of vehicles is ready for paint.

Instead, use the historical average daily number of units your shop produces, and work to schedule in a consistent number of those each day of the week. I know what you're thinking: Insurance companies won't let us schedule work in on a Thursday or Friday. That's just not true. Some cars are going to carry over a weekend regardless of when you bring them in. I can assure you some shops are scheduling work in later in the week. Not with every car and every insurer, but enough to help improve scheduling and flow.

It also may help to get some professional sales training to help your frontline staff have effective conversations that enable them to determine if you risk losing a customer by scheduling them further in the future, or if a particular customer would be fine dropping off on a Thursday or Friday.

The beauty of all this is you are bringing into the shop the right amount of work for what your system can handle rather than bringing in vehicles that just sit. Once you have this dialed in, you and your employees can then focus on making other improvements to your processes that will allow you to schedule in and produce even more jobs per week and month. 📧

STEVE FELTOVICH of SJF Business Consulting LLC, works with dealers, MSOs and independent collision repair businesses to make lasting improvements and achieve performance goals, based on his more than three decades of automotive industry experience. sjfeltovich@gmail.com



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Building a bulletproof file for every shop repair

Just doing repairs correctly is no longer enough; you also need full documentation

One of the most important questions that I think every shop owner should be asking themselves about each job in their shop right now is: Do I have a bulletproof file on that job?

In other words, if a year from now there was a question about that job, could you easily turn over your file to someone like me or Mike Anderson or another auditor and have any one of us know exactly what transpired on that job? Would we be able to look through that file and understand what happened, from the repairs to your communications with all the parties involved, all without ever needing to ask you a question?

Why is this necessary? As the \$42 million judgment against a Texas shop demonstrates, anyone in this industry could face an oncoming bullet. That lawsuit wasn't based on a complicated repair. It was hail damage. And the lawsuit didn't involve the owners of the vehicle when it was repaired; it came after the car had been resold. So how many of the vehicles you've repaired are still out there on the road? Are your files on those jobs bulletproof? Could you withstand a shot?

You may think you are. But have you considered these types of scenarios:

- Chances are good that you are uploading all of your estimates and photo documentation and file notes to one of the big three estimating system providers (ALLDATA, CCC or Mitchell) that stores that data in the cloud. But have you asked them how long that data is maintained? If you needed a particular file five years from now, could you access it?
- What if you are using Brand A estimating system for 10 years, and you decide to switch to Brand B estimating system. Would you still have access to your data uploaded to Brand A?
- Do you think that after you sell your shop and retire



YOU DON'T KNOW WHICH CAR IN YOUR SHOP COULD RESULT IN YOUR TAKING A SHOT. SO YOU NEED TO TREAT EVERY JOB AS IF IT COULD.

into the sunset that all your working career hassles are behind you? Not so fast. Most business sales involve assets only; the buyer isn't taking on any of your liabilities. If a repair you did three years before you retired becomes a legal issue, would you have access to the complete documentation of what you need to defend yourself?

These aren't just abstract doomsday scenarios. They've actually been experienced by shops in the industry. I know an East Coast shop owner who has struggled for years to get access to his data from an estimating system provider he stopped doing business with.

Another former shop owner who is well-known in the industry faced a multi-million dollar lawsuit over a repair that eventually led to his decision to sell his business. But if that lawsuit occurred after he'd sold, much of his job file data may have been inaccessible.

And a friend who had sold his multiple shops recently called me asking for help with a dispute that subsequently arose from one of the cars his company had repaired. It turned out that the vehicle itself was the only evidence he could produce of what his shop had done on that job.

The sad fact is that any car could put you out of business. But if I told you a certain job in your shop was likely to lead to a lawsuit, what would you do? You'd document everything like crazy, right? But you don't know which car in your shop could result in you taking a shot. So you need to treat every job as if it could.

The good news is that you can build what I call the bulletproof file. My next column will explain how. (If you don't want to wait and are attending NACE Automechanika in Atlanta, Aug. 8-10, I'll be leading a session on the topic there.)

MARK OLSON is the founder of Vehicle Collision Experts, LLC (VECO Experts), a consulting firm that takes a holistic approach to working with shops on repair quality and business performance. mark@vecoexperts.com



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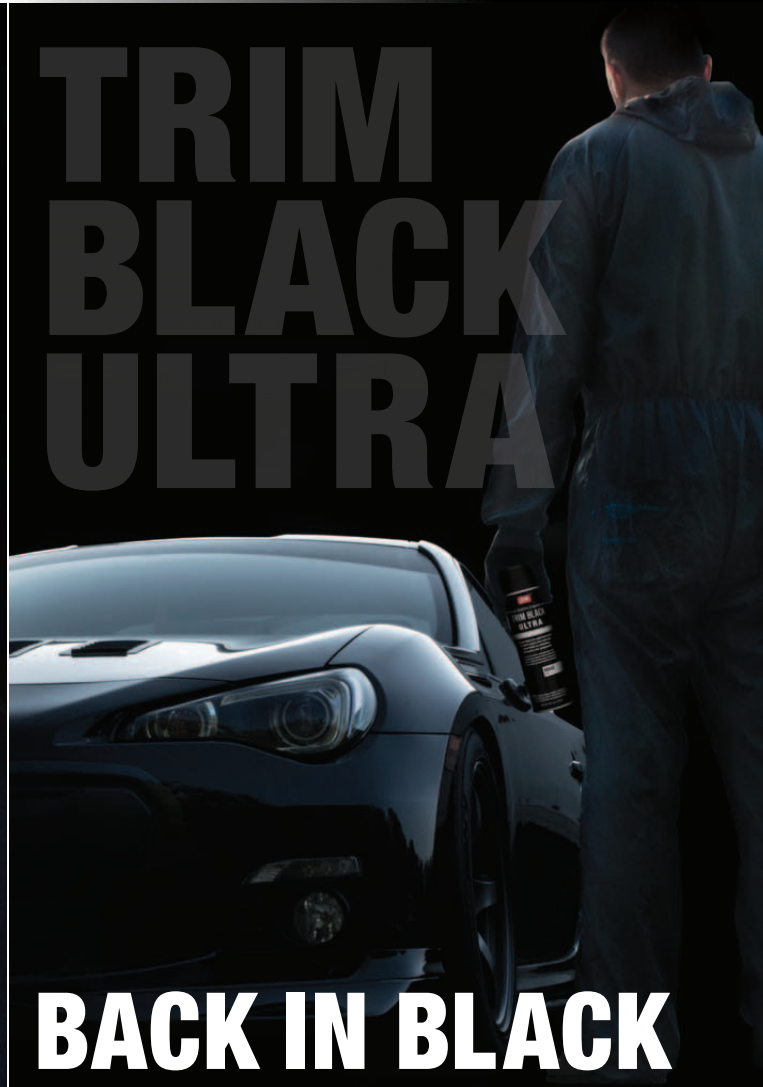
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Data access is the new information availability

ASA encourages data access for repairers

Why should repairers be interested in what's going on with autonomous vehicle policy, data access and cybersecurity? Because having the right tools and information to repair vehicles is critical to the longevity of a successful automotive repair business.

This applies to both mechanical and collision repairers. Without access to important data, repairers will struggle to provide consumers the level of service necessary to sustain their businesses.

At the center of the 1990 Clean Air Act Amendments (CAAA) legislative debate was the issue of service information, or better known as "information availability." The Automotive Service Association (ASA) worked diligently to get language into the CAAA that required "manufacturers to provide promptly to any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines...with any and all information needed to make use of the emission control diagnostics system ... including instructions for making emission related diagnosis and repairs. No such information may be withheld...if that information is provided (directly or indirectly) by the manufacturer to franchised dealers or other persons engaged in the repair, diagnosing, or servicing of motor vehicles or motor vehicle engines."

It took several attempts by the U.S. Environmental Protection Agency to get a workable information availability regulation and an industry agreement to assure new OEM websites included nonemissions information. Most agree that the current process works for the independent repair industry.

With new vehicle technologies and much public policy focus on autonomous vehicles (AV), repairers are again at a critical juncture for the future. The term in the early 1990s was "information availability," but today's terminology is "data access." ASA is an active member of multiple coalitions addressing new vehicle technologies, data access and cybersecurity, including Ad Hoc HAV Data Access Coalition, Aftermarket Telematics Task Force,



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Several states have moved quickly to address research and deployment policy for AVs. Although the National Highway Traffic Safety Administration (NHTSA) has issued guidelines for states and the industry, Congress has yet to finalize any legislation in these same policy areas. The House unanimously passed House Resolution (H.R.) 3388, the SELF DRIVE Act, which clarified state and federal roles in the AV policy arena. However, the SELF DRIVE Act did not address the data access issue for independent repairers.

The Senate Commerce Committee did address data access in its AV START Act, S. 1885. Sen. James Inhofe, R-Okla., offered an amendment, which was agreed to. The Inhofe Amendment establishes an HAV Data Access Advisory Committee at NHTSA. The Federal Trade Commission (FTC), which has shown much interest in the vehicle cybersecurity policy area, was also included in the advisory committee at NHTSA. This stakeholder committee provides for automotive industry participation, including "independent vehicle repairers."

The Senate bill has not been considered on the floor to date. It is important for independent repairers that the Inhofe Amendment be included in the final AV legislation sent to the President. If the Senate does not approve S. 1885 by the August break, it will be increasingly difficult for final passage before Congress adjourns for the year.

As important as information availability was to the repair industry, data access is taking an even larger public-policy role. This issue does not have to be contentious and hopefully will be resolved by the automotive industry. ASA will continue to be part of this conversation. 📧

Article reprinted from July/August 2018 issue of AutoInc. magazine.

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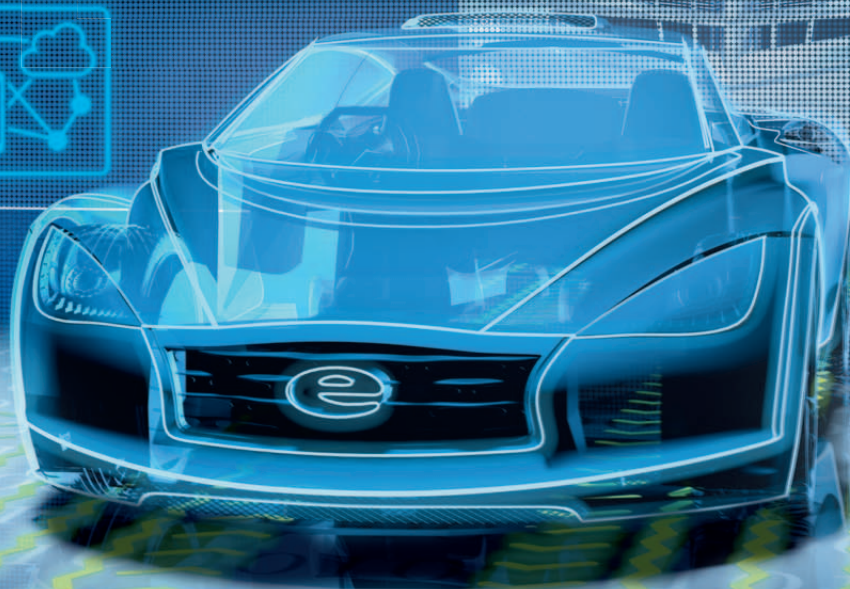
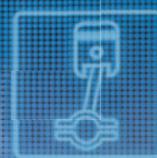
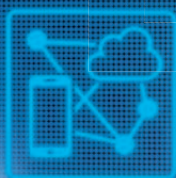


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Balancing form and function

Shop develops award-winning customs with big-picture focus on the latest technologies

JAMES E. GUYETTE // Contributing Editor

➔ You've seen the Gerber Family's work — their eye-catching customs, period-accurate restorations and heart-pounding performance vehicles — in action at race tracks, on display at car shows, profiled in glossy magazine layouts or tooling down the road wherever you may happen to be.

"Form and function can coexist," says Josh Henning, director of business development at the Roadster Shop. "We do not sacrifice quality or drivability no matter the budget. The money spent on customizing a car is wasted if it can't be used and driven like it was intended to."

Based in Mundelein, Ill. and established by Bill O'Rourke in the 1980s, in 2004 the business was purchased by Neal Gerber and his sons Phil and Jeremy, who were intent on carrying on and enhancing O'Rourke's legacy of constructing highly valued vehicle builds.

Originally situated in a 7,000-sq. ft. structure in Elgin, Ill., where O'Rourke specialized in modifying pre-World War II Fords, the Gerbers subsequently relocated to a 30,000-sq. ft. building in Mundelein, later adding a 20,000-sq. ft. expansion to accommodate their growing chassis manufacturing operations.

"Through much dedication and hard work, the Roadster Shop quickly became a given — or staple, if you will," says Josh, "for any muscle car, hot rod, truck or cruiser build in any top shop or at-home builder's list of modifications. The Roadster Shop's mantra was and has continued to be, 'why just build ANOTHER...when we can build the BEST.'"

Pressing onward with their technologically advanced and exquisitely styled projects, a coinciding focus of the Gerbers has been on "revolutionizing the performance muscle car and truck aftermarket with new suspension designs and offerings. The Roadster Shop does not specialize in one specific style of car as the name might suggest. Rather, we have the expertise, knowledge and design savvy to build top award-winning cars across a broad range of genres."

