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## FORD MOTOR COMPANY RELEASES POSITION ON SCANNING

To help bring clarity to the collision industry and promote proper and safe repairs, Ford Motor Company recently issued a position statement on pre- and post-repair scanning for both Ford and Lincoln vehicles. The statement reads as follows:

*Ford Motor Company vehicles contain many state-of-the-art features that provide occupant safety and enhance the driving experience. During collision repairs, it is critical the proper function of these systems and features be restored back to pre-accident condition and performance. Ford defines a collision as damage that exceeds minor outer body panel cosmetic distortion.*

*All Ford Motor Company vehicles from and including model year 2010 forward involved in a collision*

*require a pre-repair diagnostic scan during the estimation phase of a collision repair to properly identify all required repairs. During the repair process, certain modules and other system components may require calibration or initialization to properly complete the repair. Additionally, the vehicle must have a post-repair diagnostic scan completed after the vehicle has been repaired to verify that new faults have not been introduced in the course of the repair and to verify that the vehicle has been fully repaired. The following points show why a diagnostic scan is crucial to the proper repair of the vehicle:*

- 1. Preliminary diagnostic scans provide a baseline to the condition of the systems on the vehicle, and what concerns may need to be addressed during the vehicle repair plan development.**
- 2. Not every malfunction will illuminate a malfunction indicator light (MIL) or message center warning.**
- 3. A system may require a certain number of drive or function cycles in order to set a warning light or manifest a concern.**
- 4. Low battery voltage may allow for numerous Diagnostic Trouble Codes (DTCs) to set.**

*It is important to utilize Ford repair procedures for all collision repairs to ensure quality results. Ford also recommends the use of the Integrated Diagnostic System (IDS) or Ford Diagnosis and Repair System (FDRS) [editor's note: see page two] to perform all vehicle diagnostic testing, module programming, and system calibrations during collision repairs. Ford dealer-owned body shops can access service information, training and diagnostic scan tool support through the Professional Technician*

*Society at [fordtechservice.dealerconnection.com](http://fordtechservice.dealerconnection.com) and independent collision repairers can find information at [motorcraftservice.com](http://motorcraftservice.com).*

An identical position statement has also been released for Lincoln vehicles.

These new statements—as well as a complete list of previously released Ford and Lincoln position statements—can be found at [FordCrashParts.com](http://FordCrashParts.com), [OEMiStop.com](http://OEMiStop.com) and [I-CAR.com](http://I-CAR.com).

“The scanning statement reinforces the idea that Ford tools and procedures should be used when repairing our vehicles,” said Ford Senior Damageability Engineer Gerry Bonanni. “Ford procedures are written in a very logical way to properly diagnose electrical and safety issues. And, those steps must be done in the correct order, like algebra. If you skip a step in the order of operations, you will end up with an incorrect answer. The same concept applies to proper vehicle diagnosis: if you skip a step, the original fault condition of the vehicle may not be properly diagnosed or addressed.”

“Sometimes, you may see a diagnostic trouble code noting a malfunctioning module,” continued Bonanni. “Conducting a pinpoint test—as directed by scanning the vehicle—may lead to the discovery that the issue is a simple wiring condition, saving time and replacement costs on a new module.”

For questions on this or the proper repair of any Ford or Lincoln vehicle, contact Gerry Bonanni at 313.317.9000 or the Ford Crash Parts Hotline at [cphelp@fordcrashparts.com](mailto:cphelp@fordcrashparts.com).



## FORD UNVEILS CERTIFIED COLLISION NETWORK

Earlier this year, Ford Motor Company launched its new Ford Certified Collision Network (FCCN), an internally-managed program designed to help repairers keep pace with the rapidly changing repair requirements of today's vehicles. This new network offers increased access to original equipment repair procedures and a more direct connection to Ford than ever before, and replaces the National Body Shop Network (NBSN), which it began in 2015.

“We are committed to delivering quality and safe collision repairs,” said Jennifer Boyer, Ford global collision business and strategy manager.

“The evolution of our collision repair certification program demonstrates this commitment and represents our desire to manage the program internally and include new benefits to certified repairers.”

