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On Target

FORD PARTS

For Ford and Lincoln wholesalers and the collision repair industry

Ford Develops New Job Aids for High-Voltage Battery Inspection, ADAS

Ford Motor Company has announced the creation of three new job aids to assist in repairs involving Ford and Lincoln battery electric vehicle (BEV) under-body high voltage (HV) battery inspection and advanced driver assistance systems (ADAS), with and without glass.

Certain Ford and Lincoln BEVs are equipped with under-body HV battery packs. When the HV battery or battery case sustains damage through collision or transport, it should be inspected carefully to determine if the damage is purely cosmetic or if repairs are needed. The new job aid on this topic provides an overview of warnings and cautions repairers need and what constitutes acceptable or not acceptable damage.

Concurrently, many Ford vehicles are also equipped with advanced driver assistance systems to help warn drivers and mitigate hazards. ADAS components may require additional calibration steps or vehicle programming after the component or related components have been removed, replaced or serviced. The new job aids—one for ADAS with glass and one without—cover the component description and location and the required calibration steps of each advanced driving support system.

These troubleshooting guides identify specific ADAS components, all associated abbreviations and descriptions of how the systems operate, while the glass version further illustrates where ADAS components are in relation to the windshield or other fixed glass, such as the head up display module, which is located on top of the instrument panel on the driver's side at the base of the windshield.

The information in the new job aids is intended for reference only and repairers are reminded that when servicing HV batteries or components, or servicing or calibrating any ADAS components, the detailed procedures contained in the *Ford Workshop Manual* (WSM)—accessible through Motorcraftservice.com or the Ford Professional Technician Society (PTS) site—should always be followed. The guides do not replace the wealth of information contained within the WSM.

"Concerning the electrified fleet of Ford vehicles, we wanted to make sure repairers familiarize themselves with the unique repair characteristics of these vehicles, as well as the specialized tools, equipment, materials and precautions needed to repair them accurately and safely," said Ford Customer Service Division U.S. Collision Manager Chris Wallace. "These job aids allow us to provide the critical information our technicians need up front, before they even need it, though the job aids do not replace Ford OE repair procedures."

All three documents are available now on FordCrashParts.com, and *On Target* plans further excerpts in future issues.

For more information on electric vehicle repair, or ADAS calibration, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com or visit I-CAR's RTS Portal at RTS.i-car.com.

2021 Ford Mustang Mach-E SUV: Vehicle-Specific Body Construction

On Target is excited to begin providing details on the all-electric Ford Mustang Mach-E® SUV. With this expansion of the Mustang family, the famous pony bursts into the electric age while still incorporating the same exciting ideals that inspired the sports coupe that is easily recognized worldwide.

Now, Ford and Mustang are ready to reimagine these ideals for a powerful electric future, with space for customers' growing needs and advanced over-the-air updates that continue to enhance the vehicle.

Please note the following information is intended as a general guideline and is not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual*, found at Motorcraftservice.com.

For more information, refer to **Section 501-26: Body Repairs – Vehicle Specific Information and Tolerance Checks, Description and Operation**

Body

The body of the 2021 Mustang Mach-E SUV consists of the following:

- Front frame rails constructed of high-strength dual-phase (DP) 600 steel
- Rear frame rails constructed of boron ultra-high-strength steel
- Fender apron assembly constructed of dual-phase (DP) 600 high-strength steel
- Liftgate outer panel constructed of mild steel
- Body structure constructed of boron, dual-phase (DP) and high-strength steels
- Roof panel reinforcements constructed of dual-phase (DP) 600, smart and high-strength, low-alloy (HSLA) 380 steel

- Bolted, removable front fenders, hinged doors and hood
- Body-side outer panels constructed of mild steel
- Mastic pads used on floor pan for sound deadening

On Target plans to include more construction details on the Mustang Mach-E in future volumes, including some of the special tools needed for service, as found on Ford's Rotunda website.

For more information on the Mach-E, or any Ford or Lincoln vehicle, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com or visit I-CAR's RTS Portal at RTS.i-car.com.

IN THIS ISSUE

More Body Details on Ford Bronco™ and Bronco Sport

On Target continues providing body construction details on both the all-new, full-sized Ford Bronco and the 2021 Bronco Sport SUV, this time focusing on the body-side inner panels for the Bronco Sport SUV, and the cowl panel, dash panel, front panels, aprons and side members for the Bronco.

Please note the following information is intended as a general guideline and is not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual*, found at Motorcraftservice.com.