Elaborating further, Josh reports that "we design and manufacture our own line of suspension and complete chassis in-house, in addition to doing complete full builds. We feel that we build better chassis because we build cars, and we build better cars because we build chassis."

Employing 64 people within a 55,000-sq. ft. facility, before a potential patron sees a single ball peen hammer or spray gun, he or she



ROADSTER SHOP
Mundelein, Ill. // www.roadstershop.com

Phil and Jeremy Gerber Owners	55,000 Total square footage of shops
1 No. of shops	5 No. of bays
30+ Years in business	45 Average weekly vehicle count
64 No. of employees	BASF/Glasurit Paint supplier

is greeted in an upscale 5,000-sq. ft. retail showroom that showcases a collection of customer vehicles along with an assortment of product offerings, branded apparel and other merchandise.

Also in the showroom are offices housing design, engineering and sales consultants providing "an ideal environment" for customers to collaborate with a staff of experts as they plan their project vehicles.

The company "is an industry leader," says Josh, "by the technology we implement on a daily basis and how we approach the build from the beginning. Having a full in-house design and engineering capability is essential to delivering not only what the customer wishes to see, but allows us to advance our own ideas and push forward independently with our own parts development and vehicle concepts.

"It gives us a unique ability to establish ourselves as a leader



in design and performance, creating industry trends instead of following or reacting to them — showing restraint where necessary yet fully able to push the limits of a concept.”

Key strengths include “our engineering and design capabilities combined with our overwhelming library of data from previous designs, builds and manufacturing experience,” he points out.

As a producer of customs, tracking cycle times and dealing with insurance companies are non-issues, and maintaining positive relationships with suppliers is a given because “we with treat them with the same respect, communication and timely, early payment that we expect to be treated with. Being friendly while communicating each other’s needs and expectations is unfortunately becoming a lost art by many in our industry,” Josh asserts.

Forward-thinking capabilities

Full mechanical capabilities are accompanied by five body work and prep stalls along with a large staging area for parts. BASF Glasurit finishes are applied in a newer downdraft paint booth that is 10 feet longer than a typical production booth, “which provides the ability to paint each car completely disassembled for a flawless finish.”

“The Roadster Shop is a brilliant, high-quality operation,” says BASF marketing director Dan Bihlmeyer. “As part of our talented group of Glasurit and R-M ambassadors, they are a great partner to showcase our premium Glasurit prod-

ucts on their premium builds.”

Josh additionally emphasizes the shop’s Survivor Series line of “resto-mod” daily drivers that involves outfitting original low-mileage vintage vehicles with modern-day chassis and updated drivetrains suitable for long-distance cruising while visually displaying the character of well-preserved paint and trim.

In the design and fabrication departments, the company employs 2D graphics, sketching, “ideation” and full 3D computer modeling of parts, concepts and vehicle rendering: “Put simply, we can take an idea and make it a reality. We are able to take an idea from sketch and turn it into a fully functional part.”

With a HAAS VF4 CNC mill featured in the assembly room, “we are able to machine any component or part of a vehicle build as needed,” he notes, “from one-off parts creation on high-end vehicle builds to suspension prototyping and parts development. The CNC mill allows in-house manufacturing and development of the highest standard.”

New customers are always arriving through a constant pattern of marketing initiatives that include an ongoing large social media presence, magazine advertisements and placement of magazine articles depicting satisfied patrons with their treasured project vehicles. An ambitious schedule of participating in about 20 trade expositions and consumer car shows is maintained on an annual basis.

“The Roadster Shop team learned to take a comprehensive, big-picture ap-

proach to its builds early on,” according to Editor Daman Lee at the *Goodguys Gazette*, a publication of the Goodguys Rod & Custom Association.

“After consulting with customers on the goal for a vehicle, an in-house design department conceptualizes the finished product before the shop starts any work. Today, that process might also involve a 3D scan of the vehicle, which allows a digital rendering to be developed on the computer. This scan can then be manipulated to visualize changes, design custom components and virtually model parts — everything from a one-off frame, to custom brackets, body panels, interior components and other details,” says Lee.

“These forward-thinking approaches and capabilities have set Roadster Shop builds apart from others and have established the shop as a leader in performance and design,” he adds.

The company continues to collect accolades, such as Business of the Year honors from the Hot Rod Industry Alliance (HRIA) bestowed at the 2016 Specialty Equipment Market Association (SEMA) Show in Las Vegas.

In 2017 the Roadster Shop’s AXIS Camaro build was declared the “Peoples Choice” winner at General Motors’ Chevrolet Design Awards competition. 🏆



JAMES E. GUYETTE

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

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Installing a mentorship model that works in your business

TODAY'S TECHNOLOGY DOES NOT ALLOW US TO LEARN ON THE FLY AS WE ONCE COULD. WE HAVE TO MAKE OTHER PLANS TO ENSURE OUR TECHNICIANS ARE UP TO SPEED

CHRIS CHESNEY // Contributing Editor

We need to talk about creating lifelong mentors in our industry. In the past when new technology became available, we learned on the job or went to a class and then tried new skills out on a customer's car. The technology was simple enough that we got away with it. But what about today? Can we afford to practice on a customer's car? Can we risk our credibility by not fully understanding these new systems, causing return visits and eroded confidence with both our customers and our team? Of course we can't.

Instead we must create a structured learning environment in our businesses that enables the growth of each position. This must be done in a way that does not create a burden on your production and your customers' time, but in a way that provides a clear and efficient path of learning from the time someone joins your organization to the time they move on.


Mentorship is a relationship where a more experienced or knowledgeable person helps guide a less experienced or knowledgeable person. The ideal mentor is someone who first wants to pay it forward. This is usually someone

currently in the role that the apprentice or mentee is working towards. So, look at your entire staff as a potential mentor. Guiding another person to perfect a craft you respect is a heavy burden, lightened only by being prepared to share the truth. This isn't always demonstrated by knowing everything, but is more often seen by your demonstration of how you learn and how you solve problems. It also involves honesty without sugar coating and the ability to encourage and give positive yet constructive feedback to the mentee. It means becoming an advocate for the mentee by investing in their career.

Let's look at how the business side of a mentorship program might look. First, keep it simple. Establish that everyone in the company will always be in a position of apprenticeship where they are working with a mentor, and everyone in the company will always be a mentor where they are sponsoring the growth of another. It is a cycle of learning that creates the greatest benefit for all.

The simplest model provides the mentee with a living wage. It should not be based on productivity to start but should be enough that they can support themselves. In most cases, the cost of this wage is shared by the business and the mentor. In a

shop that still pays via flat rate, the mentor should flag all the work produced by the mentee. Next, the mentor/mentee team needs enough space to be productive. You need space to learn, produce and advance. A successful program should not cost you anything in the way of lost production, and if implemented properly, will increase efficiencies and production over time.

The duration of a program depends on its maturity. If you are just starting out and are growing a recent graduate of a two-year post-secondary program, then two years is recommended. Merit increases for the mentee must be defined and communicated, along with production incentives for both. Most importantly, you must have a plan that is created as a team and communicated consistently from the very beginning. As your program grows, you'll find that creating mentors for life will allow you to build mentorship into your business model without any special pay plans or incentives. It simply becomes your business model that supports the continued growth of the company. 



CHRIS CHESNEY is the Senior Director of Customer Training for Carquest Technical Institute (CTI) and Advance Professional.
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MECHANICAL MOMENT

SERVICE REPAIR PROBLEMS AND SOLUTIONS THAT JUST MIGHT BENEFIT YOUR SHOP TECHNICIANS

MAXIMA HAS NUMEROUS NETWORK DTCS — LOOSE CHANGE THE CAUSE

VEHICLE: 2005 Nissan Maxima, V6-3.5L, Automatic Transmission

MILEAGE: 172,098

PROBLEM: This vehicle had erratic gauge and warning light operation and the HVAC controls only worked intermittently. The Malfunction Indicator Light (MIL) was on as well as the ABS, TCS and Security lights. Additionally, the fuel level gauge was inoperative.

DETAILS: The tech found multiple DTCs: U1000, U1001, U1610, P1574, P0462, P0463 and P1212. The symptoms all were in line with the DTCs found. The technician researched each of the DTCs and found them to be related through the same network. At this point, he called ALLDATA Tech-Assist for some guidance.

CONFIRMED REPAIR: Based on previous experience with Nissan Maxima vehicles, the ALLDATA Tech-Assist consultant advised the tech to remove the A/C

amplifier for inspection. After removing the cover, the technician discovered two coins inside. Upon further inspection, he found a burned area on the circuit board where the coins had shorted out and burned a circuit board component.

He replaced the A/C amplifier, cleared the DTCs and went on a test drive. Fixed!

This tech tip and others come from ALLDATA Tech-Assist, a diagnostic hotline of ASE-Certified Master Technicians. Whatever technicians need — from creating alternative diagnostic strategies to providing step-by-step repair assistance — the Tech-Assist Team can deliver.

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TRAINING EVENTS

JULY 10

Adhesive Bonding

Washburn Institute of Technology

Topeka, Kansas

JULY 18-19

PPG Color — Solventborne Systems

Atlanta BDC

Smyrna, Georgia

JULY 27

I-CAR: Corrosion Protection

Phil Long Collision Repair Center

Colorado Springs, Colorado

AUGUST 7

SCRS Board of Directors meeting

Georgia World Congress Center

Atlanta, Georgia

AUGUST 7-8

Collision Industry Conference

Georgia World Congress Center

Atlanta, Georgia

AUGUST 8-10

NACE Automechanika 2018

Georgia World Congress Center

Atlanta, Georgia

OCTOBER 30

Collision Industry Conference

Renaissance Hotel

Las Vegas, Nevada

OCTOBER 30-NOVEMBER 2

SEMA 2018

Las Vegas Convention Center

Las Vegas, Nevada



HOW TO ADDRESS COMMON SCANNING PROBLEMS

UNDERSTANDING THE HURDLES TO OVERCOME TO ENSURE A PROPER REPAIR HAS BEEN COMPLETED

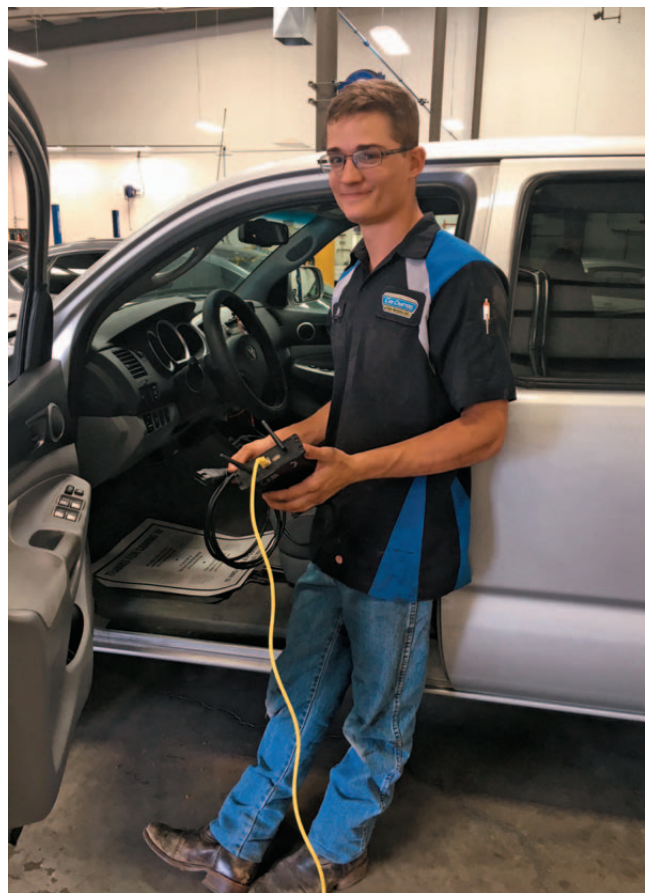
SEAN GUTHRIE // Contributing Editor

The scanning explosion began roughly two years ago. A couple vehicle manufacturers published position statements to further emphasize the need for scanning their vehicles. These manufacturers, as well as nearly all others, had stated the need in their repair procedures, but the industry wasn't adapting to it. With the publishing of the position statements, the industry woke up to the need! As other manufacturers saw the need to follow suit, many more statements were published. Today we have position statements for approximately 65 percent of vehicles on the road and an even greater percentage have the requirements in their repair procedures. With collision repair centers and insurance companies alike now knowing that there is a need, there are many hurdles to overcome.

The first hurdle is simply performing the scan. Scanning is time consuming, labor intensive and generates costs that must be properly compensated for. Planning for the scan starts with the tools and personnel to do it.

You can use either OEM or aftermarket scan tools, and based on your client base and shop focus, it is very likely that you will need multiple tool options to cover all of your scanning needs. Extensive research is highly recommended.

Once the equipment is purchased, the next hurdle is deciding who is going to utilize the equipment. There is a new technician need in our industry and most shops may not have that person employed yet. Shop owners need to find someone who understands computers, is very good at researching and learning, is not intimidated by wiring, is technically oriented and very attentive to details. The first instinct may be to use a



THE REQUIREMENT FOR EXTENSIVE RESEARCHING is the largest challenge for this new line of technicians. It may require your staff to implement new workflows into the repair process to ensure there is enough time to thoroughly research the requirements needed to properly scan each make and model.

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technician already on staff. This will work if the person has an understanding of electrical equipment and has the ability to research and learn.

