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VOLUME 54 | NUMBER 5 MAY 2015



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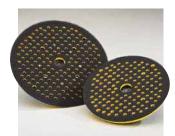
NORTON MULTI-AIR CYCLONIC NORGRIP DISCS

The Norton SG ceramic alumina A975 grain is available in the entire grit range, P80–P1000. The sharp, cool-cutting ceramic grain performs well on conventional paints and primers as well as hard-to-sand surfaces like ceramic clears, E-coated panels, aluminum and composites. Multi-Air Cyclonic discs provide long life, fast cut, and maximum dust extraction.

| GRIT | 5" DISCS | 6" DISCS |
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| P1000B | 776960- 07795 | 776960- 07788 |
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| P600B | 776960- 07791 | 776960- 07786 |
| P500B | 776960- 07768 | 776960- 07785 |
| P400B | 776960- 07765 | 776960- 07784 |
| P320B | 776960- 07763 | 776960- 07781 |
| P280B | 776960- 07762 | 776960- 07778 |

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NORTON MULTI-AIR NORGRIP BACK UP PADS

Norton Multi-Air Cyclonic discs can attach to any multi-hole (54+ holes) back up pad since the holes in the disc do not have to be matched up with the holes in the pad, so changeover is fast and easy. However, we do recommend the Norton Multi-Air pad for optimal results.

| PART # | DIAMETER x THREAD | DENSITY | COLOR | QTY./PK. | PKS./ CASE | RPM |
|----------------------|-------------------|---------|--------|----------|------------|--------|
| 666233- 76000 | 5" x 5/16-24 | Medium | Yellow | 1 | 5 | 15,000 |
| 636425- 06160 | 6" x 5/16-24 | Medium | Yellow | 1 | 5 | 12,000 |
| 636425- 60605 | 6" x 5/16-24 | Soft | Orange | 1 | 1 | 7.700 |



NORTON MULTI-AIR NORGRIP INTERFACE PADS

Designed for use with fine grit Norton Multi-Air Cyclonic NorGrip sanding discs to improve both surface finish and cut rate. Use with Multi-Air NorGrip Disc Back-Up Pads. Align the interface pad with the back up pad then simply attach the disc to the interface pad as the holes do not have to be lined up.

| PART # | DIAMETER | THICKNESS | QTY./PK. | PKS./CASE |
|----------------------|----------|-----------|----------|-----------|
| 636425- 85864 | 5" | 1/2" | 16 | 1 |
| 076607- 19359 | 6" | 1/2" | 6 | 2 |



DYNORBITAL-SPIRIT - SELF-GENERATING VACUUM

Random Orbital Sander includes #50617 Portable Dust Collection System as shown in the application photo on the front cover. Uses exhaust air to create a vacuum at the sanding surface.

| PART # | ORBIT | LEVER COLOR | CASE | | |
|--|---------------|-------------|------|--|--|
| 6" Self-Generating Vacuum (PSA Pad included) | | | | | |
| 616026- 21016 | 3/8" Orbital | Orange | 1 | | |
| 616026- 21036 | 3/16" Orbital | Gray | 1 | | |
| 616026- 21056 | 3/32" Orbital | Black | 1 | | |



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FACTORS TO CONSIDER WHEN UPGRADING TO SERVICE ALUMINUM VEHICLES

SHOP PROFILE

Keenan Auto Body, Inc.; Clifton Heights, Pa.

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ANALYSIS

FACTORS TO CONSIDER FOR UPGRADING TO ALUMINUM

Manufacturers and shop owners share perspectives on repair safety, information accuracy and personal experiences when transitioning to aluminum repair.

LEGISLATIVE ISSUES

IBIS 2015 TO INCLUDE INDEPENDENT CONTENT, COMMERCIAL BREAKS

The IBIS Global Summit 2015 will, for the first time, include commercial breaks giving delegates a chance to learn about the IBIS partners.

INSURANCE MATTERS

OEMS CONSIDER STEEL-ALUMINUM STRUCTURES

Hybrid steel-aluminum structures could be on the way, thanks to advances in cold metal transfer welding.

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FEATURE

KNOWING WHEN TO BUY, SELL OR **HOLD IN YOUR BUSINESS**

BY BRAD MEWES | ABRN BLOGGER

Find the strategy that works best for your company in today's ever-changing environment.



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THE SHOP OWNER

BY MIKE LEVASSEUR

LOCATION, LOCATION, LOCATION

When looking to add a potential new shop location, make sure to visit the site and surrounding areas to ensure it will support a viable business.

THE PROFIT MOTIVE

BY CHRIS "CHUBBY" FREDERICK SHOW ME THE MONEY

50 Money comes in many forms, and you need to look beyond your P&L statement for it.

THE LAST DETAIL

BY MIKE ANDERSON

A MUST BEFORE WELDING

Removal or set back of electrical Removal of Set Data Co. 5.2. Components is a necessary operation.

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MINDING YOUR BUSINESS

BOOST PAINT SHOP THROUGHPUT

BY ROBB POWER | CONTRIBUTING EDITOR

Apply manufacturing's quick changeover approach to reduce non-value added activities and increase efficiency.

IN THE NEXT ISSUE OF ABRN

earn how to quickly improve your paint and material margins.

FEATURES

THE SHOP PROFILE

KEENAN AUTO BODY INC.; CLIFTON HEIGHTS, PA JAMES E. GUYETTE / CONTRIBUTING EDITOR



52This 12-location MSO consistently leans forward with never-ending change, including green and lean initiatives that help to boost shop efficiency and are kind to the environment.



MECHANICAL FOCUS

COMMON A/C ISSUES, QUICK FIXES

BY VANESSA ATWELL **CONTRIBUTING EDITOR**

Tips and techniques for 62 handling A/C repairs.





FROM ABRN CONTRIBUTING EDITOR AL THOMAS.

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BY TIM SRAMCIK | CONTRIBUTING EDITOR

Steps to plot a successful repair strategy.

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69

Chief Automotive Technologies' new Universal Structural Holding

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Clamp System lets shops upgrade exisiting frame racks to properly repair aluminum and high-strength steel vehicles.



BONUS ONLINE CONTENT

BLOG SPOTLIGHT

TOP MSOS selling out to Big Four consolidators

The industry's top MSOs are quickly changing as more and more are being acquired by the Big Four consolidators, according to research from Focus Group

[URL ABRN.COM/MSOSALES]



BLOG SPOTLIGHT

INSURANCE COMPANIES and customers are requiring greater accuracy, speed and cost effectiveness, so scanner calibration is important. Don't leave money on the table with bad scanner calibration. Estimate quickly and correctly for higher profits.

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ENTERPRISE RENT-A-CAR partnered with the SkillsUSA South Carolina Leadership and Skills Conference in March to provide four late-model vehicles for use in repair contests for collision repair students.

[URL ABRN.COM/SKILLSCARS]

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PartsTrader Markets Limited, PartsTrader's parent company, completed a \$30 million private equity capital raise to drive growth in the U.S.

»» ABRN.COM/PARTSTRADERUSGROWTH

I-CAR, CREF NEED INDUSTRY SUPPORT FOR GOLF OUTINGS

I-CAR will host golf fundraisers to raise money for local collision schools through the Collision Repair Education Foundation.

»» ABRN.COM/GOLFRAISERS

LOUISIANA SHOP OWNER TO RUN FOR STATE INSURANCE COMMISSIONER

Matt Parker, owner of Parker Auto Body in Monroe, La., will run in October for Louisiana State Insurance Commissioner.

»» ABRN.COM/PARKER

HOTEL RESERVATIONS OPEN FOR NACE/CARS 2015

Hotel reservations can now be made for NACE | CARS 2015 in Detroit, July 23-25, on the travel section of the event website.

»» ABRN.COM/NACEHOTEL

SPANESI EXPANDS

Spanesi Americas has doubled both its warehouse and training space in Naperville, III.

»» ABRN.COM/SPANESIGROWTH

CHIEF UNIVERSITY UPDATES REPAIR COURSE

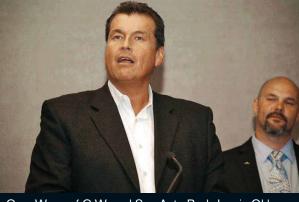
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ENTER (KEYWORD)

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Gary Wano of G.W. and Son Auto Body Inc. in Oklahoma City, Okla., says preparing for aluminum has to be a continual culture of learning throughout the shop that must be embraced from the top to the bottom.

ALUMINUM PREP

Factors to consider when upgrading to aluminum

With more cars and trucks equipped with aluminum as well as tools, products and equipment specifically designed for them - entering the market every day, the debate on how and with what to best perform proper aluminum repairs rages on. The Society of Collision Repair Specialists (SCRS) sat down with representatives from the equipment and tooling sides of the industry, as well as several collision repair facilities who have upgraded, to get their perspectives on repair safety, the importance of accurate information and their personal experiences on the front lines of the aluminum revolution.

Bastian Hartmann, project manager of Advanced Joining Technologies for Indiana-based Bollhoff, Inc., a self-piercing rivet (SPR) fastener and tooling company, knows the importance of a good tool - and the devastating consequences of an inferior one. "A company who wants to provide a proper SPR repair kit should not only sell a tool, but also have the experience and competence to guide their customers on how to set an SPR properly based on the application or material combination," he says. "SPR equipment in mass production runs with high setting forces of up to 80kN (approximately 1.5 seconds per joint), and full process monitoring on parts fixed and clamped in engineered devices. To match the same joint quality with a handheld tool in a workshop requires not only different parameters, but also training on the technology itself. Training should be provided to all operators in the correct use of the tooling

>> CONTINUES ON PAGE 19

BREAKING NEWS INTERNATIONAL EVENTS

IBIS TO FEATURE COMMERCIAL BREAKS

The International Bodyshop Industry Symposium (IBIS) Global Summit 2015 will, for the first time, include "commercial breaks" - giving delegates and attendees a chance to learn about the IBIS partners.

Taking place before the refreshment and lunch times, these commercial breaks will allow event partners and sponsors to present themselves in unique and interesting ways in two-minute video spots at the event, slated for May 27-29 at the Hilton Athens in Athens. Greece.

The commercial breaks are part of IBIS 2015's theme, "Evolution through Collaboration."

IBIS partners are 3M. AkzoNobel, Audatex, Coating Axalta Technologies, Chief Automotive Technologies. EMM, Enterprise Rent-A-Car and Fix Auto World.

The two-day conference will kick off with a global perspective from the IBIS standpoint from Jake O'Neill, IBIS events and marketing manager. Clive Huby with Starcount will discuss the importance and value of data, and Yannis Ionniadis with AkzoNobel will offer a case study of Greece.

Other agenda items include a look at consolidation and private

>> CONTINUES ON PAGE 12



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>> CONTINUED FROM PAGE 10

equity in the market from Rex Green with BB&T Capital Markets; insurer models in South America and Asia from Joe Funk with AIG; parts platforms and the Dutch market; the consumer view by David Mills with Direct Line; and building a global body shop network with the consumer in mind from Andy MacDonald with Tesla Motors.

The goal of the presentation lineup is to promote the benefits of a cross-industry collaborative approach to business, while also advocating IBIS's core message of safety, skills and raising standards.

The event, which is expected to have 350 attendees, is geared toward collision shop owners and management, insurers, parts distributors and those in global business development, marketing or relations in the industry, among others. Since its inception in 2001, it has become a leading global conference and networking event for collision industry leaders and influencers.

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Association warns of counterfeit part dangers

The Automotive Recyclers Association (ARA) is warning consumers about the growing danger of counterfeit automotive parts in the marketplace and urging them to utilize quality, recycled original equipment manufacturer (OEM) parts supplied by professional automotive recyclers.

"ARA has a history of speaking out against counterfeit automotive parts and warning the automotive repair industry and consumers about the dangers they pose and their increasing prevalence," said ARA President, Ricky Young. "The issue of counterfeit parts is a serious concern for the professional automotive recycling industry because like the manufacturers, ARA members also sell genuine, OEM parts. Each day over 500,000 recycled OEM parts that were designed and built to meet the automakers original requirements for fit, finish, durability and safety are sold directly to consumers as well as to repairs shops. The presence of counterfeit parts in the marketplace is harmful to automotive recyclers and all other reputable part suppliers."

Lawmakers across the country are increasingly aware of the threats posed by counterfeit automotive parts and are taking steps to address the problem. Legislation has been passed in several states making it a crime to knowingly manufacture, import, install, reinstall or sell a counterfeit or nonfunctional airbag.

ARA believes collision repairers should use their professional training and judgment to make repair decisions based on the individual circumstances surrounding the damaged vehicles, and that all stakeholders involved in the collision repair marketplace should recognize the genuine value, safety and benefits that each repair part option (recycled, new, aftermarket, remanufactured) may provide in a given repair.



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ALUMINUM REPAIR

OEMS CONSIDER STEEL-ALUMINUM STRUCTURES

BY BRIAN ALBRIGHT | CONTRIBUTING EDITOR

While everyone is preparing for an influx of aluminum in vehicles, there could be hybrid steel-aluminum structures on the way thanks to advances in cold metal transfer (CMT) welding.

A February Wall Street Journal article discussed a process being tested at Linz, Austria-based Voestalpine, Europe's third-largest steelmaker. It's a complex and pricey approach that uses argon gas and a zinc coating on the steel to bind the two metals together. The company hopes to reduce costs by a third so that it can be adopted by high-end automakers.

Audi has already been in touch, according to Voestalpine, and Honda is approaching the issue using a different technique to fuse steel and aluminum.

According to Jason Bartanen, director of industry technical relations at I-CAR, the CMT method has been around for a long time, and has been used for thin-gauge materials to avoid excessive heat and warping.

Joining the two metals this way was long considered impossible because of the differences in their chemical and physical properties. Attempts to weld them together led to brittle intermetallic phases, which impacted the tensile strength of the joint.

Currently, steel and aluminum structures can be combined, but with adhesives and mechanical fasteners. For the cold metal transfer process to be commercialized, Voestalpine would have to reduce costs through changing the alloy of the film between the metals, or making the process faster.

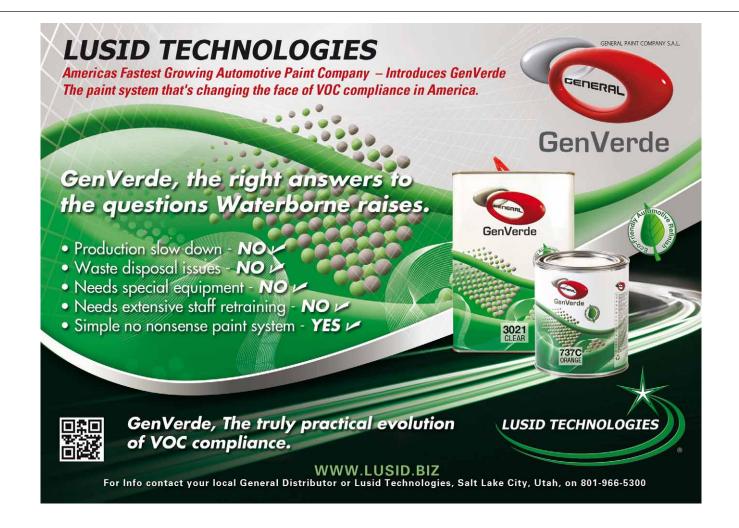
According to Bartanen, Audi, BMW and other automakers have joined steel and aluminum components in their vehicles using rivet bonding technology. "When or if we do see vehicles being produced with CMT technology

used to combine steel and aluminum, I would envision that those repairs would be made using rivets or adhesive bonding," Bartanen says. "I don't see CMT welding begin done in a collision repair facility, definitely not in the next five years."