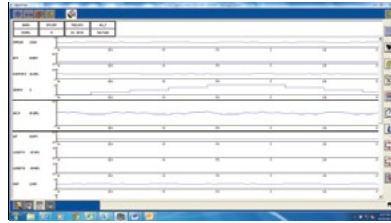
New program features include a subscription to Ford Repair Procedures, Repair Process Coaching and access to a new technical hotline as Ford expands its relationship with I-CAR, with direct access to FMC engineers.

Ford began accepting applications for certification in January, anticipating the network will grow by the end of 2019 as it strives for a solid footprint throughout the United States.

All collision centers certified in the NBSN are considered members in the FCCN until their certification anniversary date. Notifications will be sent out 60 days prior to the anniversary date to begin re-enrollment and set up the repair process assessment, which includes an on-site inspection of four vehicles currently being repaired (at least two Ford and/or Lincoln vehicles).

“We are eager to build this new network and provide customers with improved access to certified collision repairers. The Ford Certified Collision Network is an evolution which prepares us for the future of the collision and claims industry,” said Boyer.

For more information, or to begin the enrollment process, visit [collision.ford.com/fordcertifiedcollisionnetwork](http://collision.ford.com/fordcertifiedcollisionnetwork) or call 833.837.7694.



## FORD DETAILS LATEST DIAGNOSTIC SCANNING EQUIPMENT

Ford Motor Company's recent position statement on pre- and post-repair scanning notes the important role scanning plays in completing a proper, safe repair. The scanning statement strongly recommends repairers utilize Ford's Integrated Diagnostic System (IDS) and the Ford Diagnostic & Repair System (FDRS). These diagnostic systems are the only diagnostic tools that provide full OEM functionality to perform vehicle diagnostic testing, module programming, and system calibrations on Ford, Lincoln and Mercury vehicles.

### FORD DIAGNOSTIC SOFTWARE

Integrated Diagnostic Software is the Ford OEM software designed to perform advanced testing procedures, module reprogramming, key programming and other functions—including those not found in generic scan tools—on all OBD II-equipped Ford, Lincoln, and Mercury vehicles. Ford engineers work continuously to release biweekly software updates to its subscribers for the length of their subscription. These updates include the latest module software calibrations, tests, and updates to support 1996 and newer vehicles. IDS will remain the diagnostic tool for all supported Ford, Lincoln and Mercury legacy vehicles for the 2017 model-year and older, as well as for some select 2018 and 2019 vehicles, including:

- Taurus
- Edge
- Nautilus
- Escape
- Continental
- Fiesta
- GT
- F-150 Limited
- F-150 Raptor

Ford Diagnostic & Repair System is the next-generation Ford Motor Company vehicle diagnostic software designed for use with VCM II, Vehicle Communication & Measurement Module (VCMM) and J2534-compatible Vehicle Communications Interfaces (VCI). FDRS provides complete dealership-level vehicle diagnostic coverage for some 2018 and forward vehicles. Specifically, it will initially support the 2018+ EcoSport; 2018+ Expedition; 2018+ Navigator; and the 2019 Transit Connect in North America.

FDRS provides superior capabilities, is more user-friendly and provides more diagnostic tools than IDS. The cloud-based system ensures the technician is provided the latest software every time FDRS logs into the Ford network. FDRS utilizes the same licensing agreement as IDS, at no additional cost, however, both must be installed on the same computer.

### FORD DIAGNOSTIC HARDWARE

The IDS software has been designed and tested to work with Ford's approved Vehicle Communication Modules (VCM and VCM II), as well as with Vehicle Measurement Module (VMM) and VCMM.

Compared to its predecessor, the VCM II offers improved durability and performs module programming in half the time, while its enhanced 802.11 wireless ability eliminates the need for a wired connection to a laptop. The VCM II also has an optional Customer Flight Recorder (CFR) that can be used as a "flight recorder" to help diagnose difficult intermittent problems. Using Ford IDS software in conjunction with a genuine Ford VCM II provides any technician with unmatched diagnostic abilities when diagnosing an OBD II-equipped Ford, Lincoln, or Mercury vehicle.

FDRS is **fully compatible** with VCM II and VCMM. However, VCM I and VMM do **not** support FDRS.