The employee hurdle is the biggest, most challenging item. Scanning a car doesn't mean plugging into the OBD port, reading codes, clearing codes, test driving and ensuring no codes return. Vehicles today have hundreds of codes that do not illuminate an MIL; they also can have a multitude of issues that do not set a malfunction code. Sensors — those as simple as the occupant weight sensor or as advanced as a camera that enables a vehicle to drive itself — do not know when they are calibrated incorrectly. The employee who is tackling the scans must know how to read live data and ensure that all streaming information is within guidelines — guidelines they only know after research. They must know what calibration process needs to take place after disconnecting a battery, removing and installing, or removing and replacing any component on the vehicle.



SCANNING A CAR DOESN'T MEAN PLUGGING INTO THE OBD PORT, reading codes, clearing codes, test driving and ensuring no codes return. Vehicles today have hundreds of codes that do not illuminate an MIL.

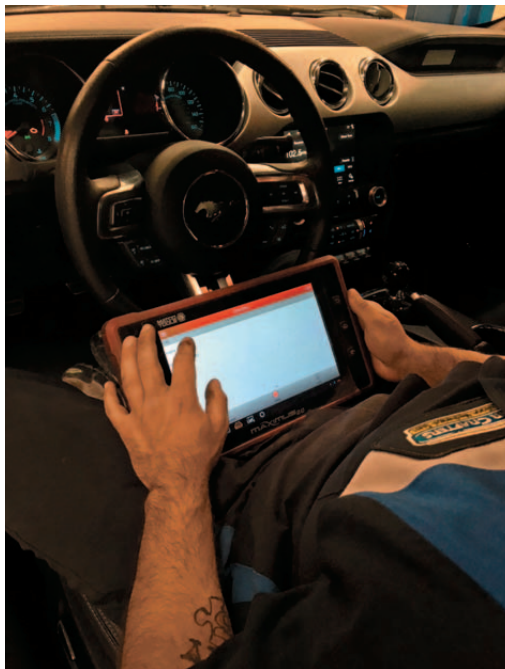
The requirement for extensive researching is the largest challenge for this new line of technicians. It may require your staff to implement new processes and workflows into the repair process to ensure there is enough time to thoroughly research, learn and understand the complexities and specific requirements needed to properly scan each make and model. This will require training to ensure your technicians have access to all the tools and options available to them in the research and education process and understand the functionalities of each.

Shops can also utilize a sublet vendor that may have better knowledge of the scanning and research protocols required, but there is still an opportunity for a knowledge void. An extensive check of the vehicle is required no matter if the work is performed in-house with a trained employee or sublet to another vendor.

That check is the next hurdle. That check must include an extensive test drive by a shop employee who has fully

researched and understands all systems on the vehicle. They must drive the car in such a way that all systems activate and perform their tasks. This is very difficult to do, as there isn't a book that contains every car's systems, much less how those systems are supposed to react. A great place to go is mycardoeswhat.org. That site is a great tool to start research on all available systems and how they work. The vehicle manufacturers' websites are another place to go. The systems in vehicles must be sold to the public and therefore must be marketed. The vehicle owner's manual can also provide system insight. These three choices will outline all systems available to that model for that year.

It is very possible that the vehicle does not have all the systems. Once all possible systems are known, verifying what systems are actually on the vehicle is the next step. Armed with the knowledge of the systems that are on the vehicle and how they are supposed to work, a proper test drive can then take place.



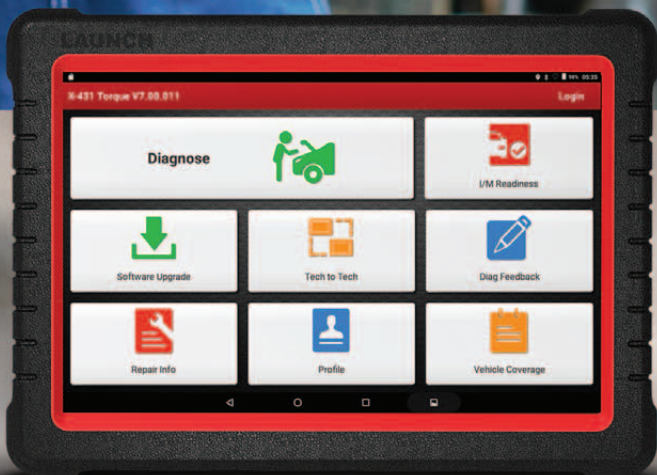
TODAY WE HAVE POSITION STATEMENTS for approximately 65 percent of vehicles on the road and an even greater percentage have the requirements in their repair procedures.

Once you have the equipment and the staff member with the knowledge and understanding of how to check the systems, you must be able to correct any issues discovered. The issues may or may not be directly related to the impact. Cars today resemble a nervous system with miles of wiring and a multitude of modules. Each must talk to each other and an issue in one can create downstream issues. For example, disconnecting a door on a new performance Ford will cause the exhaust system valves to malfunction. The vehicle looks for the door to

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open and close to initiate a self-test on the exhaust valve. If the vehicle is driven and the self-test doesn't occur, a code is stored. The exhaust valve will not work until that code is cleared. The most challenging malfunctions are the issues that do not present a malfunction code. These issues can only be discovered on the test drive. One example is if the lane keep fails to keep the car between the lines or if the blind spot monitor fails to see the vehicle driving next to the car. The resolution is then not as simple as clearing a code.

This is when that same trained and talented employee must research the calibration process. This process may require special tools, a large stall, a thrust angle alignment or any and all combined. The calibration step seems like the biggest hurdle and it is definitely intimidating. Ultimately calibrations are no different than any other repair procedure. When executed step by step, they are not difficult to accomplish. The part that is the most difficult goes back to the right employee being able to perform the extensive research to find the steps to properly accomplish the calibration, then verifying that the calibration was done correctly with an extensive test drive. The verification process HAS TO BE DONE even if you sublet the operation. This means researching and understanding the systems is required whether you perform the calibration or not.

Once the scan is complete, all modules check out and all systems are verified, the final hurdle is receiving compensation. How much to ask for is a shop decision, but how to ask is important. Mike Anderson says for any operation requiring compensation to ask a few simple questions: "Is it required to bring the car to pre-loss condition?" Yes, this can be proven by the position statement, repair procedure, the trouble codes and/or the systems that do not function correctly. "Is it included in any other operation?" No, as published by all three information providers. "Is there a predetermined time?" In most cases there is not a predetermined compensation rate, as there is a multitude of processes that may be required to accomplish the work. The last question Anderson asks is "What is it worth?" In this case, even when utilizing the same equipment every time, each vehicle will require a unique time commitment. Items to consider include how long it takes to procure the equipment, setup battery support, research the systems, complete the repairs and calibrations, obtain subscriptions that may need to be purchased to perform the research or calibrations, test drive time, and the list goes on.

Armed with the responses to those four questions, a booklet of information can be prepared. Educating the payer, no matter who it is, is the key to proper compensation. "Because I said so" didn't work for children and definitely doesn't work for adults. As you answer the four questions, print out documents, take photos and build a portfolio of the work that was done. Present the full package to the payer. You aren't guaranteed full compensation or even some compensation, but you significantly increase your chances. You also build your case if you must escalate the non-payment further. In the case of insurance companies, going up the corporate ladder with the documentation is the first step. All insurance companies have paid, at one point or another, for scans, calibrations and research time. Talking to the right person may be all that is required to break down the "NO" barrier. The last resort is your insurance commissioner and ultimately a suit. This step is very aggressive and will create a huge division that will make anything else in the future much more difficult.

The industry is changing, and it's changing whether we want it to or not. You cannot slow down the change, you cannot persuade the change; what you can do is embrace the change and become more successful than your competitor. Anything new brings about new hurdles, and hurdles create opportunity, both for failure and success. Make sure that you understand the hurdles so you can overcome them and allow them to be an opportunity for success! 📌

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READY, OR NOT?

UNDERSTANDING THE ORDER OF DIAGNOSTICS, SCANNING AND CALIBRATION SERVICES CAN HELP ENSURE A SMOOTH REPAIR PROCESS

BOB HEIPP // Contributing Editor

Let's bring attention to when diagnostic, scanning and calibration services are needed and the state of repair the vehicle needs to be in to accurately perform testing, scanning or calibrations. To do this, I'm going to break it down into four parts: diagnostics, pre-repair scans, post-repair scans and calibrations. It is through technical knowledge and hands-on experience that I draw on to try to give some insight to help the repair process proceed more smoothly.

A large portion of the work done at my company, Mobile Auto Solutions (MAS), is diagnosing malfunctions. One such case was a Toyota Sienna that had a sliding door that did not work with the key fob. When I arrived at the shop, they showed me the car (Figure 1). While I understand the shop wants to ensure everything is working before assembly, I told the shop I would not even scan the vehicle. I knew that having the front door off would cause issues with the other doors and locks working correctly. This comes from experience and knowing that the vehicle will have issues caused by the disassembly. I



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Step 2: Print Pre-SCAN Report

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- Avoid additional insurance authorizations

Step 3: Repair Vehicle

CREATE EFFICIENT REPAIR PLAN FROM THE START



Step 4: AutoSCAN Repaired Vehicle

- Ensure no new faults were created during repair
- Confirm no DTCs are present at completion
- Ensure vehicle is repaired and safe for customer

Step 5: Print Post-SCAN Report

- Prove all DTCs on Pre-SCAN report are fixed
- Dated SCAN report to confirm project complete

POST-SCAN



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WHY YOU NEED A DIAGNOSTIC AND VEHICLE ELECTRONIC REPAIR PROCESS IN PLACE

By **ASTECH**

In the business of collision repair, there are a couple things you're guaranteed: hard work and change. Accuracy and efficiency play important roles in running a quality-driven and profitably run collision repair center. That's why highly skilled repair technicians get a sinking feeling when they run into an unexpected malfunction indicator lamp or a difficult diagnostic/vehicle electronic issue during the repair process.

Shop owners and technicians can reduce a significant amount of the "unexpected" issues they confront on a daily basis by putting a diagnostic and vehicle electronic repair process in place.

A pre- and post-scan process will turn the frustrating task of diagnosis into an outsourced repair solution that drives peace of mind.

Pre-scan process

Step 1: *Consult the customer and get a signed pre-authorization.* Let the customer know the necessary steps you'll be taking to get their vehicle back on the road, including the diagnostic scans. Tell them it's your intention to present the invoice to their insurance company for payment. Be sure to share the cost of the scanning process with them in case their insurer refuses to cover this important repair cost. You'll find most customers appreciate the heads up. Educated customers can become scanning advocates for your repair facility with their insurance company.

Step 2: *Check for MILS and ADAS.* Perform a visual inspection for MILs prior to the repair. Record their presence with photos if at all possible for proof. Understand the trim level of every vehicle. Look for the presence of ADAS systems. Some of these critical

safety and frequency reducing safety systems include: adaptive cruise control, lane keep assist, collision warning, blind spot monitors, autonomous emergency braking. Specifically, check for damage done to front and or rear camera systems and document the damage in the repair order.

Step 3: *Perform pre-scan.* Perform a vehicle scan before starting disassembly or repairs. It's always important to scan "whole" cars. Perform the scan before repair or any disassembly begins.

Step 4: *Post-repair calibration and post-scan processes.* Once all repairs are completed, performing a post-repair scan before returning the vehicle to the customer is one of the final and most important steps in today's complex collision repair process. The completion scan ensures all related DTCs have been corrected, various calibrations were completed successfully and the vehicle is ready for delivery. To make sure codes don't return, a test drive is a great idea. It's an often-missed detail that should be included in your post-repair process.

A clearly defined pre- and post-scan process will help customers and insurers understand the repair needs as well as the associated diagnostic costs. It also enhances the customer experience and ensures everyone understands their financial responsibility.

You've identified and estimated the necessary calibrations, initializations and aiming procedures already. After the vehicle is reassembled, perform these steps according to OEM specifications. Then, clear the DTCs.

can only imagine the pain a remote company would have had — an individual sitting in Texas not knowing the state of disassembly looking at scan data and chasing his/her tail. The point is that many systems will not work when a vehicle is in the repair process. Having a check-in process that includes a pre-repair scan is the best way to enter into the repair.

I recently read an article explaining how scans could indicate if issues were loss-related by using freeze frame data. I had mixed feeling about the information; I was worried shops and insurance companies would think that this data is available on all vehicles and for all modules. The data described was data that is helpful when diagnosing an emission- or engine-running problem. It is not very often that this data will be helpful in determining if

the code is loss-related. So, for the shop considering whether or not to have pre-repair scans performed, please allow me to share some insights. MAS services more than 1,300 shops in the Chicago, Northwest Indiana, Milwaukee and Grand Rapids areas. We get to experience many different ideas of what a pre-repair scan is. Some shops just want to know about deployed items or other warning light issues. Other shops use pre-repair scans as a way of making sure the vehicle is repaired correctly while protecting the shop and the insurance company from unrelated costs. Regardless of which of these your shop is considering, the scan needs to be performed before any form of repair has begun. If the vehicle is in a disassembled state like the Honda in Figure 2, it's nearly impossible to know if some codes are loss-related.