That's because CMT is expensive and complex, and requires skill and training that would be challenging for collision shops to deploy.

"I do think we'll see mixed materials growing, and we'll have hybrid vehicles with steel and aluminum, along with composites," Bartanen says. "From a collision repair standpoint, you have to know which materials you are working with, the reparability limits of each material, and the recommended procedures, whether that involves welding, rivet bonding, or other types of attachment methods. There will have to be a damage analysis process to understand what is repairable and what is not, and which tools you'll need."

Continue reading this article at ABRN.com/CMT.





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I-CAR®, the Inter-Industry Conference on Auto Collision Repair, has teamed with American Honda to exclusively deliver Honda-developed online training to the US market via I-CAR. com, providing accessibility across the collision repair industry. This is the launch of the first two modules in the planned series.

"We are excited to be American Honda's partner for delivery of

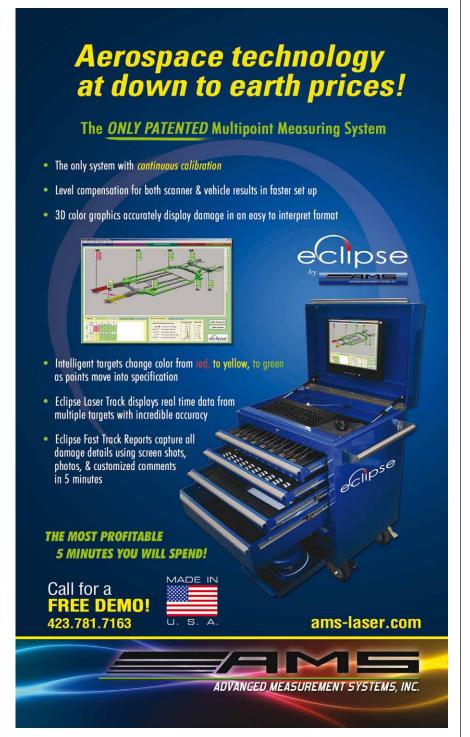
Honda- and Acura-specific training to the US market. This initiative builds on our OEM momentum and similar recent training partnerships I-CAR has forged with OEMs such as Ford, Jaguar and Land Rover, to deliver OEM vehicle-specific training. That said, this relationship with Honda is unique in that this is the first time I-CAR is delivering a series of OEMdeveloped online training," said John Van Alstyne, CEO & President of I-CAR. "By collaborating with I-CAR, Honda is leveraging our vast market reach and mature delivery systems to make sure the industry has ready access to the information and knowledge necessary for complete, safe and quality repairs of Honda and Acura vehicles."

"American Honda is one of the earliest and most significant contributors to I-CAR's Repairability Technical Support (RTS) Portal," says John Bosin, I-CAR's Director of Segment Development - OEM. "Partnering to deliver this portfolio of training modules builds upon what they have been doing to make repair information more accessible across the industry. American Honda has worked to ensure their information on the RTS Portal is comprehensive and valuable to the industry."

The first two training modules of the series are now live on I-CAR. com. Using Honda & Acura Service Information (HON10e) is an online, one-hour course educating students on the importance of using factory service information and potential consequences if it is not followed. It provides information on Honda and Acura service publications that may be helpful during repairs and demonstrates how to use ServiceExpress.

The second module, Honda & Acura High-Strength Steel Repair (HON11e) is also an online, one-hour course that overviews the different grades of high-strength steel parts for Honda and Acura vehicles, and how to access the repair information using Honda and Acura service information. It also covers approved repair methods for high-strength steels when repairing Honda and Acura vehicles.

For more information on the new Honda modules visit i-car.com/hondatraining.



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FACTORS TO CONSIDER WHEN UPGRADING TO ALUMINUM

and appropriate personal safety equipment should be worn at all times."

"Rivets can take up to 11,000 lbs. of force on an 8-millimeter tip," says Dave Gruskos, president of Reliable Automotive Equipment (RAE). "Tip quality and arm stability is vital to performing a safe and proper repair. Also, the types of rivets vary from one OEM to another, so one needs the ability to adapt the rivet to fit each job. A battery-powered rivet gun for a tiny rivet, for example, may not be the best direction."

So how can repairers be sure they're using the right tools for the job, and more importantly, stay safe while working with them? "Collision repair professionals should be purchasing tools that have been approved and tested by car manufacturers," says Gruskos. "There should be training provided on the tools' proper use by suppliers that have a tech line. Repairers should continue to be trained - and retrained - yearly, and should also have tools certified on an annual basis as well."

"For the installation of the SPR, body shop operators should follow the tool's operation manual and OEM guidelines, including all safety procedures," adds Hartmann. "For the application, in the best case, there is an OEM repair guideline existing that describes the exact setting parameters and the rivet/die combination to use at a certain location. This takes away the 'quessing' on the operator side and keeps both body shop and customer safe. If such a document is not available, the OEM should provide a general SPR guideline and the provider for the equipment should be able to help the operator achieve the joint quality described in the document."

There is a plethora of information to consider when researching the decision to upgrade or modify tooling and equipment in the shop. However, in many cases, some of the most valuable data can come from those who have experienced it firsthand. SCRS Past Chairman Gary Wano of G.W. and Son Auto Body, Inc. in Oklahoma City, Okla., is a facility owner who has adopted advanced equipment and tooling to prepare for the future. As he advises, the decision cannot be made overnight. "The adoption of advanced programs, tooling, equipment and procedures has to be birthed from leadership, but a continual culture of learning must also be embraced, from the very top to the very bottom of the shop," he says. "This is not just a plaque on a wall; it's

about making sure the correct processes are in place, continually investing in the improvement of your business and making sure that the people you have along for the journey are as dedicated to the business' success as you are."

Once a shop commits to upgrading, SCRS board member Kye Yeung of European Motor Car Works, Santa Ana, Calif., notes that the research process into tool and equipment purchases should encompass the past, present and future. "I would look back at which lines I repaired, who my customers were, and whether those OEs were thinking about changing their production or technology in the near future, i.e. carbon fiber. You don't want to circumvent a process where a manufacturer comes up with something unique, leaving you with outdated equipment. If you're going through that push to upgrade, start slowly; get all the basics out of the way before deciding exactly what large purchases to buy."

As Yeung continues, those large purchases should be considered with universality and convenience in mind whenever possible. "The so-called 'right' brand would, in my eyes, have to include a service network that's easily attainable. Our shop was originally involved with the Aston Martin factory-approved program, and every piece of equipment had to be imported. Even their adhesives were Eurospecific; you simply could not get them in the States. The accessibility of service is huge. Before you jump, see what required equipment can be used on multiple lines."

"The manufacturers dictate the tools, equipment and training that are mandatory," adds SCRS Chairman Ron Reichen, Precision Body & Paint, with multiple locations in Oregon. "If you're going to invest in becoming a certified shop, you need to either dip your toe in the water, or jump in and become certified for several lines. If you invest in building a clean room for Audi's certification program, for example, you'll be able to use that space for several lines. Some pieces of equipment also have crossover, and with an average cost of \$10,000 apiece or more on rivet guns and between \$20,000 to \$30,000 on welders, the economies of scale really do come into play in some respects. Do your due diligence, your homework and pay attention to the big picture."

While market demand is also hugely influential to the decision-making process, Reichen stresses, "Research whether your market will support the lines you want to work on before purchasing equipment to fix them. Outside of your relationship with the OE, the most important tool in a repairer's arsenal can be one's own peers. Wano agrees, "My relationships with my industry colleagues have been extremely helpful in my research. Whether it's calling around to get their experiences on a certain piece of equipment or getting their take on a particular tool, keeping the lines of communication open helps us all make more informed, realistic decisions for our customers." Yeung adds, "Your relationship with the OE and sponsoring dealer is very important because if you don't have that affiliation, you might not know where to start in terms of purchasing equipment or getting training. Industry groups and communication are incredibly important to help facilitate that."

The OEMs, industry publications and associations are the greatest source of information on the ins and outs of becoming certified, choosing the proper equipment for your business and fostering continued success in the market.

SEMA exhibit space now available

Booth space reservations for the 2015 SEMA Show are now open at www. semashow.com/buyabooth. The annual trade show taking place Nov. 3-6, in Las Vegas, Nevada, is the leading venue for the \$33 billion automotive accessories industry.

The four-day event brings together more than 140,000 individuals to do business. Manufacturers exhibit to showcase the newest automotive accessories; and 60,000 attendees are buyers representing retail stores, jobbers, distributors and installers. Nearly 25 percent of the buyers are from outside the United States. Additionally, 3,000 media representatives attend the SEMA Show to obtain content for print, digital, television or radio programs.

To further facilitate new product exposure, exhibitors are able to participate in the New Products Showcase at no additional cost. Available exclusively to exhibitors, the Showcase raises the profile of the products at the event. Professional product photography of all entries are also made available to journalists to use in their articles.





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Knowing when to buy, sell or hold in your business

Find the strategy that works best for your company in today's environment

BY BRAD MEWES | ABRN BLOGGER

ongtime readers of my blogs notice two main themes running through my writings. The first is a focus on corporate finance and how to apply those topics to a collision repair business to better manage a business. The second is a focus on M&A (mergers and acquisitions) and how to be prepared to buy or sell a business.

Many readers inherently see the logic of the first topic. Understanding the tools mid- to large-sized business use to manage their business allows the reader to better manage their business, and be more successful as a result.

The second topic is sometimes met with less clarity. It often begs the question: why so much talk about buying and selling a business?

In 2012, I was at a conference with MSO executives and private equity and investment banking professionals. A managing director of one of the large financial firms said that he felt the industry was still in the early stages of consolidation, but that the pace of consolidation would pick up rapidly. His comment proved to be very prescient.



To give context, in mid 2012, ABRA and Caliber had just over 100 locations each. Service King only had about 50 locations and had just announced the Carlyle deal. Boyd/Gerber was the clear leader in the industry in terms of size with almost 200

locations in Canada and the U.S.

Fast forward 30 months. Boyd now operates 323 locations in 17 U.S states and five Canadian provinces. ABRA operates 265 locations in 20 states. Caliber operates 253 locations in 12 states. Service King operates 230 locations in 21 states (at time of publication). All four are in active negotiations



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Get payback for investments BY DARRELL AMBERSON

No matter how uncomfortable, it is time to talk about shops getting a return on their investment in new technology equipment and education. For those of us who desire to keep up with new repair methodologies, we are investing a great deal. Of course, at the current forefront of public discussion is aluminum repair. Ford publically announced at the Collision Industry Conference in July 2014 that shops should plan on spending roughly \$50,000 to equip themselves for repairing the new F-150. I know from personal experience it can be more.

Becoming certified for other manufacturers, especially with aluminum construction, can be significantly higher. Most manufacturers have their own requirements for equipment. Often it is brand specific and may not be acceptable to other manufacturers with similar requirements. In other words, your new welder or rivet tool may not be in compliance for another OE certification. Many charge a great deal for training and often expensive travel is involved. Some manufacturers charge registration fees to be certified that can be \$5,000 or \$10,000 or more per year. Some manufacturers require structural measuring/repair benches that can be \$60,000 to \$100,000 or more, depending upon brand and accessories. If you opt for an automated measuring system, you may spend another \$20,000 or \$30,000, or more. It's very conceivable to spend upwards of \$500,000 to equip your shop and train your staff to be certified

to repair some of the new highend vehicles.

Collision repair is no different than any other business in that the financial performance is a mathematical equation. To be successful at the end of a time period, the income must exceed the costs. Typical profit margins are more modest than they used to be. Over the years, rate increases have not kept up with cost increases and many of us have gone to great efforts to seek new efficiencies to reduce cost. At the same time, those of us who participate in DRP programs are doing much more of the administrative claim handling work for insurers with no additional fee, which increases our staffing costs. And of course there are lots of other areas where we are investing more, such as diagnos-

tic equipment and lots of new automated systo obtain

tems manage

All of these are areas where we as business operators have to find ways to make the mathematical equation work. My point here is not to whine about our costs and profitability challenges. My point is that the new aluminum structural repairs are very expensive and as an industry, we must figure out a way for repairers to receive adequate compensation. The increased costs of repairing structural aluminum are not ones that can be absorbed in a modest body labor rate increase. There has to be a payback for the investment. Continue at ABRN. com/RepairRates.



Watch this video at ABRN.com/ElectricTrouble

24 SHOP OWNER MIKE LEVASSEUR

Location, location,

Vehicle energy management and

Robert Hornedo, owner of Pacific Collision Equipment

Co. in Signal Hill, Calif. and Thomas Balliet, Sales and

discuss the importance of energy management, safe repairs and additional anchoring in the vehicle.

Considerations for acquiring shops

LaMettry's Collision, and also ABRN Director of MSO

different? What do we need to look at? What do we

Relations, discusses considerations for buying or opening a new location across state lines. What is

Darrell Amberson, president of Operations with

Technical Manager for Orange and San Diego Counties,

additional anchoring

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across state lines

need to prepare for?

location

58 PROFIT MOTIVE CHRIS "CHUBBY" FREDERICK Show me the money

(70) O A S O **D B O A O C** MIKE ANDERSON A must before welding

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MotorAge.com/MightyAnimated

launches Garage Gurus

Competitive technical education platform will

feature onsite, online and on-demand training.

Mighty animated video series to

inform, educate car owners

Video series will better inform customers and enable them to make the right maintenance de-

with small and medium-sized collision repair operators to acquire more locations that may be announced before this post is even pub-

The industry is changing rapidly - more rapidly than I ever anticipated a mere 30 months ago.

The way the Big 4 got to the top was almost exclusively a result of M&A, or buying other

The state of

affairs at NASTF

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businesses. This has been a boon for owners of profitable collision repair businesses. While Wall Street investment has brought competition to the marketplace, it has also resulted in a significant price appreciation of collision repair businesses. An investment banker confided to me that there may never be a better opportunity than now to sell. Continue read-

ing at ABRN.com/BuySellHold.



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READER FEEDBACK TO ONLINE ARTICLES

Chris Smith, manager and estimator, Maaco Collision Repair, wrote: Most high school graduates are progressing on to further education in pursuit of more senior positions warranting a college degree. This is constricting the flow of new blood into the auto body repair industry. This can only contribute to higher pay for individuals to keep them in the job. Also, it will put considerable pressure on mid-size shops who will start to lose staff to bigger companies. Without a shift in thinking and promotion of the automotive business to schools, I can only see a tough future.

Robert Medved, senior account manager/ industry representative at S/P2: Get involved with a local collision school. Join their advisory board if they have one. If they don't, try to start one. Show up at the school and get to know the students and instructors. Create a summer technician intern program to enable the student(s) to work in the real world to visualize their future career, hopefully with you. Be a mentor to them. Use that school as a farm club for recruiting into your business. The days of qualified technicians just showing up at your shop looking for work are over. They are becoming a rare

the community-

ioin the discussion

commodity. Knowing how to recruit the right young talent is absolutely necessary for future success.