For more information on both vehicles, refer to their specific entries found in **Section 501-26: Body Repairs – Vehicle Specific Information and Tolerance Checks, Description and Operation** and **Section 501-25: Body Repairs – General Information, Specifications.**

BRONCO

Cowl Panel and Dash Panel (Figure 1)

Item	Description	Steel Type
1	Upper cowl panel	Mild steel
2	Cowl panel assembly	Mild steel
3	Dash panel Assembly	Mild steel

Figure 1

Front Panels, Aprons and Side Members (Figure 2)

Item	Description	Steel Type
1	Fender apron brace (upper)	High-strength low-alloy (HSLA) 340 steel
2	Fender apron brace (lower)	High-strength low-alloy (HSLA) 340 steel
3	Radiator support	High-strength low-alloy (HSLA) 340 steel
4	Fender apron brace (lower)	High-strength low-alloy (HSLA) 340 steel

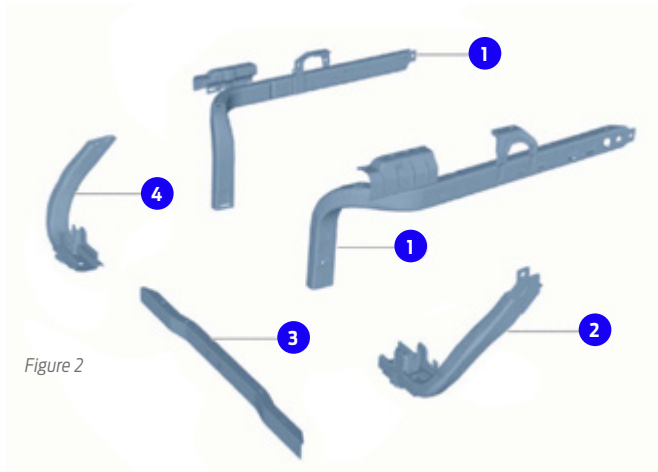

Figure 2

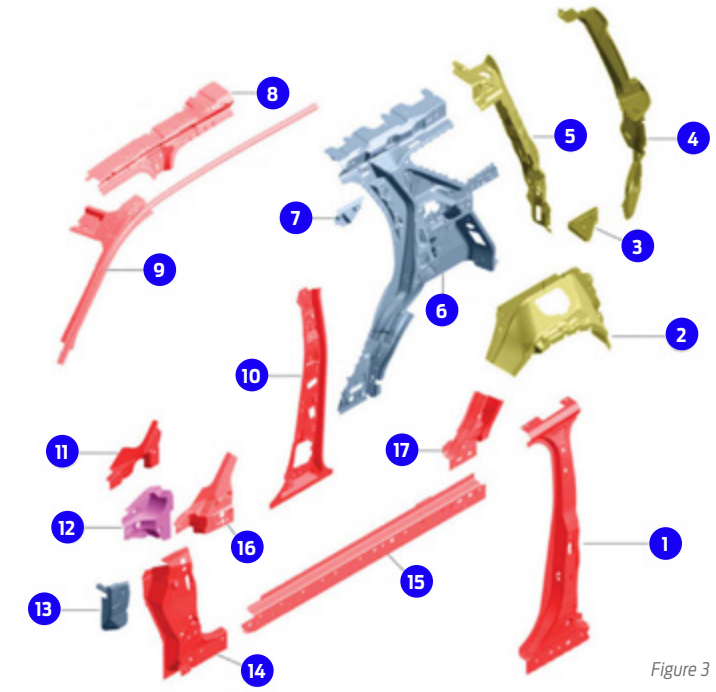

Figure 3

BRONCO SPORT SUV

Body-Side Inner Panels (Figure 3)

Item	Description	Steel Type
1	B-pillar	Boron steel
2	Inner quarter panel	Mild steel
3	Reinforcement	Mild steel
4	Drain trough	Mild steel
5	Inner quarter reinforcement	Mild steel
6	Wheelhouse inner	High-strength low-alloy (HSLA) 500 steel
7	Reinforcement	High-strength low-alloy (HSLA) 500 steel
8	Roof side reinforcement	Boron steel
9	Roof side rail reinforcement	Boron steel
10	B-pillar inner	Boron steel
11	A-pillar reinforcement	Boron steel
12	A-pillar upper	Dual-phase (DP) 800 steel
13	A-pillar reinforcement	High-strength low-alloy (HSLA) 500 steel
14	A-pillar	Boron steel
15	Rocker panel reinforcement	Boron steel
16	A-pillar upper reinforcement	Boron steel
17	Filler panel	Boron steel

On Target plans to include more construction details on the Ford Bronco and Bronco Sport SUV in future volumes, including sectioning guidelines.

For more information on the Bronco, Bronco Sport, or any Ford or Lincoln vehicle, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com or visit I-CAR's RTS Portal at RTS.i-car.com.