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MAS also performs many post-repair scans every day. Like the pre-scans, different shops use the scans for different reasons. Some shops only perform scans if a warning light or message is displayed. Others perform them because OEM service information and position statements require that trouble codes be cleared after repairs have been completed. Having the post-scan performed also means that the repair has been completed to the best of the shop's ability. In the case of our customers, it also means they have documentation they can go back to if the vehicle returns due to a warning light or some other complaint. What is needed for a post-scan? Well, the repair needs to be completed. This includes the vehicle being fully assembled, aligned if needed and test driven. Additionally, the vehicle should have been quality control (QC) checked. Some may question the part about the vehicle being QC inspected. Allow me to give some clarity.

Recently we had a shop call us out on a Mazda that had multiple warning lights turn on when the vehicle was driven. All the lights would turn off when the vehicle was stopped. Had the shop called and asked for a post-scan and not mentioned this, codes would have been cleared and a problem would have still



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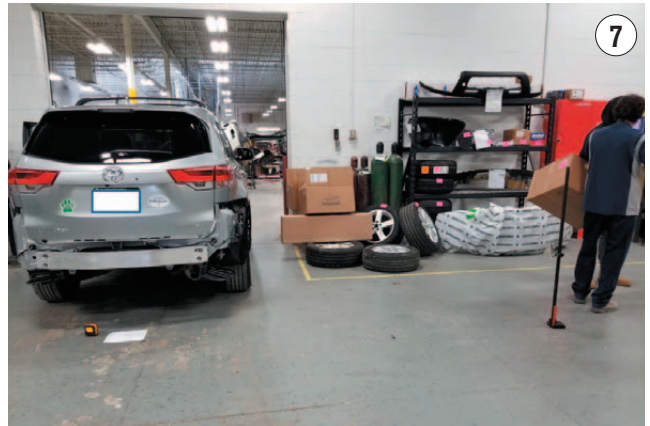
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existed. In this case, a test drive was needed to develop a diagnostic path. Once the path was developed, the codes had meaning, and it was easy to come to a clear solution. In this case, the problem was an excessive voltage drop on a ground connection. This is again where an online scan would not be able to bring resolution to an issue and the vehicle would have been sent to the dealer, adding to the cycle time. Another example of needing a proper QC is a Subaru for which we were called in to perform an Eyesight calibration. The Subaru system uses two cameras for their ADAS system, which are located on either side on the inside rear-view mirror (Figure 3). As seen from the outside, the wrong windshield was installed, and the cameras are blocked (Figure 4). The installer should have noticed this and halted the installation. The person in charge of QC also should have caught this prior to scheduling a calibration.

ADAS calibration challenges

Now that I've touched on ADAS, let's discuss some of the challenges to ADAS calibrations that shops need to be prepared for. Having performed a few hundred ADAS calibrations, MAS has had some calibrations that took a little more work and others that were much smoother. The most challenging factor is the environment in which the calibration is done. An example of this



is a Jeep that MAS was called out on for an ACC (adaptive cruise control) calibration. The first step is to level the sensor. When we went to perform the leveling, we found that the sensor was not centered in the bumper trim (Figure 5). In this case, the problem was that an aftermarket front-impact bar had been installed. The mounting area for the sensor bracket was not in the correct area of the bar. After an OEM impact bar was installed, the sensor was no longer blocked by the bumper trim (Figure 6).

Another example of environment is a Toyota Highlander that needed a BSM (blind spot monitor) calibration (Figure 7). While looking at the photos sent from the repair shop to MAS, the area appears to be free of objects that would interfere with the calibration, but this was not the case. Tires and boxes on the right side were rear of the B pillar and interfered with the completion of the calibration.

One more example is a 2018 Mercedes-Benz S450 that needed a forward-facing camera calibration after a windshield installation. Scanning the vehicle with the MB Xentry scan tool revealed no codes. When performing the calibration, it failed. While investigating what caused the failure, our tech found that the system has an option of mono or stereo cameras. In this case, the vehicle had a stereo camera system, but one of the cameras was being blocked by a piece of plastic. Once removed, the calibration was able to be performed.

I hope that this information gives you reason to add pre-repair scans to the start of your repair process. A quality control inspection, including a post-repair scan, completes the process. When needing to perform an ADAS calibration, understand that space, a level surface and lighting play an essential role in the accuracy of the procedure. Working with your in-house technician or mobile service will aid in a smooth repair process. ■



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THE 2017 CHEVROLET SONIC — like competitors such as the Ford Fiesta and Honda Fit — offers plenty of power, style and safety technology in small packages, keeping subcompacts significant players in the automotive market.

PHOTO: GM

REPAIR STEPS GUARANTEED TO KEEP SMALL CARS FROM BEING BIG HEADACHES

TIM SRAMCIK // Contributing Editor

If you're old enough, you probably remember a time when buying an inexpensive, small car meant being banished to some kind of automotive purgatory. Buyers almost invariably ended up with a four-wheel something sporting cheap materials, a thin metal skin and whiney engine — maybe air conditioning was included. Also included was bland, boxy styling that, at best, helped one blend in with a sea of similar automotive outcasts. You wanted a cheap car, and that's exactly what you got.

How things have changed. Today's small cars offer power, performance, safety, punchy looks and a host of technogadgets designed to convince millennials and first-time buyers to hop in the driver's seat while saving some money. However, they still come with a few issues — for repairers, that is. Their size can force shops to throw in a few wrinkles with typical repairs. Use the following tips and steps to

iron out any complications and smooth the way for a great job.

Considerations

What's so difficult about repairing subcompacts? Their compact sizes condense standard repair issues into much tighter spaces. Alternative and mixed material parts are packed closer together, as are highly sensitive electronic systems. Sectioning will remain an issue, and so will using the right joining techniques in smaller areas. Tighter spaces also make electronic systems even more vulnerable to collision damage.

Then there's the matter of less vehicle volume available to absorb and transmit collision energy away from an accident area. This can translate into more severe and hidden damage, making accurate damage analysis and pre- and post-repair scans even more critical.

This fact is further complicated by the

sheer level of technology packed away in these mighty mites. Subcompacts offer many of the same options as larger vehicles, including backup cameras and lane watch and lane departure warnings. They don't come up short in passenger protection. The 2017 Chevrolet Sonic arrives with 10 standard airbags — including side-curtain airbags, pelvic/thorax side-impact airbags (front and rear) and front knee airbags.

These factors can add up to a greater likelihood that repair costs might exceed totaling thresholds, especially considering the modest value of these vehicles. You could end up helping owners find ways to reduce costs to ensure they can hold on to their cars.

Sonic booms

The 2017 (and earlier model year) Chevrolet Sonic provides many of these challenges (as do vehicles like the Ford Fiesta



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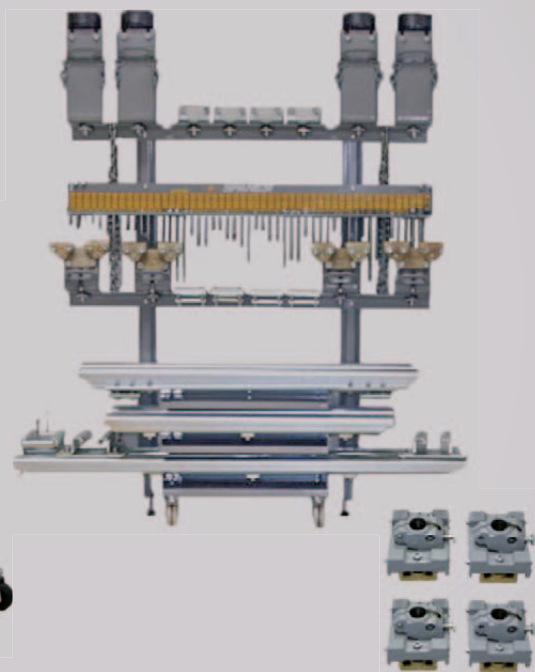
Hear more of Greg's comments at <http://tinyurl.com/yagfp42r>



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and Honda Fit. The steps listed here (courtesy of GM) for three repairs take into account a number of material and electronic issues. Note how the steps are quite similar to those performed on larger vehicles. You'll want to put extra attention on places where you need to inspect for or repair related damage since it may be more difficult to spot. Also, note the need to locate any and all factory welds in an accident area.

Body Side Frame Rocker Reinforcement Replacement

Removal Procedure

Before beginning, refer to the Approved Equipment for Collision Repair Warning Glass and Sheet Metal Handling Warning documentation.

Note: The body side frame rocker reinforcement is made of Ultra High Strength Dual Phase Steel and should be replaced only at factory joints.

Repairing or sectioning of this part is not recommended. Refer to Ultra High Strength Dual Phase Steel.

1. Disable the SIR system. Refer to SIR Disabling and Enabling document.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection document.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to Dimensions — Body (4NB) or Dimensions — Body (5HB) documents, according to vehicle body type.
5. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair (Base).
6. Locate and mark all the necessary factory welds of the body side frame rocker reinforcement.
7. Drill all factory welds. Note the number and location of welds for installation of the service assembly.
8. Remove the damaged body side frame rocker reinforcement.

Installation Procedure

1. Align the body side frame rocker reinforcement.
2. Drill 8 mm (5/16 in) holes for plug welding along the edges of the quarter outer panel from the original panel.
3. Clean and prepare the attaching surfaces for welding.
4. Position the body side frame rocker reinforcement on the vehicle.
5. Verify the fit of the body side frame rocker reinforcement.
6. Clamp the body side frame rocker reinforcement into position.
7. Plug the weld.
8. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair (Base) document.
9. Paint the repaired area. Refer to Basecoat/Clearcoat Paint Systems document.



PHOTO: HONDA



PHOTO: GM

THE SONIC AND FIT COME WITH MULTIPLE AIRBAGS, providing passengers with plenty of protection that can also drive up repair costs.

10. Install all related panels and components.
11. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection document.
12. Enable the SIR system. Refer to SIR Disabling and Enabling document.

Front Side Door Outer Panel Replacement

Removal Procedure

Note: According to different corrosion warranties, only the regional mandatory joining methods are allowed.

1. Disable the SIR System. Refer to SIR Disabling and Enabling document.
2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection document.
3. Remove the front side door. Refer to Front Side Door Replacement document.
4. Remove the front side door outside handle. Refer to Front Side Door Outside Handle Replacement document.
5. Remove the outside rearview mirror. Refer either to Outside Rearview Mirror Replacement (Power) or Outside Rearview Mirror Replacement (Manual) document.

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6. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair (Base).
7. Grind the edges of the front side door outer panel to separate the outer door panel from the door shell.

Warning: Inspect the door guard beam for damage before replacement of the door outer panel. If damage to the door guard beam is found the door must be replaced. Failure to do so may compromise the structural integrity of the vehicle and may cause personal injury if the vehicle is involved in a collision.

8. Remove the front side door outer door panel.
9. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair (Base) document.
10. Straighten the edges of the door shell.

Installation Procedure

1. Align the front side door outer panel.
2. Verify the fit of the front side door outer panel.
3. Clamp the front side door outer panel into position.
4. Continue to hammer in stages along the hem flanges.
5. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair (Base) document.
6. Install the outside rearview mirror. Refer to Outside Rearview Mirror Replacement (Power)/Outside Rearview Mirror Replacement (Manual) document.
7. Install the front side door outside handle. Refer to Front Side Door Outside Handle Replacement document.
8. Install the front side door. Refer to Front Side Door Replacement document.
9. Paint the repaired area. Refer to Basecoat/Clearcoat Paint Systems document.
10. Install all related panels and components.
11. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection document.
12. Enable the SIR system. Refer to SIR Disabling and Enabling document.

Quarter Inner Panel Sectioning (Hatchback model)

Removal Procedure

Before beginning, refer to the following three documents:

- Approved Equipment for Collision Repair Warning.
 - Collision Sectioning Warning.
 - Glass and Sheet Metal Handling Warning.
1. Disable the SIR System. Refer to SIR Disabling and Enabling document.
 2. Disconnect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection document.
 3. Remove all related panels and components.
 4. Visually inspect the damage. Repair as much of the damage as possible.



SUBCOMPACTS INCORPORATE significant amounts of alternative materials that must be taken into account during repairs.



PHOTOS: GM

THE HONDA FIT AND OTHER SUBCOMPACTS offer technology, such as lane watch units, that will need attention during pre- and post-repair scans.

5. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair (Base) document.
6. Create cut lines on the body lock pillar inner reinforcement. **Note:** Do not damage any inner panels or reinforcements.
7. Cut the panel where sectioning is to be performed.
8. Locate and mark all the necessary factory welds of the body lock pillar inner reinforcement.
9. Drill all factory welds. Note the number and location of welds for installation of the service assembly.
10. Remove the damaged body lock pillar inner reinforcement.
11. Locate and mark all the necessary factory welds of the rear wheelhouse outer panel.
12. Drill all factory welds. Note the number and location of welds for installation of the service assembly.
13. Remove the damaged rear wheelhouse outer panel.

Installation Procedure

1. Drill 8 mm (5/16 in) holes for plug welding along the edges of the rear wheelhouse outer panel as noted from the original panel.
2. Clean and prepare the attaching surfaces for welding.
3. Position the rear wheelhouse outer panel.
4. Verify the fit of the panel.
5. Clamp the rear wheelhouse outer panel into position.