Joe Fisher, owner, J. Lee Automotive Industry **Equipment:** Young men and women are trying to move into beter positions with better pay. But there are not enough jobs for the higher educated. In the collision repair industry, a more educated person can earn close to six figures and more. It's all up to the technician that you hire. There is a shop that I have been involved with that hired an engineer out of work. He is earning more than at his his last job. Since then, they have hired two more ex-engineers, and the shop is up on its production. There has always been the ability for higher pay in this industry. But some technicians, though skilled, do not have the decipline to produce what they should.

Bill Beckett, manager, Chestnut Auto Repair: How about making vocational/trade schools twoyear colleges and let the young adult try out a field. They learn a trade, obtain their associate's degree and if they don't like the trade, they can continue on to get a bachelor's degree. The better we educate our workforce, the better we can prosper.

go to: abrn.com/community

Northwood University restructures

The initiative, "Moving Northwood University Forward," concentrates on the move to the single-campus model.

AftermarketBusiness.com/Restructure

Aftermarket icon Jack Creamer passes away

Aftermarket icon and mentor John "Jack" Creamer, 84, died March 25, after a more than 51-year career.

AftermarketBusiness.com/Creamer

TPMS aftermarket to triple in size in five to seven years

Frost & Sullivan expects the market to grow from \$121 million last year to \$365 million in 2020. AftermarketBusiness.com/TPMSGrowth

MAY 4-6

 Women's Industry Network **Educational Conference**; Baltimore, Md.

MAY 27-29

IBIS 2015: Athens, Greece

JUNE 13-16

 CARSTAR MSO Conference; San Diego, Calif.

JULY 23-25

 NACE/CARS 2015 Detroit, Mich.



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2015 INDUSTRY CALENDAR





ALUMINUM AND OTHER MARKET TRENDS ARE DRIVING THE PRODUCTS RBL IS BRINGING TO THE COLLISION INDUSTRY

BY KRISTA MCNAMARA | MANAGING EDITOR





ABRN: How important is proper cleaning of the vehicle to the estimate and repair process?

RL: A vehicle must be clean when you are estimating the damage. If you miss something, it could come out of the shop's pocket. When a vehicle is repaired, not only the area you are working on should be clean but the entire vehicle as well.

ABRN: Aluminum is becoming more and more common in the industry. Does this require different cleaning treatment from what technicians are accustomed to?

RL: Aluminum is an alloy that has been in use for over 20 years now. Many vehicle body parts, such as hoods and fenders, were and are made out of aluminum to reduce the weight and eliminate the possibility of corrosion. Just in the last year, Ford Motor Company took a huge leap by creating an entire vehicle out of aluminum. The 2015 Ford F-150's body panels are all made out of aluminum. This allows Ford to take 700 lbs. of weight out of each truck. The results are better gas mileage. When it comes to the proper preparation, aluminum must be pre-treated, just like it is when they

are manufacturing the vehicle. The prep is quite simple. After the aluminum in properly cleaned (wax and grease type product), it has to be wiped down with a pre-treatment product. These products are pre-saturated with a conversion coating that sets up in a few seconds and promotes adhesion and eliminates any chance of corrosion. RBL Products #5001, 5002, 5003, 5004 and 5005 Pretreatment wipes and markers are very similar to the OEM conversion coating process that is on every aluminum body.

ABRN: Besides aluminum, are there any new market trends driving the potential of new products from RBL?

RL: One of the market trends we see dictating our industry is the need to move to safer (low VOC) and cleaner products. We see this trend on both the paint side with regard to waterborne technology and pre-cleaning materials that are water based (zero VOC).

ABRN: How can shops prolong the life of their spray booths and increase paint job quality?

RL: Spray booths should be treated with the same respect as an operating room in a hospital. The cleaner the spray

booth, the better the paint job. When a paint job comes out of a spray booth, you want it to be as dirt free as possible. RBL Products offers a complete line of spray booth protective films. From the floor to the walls and lights, RBL has the right product for proper booth maintenance.

ABRN: Do shops need any training when using RBL products?

RL: For proper training when using our different products we offer instructions on our website with many product how-to videos. in addition, our sales people in the field are very helpful.

About Ron Lipson:

Lipson started RBL Products in 1991 with one product — Automask. To date, RBL has grown to boast a portfolio of more than 200 products with distribution throughout the United States and Canada.

RBL has built its reputation by offering the PBE industry unique, one-of-akind products. RBL recently introduced into the market its PPFS (Professional Paint Finishing System). The system is the most comprehensive in the industry. It allows for removal of all surface defects in paint within seconds.





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COMMUNITY BUSINESS ISSUES

BY MIKE LEVASSEUR | COLUMNIST

mikel@keenanautobody.com

Location, location, location

Visit the site and surrounding areas to ensure it will support a viable business

n a previous column (Ready, set, grow; April, 2015), I discussed some of the homework you should do prior to choosing a location for a new shop - whether a brownfield, greenfield, acquisition or takeover.

It starts, as I explained in that previous column, with researching traffic counts and demographics. But numbers on paper won't tell you the full story. Our next step is to visit the location and the surrounding area. I look for a Home Depot or Lowe's, a McDonald's or Burger King. These types of national chains have

checked out the demographics of the area, so why not utilize their research. Their presence can be another indication of the vitality of

If direct repair programs are a key part of your business, you'll also want to check with those insurers to see if they will include the proposed new location on the program. We had several DRPs on Day 1 of the new

"MAKE SURE YOUR **KEY REFERRAL SOURCES — INSURERS.** DEALERSHIPS, ETC. -**EITHER HAVE A NEED** IN THE AREA OR WILL **PUT YOU ON THEIR** PROGRAM."

location we opened earlier this year. Making sure your key referral sources insurers, dealerships, etc. - either have a need in an area or will put you on their program can be a key step in choosing a new location.

If you'll be buying or leasing a building, another key piece of homework is an inspection by qualified contractors to check out the roof, plumbing, electrical system and overall building structure. Make sure it all can handle a body shop and that it's a sound building.

All this due diligence isn't difficult and will help make your decision about a potential new location pretty easy. In looking for our next shop, for example, we checked out approximately 10 locations over six months. Only one got a thumbs-

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up when we took into account visibility, demographics, insurer interest and the building itself. Another one of the 10, a takeover of an existing body shop space, looked good initially; but with due diligence, we found we couldn't get the insurer DRPs there that we wanted, and the building needed too much work.

Whether you are buying or leasing a building, the numbers need to pencil out. Make sure, for example, the size of the building fits with your business model. For us, that's generally 2,000 square feet upfront for offices and 10,000 square feet in the back, ideally on two acres.

But that's just the optimum, the ideal. The new location we opened earlier this year is considerably larger than that. But it penciled out as a successful brownfield given the cost of the building. We try to keep our occupancy costs at a location at or below 5 percent of projected sales. So if we expect to produce \$100,000 per month in sales at a new location, we want the rent to be about \$5,000.

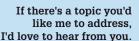
When we buy a building, we rely on the relationship we have built with a bank for financing. But most of our growth is financed through cashflow and paint company "prebates," keeping our debt to a minimum.

After settling on a location, it's time to consult with a layout and design person, whether you work with one through your paint vendor or you hire one privately. There's no substitute for having someone familiar with the industry use the right software tools to help you move things around on paper until you create a nice flow for the new shop.

At that point, I hire a general contractor to manage the project and all the subcontractors. Since I'm the one overseeing new locations, I'm in touch with the general contractor regularly. I'm generally onsite once or twice a week to check on progress, and I meet with the general contractor at the end of each week to discuss what was done that week and what's planned for the next week.

In my next column, I'll discuss making sure there is staff - and work - at the new shop on Day 1. ■





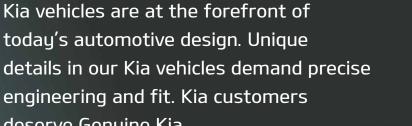




Mike LeVasseur is president and COO of Keenan Auto Body, which has 12 shops in Pennsylvania, New Jersey and Delaware.

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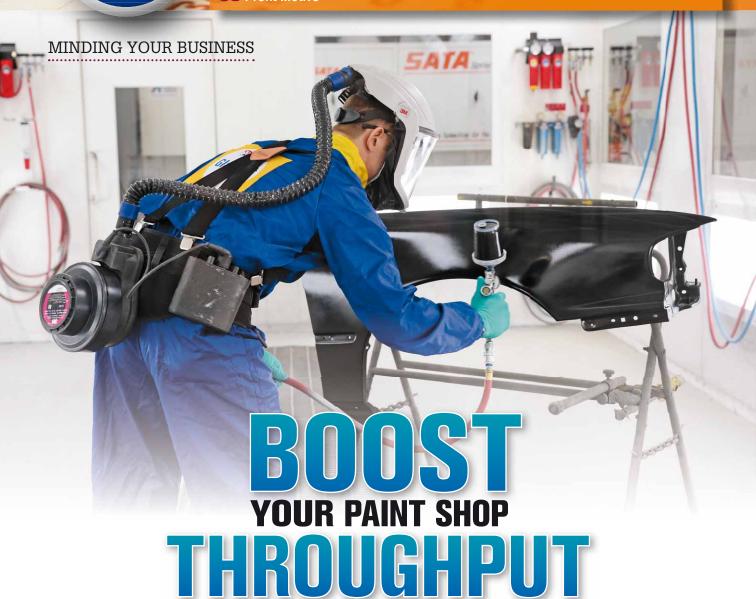


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APPLY MANUFACTURING'S QUICK CHANGEOVER APPROACH TO REDUCE NON-VALUE ADDED ACTIVITIES AND INCREASE EFFICIENCY

BY ROBB POWER | CONTRIBUTING EDITOR

Changeover is a systematic approach for eliminating or reducing non-value added activities and time in the setup and/or teardown of any process within production. This allows manufacturers to more quickly and efficiently change from one product to another. As a critical component of lean manufacturing, Quick Changeover provides a foundation

for gaining critical capacity to meet customer demand and grow operations.

Can a collision center benefit from implementing Quick Changeover principles and techniques? Absolutely. Applying Quick Changeover principles and techniques is an obvious fit within the refinish operation. More specifically, it is a highly relevant methodology for optimizing booth cycles for

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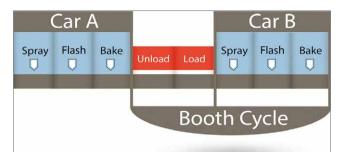
any shop faced with the need to gain capacity and throughput, but currently is held back by its booth cycle time.

"If shop owners and managers feel they need more booth capacity because they're experiencing a bottleneck of cars waiting to move through the paint shop or painters working lots of overtime to keep up, or say there's a need to constantly re-prioritize which job will be completed next, then focusing efforts on the paint shop is the appropriate place to start," says David Knapp, senior manager with PPG's MVP Business Solutions, which offers a training program to help shops implement the Quick Changeover approach.

"The approach is quite simple. First, a shop puts together a team of people to observe the paint shop process and record what happens. The aim is to focus on the process — not the people. In practical application, it requires only a couple of hours of training to familiarize those involved with the thought processes behind Quick Changeover, and the tools employed with this approach," Knapp says.

Once a shop understands the principles of the approach — essentially to streamline production by eliminating unnecessary operations and instituting process changes to shorten or eliminate other operations — the team can go to its shop floor to begin an audit process.

"We actually use stopwatches to capture times for every step of the refinish process, not to point out what is wrong, but to identify opportunities to improve," says Robb Power, manager, MVP Business Solutions. "The idea is to identify



"The booth cycle is the entire amount of time that it takes to unload the booth, re-load the booth, and spray, flash and bake the current booth load. In other words, from the time the booth doors open to begin the changeover process (depicted by the red blocks) for Car A until the time that the vehicle is cured and the booth doors open again to remove Car B — doors open to doors open. If you think about it, whether the changeover takes 5 minutes or 5 hours, the clock is ticking and the day is going by. Significant opportunity exists in this area for most collision centers," Power says.

those tasks that extend the booth cycle time as well as prevent the booth from processing cars."

Shops applying the approach are often truly surprised by all of the unnecessary steps — those that shouldn't be performed in the booth, and how long some stages of the





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refinish process are actually taking. Even collision centers that are doing an excellent job of getting cars painted and delivered become enlightened. "As a shop manager, I was excited about finding ways to improve our throughput in our paint department; but the paint team, however, didn't share the same excitement," said Todd Bonecutter, general manager, Glenbrook Collision Center in Ft. Wayne, Ind. "They compared themselves to goldfish in a bowl and were reluctant to be watched and evaluated."

However, once the team became more comfortable with the principles of the approach and how to find improvements, the team was more at ease, Bonecutter says.

What shops discover during the observation process can then be discussed and used to develop an improvement plan based on the specific findings and needs of the shop. Bonecutter says that the exercise can prove overwhelming because of all the inefficiencies he discovered and the questions he had on

how to implement a plan not only for the paint operation, but the metal shop as well. In the end, however, he got complete buy in from his entire staff on making the required changes. "I have several 'old school' techs and painters — you know, the ones that avoid change," he explained. "Amazingly, they are the ones leading the charge on our action plan. Anytime you can take a good process and make it better, you win both inside and outside your business."

Improvement plans for shops applying the Quick Changeover approach can include a wide range of actions, such as:

- Limiting booth activities to spraying, flashing and baking
- Defining and standardizing paint prep activities so that the next job is always ready for the booth
- Product upgrades and recommendations
 - Scheduling and policy changes
 - Booth refurbishment
 Collision centers applying the ap-

proach can typically gain additional booth cycles per day per booth — without spending any additional money. The Quick Changeover approach is further evidence of the benefits that can be gained operating as a lean enterprise.

"If we can get folks to simply focus on not missing any booth cycles, most collision centers would see an immediate increase in capacity," Power says. "Those that will do the hard work of challenging 'the way we have always done things' using methods like Quick Changeover have the potential to radically improve throughput in their shops."



Power is Business Solutions Manager with PPG Industries. His roles over his 29-year career in collision repair include refinish technician, collision center management and sales and business development.

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BY JUDY A. LYNCH | CONTRIBUTING EDITOR

satisfaction demands, cost-cutting pressures, thinner margins and shorter lead times are some of the daily challenges that collision facilities face. Organizations need robust, wastefree, flexible office processes that meet their customer needs and help them survive in the global marketplace. Applying lean principles to streamline and eliminate waste from your office and administrative processes will result in bottomline savings.

Lean solutions are surprisingly simple and better yet, don't require great capital expenditure. Lean is a proven, systematic approach for eliminating and minimizing waste that results in the production of goods or services at the lowest possible costs. It goes beyond the shop floor. Lean can be applied to every system, process and employee in your company.

Implementing a lean process flow isn't just for the manufacturing floor. A huge opportunity lies in the non-manufacturing areas such as the administrative offices. The possibilities are endless because old traditional habits are hard to break. Only recently have companies started to apply lean principles to their office and administrative processes, however, when you realize that 60 percent to 80 percent of most costs associated with meeting customer demands is administrative in nature, you can understand why lean design makes a lot of sense.

So why hasn't lean design taken hold in the office environment? First, there isn't a clear understanding of process and office flow. Second, there's a failure to understand waste and non-value added activities. Finally, most offices do not have a clear grasp of data needed to measure the impact of lean design benefits. A lean office delivers significant productivity gains, quality and customer service improvements through waste elimination and process optimization in office and administrative environments.