For more information on diagnostic tool support, visit [Motorcraftservice.com](http://Motorcraftservice.com). Additional information—including installing software—can be found at [fordtechservice.dealerconnection.com](http://fordtechservice.dealerconnection.com).

To purchase VCM II hardware, visit [rotunda.service-solutions.com](http://rotunda.service-solutions.com).

To access your IDS software licensing account, or to create one, [click here](#).

## COLLISION REPORT

### FORD INTRODUCES NEW SERIES OF TRAINING VIDEOS

Strengthening its philosophy of ensuring proper, safe repairs for owners, Ford Motor Company has announced a new series of videos, collectively dubbed *Collision Report*.

The new series is designed to provide collision professionals with relevant information directly from Ford on the latest resources to ensure safe and quality repairs. This is especially important now, as vehicles—and repairs—continually become more complex with the increased prevalence of Advanced Driver-Assistance Systems (ADAS), such as Evasive Steering Assist, Pre-Collision Assist with Automatic Braking and Advanced Lane Keeping.

In the inaugural videos, you will hear from members of the Ford team, including: Global Collision Business & Strategy Manager Jennifer Boyer; Global Collision Marketing Manager Rob Johnston; Collision Marketing Manager Dean Bruce; Collision Technical Operations Manager for Ford Customer Service Division, Adam Gair; and Ford Senior Damageability Engineer Gerry Bonanni on topics such as:

- The new Ford Certified Collision Network
- Information on technical repair resources—including where to find OEM repair procedures and collision position statements
- Details regarding available Ford training
- Repair overview videos on the 2018 Lincoln Navigator/Ford Expedition and the 2019 Ranger

"The video series is intended for collision center managers, estimators, technicians, owners and those with vested interest in the collision repair industry," said Boyer. "We remain focused on Ford and Lincoln owners and support everyone who repairs these vehicles to provide safe and quality repairs."

The video series is available on [FordCrashParts.com](http://FordCrashParts.com), with more planned to be added throughout 2019, so check back often.

**ADDITIONAL IMPORTANT COLLISION REPAIR INFORMATION** can be found on [Motorcraftservice.com](http://Motorcraftservice.com) and [Collision.Ford.com](http://Collision.Ford.com)

**QUESTIONS?** Ford Crash Parts Hotline: [cphelp@fordcrashparts.com](mailto:cphelp@fordcrashparts.com)

# 2019 RANGER: FRONT FENDER APRON PANEL REPAIR

FORD SENIOR DAMAGEABILITY ENGINEER GERRY BONANNI DISCUSSES KEY REPAIR ASPECTS OF THE NEW TRUCK.

As the all-new 2019 Ford Ranger—which has more in common with the Ford F-150 than the older-model version of the truck, discontinued in 2011—makes its way into showrooms and into customer's hands, the law of averages says it can find its way into repairers' hands, as well. To that end, we continue a discussion with Ford's Senior Damageability Engineer Gerry Bonanni—who previously detailed the Ranger's all-new frame in the last issue of *On Target* (2018 - Vol. 3)—this time looking at the official Ford procedure on the new truck's front fender apron panel.

Please note that the following repair information and steps are intended as a general guideline and are not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual*, which can be found at [Motorcraftservice.com](http://Motorcraftservice.com).

## SECTION 501-27: FRONT END SHEET METAL REPAIRS – REMOVAL AND INSTALLATION

“Before getting into the details of the repair, and even though I've said it before, it's so important that it bears repeating: always fully research the repair before beginning any repair work,” cautioned Bonanni. “Today's vehicles are complex machines with each component designed to work together, and referencing the official Ford procedure for repair—while using genuine Ford replacement collision parts—is the only way to ensure the vehicle components work as designed and intended. Too often, especially lately, we have seen the dramatic effects of not adhering to proper OEM procedures, tooling and parts.”

The repair procedure begins by detailing the tools, equipment and materials needed for removal of the damaged apron panel, including:

- Resistance spot-welding equipment
- 8mm drill bit
- MIG/MAG welding equipment
- Spot-weld drill bit
- Locking pliers
- Metal bonding adhesive (TA-1, TA-1-B, 3M™ 08115, Lord Fusor® 108B)
- Seam sealer (TA-2-B, 3M™ 08308, Lord Fusor® 805DTM)

### REMOVAL

Before removing any components, first verify the vehicle is dimensionally correct, referring to Section 501-26: Body Repairs – Vehicle Specific Information and Tolerance Checks, Description and Operation.