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6. Plug weld accordingly.
7. Cut the body lock pillar inner reinforcement in corresponding locations to fit the remaining original panel. The sectioning joint should be trimmed to allow a gap of one-and-one-half-times the metal thickness at the sectioning joint.
8. Create a 50 mm (2 in) backing plate from the unused portion of the service part.
9. Drill 8 mm (5/16 in) along the sectioning cut on the remaining original part. Locate these holes 13 mm (1/2 in) from the edge of part and spaced 40 mm (1 1/2 in) apart.
10. Prepare all mating surfaces as necessary.
11. Fit the backing plates halfway into the sectioning joints, clamp in place and plug weld to the vehicle.
12. Align the body lock pillar inner reinforcement.
13. Drill 8 mm (5/16 in) holes for plug welding along the edges of the body lock pillar inner reinforcement as noted from the original panel.
14. Clean and prepare the attaching surfaces for welding.
15. Position the body lock pillar inner reinforcement.
16. Verify the fit of the panel.
17. Clamp the body lock pillar inner reinforcement into position.
18. Plug weld accordingly.
19. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to Anti-Corrosion Treatment and Repair (Base).
20. Paint the repaired area. Refer to Basecoat/Clearcoat Paint Systems.
21. Install all related panels and components.
22. Connect the negative battery cable. Refer to Battery Negative Cable Disconnection and Connection document.
23. Enable the SIR system. Refer to SIR

Disabling and Enabling document.

Putting a bow on it

Obviously, these repairs are very much like those you would perform on larger vehicles. That's one of the points here. The work is very much the same, but don't let that fact cloud the need to address the added attention that comes with subcompacts.

That level of care continues throughout the repair process. These vehicles might be small, but they hold a significant place in the eyes of their owners. Don't underestimate their ability to challenge both the repair industry and the conception of just what a small car can offer. 📺



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CONNECTED CARS ARE AN INTEGRAL PART OF OUR DIGITAL LIFESTYLE, BUT IS THE DATA THEY GENERATE SECURE?

TRACY MARTIN // Contributing Editor

Imagine driving along and your refrigerator sends a message to your connected car letting you know that you are out of milk. The car's onboard GPS automatically directs you to the nearest grocery store. But cyber criminals,

parked across the street from your house have hacked your home WiFi network and now have access to your car's computer. You receive a message on the car's display telling you, "Looks like you're on your way to get some milk. I will shut the engine off unless you pay a ransom — follow the prompts to pay now." Sound too creepy to be true? As disturbing as this scenario is,



GENERAL MOTORS PRODUCED THE FIRST CONNECTED CARS IN 1996 with OnStar for Cadillac DeVille, Seville and Eldorado models. Today connected vehicles are common, and the sheer number of things they connect to is increasing at a rapid rate.

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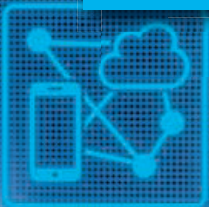
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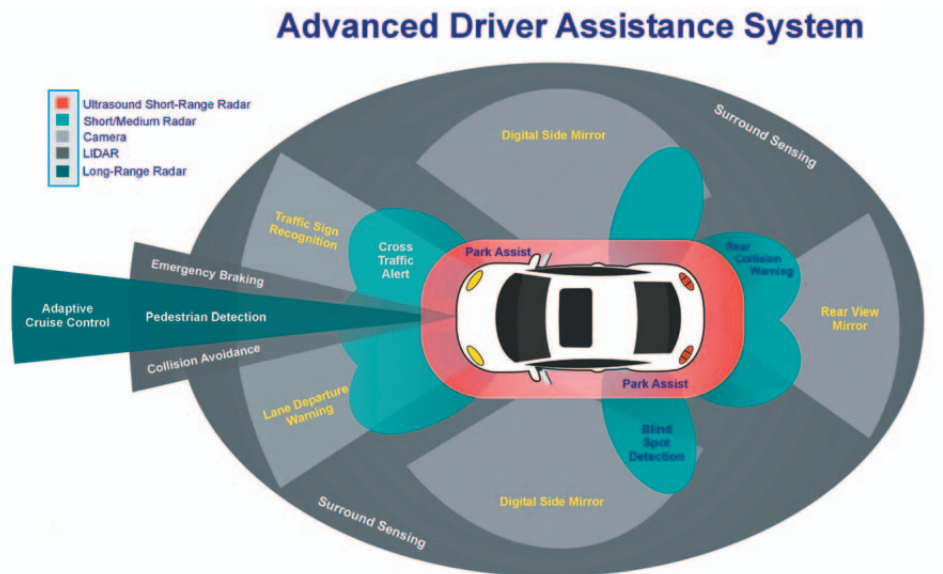


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it could actually happen. As more vehicles become digitally connected, securing networks and vehicle cybersecurity is not an issue for the future — it's a problem now that affects independent repair shops. The telematics technology component of a typical shop's daily workload will continue to increase, and they must be aware of, and adapt to, this constantly changing cyber environment by securing their networks to protect themselves and their customers from cyber hacking.

Vehicle telematics affects many components. For example, a simple windshield repair that normally would take an hour is further complicated by the presence of a vehicle's Advanced Driver Assistance System (ADAS). The ADAS windshield, equipped with sensors and a system camera, may take another hour to calibrate and could require access to the onboard computer or OEM's computer network. In addition, pre- and post-repair scan procedures may be required to perform the repair. ADAS systems from Audi/VW, Fiat Chrysler, Ford, Nissan and others require a programming reset after replacement of windshields, wheel alignment adjustments and repair of other components. Knowing how to calibrate a vehicle's ADAS isn't just a safety concern, but a cyber safety concern. If a shop's network isn't secure, it could lead to a cybersecurity breach impacting customers.

In addition to the growing presence of ADAS, another major concern is the diagnostic reports generated from aftermarket OBD-II interface adapters. This market is becoming a rapidly growing player in the telematics industry, and OBD-II connections between repair shops and customers' vehicles are another avenue for cyber attacks to occur. In the near future, the issue of automotive cybersecurity will become paramount as connected, self-driving vehicles will offer



ADVANCED DRIVER ASSISTS SYSTEMS from Audi/VW Fiat Chrysler, Ford, Nissan and others require a programming reset after replacement of windshields and other components. When performing a reset, repair shops that are not cybersecurity aware can unwittingly provide criminals access to networks and data.

consumers unprecedented new options related to personal transportation. Risks range from access to the vehicle owner, driver or passenger's personal and financial information to loss of physical control of the vehicle.

Is your network secure?

In the future, independent repair facilities that plan to perform extensive diagnostic work or vehicle reprogramming will have to address network concerns and partner with OEM and third parties to provide cybersecurity. Shops will have to engage with cybersecurity experts and consultants to evaluate their networks, ensuring that they and their customers are protected. Cybersecurity could include customer-accessed WiFi in the waiting room, separate WiFi in the shop work area, servers, worldwide internet connections and data stored in the cloud. Some owners of small repair shops are of the mindset that cybersecurity only applies to large repair chains or OEM dealerships, but the possibility of a cyberattack affects everyone.

The Automotive Service Association is actively exploring how to "lock

down" aftermarket service and repair facilities from potential cyberattacks that can originate from digital resources the shop connects to including: online diagnostic services, customer vehicles via connections to shop diagnostics tools, customers using WiFi in waiting rooms, employee smartphones and others. Repair shops cannot afford to be the weakest link in the chain that makes up automotive cybersecurity.

Automotive cybersecurity is an ongoing war against criminals who have access to data and new tools over the life of any vehicle. Unfortunately, there are many examples of digital breaches, including radio amplification of keyless vehicle entry systems, remotely controlling key encryption and using pirated software to exploit vulnerabilities in security systems. Motivations for criminals to hack automotive systems are numerous. Lifting personal information from payment systems, taking control over vehicle functions, accessing data from onboard sensors and using a vehicle as a gateway to access other connected systems are but a few of these temptations.

In May 2017, the ransomware crypto-

worm WannaCry was launched against several versions of Microsoft Windows operating systems. Ransomware criminals compromise a computer's data and demand ransom payments to release the data back to the user. During the attack, automakers Honda, Renault and Nissan had to temporarily shut down vehicle production lines at plants in Britain, France, Japan and India. Think that this type of attack can't affect a small shop? Think again. Imagine a customer driving a connected car receiving a pop-up message that states, "Pay me \$600 or you won't be using your car for a while." Or, a scan tool in a shop displaying a similar message — "Trying to connect with this Ford F-150? Pay up or it's not going to happen."

Here is a quote from Olivier Rabiller, Honeywell Transportation Systems president and CEO, which illustrates the urgency of becoming cybersecurity aware: "There are more than a dozen clearly defined attack surfaces that can provide points of entry for hacking into a passenger vehicle, and the number is growing fast. We are supporting our OEM customers with our differentiated software platform to address the cybersecurity challenge inherent to connected and autonomous vehicle development."

Automotive cybersecurity standards

Performing vehicle diagnostics is essential for nearly every service and repair, and the independent repair industry has relied on aftermarket scan tool manufacturers to provide them the means to accomplish these tasks. In fact, scan tool companies often create some of the best diagnostic software — sometimes more functional than OEM software and hardware. Aftermarket companies that develop scan tools, and their diagnostic capabilities, have in many cases used reverse engineering of OEM vehicle computer systems and software to produce the computer code for their diagnostic software. With OEMs becoming more cy-

bersecurity aware, the ability to use this practice will become more difficult, if not impossible in the future. The importance of receiving complete and accurate data and diagnostic routines from OEMs to create this software is a benefit to both the OEM and the aftermarket and will be an important part of future cybersecurity.

If you're of a certain age, you may remember when labels like, "Made in Japan" or "Made in the USA" made a difference to consumers. Today, a vehicle sold in the U.S. could have components that were designed in Germany or France, with parts manufactured in Mexico or Austria and all assembled in Japan. Globalization of the automobile industry is possible because of international global standards that these countries adopted so that part "A" made in one country will fit into part "B" made across the world. Having global standards for automotive cybersecurity is no different than standards used for other components. Creating international standards will be a partnership between OEMs, their suppliers, aftermarket scan tool manufacturers, providers of repair information and data, and the independent repair industry.

The Society of Automotive Engineers (SAE) and the International Organization for Standardization (ISO) have been working closely to develop and harmonize cybersecurity standards. They have formed a joint working group intended to house experts from both organizations to work together to develop international, joint SAE-ISO standards. When adopted, the standard for secure, authorized access to vehicle data, by legitimate stakeholders, will change how diagnostics are performed in the industry. For example, the 30-year-plus OBD-II Assembly Line Data Link (ALDL) has outlived its originally designed intent as a port to access onboard computer diagnostics and check emissions. As it exists, the ALDL is now a potential gateway for vehicle security breaches and standards organi-



AUTOMOTIVE CYBERSECURITY IS AN ONGOING WAR against criminals who have the motivation, knowledge and tools to access data from connected vehicles. The automotive service industry needs to develop a culture that places great importance on software, networks and computer security.

zations are considering ways to harden and/or replace it.

Other examples of cybersecurity standards could include Secure Vehicle Interface protocols that require a hierarchy of permissions to gain access to data and the Extended Vehicle concept. The Extended Vehicle concept provides safe and secure third-party access to vehicle data by means of a remote and secure server. Access to vehicle data is only provided in accordance with clearly defined data protection security protocols through a set of rules governing data interfaces, thereby reducing security and liability risks. To ensure worldwide interoperability, these interfaces must be standardized. An ISO standard (20077-1) is being developed and is known as the "Extended Vehicle" concept that consists of a vehicle with external software and hardware that is ultimately developed, implemented and managed by OEMs.

The SAE has published the world's first automotive security standard — J3061 — that would serve as the foundation for automotive cybersecurity. J3061 provides guidance on how to integrate best practices including: building security into the product development lifecycle, establishing desired relationships between cybersecurity and safety,

and establishing a foundation for further security standards development. Future standards will impact legislation on the federal level. "We're on the cusp of a transformation, and the auto industry is at the front of that transformation. We can't make the mistake again of not building in cybersecurity by design on the front end and preventing espionage or loss of life," said John Carlin, Assistant Attorney General for National Security at the U.S. Department of Justice.

Right to Repair

Today a vehicle's onboard computers have control over vital systems like brakes, ignition keys, airbags, steering and more, and their diagnosis and repair are high-tech operations with diagnostic tools often replacing a technician's observation. These ongoing developments

have made OEMs the gatekeepers of advanced information necessary to repair or supply parts for repairs. Right to Repair (R2R) is the name for related federal or state laws that require automobile manufacturers to provide the same information to independent repair shops as they do for their network of dealerships. R2R has implications for automotive cybersecurity as well.

R2R reached an important compliance juncture in 2018. As of model year 2018 (MY2018), all vehicles and resources, with the exception of "recall" tools, must be compliant with the Massachusetts Memorandum of Understanding. Massachusetts was the state that adopted the first Right to Repair bill in 2012. OEM diagnostic systems must be made available to anyone for a reasonable price, at the same "content level"

that dealerships have using a "Pass-Thru" interface developed by the SAE or ISO. Scan tool data must be available via a license and vehicle immobilizer programming also made available.

R2R and future automotive cybersecurity industry standards illustrate the importance of the partnership between OEMs and the independent service and tool/equipment providers. This relationship is unique compared to other industries, as both are working toward the same goal — to give customers a great service experience and keep them loyal to OEM and repair shop branding.