Before applying lean concepts to the office environment, you and your employees must understand the flow of work. Just as you map the value stream and focus on reducing lead time in manufacturing, you must map administrative processes to better understand how to make them more effective. These processes include order entry, quoting, planning, parts procurement, parts receiving and others consume valuable time. These inefficient steps cause delays and customer dissatisfaction. The value stream is the entire set of activities across all parts of the organization involved in jointly delivering the product or service. This represents the end-to-end process that delivers the value to the customer.

Once you understand what your customer wants, the next step is to identify how you are delivering (or not delivering) that to them. Typically when you first map the value stream, you will find that only 5 percent of activities add value.



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Eliminating waste ensures that your product or service flows to the customer without any interruption, detour or waiting. As you reorganize individual process steps, more and more layers of inefficiency become visible and the process continues to improve. Because one of the key principles of lean thinking is to minimize the time between the receipt of a customer vehicle and delivery of that vehicle, it is crucial to look at the entire lead time. To see the waste in these processes, we must map them.

The next step in lean design is the identification of which steps add value and which do not. A successful lean initiative requires identifying work that adds value or worth to products or service. Non value-added work may not directly add value, but is necessary for either business or regulatory reason. By classifying all the process activities into these two categories, it is then possible to start actions for improving the value-added steps and eliminating the waste. These definitions may seem rather idealist, but this tough defini-

tion is important to the effectiveness of this key step. Once value-adding work (actual work) has been separated from waste then waste can be subdivided into needs to be done (auxiliary work), non-value adding waste and pure waste. The clear identification of non-value adding work is critical to identifying the assumptions and beliefs behind the current work process and to challenging them to improve the process. After we identify the waste (non value-added steps) and what needs to be worked on, we can apply lean tools such as continuous flow, 5S and visual controls.

Waste is the killer to your business and should be eliminated as fast as possible. Try categorizing your waste into one of seven buckets:

- 1. Waiting People waiting for information in order to do work. Waiting for meeting participants, waiting for faxes or a copy machine, for the system to come back up, for a customer response, for a vendor approval, or a handed-off file to come back.
 - 2. Defects Any work that did not



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accomplish its purpose or was not correct the first time. This includes data entry errors, pricing errors, missing information, missed specifications, or lost files and records incorrect information, conflicting information, rework, etc.

3. Transportation — Unnecessary movement of material or information that doesn't add value. Examples include retrieving or storing files, carrying documents to and from shared equipment, taking files to another person, going to get signatures or approvals.





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- 4. Motion People moving, working or thinking without producing. This includes searching for files, extra clicks or keystrokes, clearing away files on the desk, gathering information, looking through manuals and catalogs, or handling paperwork, tracking down information, etc.
- 5. Over Production Producing unnecessary work or deliverables. Exam-
- ples: Too many signature levels, too many emails, ineffective meetings, more information than the customer needs, more information than the next process needs, creating reports no one reads, or making extra copies.
- 6. Over Processing Unnecessary effort to get the work done, such as meeting participants that are not required, creating reports, repeated

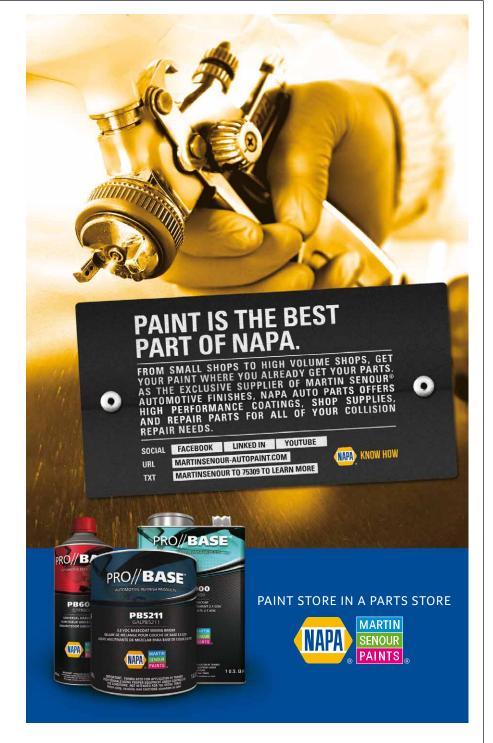
manual entry of data, use of outdated standard forms or use of inappropriate software.

7. Inventory - Work that is waiting to be processed or more material/ information than the customer needs.

Cycle time is very important in the collision repair industry and very important to how you differentiate your shop in the market. It is important to drive lean initiates in your office functions and supply chain to improve your competitive difference and deliver value to your customers. Lean solutions create significant time and cost savings, resulting in a long-lasting improvement to your controlled business environment.

What if employees on the front lines of your organization not only were great employees on their assigned job, but simultaneously generated simple ideas to increase efficiency? In other words, improvements where the employee identifies a problem, does the evaluating and provides the solution - without the need of other resources.

These incremental improvements are what define kaizen, the essential element of the Lean Production System. At any given moment there could be many small improvement ideas in the pipeline. Not all of those ideas are successful, of course, but even ideas that don't pan out often provide a useful learning experience to staff. When an employee identifies a problem - say for example, excessive and wasteful paperwork, the person working on the problem picks one simple metric; stresses that they work on ideas that are as simple as possible and does not get caught up in complicated metrics. A simple metric that answers basic questions: How do you know your idea worked? How do you know it solved the problem?"





Judy Lynch is the manager, Collision Repair Design Services, for Sherwin-Williams Automotive Finishes. She has 26 years of automotive industry experience working with dealerships, independents, consolidators and multiple shop operators.

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TAKE ADVANTAGE OF THE TRENDS DRIVING CONSOLIDATION IN THE SAME WAY THE LARGE MSOS DO.

BY **BRAD MEWES** | CONTRIBUTING EDITOR

several options in the market today to maintain the status quo, grow or sell. Growing is risky because it involves developing a new set of core competencies built around high level financial management as well as acquisition and integration competencies. Most collision repair businesses have not developed these competencies; and those that have developed those competencies now compete for deals against other large MSOs with extensive experience sourcing, closing and integrating acquisitions.

Selling is similarly risky as there is almost a certainty that a buyer will have vastly more experience in a business transaction, leaving you and your business vulnerable. Buyers will pay a premium for a well-documented, well-run business but most collision repair businesses have little experience presenting financial information in a usable format to a multi-million dollar institution.

Those are the risks. But I promised an article about opportunities! Given you properly manage the process, there is actually a lot of opportunity to grow "inorganically," or via acquisition. Industry leaders have proven that it is not only possible, but it is an incredibly lucrative strategy when done correctly. For this reason, private equity groups continue to invest in the industry. Mid-sized MSOs continue grow via acquisition even if we tend to only hear about the big sales to the consolidators.

The opportunity for growth for the small to mid-sized collision repair operator is to develop a core competency around managing inorganic growth. In the collision industry, very few companies are truly focused on inorganic growth. There is an opportunity for the focused and organized business owner to take advantage of the same trends that are driving consolidation in the same way that the large players do. However, to do so successfully will require that the business

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develop both an acquisition strategy as well as a team specifically designed to manage that growth.

There will always be challenges when growing via acquisitions. But as with anything in business, success is driven by developing an analytical process. New core competencies in financial management and acquisition and integration have to be developed.

While earning my MBA, I had to do a lot of industry analysis. A lot of equity research and strategic consulting I have done is focused on industry analysis as well. An effective way to identify growth opportunities is to look in two areas: identify how the industry leaders drive growth and copy them; and analyze growth trends to see not only where the industry was, but where it is going.

If you want to grow, it is important to understand how the largest players have grown so you can mimic them. It is also important to understand what happened in the past so you can position yourself for the future (and not get

steamrolled in the process).

How do the large consolidators manage growth? Three ways: Build the right team; understand and manage financials; and bring in outside experts.

Build the right team

A major reason the consolidators have grown so rapidly is because for many years (since at least the 1990s) they have dedicated the resources (i.e. money and salaries) to managing growth. In other words, they consciously developed a core competency in acquisition and integration management, otherwise known as "corporate development."

Corporate development is corporate speak for inside M&A (mergers and acquisitions) professionals. This is the team responsible for evaluation and valuation of a proposed acquisition. The team lead is often an executive-level staff member (i.e. V.P., Director, etc.) and reports directly to either the CFO or CEO. Almost always they have an MBA or Master's in Finance, along with investment banking and

M&A experience. If you want to grow via acquisition, it is essential that you have an experienced executive who can evaluate and manage the financial and operational risk of inorganic growth.

Understand, manage financials

Successful businesses have a deep and intimate relationship with their financials. Growth decisions are made on the basis of financial planning and pro forma budgeting. The decision to expand CAPEX (capital expenditures), take on debt to grow inorganically via acquisition, or use working capital to fund organic growth through investment in operational initiatives is all driven by financial management and analysis.

Take the Big 4 for example. Before they hired a corporate development team, they each hired a dedicated CFO. It is the CFO's job to evaluate and manage the financial risks of the corporation. Growth is risky – regardless of how it is achieved – and a key part of the CFO role is to understand, measure, monitor, communicate and manage that risk. If





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you have a desire to grow, it is essential that you have an expert on your team managing the financial risk of growth.

Bring in outside experts

Even the most sophisticated companies turn to outside experts to help manage growth. In the case of the top 10 companies in the industry, most have traditionally turned to private equity, investment bankers and dedicated M&A advisors to supercharge growth. In fact, part of the reason of taking on a financial sponsor (private equity) is to leverage the financial expertise of a larger investment partner. Bringing on board outside experts gives your organization the ability to benefit from having someone on your team who has "done it before."

Taking on a private equity group (PEG) partner is not just for huge multimillion dollar businesses either. Carousel Capital, a PEG in North Carolina, recently invested in Joe Hudson Collision Center, a 23-location MSO located in the Southeast U.S. Kadel's, another 23-location MSO in the Pacific North-

west, also took on a financial partner when they only had 10 locations. A number of other PEGs are interested in the collision space as well and are ready and willing to provide growth capital and expertise in exchange for a portion of equity. In fact, I have been advised by investment bankers active in the industry that some PEGs are considering investments in companies with annual sales starting at the \$25-\$30 million range.

However, if you are not ready to bring on PEG partners (and it is a big step indeed), you may consider bringing on outside experts who have the financial experience necessary to properly set your business up for growth. Having a partner who has "done it before" and is incentivized to grow with you may be the difference between successful and painful growth. Transactional/corporate attorneys and CPAs experienced in business combinations and taxes also are an indispensable part of the team.

Even if you can not afford a full-time financial expert, it is still critically im-

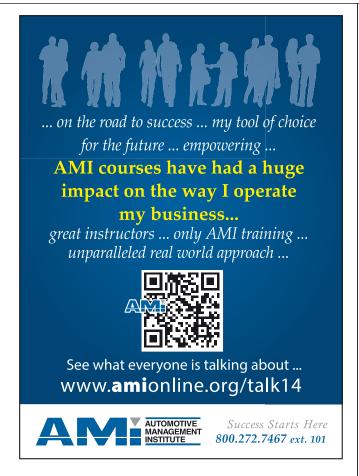
portant that you are actively managing and assessing your financial risks. Often a company can utilize the resources of a part-time or fractional CFO. Commercial bankers and accountants can provide assistance as well, but may not have the level of industry sophistication to fully evaluate the risks.

Knowing what needs to be done in order to achieve growth, check my blog at supp-co.com for upcoming information on the markets that have been affected by consolidation and what you can learn from observing what has already happened. Understanding industry trends will help you be better prepared for future growth.



Brad is a management consultant, strategist and author of the blog *Supplement! Financial Insight for the Collision Repair Professional.* He has a Masters in business administration in fianance.

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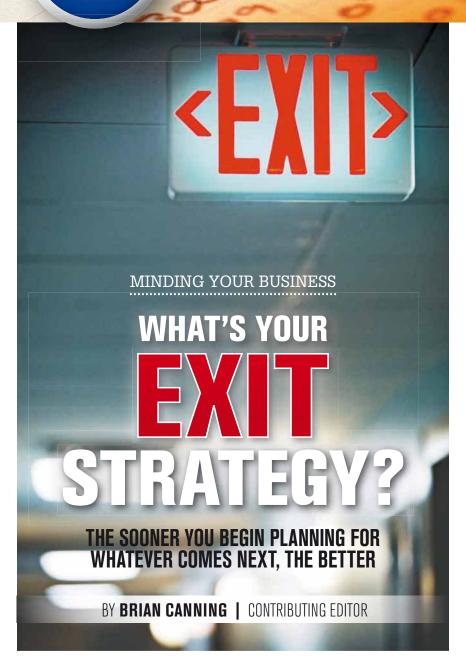
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Tom McGee contributed to this article

literal intention is to be taken out horizontally and to pass from this world while at work in your shop with a welder clutched in your hand, the sooner you begin planning for whatever it is that comes next, the better.

It is a fact that most shops in the U.S. are not as profitable as they need to be, with net operating profit numbers in the low single digits — or about a quarter or more of where they need to be to assure the viability of the business.

Too many shop owners have hired or inherited the wrong type of estimators or technicians. Rather than doing what is right for the business, they

put up with these poor performers, hopeful that they will come around over time.

In the same way, rather than assuring a great service experience for our customers and thereby developing a strong customer base over the years, far too many owners go to market striving to be the cheapest guy in town — and discover far too late that it is hard to be profitable when there is no profit. It is just as hard or harder to retire.

Instead of suffering that 11th-hour shock, my strong suggestion would be to start running your business with an end (like retirement) in mind. Many owners do not have an exit strategy for their business. They do not have a business exit plan for retirement, the succession or transfer of ownership, or in case something unexpected were to occur, such as financial hardship, injury, disability or death.

When you look at surveys of the collision industry, you will find that approximately 85 percent of collision repair facilities are family-owned businesses. Not only are the majority family owned, but they have also been in business an average of 30plus years and the majority of owners are between 50 and 64 years old. So most owners need to have a clear route to know how and how long it will take to get there.

Whether you would sell it outright or develop a succession plan that transferred ownership of your shop to your manager or other party through a buy-out mechanism, work out those details and get that plan in place as soon as is possible.

Find the right people

Even before that, however, I would have you work very hard to hire the right people. I can promise that you will not want to turn your business over to a lazy slacker, with your retirement dependent upon the business being profitable. If this is what you plan to do with your business,

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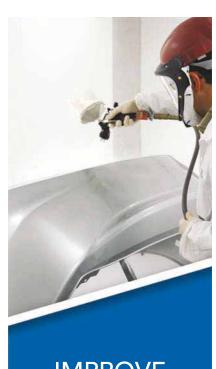
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you will need to identify your successor and have a plan to evaluate their skills and their desire to own the business. It is not uncommon that the person you believe should take over the business turns out to not have the desire or skills you thought. Always have a back-up driver in case you need to change drivers.

This part of the success plan — which will require training and transition for your staff — needs to have a timeline. You need to be able to measure progress or adjust if there is a detour along the way. If your exit strategy is to have a favorable outcome, you, your successor —whoever that may be — and your management team also need to know who is in charge of what and when.

You need to provide a clear understanding of what the coming roles and responsibilities are going to be when you move out of day-to-day op-

NOW WHAT?