The following vehicle components can then be removed:

- **Air cleaner assembly** (refer to Section 303-12: Intake Air Distribution and Filtering)
- **Degas bottle** (refer to Section 303-03: Engine Cooling)
- **Instrument panel** (refer to Section 501-12: Instrument Panel and Console, Removal and Installation)
- **Brake pedal and bracket** (refer to Section 206-06: Hydraulic Brake actuation, Removal and Installation)
- **Accelerator pedal** (refer to Section 310-02: Acceleration Control, Removal and Installation)

- **Battery** (refer to Section 414-01: Battery, Mounting and Cables, Removal and Installation)

- **Front fender** (refer to Section 501-02: Front End Body Panels, Removal and Installation)

“After all that componentry is removed, repairers then need to remove the spot welds, using the spot-weld drill bit,” informed Bonanni. **(Figures 1 – 4)**

“The last step before moving on to installation is to remove the fender apron panel reinforcement,” said Bonanni.

### INSTALLATION

The workshop manual contains a special note to repairers, instructing them that factory spot-welds may be replaced with resistance spot welds or MIG plug welds. **The repairer must install the same number of resistance spot welds but must take care to NOT place them directly over the original location. They must be placed adjacent to the original welds.**

For detailed information, repairers should reference Section 501-25: Body Repairs – General Information, General Procedures.

Using the 8mm drill bit, drill holes for MIG plug welds into the replacement panel.

“Before welding,” noted Bonanni, “repairers should refer to their equipment manufacturer's instructions for machine setup.”

Using the locking pliers, and the adhesive agents (TA-1, TA-1-B, 3M™ 08115, Lord Fusor® 108B), install and lock the new panel into position. The panel is then ready to be fully welded into place, utilizing the MIG/MAG welding equipment and the resistance spot-welding equipment.

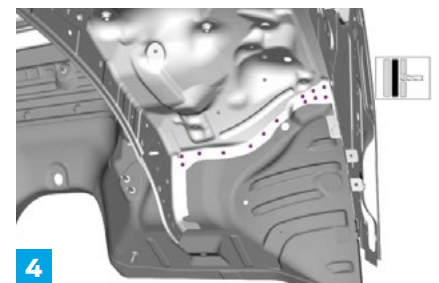
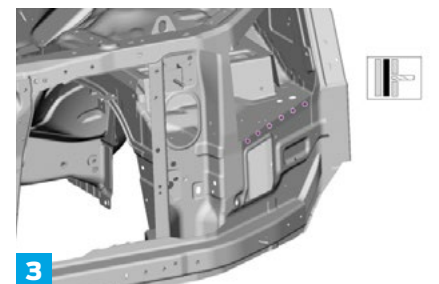
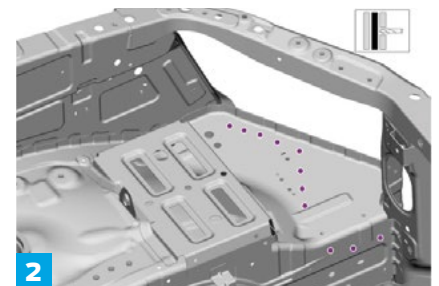
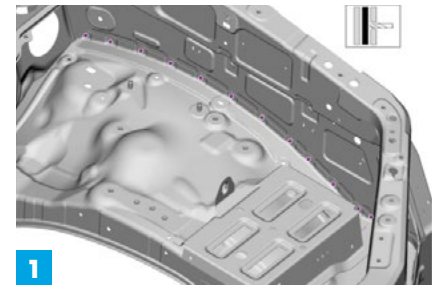
After all welding is complete, repairers are instructed to metal-finish the area as required. All areas must then be sealed to production level, utilizing the TA-2-B, 3M™ 08308, Lord Fusor® 805DTM.

The repair area must then be refinished using Ford-approved paint systems.

With the repair now complete, the technician can reinstall the previously removed components.

Additional repair-specific information on the 2019 Ranger is planned for future editions of *On Target*.