The Transportation Security Administration (TSA) has a mantra regarding aircraft security: "TSA has to get it right every single time. Terrorists only have to get it right once." And the same is true of cybersecurity — attackers only have to be right once, whereas defenders have to be right all the time. This does not imply that hacking is easy, but it does illustrate how massive the task is of defending the automotive industry from cyberattacks. As vehicles become more software defined with the increased use of telematics, advanced safety systems, connected transportation and autonomous driving, expect complex encryption protocols to become the primary defense mechanism. The connected automobiles of today have around 100 million lines of embedded software code. Self-driving cars within the next 10 years will have more than 500 million lines of code. That's a lot of risk exposure to defend for an industry that has little or no history and culture of cybersecurity. Only time will tell if we are successful in this endeavor. 📡

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15



**HVAC
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12



**VEHICLE
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6



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57



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29



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For more than three decades, the AkzoNobel Acoat Selected program has been the solution to help grow your business and improve your company's day-to-day operations. Everything Acoat Selected does is about making sure their members thrive in the future, not just survive. The result? Business sustainability. Instructional classes and consulting engagements are facilitated by world-class Services Consultants throughout North America in the areas of Process Improvement, Marketing, Sales, Talent Development and Finance.

Process Improvement

Repairing crashed vehicles is a long series of sometimes complex steps. The efficiency by which a shop conducts each process step is the key to profitability. The number of process steps, the organization of the steps, the standardization of steps, and the interrelationships between steps all play a part in how efficient the overall body shop machine operates.

AkzoNobel is at the forefront of process improvement with our Process Centered Environment (PCE) program. Incorporating tried and true concepts from our own Programmed System Technique (PST) along with collision repair applicable components of Lean, Theory of Constraints, and Six Sigma, PCE delivers profound process improvement throughout the entire value chain.

From documented processes, to re-engineering the flow of a collision repair facility with our Facility Layout & Design services, AkzoNobel helps Acoat Selected members remove waste from their processes to improve productivity,



cycle-time, customer satisfaction, and profitability.

Marketing

When you mention marketing, many collision repair owners and managers immediately think of advertising. While advertising is a component, marketing is so much more. Marketing generates the strategy that underlies sales techniques, business communication, and business developments. It is an integrated process through which companies build strong customer relationships and create value for their customers and for themselves.

Sales

Turning prospects into customers and then finally into raving fans does not automatically happen just because their car was fixed properly in a timely manner. With a variety of training classes and onsite consulting packages, we help our members turn all their employees into customer-focused selling machines.

Talent Development

Clearly, people are the most valuable asset of any business. Without those highly trained, motivated, self-directing employees; no amount of management effort will produce a successful business. From employee engagement to coaching techniques, Acoat Selected members learn how to develop their people and manage them effectively.

Financial Services

Acoat Selected understands the importance of measuring the performance of your business in order to properly manage it. Acoat Selected members have access to a variety of tools, training and consulting packages to help them benchmark their financial performance and identify opportunities for improvement.

In addition to the numerous classes held throughout the year, Acoat Selected members in North America meet biannually for Performance Group meetings. During these 3-day events, like-minded body shop owners share successes, find solutions to problems, and make new relationships. The wealth of knowledge and experience presented at these meetings is nothing short of awe inspiring.

Acoat Selected business services are available to all AkzoNobel Sikkens customers. To learn more about the valuable options available, visit www.acoatna.com. To register for an Acoat Selected Business Services class, visit www.akzonobeltraining.com.



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Knowledge is power

At Axalta, the customer experience begins with refinishing products and continues with ongoing training and support to help body shop customers improve business performance. That's why Axalta offers a robust set of learning and development options for many roles in the collision business. From the Painter Technician in the shop to the Customer Service Representative in the office, Axalta can help employees perform at their best so shops run more efficiently and effectively to boost profitability.



the start or end of the day to prevent disruption to the shop's production schedule.

eLearning courses are designed to boost Paint Technicians' efficiency with the Axalta products they use, including Spies Hecker® and Cromax®. Courses range from instruction on single-product use to instruction on specific task completion with several products, such as cleaning, preparation and mixing. Additionally, color courses are available to help technicians find and match color with more precision for greater shop throughput.

Learning and development centers

For customers who prefer to learn in a state-of-the-art facility with little distraction, Axalta offers one- and two-day courses in its 11 Learning and Development Centers in North America.

Courses for Paint Technicians focus solely on the skills they need to be more efficient and productive through a proven mix of in-class instruction and in-booth coating applications. Course topics include tri-coat color application, matte finishing, micro repair and more, all while using the same Axalta paint Techs use in their home shop.

Customers who complete a series of courses online and in person can earn a Master Certification in Refinish from Axalta, earned exclusively at Axalta's Customer Experience Center in Concord, N.C. The Master Certification is the highest certification Axalta offers and is

awarded to those who display master refinish skills and knowledge. Recipients of this award receive special recognition on the wall of fame inside the Customer Experience Center.

Refinish Performance Management (RPM) courses

For non-technical shop roles, Axalta offers courses in its Refinish Performance Management (RPM) program. The RPM program is designed to help shops drive more work TO the repair center, while optimizing the speed at which vehicles are processed THROUGH the repair center. Courses available include Advisory Selling, Parts Management, Repair Planning and more. Notably, I-CAR Credit Hours are offered on most instructor-led courses.

Earlier this year, Axalta became the first company to offer I-CAR's Professional Development Program Credit Hours to collision repair professionals online. Customers in the United States can now go to Axalta's online learning portal, the Axalta Learning Campus, to start earning credits for 10 newly accredited RPM eLearning courses, including Estimating and Production Management. Estimators may earn up to 13 I-CAR Credit Hours, and Production Managers can earn up to 17.

Axalta offers additional training options, including a Certified Field Distributor program in which distribution partners can provide customer training in their shop, at the store and more.

Learn more about Axalta's Learning and Development program by visiting axalta.us.



Live virtual training

Axalta's latest Learning and Development option is Live Virtual Training. This innovative offering allows paint technicians to earn I-CAR Credit Hours while training in their own shop, reducing disruption to the shop's production schedule since the painter is still in the shop working.

Live Virtual Training programs are completed over two days with certified instructor-led virtual training in the morning, followed by in-shop skill utilization in the afternoon with the assistance of the shop's Axalta Field Representative.

Simply put, the Live Virtual Training program allows techs to learn in the morning and put the skills they've learned to use in the afternoon.

eLearning

With eLearning options from Axalta, customers can take courses online at axalta-learningcampus.com from the comfort of their home and office. Through nearly 200 courses, Paint Technicians can earn I-CAR Credit Hours for courses that typically take 20 minutes or less to complete. This is the ideal learning method for those who prefer to invest a little time in learning at

BASF provides best-in-class training — now online

Vehicles are coated by no more than a human hair's width of product — 1/10 mm — and the slightest error in coverage over a sensor could be detrimental. That's why training and proper certification is key, and why BASF is restructuring our training program to educate more customers than ever before.

BASF's Glasurit and R-M technical training recertification courses (RFN-400 and RFN-300, respectively) will soon be available online through BASF's new training platform. Certified technicians coming up on their 2-year recertification can log on, take the appropriate course through online learning modules, and have their certification renewed immediately.

In addition to course access online, technicians have individual profiles that enable BASF to send advance reminders so certification never expires. Technicians can also see suggestions for other helpful courses such as Color Adjustment Techniques or Cycle Time Reduction Repair.

"Training has always been important, but now more than ever, training is a critical piece of success," said BASF Training Manager Sebastian Grajales. "Restructuring our program and offering select classes online allows us to keep our customers in the know on the latest certified products and repair processes, and increase focus on leading solutions and the right OEM partnerships to keep cars coming and getting through their doors."

Not only does training ensure that technicians are properly repairing vehicles, but OEM-certified, premier shops are required to complete training that meets the standards of OEMs, and by extension, drivers who expect that certified technicians are repairing their vehicles.

Designed as an adaptive learning structure, BASF online training provides engaging, customized learning to students of every skill level across North America.

When technicians log on to the training platform, they will be greeted with a personalized dashboard that shows previously completed online courses, new course offerings and suggested courses, as well as reminders to renew soon-to-expire courses.

The new BASF learning platform will offer technicians and other users an experience with simple instruction and easily accessible content. BASF experts will be available for assistance as students acquaint themselves with the system and work through modules to master BASF online training.

Distributors will also have access to the training platform



with the ability to oversee customer profiles, enabling BASF distribution partners to keep track of technicians that need to sign up for certain courses or that may need extra support on a challenging topic within the curriculum.

"The increasing rate of turnover is creating a new challenge for shops to ensure that all of their people are certified and know how to properly use all of the equipment and products," said BASF Vice President Business Management Automotive Refinish Marvin Gillfillan. "Putting recertification online increases valuable in-shop hours, providing the necessary time for new employees to train and familiarize themselves with the products and processes. And our new platform provides a pathway to mastering refinish technique."

BASF's online training will be launched publicly in Q3 2018 with recertification courses, followed by business courses, distributor courses, and hybrid technical courses, combining in-person and online training in Q4 2018. In addition, BASF training will launch new course content, including specialty courses held at the BASF North American Competency Centers.

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We create chemistry

Chief University helps techs earn free I-CAR credits

With the rapid developments in vehicle technology, use of new materials and introduction of advanced safety systems, ongoing training in evolving collision repair techniques is becoming more important than ever. Chief University makes it easy for technicians who participate in specific courses to secure I-CAR ProLevel® Platinum™ credits at no additional cost. The partnership between Chief and I-CAR helps shops reinvest funds that would otherwise go toward application fees into sending additional technicians to training courses or purchasing new equipment.

Stand-alone I-CAR credit application fees, which are in addition to course registration fees, can range from approximately \$50 to \$125, depending on the length of a course and the number of credits able to be earned. But through Chief University, course participants simply provide their I-CAR number at the start of a course and Chief takes care of the rest, ensuring participants receive the individual credit they've earned which, in turn, helps shops earn or maintain I-CAR's Gold Class status.

"Ensuring today's technicians are properly trained to keep up-to-date with the changing automotive landscape is a priority at Chief University," says Richard Perry, Chief OEM and strategic accounts sales manager. "All of our training courses are I-CAR certified, so it just made sense to take the extra step to ensure our participants are securing their ProLevel Platinum credits in the easiest and most cost-efficient way as well."

Available courses include Aluminum Damage Analysis and Repair Technology,

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In addition to helping trainees save money and secure credits, Chief also offers a voucher for a two-day Chief University training course to customers who purchase specific equipment this year. Included in the voucher program are Chief's new Meridian™ and TrueScan™ Live Mapping™ systems; Goliath™, Impulse-Tilt or Impulse - E/VHT™ frame racks and MI-200T spot welder.

"Purchasing new shop equipment should come with comprehensive training opportunities to ensure the customer not only understands the ins and outs of the equipment but also how best to use the product to maximize productivity and profitability for the shop," adds Perry. "Bundling

our measurement, frame rack and welding products with Chief University training vouchers helps increase the likelihood that customers will sign up for a course and reap the all-in-one benefits that Chief provides, from quality equipment to in-depth training to ongoing service and support."

Chief University training is certified by the National Institute for Automotive Service Excellence (ASE) for compliance with the Continuing Automotive Service Education (CASE) Standards. Chief University is among a select few programs recognized as a member of the I-CAR Industry Training Alliance® program.

Many of the Chief University classes scheduled for 2018 are shown here. For a complete schedule and to register, visit www.chiefautomotive.com/Chief-University.

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Meet Scott Dunfee, NSF International Global Managing Director of Automotive Certification

NSF International, a global organization with more than 70 years of independent testing, auditing and certification expertise recently appointed Scott Dunfee Global Managing Director of Automotive Certification. Dunfee brings more than 20 years of insurance,



SCOTT DUNFEE

technical leadership and repair expertise to NSF International.

NSF International is a leading certifier of aftermarket automotive parts in the U.S., China and Australia and is the only independent third-party certifier of parts distributors, repair shops and automotive recyclers.



NSF INTERNATIONAL PROVIDES OVERSIGHT AND ACCOUNTABILITY TO THE AUTOMOTIVE PARTS AND REPAIR INDUSTRY BY ENSURING MANUFACTURERS, DISTRIBUTORS, REPAIR SHOPS AND RECYCLERS PROVIDE HIGH-QUALITY PRODUCTS AND SERVICES AT EACH STEP OF THE SUPPLY CHAIN.

Dunfee plays a leading role in providing oversight and accountability to the automotive parts and repair industry. As Global Managing Director, he works closely with parts manufacturers, distributors, repair shops, recyclers and insurers to ensure the highest quality products and services are available.

Prior to joining NSF International, Dunfee worked 23 years for Nationwide Insurance. During his tenure with Nationwide's material damage claims operation, Dunfee played a leading role in the development and implementation of several key auto-

motive parts and distributor-based initiatives. Most recently, he successfully served as a Material Damage Claims Director in the insurer's centralized claims operation.

"Scott's extensive insurance and aftermarket parts and service expertise will help address the needs of NSF International clients and other stakeholders throughout the automotive supply chain while expanding services both in the U.S. and globally," said Bob Frayer, Sr. Global Managing Director of Automotive Certification at NSF International. "Scott is the ideal fit and I look forward to working with him to grow and advance the program."