As you take the succession trip, you also need to have a plan for what you are going to do with the free time. As your successor takes on more and more responsibilities, spend time planning how you will continue to be energized and involved in other activities away from the business. Are you going to travel, spend time on hobbies or start up another business?

As you work on your succession plan, be sure to seek the assistance of outside advisers such as your accountant, attorney and your investment or insurance professionals, since your succession plan will have far-reaching consequences from a tax, investment and legal perspective.

erations. A key part of this plan is to incorporate training that allows you to train and coach others on every aspect of your business. The plan should outline all critical functions of the company. This may sound simple, but it's really not.

And while you must critically evaluate potential successors and their impact on the business and its success, you must apply the same principles to your techs and other staff. If they are not up to snuff, then they are a threat to that end date — and you do not have the luxury of waiting for them to come around.

Remember, if they are not contributing to the success of your shop, they are a liability. Do yourself a favor and find the right people to plan your retirement around.

Focus on success

Having the right people is important, but you must also encourage them to help drive success. Give your people incentives toward performance. No matter whether you are selling the business or plan on a long-term buyout, performance at the counter and in the bays will pay the bills and finance your retirement. Pay for that performance.

Get financial guidance

A final, but very important step in all of this is getting with your accountant or financial advisor and putting that plan on paper ASAP. Peace of mind has value, and having a great and well thought-out plan is worth the time and effort that you will put into it.

It would seem like common sense, but in taking on a financial advisor, it is extraordinarily important not only to find someone who is ethical and







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VIEW THE FULL EDITION ONLINE AT: http://abrn.com/KQCSpring15 competent, but also somebody you are comfortable with and can talk to. It's not quite a spouse, but choosing your financial advisor can and should be a serious exercise.

He or she is not an hourly employee paid by you to shut up and do what you say. On the contrary, this is an expert whose job it is to advise you on your financial status and make recommendations that will take your existing operation and make it better.

We are not talking about a bookkeeper here, whose job it is to balance your books at the end of the day, the end of the week and the end of the month. We are talking about a financial professional who can give you in-depth and far-reaching advice on everything from profit models to cash flow, corporate law and succession planning.

His or her job is not to accept your bad habits and misbehaviors, but to take them into account in developing a plan to achieve your financial goals.

I know this is something new for many of you, but having a financial advisor almost insists that you have financial goals and a long-term financial plan to deliver on those goals. That you might actually end up with money in the bank and be able to retire someday are genuine risks to my efforts here, but that would seem to be the price of admission.

We of the automotive world can take great pride in our ability to take on extraordinarily complex repair challenges en route to taking care of our customers on a regular basis. We also can take pride in our commitment to excellence and in our tenacity in overcoming huge challenges such as technician shortages and government regulation. That the average shop and shop owner in the U.S. is generating less than 6 percent net operating profit (NOP) would make it very clear that despite the many things we do well, financial planning is not one of them. Just as our customers look to us for our expertise, we need to look to an expert to help us get our financial house in some kind of order. We need to have a financial plan.

I could not tell you who would be the best financial advisor for you, because you and your business are unique, with your own strengths and

weaknesses and your own goals.

I would caution you against hiring somebody just because you liked him or her, but also warn you against hiring based on the diploma and resume alone. This professional will certainly need to have a track record, but he or she also needs to be somebody you can be comfortable with and willing to engage. This is a very intimate, important and far-reaching relationship you are trying to establish; it's nothing like hiring that B-tech you have been looking for.

In finding that perfect match, I would tell you to take your time and hire tough. Remember that if the advisor is successful, you are successful. If he or she is not successful well, you know where that is leading.

If you do not have a financial goal, you are adrift on a stormy sea without a compass. If you have a goal, you need a plan toward accomplishment or you are just dreaming.

It is not about what your labor margin should be or what you should charge on parts. It is about quality of life, making your business into an asset and being able to retire sometime before your 83rd birthday. It really is about cash being king and having a plan.

Someday, many years from now, you will decide you have had enough and you will think seriously about retirement. Beginning to plan for that day now will allow you to approach that day with confidence. Failing to plan will have that day out there as a big question mark.

What your retirement will look like is entirely dependent on how you run your business today and on how well you plan for those tomorrows. My strong suggestion is you start that process now.



Brian Canning is 30-year veteran of the automotive repair industry. He has been a leadership coach, Goodyear service manager, retail sales manager for a distributor, run a large fleet operation and headed a large multi-state sales territory for an independent manufacturer of automotive parts.

≢=7 E-mail Brian at brimarc@hotmail.com

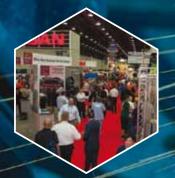


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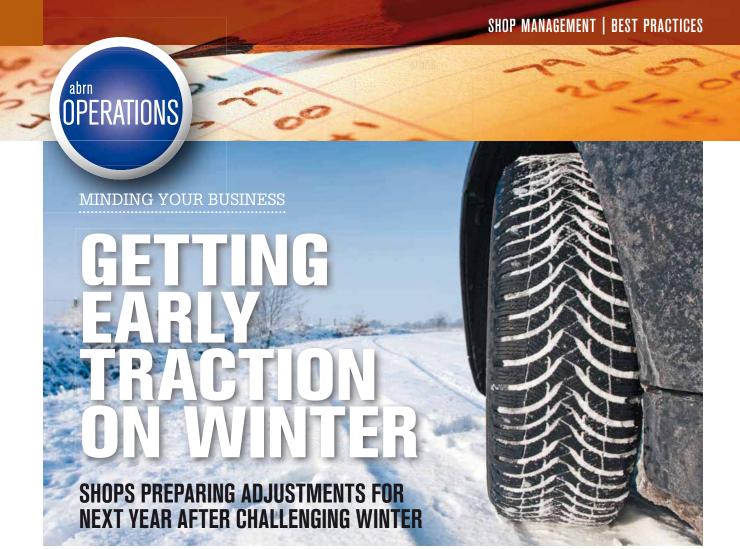
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BY **JAMES E. GUYETTE** | CONTRIBUTING EDITOR

winter's record-setting wrath in portions of the nation is prompting some body shop owners to begin thinking about climate-upgraded operational strategies in advance of whatever next season's onslaught may bring. The harsh weather extremes were especially troublesome for regions unaccustomed to such low temperatures and deep snowfalls.

For starters, you might see four-wheel-drive vehicles being deployed in-house to form a door-to-door limousine service of sorts; many collision centers suffered production interruptions because snowbound staffers were unable to make it into work.

Other challenges included weather-driven delays in parts delivery and insurance appraisals along with cramped parking lot space due to towering piles of plowed snow. Pavement ice buildups led to dangerous slipping and sliding during parking-lot vehicle maneuvering. Having to do repeated - and unreimbursed - washings of salt-encrusted cars was another issue.

Even facility design elements typically only seen in more rugged regions - such as setting aside space for snow piles alongside parking lots and selecting salt-tolerant plant species for decorative flower gardens - could now be attracting consideration in traditionally milder locales.

(According to horticulturists at White Flower Farm in Litchfield, Conn., if your salt-exposed delicate ornamentals are showing signs of distress, now - in the spring as soon as possible - is the time to wash salt spray off the leaves and flush the soil with fresh water. Picking out hardier replacement plants is accomplished by looking up your particular growing zone when making purchase decisions.)

Offering some solutions from up north where it can get really rough, "You do a lot of scheduling and you try to keep the cars warm," said Ken Friesen, CEO and president of Concours Collision Centres in Calgary, Alberta, Canada. "Scheduling is important. We're scheduled two or three weeks out. A lot of guys in the U.S. are content to take cars at the door."

"You also always try to bring as many cars inside at night as you can so they're nice and warm rather than wait until the morning," Friesen advised, pointing out that Alberta's frigidity is not as overwhelming as Americans might think. "It's not like it's 40 below all winter." Bursts of brutal cold last for about a week, followed by more pleasant readings ranging from 25 to 40 degrees.

Corrosive costs

Although the assorted domestic climate calamities certainly resulted in a lot of valued repair jobs being brought in, an assorted array of production hindrances were putting a chill on any sense of celebration – at least for the time being – as the winter raged on.

February was the coldest month ever recorded in East

Haddam, Conn., home of Eddie's Auto Body. "It was very quiet until January, then we had two snowstorms per week and it never warmed up," said owner Edward M. Lupinek. Usually there are alternating periods of lighter snows and cleansing rains to buffer a bliz-

zard's negative impact on operations.

"It's a real cost. The work takes longer to produce," said Lupinek. "With so much salt, you have to wash the cars even to see what color they are. We wash the cars up to four times during the repair process, and some insurance companies will reject line items for the extra costs. They'll say, 'We're not paying to wash the car."

In addition to cleansing corrosive coats of road salt, each vehicle has to be consistently swept clear of accumulating snow. Time-consuming shuffling of the assembled cars and trucks is required to accommodate frequent plowings of the lot.

On the plus side, "It definitely creates a lot of activity and we're doing a lot of bigger crashes," said Lupinek. "The snow banks are higher than the roofs of cars, and people are pulling out when they can't really see.

"As long as you stay above freezing the snow remains fluffy, but the snow banks have turned into ice banks that can tear the bumper off. They're used to backing into a snow bank and it's no big deal. But when it freezes it becomes a block of ice - they drive away but the bumper stays."

As winter weather breaks Lupinek typically sees rocker panel crushes and door crushes. "When people wash their cars in the spring we'll get a lot of cosmetic stuff" as hidden dents, dings and other damage becomes apparent.

Significant impact

A single January storm that enveloped Boston dropped more snow than Anchorage, Alaska had all winter. The ongoing deluge refused to cease, culminating in 30 inches of snowpack sitting outside of Boston Body Works.

"We have a problem parking the cars," said owner Patrick Cibotti. Huge snow piles reduced the lot's available space. Parts procurement came to a near-standstill, stymied by non-navigable roadways. "Some of the insurance companies are a week behind in looking at the cars," he reported at the time. "If the car is drivable we're

not even taking the job. We can't do all the work. We lost three work days in one month."

Vehicle wrangling was hampered as mountains of plowed snow clogged Boston's already-notoriously narrow streets. "The tow companies say it's very difficult because of that," Cibotti said.

Heavy pieces of ice and snow slid from buildings and onto vehicles, leading to smashed windshields and crushed roofs; passing snowplows were encroaching upon parked cars, ripping off bumpers and mirrors while scraping along side panels.

Never in history has the mercury dipped so low in High Falls, N.Y. Karen Hoover, co-owner with her husband John of Jake's Auto Body & Towing, said the weather's impact on the business was significant. Overly high utility costs were a concern and snow-covered roads blocked the flow of parts throughout the entire supply chain, affecting manufacturers, warehouses, wholesalers and shops.

"It's led to delays of at least three to five days in delivering vehicles to the customers," Hoover reported. "If we had anticipated the parts delays we would have better informed the customers." Come next year, "we're going to try to set their expectations to be a little more realistic. Other than that, sometimes you just have to tough it out."

And even if you don't market tires, keeping an eye on them for your customers is a worthwhile service, she suggested. Balding rubber can heighten the risk of spinouts; teenagers are most vulnerable to this scenario when parents gift them the retired family car without first inspecting the tread: "Watch the tires for them."

Black ice and light coatings of snow are especially troublesome on the roads. "We get more wrecks and more work in smaller storms rather than big ones. It catches them unaware," Hoover said.

When warnings are issued that nastier conditions are on the way, residents tend to either prepare themselves – driving with both hands on the wheel and displaying nose-to-thewindshield alertness - or they hunker down at home, particularly on weekends. Weekdays, though, bring out a more accident-prone I've-got-to-getthere approach. "Everyone has to get to work and they forget what snow is,"

said Hoover. "They think, 'It's no big deal because I have a Jeep.'"

Short-handed shops

Unprecedented bad weather battered normally tranquil Tennessee. "It barely snows or does anything here, and people think they can drive in anything," said manger Tom Dale at Brown's Body Shop, which has two outlets in Columbia and Franklin. "We had a lot of ice and there's been a lot of wrecks. A lot of the insurance companies were closed," he said.

"There's a lot of short-handedness going on. That was an issue in itself," Dale continued. "I had one guy out for a whole week because he lives up a hill."

Pre-arranged cosmetic work was being set aside at A&J Body Shop and Wrecker Service in Athens, Tenn. "We had a couple of them cancel out because they didn't want to come in because of the snow," said shop foreman Joe Ambrose, pointing out that the towing segment of the business was thriving.

"There are a lot of cars off the roads and in the ditches. A lot of the cars are totaled out, but about half of them are eligible for collision repairs. Once the shock wears off we'll be pretty busy," Ambrose said.

In Kentucky, unexpected amounts of snow kept coming. Six to seven inches of snow fell in a week, with another 14 inches accumulating in just two days. "The majority of the things we're getting are when people are driving into snow piles and they're raking a bumper across it and pulling it off," said Kyle Wiersma, manager/estimator for Randy's Body Shop in Paducah.

"The grocery stores are empty and we had a couple of days where we had some people who couldn't get in," reported estimator Daniel Beale at Quality Auto Paint & Body in Roanoke, Va. "It's been pretty hectic. We had a lot of fender benders but no really big accidents," he said. ₹





IPPKN

A snapshot of one of the industry's leading shops

KEENAN AUTO BODY INC. / CLIFTON HEIGHTS. PA.



Size, culture standouts

MSO consistently leans forward with never-ending positive change

BY JAMES E. GUYETTE | CONTRIBUTING EDITOR

eenan Auto Body is lean, green and not-at-all mean; for the past two years, the 12-location MSO in the Pennsylvania, New Jersey and Delaware Tri-State region has been named as a Top 150 Philadelphia Workplace.

"We separate ourselves from the other MSOs by our size and our culture - our culture is second to none," says marketing director Craig J. Camacho. "It's a fun place to work. It's a transparent atmosphere."

The highly trained staff of 166, especially the technicians, is empowered to think for themselves and make decisions. "Their hands aren't tied," Camacho explains. "They know that they can be the best they can be at their own doing."

Along with ongoing opportunities for company-paid I-CAR and OEM educational courses, promotions are frequently made from within. Bonus plans are in place for estimators and blueprinters, plus incentives are available for high-achieving customer service representatives and other personnel. The employees also enjoy taking part in Keenan's numerous charitable events on behalf of the respective communities.

Other personal workplace fulfillment packages come via access to state-of-theart equipment and the company's continuing innovative approaches to lean production techniques.

"You can get more done in a shorter amount of time," Camacho says. "It increases productivity. The techs know each other from shop to shop, and they say, 'You know, this works.' The staff is very open-minded and they have embraced positive change."

A fertile in-house recruiting endeavor is rooted by CROP, the Keenan's-created Collision Repair Opportunity Program, which builds relationships with high schools and vocational colleges. "Soft skills" such as being on time and having a good attitude are crucial traits for the applicants. "If you like to come in late, this probably isn't a good fit for you," according to Camacho. "Our culture is not about being late - it's about being early."

Upon acceptance into CROP, a student receives a nine-month unpaid internship for learning body and paint skills and \$1,500 worth of tools. Successful graduates keep the tools and gain full-time employment.

Forward-thinking industry consultants were brought in to assist in engineering a proprietary in-house 12-step set of lean procedures that pay close attention to all key performance indicators (KPIs). Each element of the repair process, ranging from

AT A GLANCE

Keenan Auto Body Inc.

Name of shop

Clifton Heights, Pa.