For repair questions on the Ranger, or any Ford or Lincoln vehicle, contact Gerry Bonanni at 313.317.9000 or the Ford Crash Parts Hotline: [cphelp@fordcrashparts.com](mailto:cphelp@fordcrashparts.com)



The above figures indicate on the vehicle the location of the existing spot-welds, which repairers must remove using a spot-weld drill bit, before they can remove the fender apron panel reinforcement. Repairers are warned that the new spot-welds they install cannot be placed directly over the original locations, and must be placed adjacent to them.

# DIAGNOSTIC METHODS FROM THE FORD WORKSHOP MANUAL

## PROCEDURES CRITICAL FOR PROPER SCANNING AND REPAIR

As part of our ongoing effort to help repairers make the proper repair the first time, we offer another installment of repairs straight from the official *Ford Workshop Manual*. This time, we begin a series looking at diagnostic methods, found in Section 100-00: General Information – Description and Operation. This section details how to properly diagnose electrical, wiring and circuit issues. It should also be consulted to ensure proper pre- and post-repair scans of Ford and Lincoln vehicles.

Please note that the following steps are intended as a general guideline and are not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual* at [Motorcraftservice.com](http://Motorcraftservice.com).

### SECTION 100-00: GENERAL INFORMATION – DESCRIPTION AND OPERATION, DIAGNOSTIC METHODS

#### EFFECTIVE DIAGNOSTIC METHODS

**Note:** Do not use this document in place of Ford-prescribed Symptom-Based Diagnostics or Workshop Manual diagnostics. Diagnostic Methods are intended to provide Ford vehicle diagnostic information only for support of Ford-prescribed diagnostics.

The following diagnostic process is critical for consistently successful diagnoses. Random methods work inconsistently and often lead to multiple repairs.

- **Understand and verify the symptom**
  - Understanding a symptom requires understanding normal operation.
  - Duplicate the concern. Recreate the same conditions that demonstrated the original concern (road testing may be necessary).
- **Determine the responsible system**
  - Gather data, such as a visual inspection and an OASIS report.
  - Perform system tests, such as pressure tests or DTC retrieval.
- **Identify the responsible component**
  - Test the suspect component and related parts.
- **Determine the root cause**
  - Examine related components (wiring faults, misalignments, incorrect adjustments) that may be the actual cause or may have caused the component failure.
  - Repair the related faults to avoid repeat failures.

- Verify the repair has corrected the concern (and not created any new ones) using the identical conditions that demonstrated the original concern.

#### DIAGNOSTIC SCAN TOOL TESTING

**Network Test:** Performing a network test is always recommended for analysis of electronic system concerns. Always solve network issues before addressing individual symptoms or DTCs.

**Recommended Practices:** Refer to Section 418-00: Module Communication Network, Diagnosis and Testing to diagnose a network outage or no response from an individual module (or modules).

#### DIAGNOSTIC TROUBLE CODE RETRIEVAL

Generally, a good diagnostic strategy is to resolve all on-demand codes related to the system concern. Retrieving all continuous DTCs can also be beneficial to understand historic issues outside of the suspect system that may be affecting your concern. On-demand testing should be done to ensure the fault represented by a continuous DTC is still present.

#### CONTINUOUS MEMORY DIAGNOSTIC TROUBLE CODES

Ford Motor Company modules have a unique feature that performs a special diagnostic program at the request of the technician (using a diagnostic scan tool). This “On-Demand” diagnostic program can exercise system outputs not normally running when the car is parked, and record observed faults. These diagnostic codes are communicated to the scan tool, but are not recorded in the module memory. An on-demand test is an effective tool for evaluating real input and output conditions during module activity – activity that might not normally be occurring during service bay conditions. For example, an air suspension module on-demand test can run the compressor, vent the system and observe the report from the height sensor even when the car is already at correct trim height and not require height adjustment.

#### NETWORK COMMUNICATION DIAGNOSTIC TROUBLE CODES

Network DTCs (U-prefix codes) are often a result of intermittent concerns such as damaged wiring or low battery voltage occurrences. Additionally, vehicle repair procedures (such as module reprogramming or diagnostics with modules disconnected) often set network DTCs. Replacing a module to resolve a network DTC is unlikely to resolve the concern. To prevent recurrence of intermittent network concerns, inspect all network wiring, especially in-line and module connectors. Test the vehicle battery to ensure the vehicle voltage will be stable.