"I REALLY ENJOY WORKING WITH AN ORGANIZATION SO COMMITTED TO PROTECTING PUBLIC HEALTH AND SAFETY ON A GLOBAL SCALE AND WITH THE NSF AUTOMOTIVE TEAM TO FURTHER ENHANCE THE SERVICES WE OFFER THROUGHOUT THE AUTOMOTIVE SUPPLY CHAIN," SAID DUNFEE.

COMMITMENT TO TRAINING

The future of collision repair is near — is your shop ready?

By **AVERY HODGE**, Regional Manager

The entire automotive industry can all agree that today's vehicles are astronomically more complex than their counterparts just 10 years ago. With lane departure, pre-collision, and back up sensors currently being diagnosed and repaired improperly already, the industry is

parts, as seen in Figure 1, such as cruise control radars, lane departure sensors and newer technologies that are starting to become more prevalent in the industry. By providing a more cost-effective alternative, more owners can stay in their vehicles and brand of vehicle, more technicians can repair vehicles with the parts engineered for the car and more painters can paint vehicles, while keeping insurance costs low.



in for a rude awakening as manufacturers push towards fully autonomous capabilities. Not to mention, the increase costs to repair these systems have insurance carriers on edge and preparing for the future, realizing a greater percentage of vehicles will begin to total sooner even with less severe impacts. The leadership team at Original One Parts™ (O1P) has recognized the impending trend and is currently making efforts to position themselves, and their partners, for success as we move towards this automotive revolution.

Original One Parts™ has gained industry traction nationwide as being known for providing 100% Certified Original™ parts that are guaranteed to have perfect form, fit and function. By putting every part through an extensive VINtegrity™ certification process, we utilize strict engineering control plans and processes to test each and every part. This, combined with a proprietary VIN-to-VIN matching, the team at O1P can deliver the right part, the first time, every time. This drastically helps to reduce cycle time and claim severity, while keeping technicians, insurance partners, and most importantly, vehicle owners happy!

O1P stresses that collision centers across the country start paying very close attention to their DRP's specific part protocols, as they are "living" policies that are beginning to change more often. We find that many of the changes are to benefit the shop in providing more alternatives with better quality and consistency than are currently available. For example, O1P is currently partnered and working with the leading Insurance Carriers, Collision Centers and training organizations to provide an alternative option for the new complex electrical

The engineering team at O1P has developed extensive testing for each of their electrical parts to certify each part's specific functionality. Many carriers have already adapted their part protocols in order to allow their collision partners to take advantage of such a high-quality part. The team at O1P then takes it one step further, offering next day shipping nationwide to help reduce cycle time.

Original One Parts™ is also trying to emphasize the importance of training and continuing education for not only technicians, but every position in the collision center. By supporting organizations like CREF to increase the number of young adults entering the industry and organizations like I-CAR to promote personal certifications and education, we hope to make a significant impact on the overall quality of the repair.



FIGURE 1

**ORIGINAL
ONE PARTS™**

PPG offers advanced training for matching today's sophisticated vehicle colors

Every model year, OEMs introduce more complex and exotic exterior colors to help differentiate their vehicles from the competition. This presents significant challenges for refinish technicians faced with repairing these finishes back to their pre-accident condition. Adding to the fray is the fact that the actual color of the customer's vehicle can vary from the OEM standard, making it necessary for the technician to tint the original color, if a variant color formula is not available. In response to these challenges, PPG's refinish training team has developed a series of advanced color-matching courses designed to elevate technicians' knowledge and skills using its premium brand refinish systems. Taught at each of PPG's 16 business development centers, the courses offer both classroom instruction and hands-on exercises, with class sizes kept small to ensure individual attention.



Color adjustment course

This 2-day, in-depth program covers the theory of color and its practical application in matching and tinting colors. Geared to the specific PPG refinish system and its associated color tools used by the attendee, the course covers blending and tinting techniques for single stage, basecoat/clearcoat and tri-coat colors.

Topics Covered

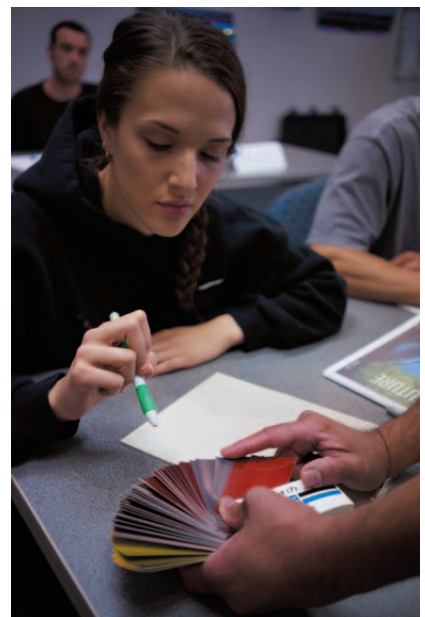
- Color theory and perception
- Color plotting
- Light sources
- Evaluating formulas
- Flop and how to adjust for it
- How to use a tinting chart
- Blending techniques with hands-on exercise
- Proper handling and management of mixing bases

Tri-coat and specialty finishes

Designed to address the increased OEM use of sophisticated colors, this 2-day course provides comprehensive instruction on painting and repairing tri-coat, low gloss, liquid metal and translucent colors, including specialty finishes color retrieval.

Topics Covered

- Color tools for matching specialty finishes
- Creating a letdown panel for tri-coat colors
- Blending tri-coats with hands-on exercises
- Matching low gloss finishes



- Use of gray shade undercoats for translucent colors

Both courses are offered to refinish technicians using the following refinish systems from PPG: ENVIROBASE[®] High Performance, AQUABASE[®] PLUS, DELTRON[®] and the GLOBAL REFINISH SYSTEM[®].

To register for a PPG color training course, contact your local PPG distributor or visit us.ppgrefinish.com/training.



What is MIG Brazing?

MIG Brazing is a welding technique that uses copper/silicon wire in a low-heat adhesion process to join high-strength steels without compromising structural integrity or causing material warpage.

Why should I use MIG Brazing?

Regular steel welding produces high-heat which can be damaging to the new high-strength steels used in cars and create a weak spots that would not meet OEM repair standards, therefore, a low heat process like MIG Brazing is required.

Why do I need a Pulse MIG Welder for MIG Brazing?

Many OEMS are requiring a pulse MIG welder for the process.

What kind of wire do I use for MIG Brazing?

CuSi (Silicon Bronze) is used.

What shielding gas do I use for MIG Brazing?

Argon gas.

Where do I use MIG Brazing?

Follow OEM repair instructions,

they will tell you exactly where to use the procedure. MIG Brazing is commonly used for non-structural applications.

What are the advantages of MIG Brazing?

It provides reduced weld dressing time, reduced warpage, creates less spatter during weld, less chance of burn-through, less edge corrosion due to the capillary action of the filler, good adhesion of fillers and primers and reduces heat effects to reinforcement panels near the weld area.

PRO SPOT
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SATA adam 2: Versatile digital pressure gauge

In order to achieve a perfect color match, it is essential to adjust the inlet pressure on the paint spray gun correctly. Whether the pressure is set too low or too high, color deviations will be the undesired result. The consequences are unnecessary rework disrupting the efficient work-flow. Incorrect inlet pressure can be prevented by using SATA digital spray guns or the accessories SATA adam 2 and SATA adam 2 U. The advantages of these are that they are compact, lightweight and precise, and they enable the painter to keep the pressure always under control.

The SATA adam 2 is the compact retrofit solution for SATA spray guns. It consists of two components. The SATA adam 2 dock replaces the air micrometer of the spray gun, allowing quick and precise adjustment of the spray gun inlet pressure. The second component, the SATA adam 2 display, is safely fitted to the dock by a simple sliding action and can be removed in no time at all — for example, before cleaning the spray gun in a gun washing machine or to use the display on another spray gun with pre-mounted dock.

The display, now available in chrome or black, is equipped with the high-precision measuring electronics displaying the inlet pressure with an accuracy of (+/- 0.7 psi). The display screen always remains in the horizontal center position, ensuring readability of the pressure at all times. The display can be easily cleaned with a cloth soaked in cleaning agent.

The docks are available separately, allowing you to retrofit all your SATA



spray guns. Depending on the spray gun you are going to digitize, you may need a SATA adam 2 mini dock or a SATA adam 2 dock for all regular size SATA spray guns. With one SATA adam 2 display only, your entire spray gun inventory can be cost-efficiently digitalized. Digitizing the SATAjet 5000 B or the SATAjet 5000 B PHASER requires its own dock and display, also available in both chrome and black.

With the universal SATA adam 2 U, all other types of guns can also be digitized — for example, the SATA dry jet blow gun as well as all spray guns of other makes, simply install on the back or bottom of the gun. The adjustment

screw on the side of the SATA adam 2 dock allows to set the pressure precisely.

SATA dock, this retrofit unit, offers even more options for digital pressure control. Combined with the SATA adam 2 display, it replaces any analog pressure gauge with G 1/8 male thread, e.g. on pneumatically operated systems or when upgrading an existing SATA air micrometer with analog pressure gauge #27771 as well as SATA filters to digital.

Investing in the digitalization of non-digital spray guns is far less costly with the SATA adam 2 dock being available separately.

For more information call us at 800-533-8016 or go to www.satausa.com.



German Engineering

Sherwin-Williams supports tomorrow's talent

Committed to strengthening the future of the collision repair industry, Sherwin-Williams' Automotive Finishes team is actively engaged in collaborative efforts with the Collision Repair Education Foundation (CREF) to support secondary and post-secondary students interested in learning the trade. Sherwin-Williams offers training to students and instructors; certification education; hands-on support at state, national and global competitions; and information sharing at career fairs and industry events. Additionally, Sherwin-Williams donates products, training manuals and expertise to ensure that aspiring technicians' classrooms are equipped with every necessary tool.

"The industry always needs outstanding technicians," said Rod Habel, director of Training Operations. "We help students gain knowledge and develop skills they will need to succeed in collision repair careers. Technologies and best practices are constantly evolving in our marketplace. Learning in a hands-on setting how to mix and apply the latest waterborne and low-VOC solvent systems is a constant need for industry professionals, and it is the most effective way to help reduce cycle time and produce quality refinish and repair results."

Training takes place at the six Sherwin-Williams North American automotive finishes training centers — Chicago, Atlanta, Philadelphia, Dallas and Reno in the U.S., and Mississauga, Ontario, Canada. The company regularly invites students and instructors to visit the training center nearest them for hands-on instruction.

The training protocol for students includes an introduction to products and



their features, an opportunity to apply paint inside a spray booth and a discussion of potential career opportunities. Local body shop owners sometimes join the conversation to share insights into what they seek in employee candidates.

Instructors are encouraged to attend training classes annually to learn about emerging technologies and discuss the merits of various teaching approaches.

Michael Pellett, manager of the Dallas Training Center, explains that Sherwin-Williams takes its training efforts on the road, too. "For example, we go to Texas State University twice a year to teach a certification course that helps students earn I-CAR credits, which help them secure jobs in the industry," says Pellett, who has been involved in the CREF efforts for 30 years (he actually went through the training program himself as a student at Waukesha County Technical College in 1973).

The group looks for industry event tie-ins as well. For example, they invite instructors to a class immediately preceding the NACE | CARS Expo & Conference (National Autobody Congress Expo) and

Automechanika every year. Sherwin-Williams trainers also speak at the SEMA Show (Specialty Equipment Market Association) in Las Vegas each year.

To further support students, the team participates in judging, set-up and breakdown at the SkillsUSA National Skills and Leadership Competition. Students in the Automotive Refinishing Technology category compete in areas including paint mixing, matching and application, troubleshooting and more. Sherwin-Williams then goes on to support the national contest winners in the global competition.

"These students are the future of our industry," concludes Habel. "We are committed to supporting them in any way we can, giving them the tools they need to keep us all moving forward."

For more information on Sherwin-Williams Automotive Finishes training, visit: <http://www.sherwin-automotive.com/collision-repair/training-support/>; or call 1-800-SWULTRA (1-800-798-5872).



SHERWIN-WILLIAMS
Automotive Finishes

Spanesi's professional training solutions

Vehicle construction technology continues to change at an increasing faster rate, which in turn, drives changes to vehicle repair methods within collision repair facilities. Collision repair facilities must stay current with modern vehicle repair techniques, which this places a significant burden on already constrained shop resources.

Every year, Spanesi Americas devotes more and more resources to meet our client's and distributor's training requirements. Spanesi offers training initiatives in three core areas; Clients (Customers / End-Users), distributors and Spanesi team members.

In each core area, Spanesi Americas provides multiple opportunities for training and holds multiple training sessions each month at its corporate training center, distributor training centers and in-shop locations. This strategy ensures that the training required to properly install, maintain and operate Spanesi tools and equipment is delivered to all involved. Spanesi's training goal is to ensure that the vehicle technician can perform a repair back to OEM standards using Spanesi's OEM approved products.

Touch Measuring System

Training starts immediately at the time of sale. The Spanesi Touch electronic measuring system is not only delivered and installed at the shop, but Spanesi provides initial in-shop training. This includes training for measuring vehicles on the floor, on a 2-post lift, or on a frame rack or a straightening bench.

After becoming familiar with the

Touch, it's recommended that shop technicians attend the comprehensive Spanesi 2-day Touch training course. The course, offered at the Spanesi Americas and Distributor Training Centers. It provides technicians basic, as well as, more advanced functions of the Touch electronic measuring system.