Headquarters location

Donald J. Keenan and Michael W. LeVasseur

Owners

12

No. of shops

63

Years in business

166

No. of employees

14

No. of DRPs

Average no. of bays per shop

213

No. of customer vehicles per week at all locations combined

\$2,380

Average weekly repair ticket

9.2 days

Average cycle time

\$577.000

Average weekly volume

\$30 million

Annual gross revenue

PPG

Paint supplier

Car-O-Liner

Frame machines used

CCC One/Auto Explore

Estimating systems used

www.keenanautobody.com

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administrative services, intake, release and housekeeping is consistently evaluated and improved with input from the staff. Employee buy in is assured by constant communication throughout the operation.

Individual parts carts, directional lines painted on the floor, precise tool storage spots and waterborne paint capability are just a few of the lean features exclusively designed to ensure smooth and efficient repairs while protecting the environment.

"Lean makes things simplistic-seeming, and that's the beauty of it," says Camacho. Strategically placed signage reinforces the message. "You see these posters throughout the shops and everyone follows them. It's a constant reminder."

A radical transformation

Shop-audit meetings with all the managers are conducted at a different location each month to monitor adherence and encourage the development of new lean ideas.

"That's part of our transparency," Camacho reports. "There's no favoritism - the guys are brutally honest with each other." An audit involves inspecting every aspect of the hosting shop, with an annual award going to the best operation. The list is all-inclusive. Are the employees well dressed and polite? What is your first inside and out impression of the facility? Are the restrooms clean and stocked with adequate paper products? Is there a sufficient amount of current magazines and beverages in the waiting room? Did someone leave parts inside a customer's car?

"This is the wave of the future," says Camacho, referring to lean's initial introduction and its never-ending enhancements. Multiple staff meetings set the tone for what was to come: "We're going to have a radical transformation and we want to do it without any work disruption."

A single facility served as the 12-step debut site, "and once we perfected it we duplicated it in all our shops," Camacho recounts, with the program culminating in the April grand opening of Keenan's 12th facility. The 24,000-square-foot structure, which previously housed a boating manufacturing firm, was totally gutted and outfitted with yet another innovative design.

"We are no strangers to opening new locations, but this one will be unique with the addition of the Body Shop Revolution system," says Camacho, citing "the ability to fully dry a freshly painted vehicle in



Saluted for being the largest solar power array of its type in the entire state of Delaware, about half of the 16,000-square-foot Middletown shop's electrical needs are supplied by the sun; 43 panels are in front of the building and 205 are situated on a half-acre parcel out back.

three minutes, which will help lower cycle time and will give us another competitive edge in our marketplace."

Based in the UK and established in 2010, Bodyshop Revolution's U.S. expansion launched in 2014; the turnkey array of offerings highlights applied thinking, design and workflow layout, automated technology and methodical implementation.

A "shotgun approach" to social media sites and taking flight with the Philadelphia Eagles are among the marketing initiatives. Eagles fans are known for their notorious and enthusiastic dedication to the team, and the company advertises heavily on Philly's sports-talk radio station.

Ad buys are done in house without using an outside agency, and the package includes numerous game-day spots throughout the Eagles coverage, with Keenan's carrying the designation as the broadcaster's Official Repair Center.

Founded in 1952 by Joseph T. Keenan and acquired by his son Donald J. Keenan in 1979, Don ran the business as a single location until bringing President and COO Michael W. LeVasseur on board in 1993 to open a second shop.

The company has long been known for being involved with industry organizations - management personnel serve in a variety of association leadership positions and LeVasseur is an ABRN columnist - and

recognitions include winning the prestigious Dale Delmege Award. Previously known as the Achievement in Collision Repair Excellence (ACE) Award, it honors legendary collision repair advocate Dale Delmege, who died in February.

Community involvement is standard operating procedure for the entire staff. Charitable contributions and active participation in civic events are commonplace, such as placing wrecked cars in front of schools to discourage distracted driving and hosting catered extrication classes for area fire departments. "We've had as many as 60 to 70 firefighters at a given event," says Camacho, pointing out that the company's name recognition and reputation for excellence combine to attract impressed patrons.

A constant work in progress

Keenan's received significant accolades in 2009 when it went all in with green by erecting a new waterborne-equipped shop in Middletown, Del., which also boasted the largest solar power system in the entire state. About half of the 16,000-squarefoot facility's energy needs are supplied by the sun.

"One of the many benefits of building a collision shop from the ground up is the ability to set it up to accommodate new eco-friendly opportunities," according to

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LeVasseur. "This was not only the right thing to do for the environment, but it was also a solid business decision."

Both greenfield construction and upgrades to already-erected collision centers are included in Keenan's continuing lean and green expansion efforts. "When we move into a new area, we don't buy the business, we buy the building," says Camacho. "We look at the structure and make sure it matches our own" potential needs. Each of the completed outlets "has the same look and branding when you walk inside."



Extensive research is con-

ducted within a marketing sphere for locations under consideration. "We run all the demographics," he notes. "What is the typical 'spend' for collision work that families pay?" Bedroom communities are the best prospects. Population growth, income levels, crime rates and competing shops are among the factors addressed in the reviews, along with the promising presence of anchor stores such as CVS and Home Depot.

In addition, insurance carriers will make a request for Keenan's to investigate entering into a particular neighborhood.

The company's 14 direct repair program (DRP) affiliations account for about 80 percent of sales. Cooperation and communication between the insurance provider, shop and customer is critical for maintaining solid relationships amid negotiating the transactions. "We've fired DRPs" that failed to deliver the proper attributes, Camacho reports.

"We walk the line, always doing what is right for the customer and their vehicle while still being on the insurance company's programs," he adds. "It's a two-way street. The insurance companies all have their own sets of criteria, and we're able to work with those that we have now."

The shop has a robust focus on meeting the desired DRP KPIs. "We call it 'Whac-A-Mole,'" Camacho says, as in the game of roving pop-up targets. Individual issues of importance to a given insurer are addressed as part of the lean philosophy.

"If the 'pain' of that insurance company is cycle time, then we knock that down" and move onto the next area of concern. "It's a constant work in progress." Obtaining proper payment remains an issue as well. "We are on a crusade to get paid for certain operations that we're not paid for now."

The overriding mission, though, is making sure that all the

work is safely accomplished. "Our credo is that we do what's right for the customer and the car," says Camacho. "We repair every car so that a family of five could drive it across the country - that's how we sleep at night."



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

≢=**7** E-mail Jim at JimGuyette2004@yahoo.com





PROFIT MOTIVE: YOUR COMPASS TO FINANCIAL SUCCESS

Show me the money

Money comes in many forms, and you need to look beyond the P&L for it.

BY CHRIS "CHUBBY" FREDERICK | CONTRIBUTING EDITOR

am sure there have been times when you had to pay taxes on profits that you didn't think you had earned. And if you did earn it, where had the cash gone? I was listening to one of our coaches, Brian Hunnicutt, explain to a shop owner where the money might have gone.

According to this owner's profit or loss statement, they were doing great. So where is the money?

This is not as uncommon as we would like to think. Most of my clients were technicians, not accountants, before they opened their doors. Some might have had management experience, but still no true accounting. So it is not a big stretch to think of a shop owner confused at financials that show one thing and a checkbook that shows another.

Take inventory

We have to know what we started with and where we are now. If you have increased your inventory by \$50,000, then it won't be in your checkbook. How many parts have you not sent back that have become inventory by default? How many credits have you not tracked from the vendors? Do you manage your parts to make sure they don't become inventory? Are you keeping a rolling inventory going, where you check a couple of different line items a week and do it in front of the crew? How many parts are being put on vehicles that don't find their way to an invoice?

Another take on this is parts that employees, friends and family get their hands on without reimbursing you. How many people around you start seeing you making money and think to themselves that you owe them something extra? How many times has the junk out back been picked up by the scrap guy and you have not seen the money?

Look at your receivables

What about account receivables — have we written any of them off or has the number gotten bigger? Are we carrying any of our good customers? What did you start with and is it bigger or smaller?

Stay focused on your margins

The normal client starts out with a 25 percent to 30 percent parts margin and not getting very much if anything on shop supplies. Then we get them up to 50 to 55 percent, and the relief to the checkbook and comfort zone is great. Time passes and they take their eye off the ball. Then they themselves or the service writer starts getting retrained by the customers to discount or just not charge as much, and we are right back into not as much money.

Eight out of 10 customers in a normal shop do not buy; the most common reason for not buying is that they do not have the money. That is the No. 1 objection my people hear at the front counter and it gets you to back off and not hold the line on the sale. It also trains your writer to not ask for as much, cutting the margins along the way.

Back debt seems to be the biggest one that we deal with. I have had a client that paid off more than \$220,000 in back taxes,

debt and fines, and then could not find the money that he owed the back taxes on. It seems that money that does not drop in the checkbook is not money at all sometimes. The new car or the new equipment is not money as well? I had a shop owner park the new Diesel Pusher Motor Home at the shop and then complain about business. Always remember that your customers think they paid for all that stuff, and they are right, so don't flash it around them.

We in the coaching department at ATI pride ourselves on showing our clients the money. We take great pride in our clients' wins, and we for sure take their losses very personally. We like to say that you might get the money, but it is our reputation at stake — which we know is our money in the bank. So I beg of you, if you are not feeling the money, please look into your profit or loss statement and see if the fixed expense has gone up. Also take a good look at the money your people are now making versus what they were making. Look at your inventory on all its different levels. Look at your account receivables, and see if you are not footing the bill for your customers. But most of all, look at your back debt and see if it has shrunk at all. Then for good measure, look at your lifestyle and your kids' lifestyle and see if maybe the money is there.

Money comes in all shapes

When it is all said and done, and you want the money, remember that it comes in all shapes and sizes. You should be making sure that you have an emergency fund set up as well, and that it is big enough to choke a horse. Then don't ever touch it.

We have a very useful checklist that could help show you where the money is, or in the worst case, give you ideas on how to create more cash. For a limited time, you can receive your own copy by going to www.ationlinetraining.com/2014-11

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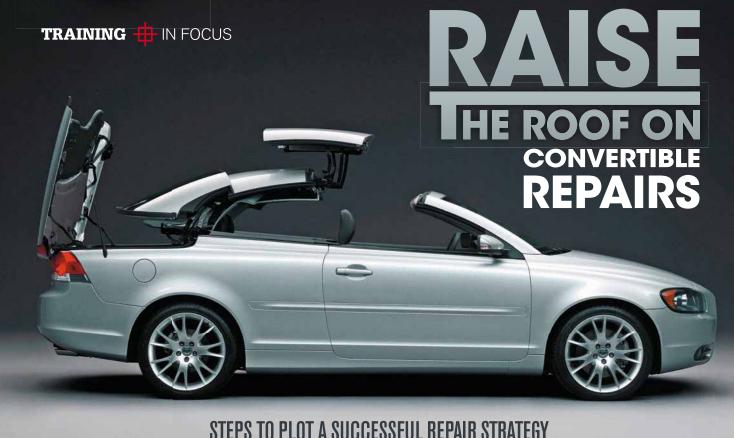
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Hard-top convertible systems are complex and usually require a factory scanning tool for diagnostics. Consider subletting this work to a specialty shop.

BY TIM SRAMCIK | CONTRIBUTING EDITOR

There's an old saying that consumers make most vehicle purchases using their heads. Buying a convertible is done with the heart.

The thought of cruising with the top down on a warm, sunny day is pretty enticing, but these visions can fizzle quickly once a motorist is confronted with the more mundane realities of convertible ownership. Unless you live in a warm weather state, you get the benefits of a convertible just a few months each year. These vehicles also typically are more expensive to purchase and insure. Some lose nearly all their available trunk space when the top is lowered.

Repairers can experience similar

fuzzy notions when a damaged convertible passes through their shop doors—especially if they believe a convertible repair is like any other job.

Convertibles can pose a number of challenges, most significantly electrical issues that can be extremely difficult to track down unless you have specific tools and significant experience. These repairs can substantially alter cycle times unless you've prepared a repair strategy.

Consider the following steps:

Step 1: Always check the top. A typical damaged vehicle analysis involves inspection of the damaged and surrounding areas, frame measurement

and an examination of vehicle electronics. If a vehicle has a standard roof, there's not much reason to pay it special attention if it isn't a collision point.

The opposite is true with convertibles. Convertible systems can be particularly sensitive to collisions, even if the top isn't directly impacted. Nearby damage and collateral movement to the system can prevent it from working properly.

Always perform a close inspection of the convertible top, looking for damage. Once the visual inspection is completed, grab the vehicle owner's manual and use its instructions to lower and raise the top. Make sure the system op-

erates smoothly and without problems such as stalling, rattling or not operating at all (some systems won't operate if sensors indicate a problem). Examine the system for leaky pumps and cylinders, along with damaged or misaligned linkages and hinges.

If these areas appear to be damage free, but the system still isn't working as it should, you'll need to start what could be a fairly difficult diagnostic

Step 2: Trunk inspection. You can eliminate several potential problem sources by inspecting the vehicle's trunk, which should be your first diagnostic step.

Many convertible tops fold up in the trunk when they're lowered. Damage to the trunk or, in many cases, movement of any objects there, can prevent the system from operating.

This can be a particular problem with some luxury brands whose lowered tops take up much of the space in the trunk. Even a few objects in that area will prevent the convertible system from operating. If necessary, empty the trunk of its contents to search for damage. With the trunk empty, attempt to operate the top again. That may solve the problem. (There are instances of shops chasing convertible damage when the actual source was a cluttered trunk.)

There are several other possibilities related to the top's storage area, says Rick Zirbes, owner of Dick & Rick's Auto Interiors in Bloomington, Minn. Zirbes has 36 years of experience chasing down electrical and other problems in convertibles (and a number of other automotive areas).

He says some vehicles, notably Chrysler models, use a divider to sepa-

2015 MUSTANG GAME CHANGER

Convertibles represent a relatively small percent of the new vehicles sold each year (about two percent, according to statistics from IHS Automotive). Regardless of how small the convertible market might be, several manufacturers target these buyers with popular luxury and sport coupes particularly the Ford Mustang. Nearly 20 percent of new Mustangs sold are convertibles.

Ford prizes these customers so much that it engineered its 2015 Mustang — the 50th anniversary model — as a convertible, instead of a coupe with the top simply lopped off. Notable changes included an increase in vehicle rigidity and upgraded suspension to deliver improved ride and handling for all Mustang models.

Ford also upgraded the engineering of the convertible top with better materials and a better looking, smoother operating ragtop. The upgraded roof sports a highquality vinyl with added insulation to stifle road noise.

The convertible system has been made more compact, improving space in the trunk and back seat when the top is lowered. The compact design also helps the Mustang cut a smoother profile that also will benefit from rear quarter windows that now drop down. When the top is up, the roof no longer presents folds or "ears" at the rear corners.

The most significant improvement may be the electro-mechanical system that replaces the hydraulic top mechanism. Not only is this system quieter, it raises and lowers the top in half the time. Complementing this upgrade is a new windshield header that utilizes a single middles latch (in place of the two latches on either side of the windshield) for easier operation.

For the first time, Ford has made the Mustang available for sale in Europe and Asia and reports that preorders have exceeded expectations — putting the popular pony car in the hands of more enthusiasts who will help ensure its survival.