#### Recommended practice:

Clear the DTC and re-test. If the DTC repeats, test the vehicle communication network.

Additional information on diagnostic methods will continue in future editions of *On Target*.

## AUTOMAKER GROUPS: FOLLOW OEM PROCEDURES

The Alliance of Automobile Manufacturers and the Association of Global Automakers—the two trade groups representing nearly all new car and light truck manufacturers in the U.S., including Ford Motor Company—have weighed in on the use of OEM repair procedures for collision repair, recently issuing the following policy statement:

*An automaker's top priority is its customers' safety, as is safeguarding the overall health of the motor vehicle fleet utilizing our nation's shared roadways every day.*

*All post-collision vehicle repairs must be conducted in accordance with the repair procedures issued by the vehicle's original equipment manufacturer (OEM), specific to that vehicle's year, make, and model. This includes any directives contained therein relative to pre- and post-scanning of vehicle systems.*

*OEMs develop repair procedures to help safely restore vehicle systems to proper conditions. The processes follow service and structural engineering practices that have been tested by the manufacturer through crash simulation, actual crash testing, and real-world validation of the repair methodology. Beyond the simple reinstallation of vehicle hardware, OEM repair procedures provide the measurements and tolerances to correctly recalibrate advanced driver safety and assist systems increasingly found on today's vehicles, including lane departure warnings, emergency braking, adaptive cruise control, and blind-spot monitoring.*

*Failure to follow OEM repair procedures in the course of a post-collision repair should be considered an unauthorized modification of a vehicle and its systems, introducing the potential for bodily injury and death to any future drivers and occupants of the vehicle, as well as occupants in other motor vehicles on the roadway.*

## FACTORY-INSTALLED & OEM REPLACEMENT WINDSHIELDS

### QUIETLY OFFER WIDE RANGE OF BENEFITS

*Special thanks to Ken Pew, FCSD/Carlex Technical Service Manager*

The glass and body shop industries are well acquainted with windshield and door glass laminates that have acoustic sound dampening features made to reduce interior cabin noise, often referred to within the automotive industry as “NVH,” for noise, vibration and harshness.

Noise is transmitted through the glass to the vehicle occupants through air turbulence against the windshield at highway speeds as air hits the edge of body panels, other vehicles in traffic, external environmental sources and road noise. Noise intensity is measured in decibels, with 0dB noted as a healthy threshold of hearing. Whispers range anywhere from 15dB – 30dB, and traffic can fall anywhere from 50dB to 85dB.

The need to have an interior that is quiet has increased the use of acoustic products, due to the increased use of premium sound systems, voice-activated automotive systems, integrated

cell phones, complex navigation systems and other high-tech features in new cars and trucks.

In late 2006/early 2007, Ford introduced its brand of acoustic products called Soundscreen® on its windshields and front doors. Today, Soundscreen® glass is featured on almost all Ford and Lincoln vehicle models, and is now migrating to the rear doors as well. Soundscreen® acoustic windshields and doors are engineered performance parts—either factory installed or OEM replacement parts—that help reduce road, wind and other exterior noise surrounding your vehicle to improve the overall driving experience and preserve its original quiet ride.

As opposed to the standard windscreens that utilize a single vinyl layer, Ford’s Soundscreen® glass utilizes three layers—with the middle layer containing the acoustic properties—yet reduces overall glass thickness by up to 16 percent, while making the vehicle lighter and improving fuel efficiency.

The acoustic interlayer is an advanced tri-layer polyvinyl butyral that reduces noise levels by up to 3dB when compared to a standard windshield; up to 5dB when compared to tempered-glass side windows; and up to 10dB in the critical wind-noise region of sound frequencies. This type of glass is particularly effective on the sound frequencies to which humans are most sensitive—such as voice-recognition ranges—meaning drivers and passengers can hear a difference.