Winstar Universal Jig (Fixtures)

Vehicle substrates are driving OEM requirements to use jigs and fixture systems to repair today's vehicles. As with the Touch, Spanesi offers training on the Spanesi Winstar jig system when it is delivered and installed in a collision repair facility. The Winstar Jig system can be used with the Spanesi straightening benches up to 14 jig locations. A smaller jig system is also comes with the Multi-bench Package 6. Spanesi jigs can be used for anchoring, pulling, holding and parts alignment.

Spanesi offers a 1-day Jig training course at its training center and distributor training centers. During this course, the technician is thoroughly instructed jig system setup, use and advanced functions of the jigs, including the upper-body system.

Welders

With the variety of substrates being used today (mild steel, advanced high-strength steels and aluminum), there are also different welding requirements needed to perform proper repairs. With its squeeze type resistance spot welder (STRSW), Spanesi provides in-shop training at the point of sale. The training focuses on the operation and programming of the welder and the proper setup



application of the arms and electrodes included with the welder. Spanesi's MIG/MAG welder training encompasses setup, programming and proper welding techniques using this synergic welder.

Training Center Growth

Spanesi Americas primary Training Center is located in Naperville, Illinois. Due to Spanesi's tremendous growth in North America, the demands for training have also grown. Through its distributors, Spanesi is expanding the number of training centers that are in place. We have locations in Plant City, FL, Bellingham, MA, Wixom, MI, Lincoln Park, NJ, Toronto, ON, and Tyler, TX. More locations are due to open in 2018 and 2019.



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A comprehensive curriculum around the world

Valspar Automotive Training Centers are located in Grand Prairie (Texas, U.S.), Massillon (Ohio, U.S.), Detroit (Michigan, U.S.), Sacramento (California, U.S.), Kincumber (Australia), Rome (Italy), Lyon (France), and Lelystad (The Netherlands). Thousands of painters from all segments of the industry looking to improve their craft visit these centers each year.

Collision repair specialists, color-match experts, custom painters, and airbrush artists have all benefitted from Valspar Automotive training, regardless of the VOC restrictions in their hometowns. Valspar Automotive offers solvent and waterborne systems that meet industry guidelines and set VOC limitations in your market.

A highly skilled staff possesses expertise in every facet of finish applications, enabling Valspar Automotive to offer a wide range of instructional courses from state-of-the-art facilities.

A state-of-the-art learning experience

Auto refinish technicians and distributors who attend classes at Valspar Automotive's Training Centers benefit from an instructional standpoint and learning environment.

Facilities are equipped with high-tech class and color mixing rooms, spray booths and must-have digital technologies. "The goal is to set the standard when it comes to training in the industry and continually improve upon the learning environment for students," said Gary Kilby, Technical Director, Valspar Automotive.

The center's training curriculum, which is approved by the I-CAR Industry Training Alliance®, includes both theory and practical workshops and gives students hands-on experience in the preparation booth, spray booth and state-of-the-art color



mixing room. Courses cover paint and process and a wide range of skills, from basic workshop and color skills to advanced programs using Valspar Automotive's trusted brands — Valspar® Refinish, DeBeer Refinish®, Prospray® Finishes, Matrix Automotive Finishes®, and House of Kolor®.

"The goal is to help our students, collision repair professionals of all levels of experience, work towards achieving that invisible repair," says Kilby. "We show them how the latest products and systems work, and how implementing processes impacts and benefits quality, output, productivity and profitability."

New! Color Theory curriculum for DeBeer Refinish

The Color Theory class is offered only for DeBeer Refinish's waterborne system, WaterBase 900+ Series. It is a new class as of this year to Valspar Automotive's curriculum. The class focuses on OEM color styling and variations.

"Students learn what is involved in selecting the right color and how to properly utilize the necessary tools and resources, like the spectrophotometer," says Kilby.

Color Theory at a Valspar Automotive Training Center also includes hands-on experience with Valspar's formula retrieval software: Color Focus.

For more information about Valspar Automotive and class schedules, visit www.valsparauto.com.

valspar **AUTOMOTIVE**

COLLISION PRODUCT GUIDE

MINI SANDING BLOCKS

Motor Guard has introduced a first of its kind line of miniature sanding blocks. Constructed of a specially formulated compound, their ergonomic shapes allow for fine, fingertip sanding on a wide variety of profiles and body lines. Mini-Blocks are available in three styles: the Rectangular Mini-Block (MB-10) for flat sanding and sharp corners, the Double D Mini-Block (MB-11) with radiused sides for sanding inside contours, and the Curved Mini-Block (MB-12) for complex body lines and details. Each block measures 3-1/2 inches in length.

MOTORGUARD.COM



SPRAY GUN

The SATAjet 1500 SoLV is designed for full system applications: solvent-based basecoats, either Low VOC or National Rule as well as spraying sealer and clearcoat. Available in both HVLP and RP, the RP version is now approved for SCAQMD and EPA. Offering 1.3 and 1.4 long-life stainless nozzle sizes, the nozzle system meets the demands for topcoat applications and delivers even material distribution throughout the entire spray pattern. The air pressure ranges from 7-29 psi, which allows for a fast working speed.

SATAUSA.COM



DETAILER CLEANER

Meguiar's® Citrus Power Cleaner Plus is a versatile all-purpose cleaner that's safe and effective on many different types of surfaces, can be diluted depending on the specific surface and task at hand and delivers a low-foaming action. Since this formula is solvent-free, it is ideal for a professional in a production environment, as it can be used with hot and cold extraction machines as well as air-powered tools.

MEGUIARS.COM



WHEEL ALIGNMENT SYSTEM

Finding your way around any alignment problem just got simpler with the new John Bean® V2280 imaging wheel alignment system. The John Bean V2280 features high-resolution cameras for accurate alignment readings and industry leading fault diagnosis. Other features of the V2280 include Video Speed Cameras, XD Targets, EZ-TOE and Guided Adjustments.

JOHNBAN.COM



SCAN TOOL

With the European coverage in Snap-on® Software Upgrade 18.2, technicians gain the power, knowledge and confidence they need to keep even the toughest European repair jobs in-house. The latest software offers significantly enhanced general repair, collision and safety systems coverage for Alfa Romeo®, Audi®, BMW®, FIAT®, Jaguar®, Land Rover®, Mercedes-Benz®, Porsche®, Volkswagen® and Volvo®, with coverage for 1992 and later vehicles.

DIAGNOSTICS.SNAPON.COM/18.2



PPG DELTRON DBC

As PPG's best-selling, solvent-based refinish system, DELTRON® DBC basecoat offers broad appeal to users of all types, from custom painters to production collision centers focused on cycle time performance. Well known for its user friendliness, the system features a wide selection of the latest undercoat and clearcoat technologies, giving users the ability to tailor a system to specific production requirements and operating conditions.

US.PPGREFINISH.COM



STORAGE CABINET

LISTA® and Vidmar®, Stanley Black & Decker Storage Solutions brands, extends its product portfolio with the launch of the new Tall Cabinet line of customizable storage options. The Tall Cabinet line has been designed as the company's tallest single-housing to date, making it ideal for customers in the automotive/vehicle services industry. The Tall Cabinet range is available in five heights and available with drawer and shelf combinations.

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AD INDEX

ADVERTISER	PAGE #	ADVERTISER	PAGE #	ADVERTISER	PAGE #
AKZONOBEL COATINGS INC.....	66, CV4	KIA MOTORS AMERICA.....	15, 48, 59	TOYOTA MOTOR SALES USA.....	23
AMERICAN HONDA MOTOR INC.....	47	LAUNCH TECH USA INC.....	41, 70	TYC GENERA.....	21, 57
AUTEL.....	45	MERCEDES-BENZ CORP.....	5, 34, 35	UNICURE SPRAYBOOTHS.....	25
AUTOMOTIVE MGMT INSTITUTE.....	58	MESSE FRANKFURT USA.....	31, 61		
AXALTA COATING SYSTEMS.....	7, 67	MOTOR GUARD CORP.....	50	PRODUCTS	
BASF CORPORATION.....	13, 68	NSF INTL.....	43, 71	3M.....	79
CAR-O-LINER CO.....	49	ORIGINAL ONE PARTS.....	51, 72	JOHN BEAN.....	79
CHIEF AUTOMOTIVE SYSTEMS INC.....	19, 69	PPG INDUSTRIES.....	CV2-03, 73	LISTA.....	79
CJ INC.....	81	PRO SPOT INTL INC.....	74, CV3	MEGUIAR'S INC.....	79
EAGLE ABRASIVES.....	10	SATA SPRAY EQUIPMENT.....	9, 75	MOTOR GUARD CORP.....	79
EQUALIZER INDUSTRIES INC.....	42	SEM PRODUCTS INC.....	29	PPG INDUSTRIES.....	79
GOFFS ENTERPRISES INC.....	12	SHERWIN-WILLIAMS.....	27, 55, 76, 78	SATA SPRAY EQUIPMENT.....	79
INDUCTION INNOVATIONS INC.....	58	SOUTHERN POLYURETHANES INC.....	17	SNAP-ON.....	79
INSTA FINISH.....	11, 39	STECK MANUFACTURING CO.....	64		

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Marketing and promoting your shop

Small actions can make a big impact on the customer's experience

There are many ways to market a collision shop. I'll start by going over some basic fundamentals and then share some of the successful actions I've taken over the last 18 years.

First, it's important to know the difference between advertising and public relations. Advertising is offering your business or service to the broad public in hopes that it will attract them and bring them in to your business when your services or products are wanted or needed. This can be via print, internet, radio, television, social media, etc. It can be done as branding, which is just getting your business name and image recognized, or it may include some type of offer or special treatment or discounts that your company offers. Maybe you have loaner cars or you include a minor detail with any collision repair. Many shops advertise a lifetime warranty. Whatever message you are sending out should be based on what your clients are actually looking for.

Public relations can be defined as "good works well published." A good example of this would be doing an excellent job on the customer's vehicle and having them show and tell their family, friends, mechanic and insurance agent the great job you did. Another example that has become popular is fixing up a car and donating it to a worthy recipient and documenting and sharing the whole process with the community.

The truth is that almost every action you take in your business is a promotional action. Are you easy to find on the web? Is your website clear and easy to navigate? Does it actually direct customers to your business? How you handle the customer calling in on the telephone, the appearance of the your sign, parking lot, building and front office are extremely important in presenting a professional image to your clients. You should make it a regular exercise to look at your business from a customer's point of view. Are your estimators friendly, well dressed and well groomed? Is the front office and customer parking clean and clearly marked so it's easy for your clients to arrive at the right place?



THE TRUTH IS THAT ALMOST EVERY ACTION YOU TAKE IN YOUR BUSINESS IS A PROMOTIONAL ACTION.

Do you have the type of vehicles that you want to work on parked in front of your shop? I recommend parking only clean, good-looking late model vehicles out front if that's the type of vehicle you want to work on. Most customers will be much more comfortable bringing their vehicle to your shop if they see similar vehicles parked out front. Wrecked cars should be kept out back — customers are likely to be turned off by seeing crunched up sheet metal and broken glass.

Do you have a clean, modern customer bathroom? Customers will make a buying decision based on your reputation and what they see and experience during their visit to your website and/or your repair facility.

Many seemingly small actions add up to a great customer experience, so be aware of how you and your employees are promoting your shop in every step of the customer service experience.

We send out handwritten thank you cards to every client who comes in for an estimate or repair. These are done the day after the customer comes in. We've gotten a great response from this gesture, as it is a personal contact that shows clients are important to us.

There are many public relations actions that can be successful for a collision shop. One great PR event we do is our annual pumpkin carving contest. We provide the pumpkins and get all the local agents and repair shops involved. We post the entries on Facebook, and the one with the most likes wins a gift certificate for a free detail.

We also host car wash fundraisers for local non-profit groups. These provide great exposure for our shop and help out groups like the Boy Scouts, local little league teams and church groups.

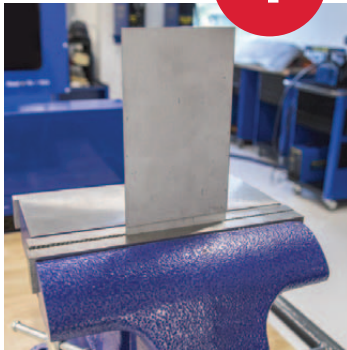
There are many creative ways to involve your shop in the community and when you do, the community will support you! Have fun and don't hesitate to contact me for more information. I'm happy to share. 📧

KAREEM ABOUZEID is the owner and operator of Knockout Collision Repair Inc. in Chico, Calif. Kareem.kcrinc@gmail.com

TECH TIP: PEEL TEST

HOW TO PERFORM A DESTRUCTIVE WELD TEST

STEP 1



Before Welding:
Your test welds should be on the same material or as close as possible to the material you will be repairing.

- Clamp the welded test material into the vice.

STEP 2



- Bend material back in the vice to create a section to grip and peel.
- Use a pair of channel lock pliers to help roll the material back.

STEP 3



- With the pliers, start peeling the material back.
- You will see the weld nugget start tear from bottom or top of the material.

STEP 4



- If welds are good, the weld nugget will stay in tact while tearing around weld nugget.

NOTE: This test may be harder to complete on HSS and UHSS.

1

2

3

4

FIND MORE TECH TIPS ON OUR YOUTUBE PAGE



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