More advanced technology carries with it more complex repair challenges. Zirbes points out that hard-top convertibles are computer controlled, with multiple complex mechanisms and more sensors and electrical parts than a canvas top. Damage to any of these can

shut down an entire system. For example, Zirbes notes that the ambient temperature sensor (which works with the system's hydraulics) typically is located at the front end of a vehicle and is susceptible to damage from front-end collisions. Damage here is a frequent source of an inoperable convertible.

rate the lowered top from the trunk contents to prevent damage to both. If the divider or its switch is damaged or out of place, the system won't function.

If any of these possibilities isn't the source of the problem, you'll need to move on to more complex sources.

Step 3: Hard top, harder problems. During the past several years, hardtop convertibles have displaced many soft-top models. Manufacturers have turned to them, in some cases, because they provide a more streamlined look that some customers prefer. Zirbes says they also tend to be quieter and seal better.



Cruising with the top down is a motorist's dream, but convertibles can provide repairers with significant — not so sunny problems.



When diagnosing convertible issues, always check the trunk for damage and to determine if there is suitable room for the top to lower.



Even if a convertible top doesn't show obvious signs of collision damage, always test it. These tops are more susceptible to damage than a traditional roof.

Photo: Volkswagen



The 2015 Ford Mustang was engineered as a convertible and now features a better quality top and an electro-mechanical system.

That doesn't mean tracing this sensor as the source is an easy task. Zirbes says these systems need to be analyzed using factory scan tools. "A generic tool isn't going to do the job," he says.

Photo: Ford

Even if a shop does invest in the necessary scanning tool, locating the source of an electrical problem can still be extremely difficult. Zirbes says sensors sometimes don't indicate damage if they remain electrically connected. In these cases, there's no substitute for advanced knowledge of convertible systems and experience working on them.

"You really need to understand how these systems work or you're not going to get far trying to figure out what's wrong with them," says Zirbes. "Once you go beyond the obvious, you'll probably run into a lot of dead ends."

Sophisticated new convertible systems translate into fewer "obvious" problems that many shops are equipped to handle. Zirbes notes, "Today's complex convertibles represent a much different process than traditional cut and paste cycle time repairs."

Shops that know when they need someone with specialty experience will get the vehicle back in the hands of the owner at a reasonable time, he adds.

Specialty repairers (dealer shops also can be helpful) possess knowledge of the problems inherent in specific convertible models that can be particularly useful in diagnosing operational issues.

Zirbes, for example, notes that BMW's hard tops are particularly susceptible to damaged sensors and crimped wires. Older hard-top Volkswagens require a scan tool to reinitialize the system to make it operational again.

Many soft-top models now utilize a single-piece top that must be replaced if the window is broken. Repairers who don't know this and attempt to repair the window are wasting their time.

Other experts note that Volvo convertibles sometimes have issues with the micro-switches and potentiometers that control the raising and lowering of the top. Some Mustangs have seals that can fail and allow water to drip into the back seats.

Step 4: Related repairs. Even if the convertible top itself doesn't require work, in some instances it will affect how other work is performed. Zirbes explains that some repairs will differ from a solid top to a convertible. Replacing a quarter panel on some Volkswagens will involve disassembling the top to get to the body.

Shops need to consider this extra work in order to properly charge the customer or insurer and set accurate completion times. Repairers also need to take a closer look at repair instructions for convertible vehicles to anticipate this work.

Step 5: Right replacement parts. Aftermarket replacement parts for the convertible market have been available for years; however, Zirbes and others caution against their use. The main reason: Aftermarket top parts sets don't always include all the necessary fasteners and retainers OEM versions do, leaving shops to pull these pieces from the existing top or other sources. Sometimes the fit is just a bit off, which can play havoc with the operation of the top.

Zirbes says aftermarket quality has improved. In the case of hard-top convertibles, he notes that often the OEM version is the only available option. ₹







TECHNICAL

HVA/C: Common problems, quick fixes

Tips and techniques to use when handling common A/C, heating and cooling system problems

BY VANESSA ATWELL CONTRIBUTING EDITOR

Pete Rudloff contributed to this article.

collision world, it is hard not to encounter HVAC related problems. In fact, most collision shops have a stack of condensers a few feet high tucked away waiting for the scrap man. Sometimes, however, HVAC problems post collision are a bit more technical than replacing a condenser. Sometimes the HVAC repair is due to the collision itself; sometimes it's due to a mistake made in the repair process or even others that are completely not related to anything done with the collision repair. A collision shop is wise to brush up on its HVAC knowledge in order to stay profitable.

Diagnosing any vehicle's problems without properly testing and evaluating the system is not a responsible repair technique and is asking for trouble. Understanding common problems, the tips and techniques to verify the cause and then being able to fix it accurately really does save time and money for everyone involved. Simply put, accurate testing is the best overall value for your customer and your shop.

Many heating, cooling and A/C problems tend to be caused by repetitive failures that can be easily verified and repaired by understanding what they are, then checking them correctly. There is no substitute for proper diagnostic technique, but being able to utilize

A heater and blower control with no AUTO setting.

technical service bulletins (TSB) and understand common problems and solutions reduces the number of things to test to save time.

Customers sometimes look up their vehicle's symptoms on the internet before they come in for service. They might have an opinion on how the problem should be fixed. You need to be ready to handle those suggestions and explain why online advice might not apply. Like TSBs, these should be considered, but always remember who the service professional is so that you do not get sidetracked chasing a red herring.

With that in mind, here is a list of some common heating, cooling and A/C

problems, with successful techniques to repair them quickly and effectively the first time. As well as which ones may legitimately tie in to a post-collision complaint from your customer.

Problem: Fan inoperative

When diagnosing a complaint of no heat or A/C, it is a good idea to check that the problem simply isn't that the blower motor doesn't work – especially if the complaint is that the heat or A/C stopped working suddenly. Blower motors tend to fail suddenly rather than stop working slowly over time. It is also not unheard of for a blower motor to fail immediately after a serious collision.



(Left) Glove boxes are often full of things that could potentially escape out over the top and end up interfering with the doors and linkages that control the cabin temperature. (Right) HVAC control cables tend to get knocked off or moved out of adjustment by the vehicle's floor mats — especially winter ones that aren't shaped to the floor.

Blower motor diagnosis involves inspecting the fuse, inspecting for power and ground at the motor (using voltage drop) and checking for motor operation either by supplying power or by removing the motor to see if it turns by hand. Even if the motor does suddenly operate when power is applied, it's still a good idea to spin the motor by hand to check for any binding issues.

Blower motors often are located in areas that allow water, debris or other material to get inside them and cause them to fail. That also means they're susceptible to creating problems with wiring, fuses and fuse blocks and connectors. If you discover a faulty wire or connection has caused the motor to stop working, make sure you test the motor once it is operational by using an amp clamp and a scope to measure current. The resulting pattern will give you a very accurate indication of the motor's state of health.

Problem: Nosiv blower motor

Noisy blower motors often can be caused by leaves or debris that get into the motor through the air intake cowling. This can sometimes start out of nowhere post collision due to the debris getting jostled around in the fan during the collision. The existence of debris can be verified by removing the blower motor and simply checking inside (it doesn't take much to cause a terrible noise and vibration). Cleaning out the foreign material and reinstalling the motor is often all it takes



If you're inspecting or replacing the cabin air filter (which is easy enough to do), make sure nothing falls into the system while you're doing so.

to fix the problem.

Noise problems can also be caused by the motor itself, failing bearings and loose fans can make an awful lot of racket. In these cases, the solution is to replace the motor and make sure the housing is free of dirt and debris or leaks that may cause repeat failure.

Problem: Blower motor inoperative on certain speeds

A blower motor that works only on high often has problems with the blower resistor, and the typical solution was to replace the faulty blower resistor, which was typically a relatively cheap task. Faulty resistors usually

showed obvious signs of damage when removed so confirmation of your diagnosis is really simple and straightforward. If you wanted to check the resistor before removing it, you could test that there was power and ground and that its resistance wasn't 0 ohms. If it is zero, there is a problem.

Newer vehicles often use solid state controllers rather than a clunky resistor pack to vary the voltage sent to the motor to control the speed. These control systems still go bad. In these cases, check for power, a good ground at the motor and varying voltage when directed by the controller to verify your suspicions.

Problem: Insufficient air flow from air vents, but temperature is correct

Vehicles often use cabin air filters to help clean the air passing through the HVAC box. A clogged cabin filter can and does cause this low air flow problem. This low flow complaint can arise shortly after a customer has received their vehicle back from a collision repair due to the collision shaking internal dash debris down on the filter and/ or dust from the dusty environment in which the car was repaired.

Cabin filters use a very fine filtration filter and they can get extremely dirty quite quickly and reduce the airflow into the vehicle to the point where it's really noticeable. The solution is to replace the filter. Most manufacturers suggest a specific interval of time or mileage to replace cabin air filters.

Be careful not to get any dirt or debris into the housing since this will cause more problems down the road. Move objects out of the way and wipe down the housing before removing the filter to prevent problems.

Problem: Air conditioning inoperative

If a vehicle comes in with a complaint

of no air conditioning at all, quickly check to see if the A/C compressor engages. If it doesn't, check to see if there's actually any refrigerant in the system by attaching the gauges and noting the system's resting pressure. If the system is empty or extremely low, there is likely a leak in the system that will need to be fixed before any further diagnosis can be done. Test for leaks using dye and UV light, a refrigerant sniffer or by looking for oil stains on the components.

Problem: A/C not cold enough

This can be caused by a low refrigerant level, which results from a slow leak in the system. The fix is to repair the leak and charge the system to the correct level.

If the refrigerant level and system pressures are fine, the problem might be that the air mix door is binding or its controller is malfunctioning. Depending on the age of the vehicle, diagnostic codes may not be retrievable with a conventional scanner and may need to be manually read from the HVAC system controls after initiating the proper processor. It is always best to check the service information if you're

Common locations for leaks on A/C condensers include at the lower corners (both at the front and on the inside by the rad) and at the connections (especially ones exposed to the elements).

Problem: Not cold enough in one zone or area

If the blend doors aren't binding and the controller is OK, check the refrigerant level carefully. Modern R134a and 1234yf systems will not operate properly unless the exact amount specified for the system is in the system.

Problem: Bad smell from the A/C

A bad smell when the A/C is turned on usually comes from the evaporator core

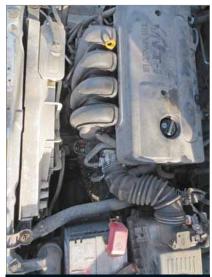


Coolant comes in many colors. Cloudy brown isn't one of them. Coolant should have a consistent, clear color.



If there's no A/C at all, check if there's any refrigerant in the system.

due to mold growth. There are excellent products that kill the mold, deodorize the components and eliminate the smell permanently, but in severe cases the fix is replacing the evaporator core. This is rarely a collision related issue but actually a hyper sensitive customer that had not noticed the smell until after the collision because they were no longer accustom to the smell. In this case, it is pretty easy to explain that the issue is caused by a build up over a longer period of time, not a short time.



After the vehicle warms up, the upper and lower rad hose should be about the same temperature



If you suspect an internal coolant leak is causing a noheat situation, take a look at the engine oil filler cap. If it's covered in foamy white goo you may be correct (this one pictured is fine).

Problem: No heat

Low or no heat conditions are often caused by low coolant levels and, if so, the customer also might notice a gurgling or sloshing sound from the dashboard: often more noticeable when the vehicle is steered hard in one direction or the other. Generally, you will lose good heat at the vents prior to overheating if the overheat is caused by low coolant. If the system is low on coolant, look for leaks.

Problem: Too long to provide heat

This problem often is caused by a thermostat stuck open. This can be checked quickly by feeling the upper and lower rad hoses to see if they're the same temperature after the vehicle has been running for a few minutes. If both hoses are the same temperature, the thermostat may well be stuck open and the coolant (and engine) isn't getting to warm up properly. Note, though, that this problem tends to develop over time, not suddenly developing on the first cold morning of the year. And, of course, at below freezing temperatures it does take a while for most vehicles to get any heat at all, so caution is needed. It is possible for a thermostat to fail during a collision due to the shock of the impact or debris in the cooling system lodging into the thermostat. The fix in this case would be to replace the thermostat and flush the cooling system until it is clean.

A clogged heater core could also cause this problem, in which case, the engine could be at operating temperature quickly, the system filled properly with coolant but there's still no heat inside the vehicle. A quick check of the temperature gauge will show if the vehicle has warmed up or not. If you can safely access the heater core hoses, they should be about the same temperature going in and out of the heater core. A substantial variation indicates a lack of flow through the core due to internal plugging. The fix is to replace the heater core. A plugged up heater core is rarely caused by a collision; however, it may only be realized post repair due to the vehicle owner having been in a perfectly operating rental car.

Coolant

Coolant now comes in many colors and chemical combinations. Always rely on

your service information to guide you to the correct type of antifreeze. Never mix types. Mixing different antifreeze types can cause serious damage to the cooling system in a short period of time.

Whatever color you are working with, it should be clean and consistent. Not murky, muddy or full of sediment. Unclean coolant should be flushed out of the system promptly to ensure reliable operation. Some antifreeze formulas are also affected by exposure to the air and must be stored in a sealed, clearly marked container and discarded within a week of being opened.

It's important to note that using distilled water alone to top up the reservoir is not recommended since it can affect the coolant's freezing point and life expectancy. Always mix antifreeze with distilled water to the manufacturer's recommended amount.

Refrigerant

Long gone are the days of R12, though some of us still see one or two roll in our bays each year. Most of the vehicles we see use R134a, but keep an eye out for R1234yf. Many manufacturers now have models using this new refrigerant. Best practices and EPA guidelines are to utilize separate recovery and charging stations for R1234yf. For most body shops, R1234yf is something you will be dealing with very soon if you haven't already. The good news is the rules we learned for diagnosing R134a systems mostly apply to R1234yf, though you will need to upgrade some tooling.

Conclusion

There is no substitute for properly diagnosing a vehicle. Having a few diagnostic tricks up your sleeve and understanding the common causes of problems can reduce your diagnostic time, keep customers happy and work profitable. This is where you and your customer will realize the greatest value. ₹

VANESSA ATTWELL CONTRIBUTING EDITOR

Vanessa Attwell is a Master Technician for two major manufacturers and has also worked on the bench of an independent shop. She has developed and delivered training for both vehicle manufacturers and independents, and helped develop government training and regulations standards.



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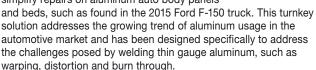
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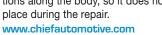
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nother necessary but non-included repair procedure I see some shops failing to do, or failing to get paid for, is removal and reinstallation, or "set back," of electrical components from areas on the vehicle where the shop is welding. This column can help you understand why it's a necessary procedure, and help you negotiate to consistently get paid for it.

With every negotiated item, I recommend asking three questions: Is it required to fully and properly repair the vehicle? Is it included in any other labor operation? Is there a pre-determined time in the estimating systems for it?

So, first, is it a required procedure? It absolutely is and here's why: Welding systems are typically 110 to 220 volts, far more than the 13.5 to 14.4 volt charging systems in most cars. Electric welders also produce high levels of electromagnetic noise. So any conductor of electricity - such as electrical components - can work as an antenna, picking up the charge from a welder with its higher voltage that can destroy the electronics.