Furthermore, since acoustic glass is now available in a wide range of vehicles, consumers are becoming aware of and learning more about this technology. Some customers described being able to hear a sound/noise difference after their vehicle was repaired, and asked for Carlex’s help to confirm if the windshield replacement repair had been conducted properly. Carlex discovered that on some occasions, a generic, aftermarket windshield had been used instead of a Ford OEM windshield, and it did not perform as well as the vehicle’s original one. The consumers returned to the original installer to have the proper Ford OEM acoustic windshield installed.

Without Ford’s Soundscreen® glass, customers not only miss out on the advanced acoustic attributes, but its other benefits, including weight reductions, which help to improve fuel economy; lower carbon emissions; and helping to block harmful UV rays.

From the installer or body shop point of view regarding glass, it is important to respect the integrity of the original engineering design. In order to preserve the original product’s designed intent, it is important the vehicle owner receive a replacement product consistent with the original application.

To read more about acoustic windshields, visit [carlex.com](http://carlex.com).



## UNDERSTANDING FORD’S PRE- AND POST-REPAIR SCANNING PROCESS

*By Mark Bochenek, Principal, OEM Business Development, I-CAR*

Pre- and post-repair scanning continues to be a topic of conversation during the collision repair process, from the very first scan of the vehicle to the last calibration. The growth of in-vehicle technologies, such as advanced driver assistance systems (ADAS), has made the repair process even more complex. Yet, failing to follow the original equipment manufacturer (OEM) procedures could compromise complete, safe and quality repairs.

For instance, a camera mounted too high, or at an angle a few degrees off, could be detrimental to the accuracy of several ADAS systems, but it’s not only cameras that require calibration. Many distance sensors, including adaptive cruise control, collision braking and blind-spot detection/warning, also require calibration following part removal or replacement. The process is performed to teach the sensor how far objects are away from it. If a collision braking sensor doesn’t recognize one millimeter versus one meter, there is a chance the vehicle could drive into another vehicle or initiate braking when it isn’t necessary and potentially cause a collision.

Ford Motor Company recently issued a position statement detailing OEM-directed pre- and post-repair scanning in the collision repair process. Like Ford, I-CAR® urges technicians

to utilize the OEM-issued information and procedures for all collision repairs.

For repairers looking to learn more about calibration requirements, I-CAR has made an OEM Calibration Requirements Search feature available by subscription through its Repairability Technical Support® (RTS) portal, which describes when calibration/aiming is required following repairs to vehicles equipped with ADAS. This information, which is available at [rts.i-car.com](http://rts.i-car.com), provides benefits in the damage analysis process, reduces the time spent developing the repair plan and could improve cycle time when done in advance.

Users can easily search for the vehicle make and model they are repairing. The listings, color-coded for each system, display the options and events that will necessitate calibrations for that system. For each safety option, the calibration matrix shows which cameras and/or sensors are involved, where they are located, and the calibrations required for each. It also shows which ADAS systems are affected by each camera and sensor and indicates whether scan tools and/or special tools are required for calibrations. In addition, it details whether the system will illuminate an MIL (Malfunction Indicator Light) or set a DTC

(Diagnostic Trouble Code) if it detects an error, or if the calibration/aiming procedure is incomplete.

For example, the 2018 Ford Explorer, one of many Ford models listed on the OEM Calibration Requirements Search, has several ADAS system calibration requirements. Its forward-facing camera, located near the rearview mirror and known as Image Processing Module A by the OEM, requires calibration if:

- The windshield is replaced
- There is a change in the tire size
- The suspension system is repaired, aligned or modified
- The front airbag is deployed
- The interior mirror is replaced

Aside from diagnostics and calibrations, Ford’s webpage on the RTS portal at [rts.i-car.com](http://rts.i-car.com) includes a variety of other useful details, as well as information about Ford-approved I-CAR courses that fulfill the necessary training for its own network.