That's why the automakers, I-CAR and the estimating systems all issue warnings to remove or set back electrical components. Toyota's collision repair bulletin #161, for example, states: "Before performing any electrical welding, turn off the ignition, disconnect the negative terminal of the 12V battery, remove any engine control units (ECUs) within 18 inches of weld sites, and disconnect the main SRS computer connector, waiting 90 seconds before start of welding."

As quoted in the Motor Guide to Estimating (the basis for the CCC estimating system), "I-CAR's Uniform Procedures for Collision Repair states that electronic components should be removed from the vehicle if welding is to take place within 12 inches of the component."

Look up "sectioning locations and procedures" for Chrysler vehicles in ALLDATA and you will see a caution: "Electronic modules located within 305 mm (12 inches) of any welding should be isolated." There are many examples of such warnings. It is clearly a required procedure.

So is it included in any other labor operation? Here, the answer is no. Non-included operations in AudaExplore, for example, include, "Disconnect/reconnect computer modules for welding purposes." The Motor Guide to Estimating notes that labor times do not include "battery disconnect/reconnect/recharge" or "computer control module disconnect/reconnect/relearn."

44 The terminology you use on the estimate is very important. It should match exactly what you are doing on the vehicle.

A MUST BEFORE WELDING

Removal or set back of electrical components is another non-included, but necessary operation

So if it's required and not included, is there a pre-determined time for it? Here the answer can vary. When a time is available, such as for R&I of airbag electronics, the estimating systems provide a time. Sometimes the automaker may have a warranty time for the necessary operation, or a service such as ALLDATA may offer a mechanical time that's appropriate.

But even then, not all necessary procedures may be included. R&I of the battery on the 2011 Porsche Cayenne, for example, requires removal of the driver's seat; estimators need to look carefully because the CCC estimating system (for example) includes a footnote that the .5 time to R&I the battery on that vehicle is "after left front seat is removed."

But what if you can't find a labor time or the one you find seems inadequate? One alternative is to submit an inquiry to the Database Enhancement Gateway (www.DEGweb.org). DEG Inquiry No. 4,572, for example, asked about the AudaExplore allowance of .3 to R&R the airbag module for a 2011 Nissan Versa. AudaExplore reviewed the OEM service procedures, and bumped the labor allowance to 2.2 hours.

But another thing to keep in mind: The terminology you use on the estimate is very important. It should match exactly what you are doing on the vehicle. The estimating systems, for example, provide a time to R&I the battery, but maybe you're just disconnecting and reconnecting it, not actually removing it. The systems provide no time for that, so I recommend using the term "D&R" (disconnect and reconnect).

So first and foremost, make sure you're not welding within 12 inches of an electrical component, wiring harness, airbag or sensor, etc. I still see it being done in some shops. R&I or set back of electrical components is both a very clearly required procedure and one for which you should be paid.

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

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

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IT'S CALLED THE IMPOSTOR. BUT ITS FINISH IS THE REAL DEAL.



Award-winning designer, Chip Foose, was in familiar territory at the 2015 Autorama. For the fourth time, he took home the Ridler Award, this year with a modified '65 Impala, known as the Impostor. His finish of choice was BASF Glasurit 90 Line. Top restoration experts, like Foose, demand the quality, consistency and performance of Glasurit 90 Line to create their amazing works of art. The rich liquid color and deep brilliant gloss of Glasurit can deliver remarkable results in your shop too. Visit basfrefinish.com/glasurit to learn more.





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Our Crowning Achievement(s)

The new K900 challenges the industry's status quo

hat would a king drive? Or a better question is: What does a king drive? Well, among several other exotic automobiles, he drives Kia's new luxury K900. The royalty we're referring to, of course, is LeBron James, king of the basketball court. The ten-time NBA All-Star, who also is a philanthropist, businessman and trendsetter, has partnered with Kia to be the "K900 Luxury Ambassador." But it's not just a run-of-themill endorsement. Rather, the partnership was formed out of mutual admiration when James reached out to Kia, the Official Automotive Partner of the NBA.

"I was a Kia K900 driver and fan before we decided to become partners, so I'm really excited to be Kia's first-ever luxury ambassador," says James. "This partnership is about the power of great style and performance. Kia and the K900 are out to challenge conventional wisdom and show people how to think differently, and I can relate to that. For me, a partnership has to be authentic and real to who I am, and that's what makes this one so special."



Like James, most people are thinking differently about Kia. Motorists watched Kia fight its way from being labeled a "budget brand" to a "value brand," meaning that Kia consistently exceeds expectations and delivers a lot of car for the money whether you're talking about a Soul or a K900. Proof of this can be found in some of the accolades and awards Kia has received, including Kelley Blue Book's Brand Image Award for "Best Brand Value" in 2014 and a No. 4 ranking in Consumer Reports' 2014 Car-Brand Perception Survey.

Even so, there are naysayers who overlook Kia's achievements and doubt that the K900 can compete effectively in the luxury vehicle market. Apparently, this thinking is based on the notion that no car company has been able to make such a leap in such a short time. Somehow they haven't recognized the difference between a company that follows the status quo and one that challenges it.

Just two years ago, we launched the Kia Cadenza, which J.D. Power recognized as the "Highest Ranked Large Car in Initial Quality in the U.S. in 2014." The K900 is our encore and crowning achievement. But the other great achievement we seek is your endorsement as the manufacturer of vehicles that are well engineered, and as such, are easy and fun to maintain and repair. LeBron may be the king on the court, but we want you to feel like the king in the bay and a partner of Kia.

Kia Motors America, Inc.

2015 K900 V8 available in select markets with limited availability. All trademarks and tradenames are the property of their respective owners.

IN THIS ISSUE

VOL. 10 | NO. 1 SPRING 2015 | Quality Connection is published by Kia Motors America



Lowering the Boom on Noise



"One-touch" Sun or Shade



Genuine Kia Reman Parts

Kia Motors America makes no warranties/guarantees regarding the instructions represented in this publication. Do not attempt without the proper skills, training, or tools.

Genuine Kia Parts.



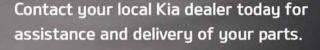








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Follow this simple procedure to quiet the cabin

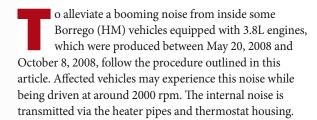
Thermostat housing assembly located in the rear

- WARNING: Do not attempt without the proper skills, training, or tools. Vehicle servicing performed by untrained persons could result in injury to those persons, to others, or to the vehicle.
- This and other technical information is available at www.Kiatechinfo.com.
- All images are for illustration purposes only.

| REQUIRED PARTS | | |
|---------------------------------|----------------|---------------|
| Part Name | Part No. | Qty. Required |
| WTC Wiring Assembly Kit | 91403 2J010FFF | 1 |
| Thermostat Housing Assembly | 25600 3C502 | 1 |
| Wire Harness Connector Bracket | 39211 3C700 | 1 |
| Connector Bracket Mounting Bolt | 11403 06126K | 1 |
| Gasket LH | 25614 3C100 | 1 |
| Gasket RH | 25614 3C200 | 1 |
| Condenser | 27325 37400 | 1 |
| | | |







- Remove the intake manifold using the electronic service information; drain coolant as required.
- Cover the air inlets to prevent foreign materials from entering the lower intake manifold. Disconnect fuel line and reposition out of the way.

Notice: Take care to avoid foreign materials from entering the engine during work procedure.

- Disconnect heater hoses from heater pipes and nipples of the thermostat housing assembly.
- Remove bolt for the auto transaxle oil level dipstick tube if necessary. Remove the engine coolant pipe from the thermostat housing.
- Partially remove the wiring harness for clearance which passes over the thermostat housing assembly.



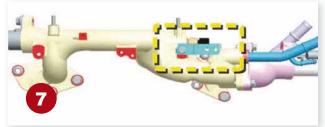






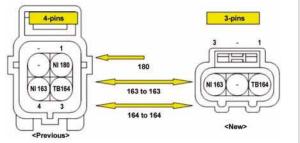
Mechanical

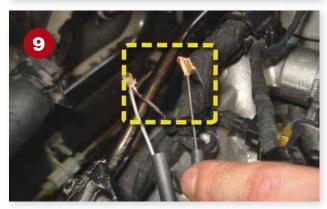




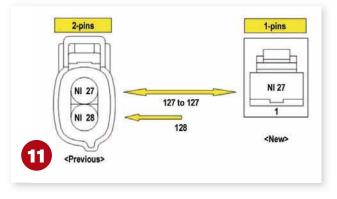
- Remove the six thermostat housing assembly mounting bolts from the engine. Remove the thermostat housing assembly from the vehicle.
- Install the new wiring harness connector bracket to the new thermostat housing assembly. Then, install the new thermostat housing assembly and gaskets to the vehicle in reverse order of removal. Torque the six fasteners to 14~17 ft. lbs. (19~23 Nm).
- Cut off and discard the WTS (Water Temperature Sensor) wiring harness side connector to replace the 4-pin connector with the 3-pin connector. Cut the wire at the end of the connector. Connect wires in the same color. For pin 180, cut wire, then seal the cut end by using a heat shrink tube supplied in the kit. Pin 180 is not being used.
- Twist and join the wires of current and new WTS wiring harness connector and splice terminals supplied in the kit, then solder the connections.
- Cover the wire joints with heat shrink tubes and subject heat shrink tubes to heat. Tape the wires with electrical tape as required.
- Replace the noise condenser wiring harness side connector with new one supplied in the kit. Connect 127 to 127. Terminate 128, then cut and seal exposed wire end. Install all the removed components in reverse order of removal. Road test the vehicle to ensure proper operation.











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Contact your local Kia dealer today for assistance and delivery of your parts.





"One-touch" sun or shade

Replacement motors assure smooth operations

This article provides the procedure to replace the panorama sunroof and sunshade motors on some 2012-2013 Optima vehicles, produced from August 9, 2011 to August 14, 2013, which may exhibit a loss of the "one-touch" open/close feature of the sunshade and/or panorama roof. This condition may be attributed to the exposure of the ECU in each motor to static electricity, causing a loss of initialization memory. To correct this concern, install the new sunroof and sunshade motors by following the procedure outlined here.

Refer to the table at right to differentiate between the sunroof and sunshade motors.

- WARNING: Do not attempt without the proper skills, training, or tools. Vehicle servicing performed by untrained persons could result in injury to those persons, to others, or to the vehicle.
- This and other technical information is available at www.Kiatechinfo.com.
- All images are for illustration purposes only.

MOTOR DIFFERENTIATION





Notice: VINs which start with KNA are designated Optima (TF/TF HEV) and built in South Korea. VINs that start with 5XX are designated Optima (QF) and built in the United States. This TSB applies to Optima (QF) only. After replacing the panorama sunroof and sunshade motors, perform the panorama sunroof motor initialization.







Service Procedure:

Remove the weather-stripping (A) from the front and rear doors.

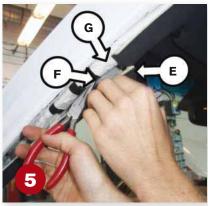
Caution: Wear disposable gloves to avoid damaging the headliner.

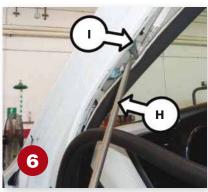
Remove two screws securing the grab handles (B). Make sure to remove all four grab handles.

Use a plastic prying tool to remove the lenses from the rear dome light (C). Remove two screws securing the rear dome light body and disconnect the electrical connector.

Open the sunglass holder and remove two screws securing the front dome light (D). Gently pull down on the front of the dome light to release the mounting clips, disconnect the electrical connector and carefully remove the dome light from the headliner.





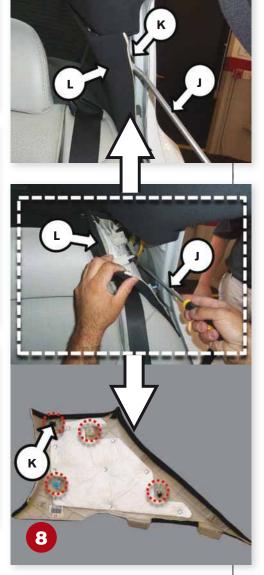


Partially detach the A-pillar trim panel (E) using both hands. Then, use a pair of needle nose pliers to rotate and detach the mounting clip (F), as shown.

Caution: Avoid damaging the side curtain airbag (G) while removing the A-pillar trim panel.

Use a panel remover (H) to gently detach the lower attachment point (I) for the A-pillar trim panel.

Notice: Make sure to replace any broken clips before reinstalling the A-pillar trim panel. P/N: 82315 33020 Description: Fastener-DR Trim



Use a trim panel remover (J) with a long shaft to pry-off the upper attachment point (K) for the C-pillar trim panel (L), as shown.

Continue using the panel remover (J) to gently detach all other mounting locations for the C-pillar trim panel (L).

Notice: Make sure to replace any broken clips before reinstalling the C-pillar trim panel. P/N: 82315 33020

Description: Fastener-DR Trim

Notice: Examine all mounting clip locations for the C-pillar panel.

Collision





Move the front seat as far forward as possible and use a plastic prying tool to remove the front door threshold panel (M).

Notice: Make sure to reinstall any clips that may fall off the panel following removal.

Use a plastic prying tool to remove the rear door threshold panel (N).

Notice: Make sure to reinstall any clips that may fall off the panel following removal.

Lower the safety belt to its lowest setting and use a trim panel remover to detach all mounting locations for the upper (O) and lower (P) B-pillar trim panels.

Notice: Make sure to replace any broken clips before reinstalling the B-pillar trim panels. P/N: 82315 33020

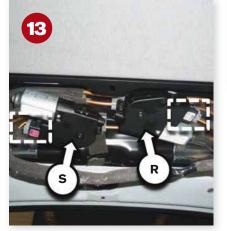
Description: Fastener-DR Trim

Gently apply downward pressure to the headliner (Q) to create an access gap to the sunshade and the sunroof glass motors.

Notice: Make sure to replace any broken clips before reinstalling the headliner. P/N: 85849 1M000AS Description: Clip-Trim MTG



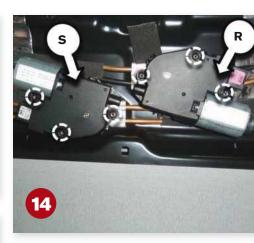




Disconnect the power connectors from the sunshade (R) and sunroof (S) motors.

Remove three T20 Torx® head screws securing the sunshade motor (R) and three T20 Torx® head screws securing the sunroof motor (S).

Install the new sunshade motor (R) and sunroof motor (S) using the original T20 Torx® head screws and reconnect the electrical connectors. T20 Torx® Screw Tightening Torque: 2.8 lb-ft (3.8 Nm)





Complete and initialize

Install all other removed components by reversing the order of removal.

Perform the panorama sunroof initialization procedure as follows:

- a. Turn the ignition switch to the ON position and close the sun roof completely.
- b. Release the control lever.
- c. Push and hold the control lever forward (for more than 10 seconds) until the sunroof tilts and slightly moves. Then, release the lever.
- d. Push the sunroof control lever forward in the direction of close until the sunroof operates as follows:

SUNSHADE OPEN → TILT OPEN →SLIDE OPEN → SLIDE CLOSE →SUN-SHADE CLOSE → Then, release the control lever.

When this is complete, the sunroof system is reset. KIA

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