For more information about programs specific to Ford and I-CAR’s training partnership, visit [I-CAR.com/Ford](http://I-CAR.com/Ford)

## 2019 INDUSTRY EVENTS CALENDAR

MARCH 28	<a href="#">Auto Glass Safety Council</a> – Training and Certification	Long Island, NY
APRIL 11	<a href="#">AASP-MN</a> – Annual Meeting and Leadership Conference	Minneapolis, MN
APRIL 16	<a href="#">SCRS</a> – Board of Directors Meeting (Open)	Nashville, TN
APRIL 17 - 18	<a href="#">Collision Industry Conference</a> – General Meeting	Nashville, TN
APRIL 30 - MAY 2	<a href="#">Automotive Service Association</a> – Annual Business Meeting	Hurst, TX
JUNE 18	<a href="#">AASP-MN</a> – Annual Golf Outing	St. Paul, MN
JULY 23	<a href="#">Collision Repair Education Foundation</a> – Annual Golf Outing	Indianapolis, IN
JULY 24	<a href="#">SCRS</a> – Board of Directors Meeting (Open)	Indianapolis, IN
JULY 24 - 25	<a href="#">Collision Industry Conference</a> – General Meeting	Indianapolis, IN
OCTOBER 30 - NOVEMBER 2	<a href="#">ATRA</a> – Powertrain Expo	Las Vegas, NV
NOVEMBER 4	<a href="#">SCRS</a> – Repairer Driven Education Session	Las Vegas, NV
NOVEMBER 5	<a href="#">Collision Industry Conference</a> – General Meeting	Las Vegas, NV
NOVEMBER 5 - 7	<a href="#">Automotive Aftermarket Products Expo (AAPEX)</a>	Las Vegas, NV
NOVEMBER 5 - 8	<a href="#">Specialty Equipment Market Association (SEMA) Show</a>	Las Vegas, NV



## On Target

Scheduled to be published four times a year, *On Target* aims to provide Ford and Lincoln dealership parts departments and independent collision repair centers with the technical information needed to deliver efficient, high-quality repairs to Ford and Lincoln vehicle owners.

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## On Target Digital

Download *OnTarget* for free at [FordCrashParts.com](http://FordCrashParts.com), or by clicking the Ford page on [OEM1Stop.com](http://OEM1Stop.com).

## GENUINE PARTING THOUGHTS

Have an idea?  
We'd love to hear from you.  
Send comments or article suggestions to:  
[cphelp@fordcrashparts.com](mailto:cphelp@fordcrashparts.com)



[FORDCRASHPARTS.COM](http://FORDCRASHPARTS.COM)

## INSIDE THE INDUSTRY

### Bills to Require OEM Procedures; Other Legislative Updates

The Alliance of Automobile Manufacturers and the Automotive Service Association (ASA) have announced they'll seek new laws prohibiting insurers from requiring repairers to deviate from OEM repair procedures in several states this year. The proposed legislation would also require insurers to compensate repairers for the use of OEM procedures, similar to a bill approved in Rhode Island last year.

#### In other legislative news ...

- **NH – HB 664**  
Requires insurers to reimburse repairers for all repairs if OEM collision repair procedures, recommendations or service bulletins are followed.
- **WY – SF 0095**  
Allows the use of aftermarket parts that are at least equal in kind and quality to the original parts, in terms of fit, quality and performance, as approved by a nationally certified organization. ASA opposes the bill.
- **MA – HB 4051**  
Has been signed into law. It establishes criminal penalties for importing, manufacturing, selling or installing a counterfeit or nonfunctional airbag in a vehicle. Massachusetts becomes the 18th state to pass such a law.

### MSO Merger

Caliber Collision and ABRA—two of the four largest multi-shop operators in the U.S.—have closed a deal to merge their operations. The agreement includes more than 600 Caliber shops and 400 ABRA locations in 37 states. The companies say all shops will remain open and will use the Caliber name.

### Collision Repair Career Fairs

The Collision Repair Education Foundation (CREF) has announced it will hold a series of career fairs around the U.S. this spring, aimed at connecting automotive dealers and collision repair shops with prospective repair technicians. The schedule includes:

- **Denver, CO** – March 29-30
- **Phoenix, AZ** – April 6
- **Atlanta, GA** – April 28
- **Philadelphia, PA** – May 8

Other events still to be finalized will be held in Houston, Dallas, Detroit, Northern California and Southern California. [Visit the CREF website for more information.](#)

### New ASA Leader

The Automotive Service Association has selected Ray Fisher as its new executive director. Fisher is a former body shop manager, and had been the head of ASA-Michigan since 2010. He succeeds Dan Risley, who resigned last summer after serving five years.