2020–Current Lincoln Aviator / Ford Explorer: Front Subframe

In previous issues (2019 - Vol. 3, 2019 - Vol. 4 and 2020 - Vol. 4), *On Target* included introductory repair information on the 2020 Lincoln Aviator/Ford Explorer. Here, we take an in-depth look at the multi-step repair process involved in removing the Aviator front subframe, following **Section 502-00: Uni-Body, Subframe and Mounting System, Removal and Installation.**

Please note that the following repair information and steps are intended as a 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*, found at Motorcraftservice.com.

Special Tool(s) / General Equipment

- 303-050 (T70P-6000) Lifting Bracket, Engine
- 303-F070 Support Bar, Engine TKIT-1999A-F / LT TKIT-1999A-FM/FLM

NOTICE: Suspension fasteners are critical parts that affect performance of vital components and systems. **Failure of these fasteners may result in major service expense.** Use the same or equivalent parts if replacement is necessary. **Do not use a replacement part of lesser quality or substitute design.** Tighten fasteners as specified.

1. Measure the distance from the center of the hub to the lip of the fender with the vehicle in a level, static ground position (curb height).
2. With the vehicle in NEUTRAL, position it on a hoist and then hold the steering wheel in the straight-ahead position with a suitable holding device (refer to Section 100-02).
3. Remove the retainer and the upper radiator panel, then the bolts and suspension bar (torque: 22 lb. ft. / 30 Nm).
4. Remove the following items:
   - Charge air cooler outlet pipe (**Section 303-12**)
   - Coolant pump (**Section 303-03**)
   - Coolant pipe bracket retaining bolts (torque: 97 lb. in. / 11 Nm)
   - Intake manifold bracket retaining bolts (torque: 97 lb. in. / 11 Nm)
   - Intake manifold bracket
   - Wiring harness retainers
   - Coolant pipe bolts (torque: 97 lb. in. / 11 Nm)

   Position the coolant pipe aside and, if equipped, disconnect the vacuum tubes, detach the retainer and position the vacuum tubes aside.

WARNING: Do not reuse steering column shaft bolts. This may result in fastener failure and steering column shaft detachment or loss of steering control. Failure to follow this instruction may result in serious injury to vehicle occupant(s).

5. Remove and discard steering column shaft bolt (torque: 22 lb. ft. / 30 Nm).
   - Separate the steering column shaft coupler from the electronic power assist steering (EPAS) gear.
6. Remove the engine front cover bolts (torque: Stage 1: 177 lb. in. / 20 Nm / Stage 2: 45°).
7. Using two M8 x 1.25 x 105 mm bolts and two washers, install the special tools to the engine (303-050 (T70P-6000) Lifting Bracket, Engine). [Figure 1]
8. Install special service tool: 303-F070 Support Bar, Engine. [Figure 2]

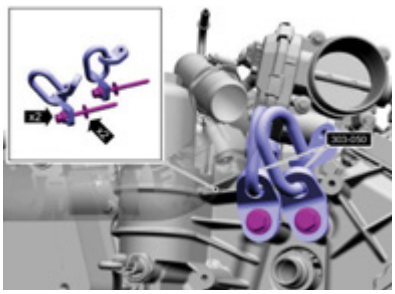

Figure 1

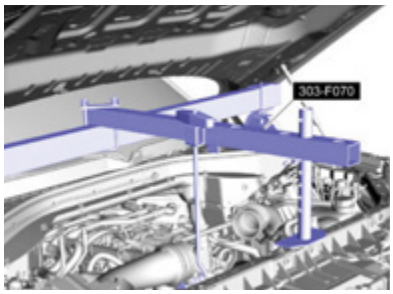

Figure 2

On Target plans to continue this repair process in future volumes.

For questions on this or the proper repair of any Ford or Lincoln vehicle, contact the Ford Crash Parts Hotline at **cphelp@fordcrashparts.com.**

SRS Airbag and Seatbelt Pretensioner System Component Descriptions and Definitions

On Target continues its detailed look at the first of many sections covering Supplemental Restraint Systems (SRS) from the *Ford Workshop Manual*—**Section 501-20B**—which includes a comprehensive list of component descriptions and definitions.

Please note the following information is intended as a general guideline and is not all-inclusive. For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual*, found at Motorcraftservice.com.

Section 501-20B: Supplemental Restraint System – Description and Operation

COMPONENT DESCRIPTIONS

Front Impact Severity Sensor

The front impact severity sensors measure acceleration (g-rate) and are hardwired to the restraints control module (RCM). Mounting positioning and orientation are critical for correct operation of the front impact severity sensors.

Occupation Classification System (OCS)

The OCS is found only on the front passenger seat. The OCS classifies the size of the front passenger seat occupant.

The OCS is comprised of a silicone gel-filled bladder mounted between the seat cushion foam and pan, an occupant classification system module (OCSM), which is mounted to the seat frame, and a pressure sensor that is internal to the OCSM. Pressure is applied to the OCS bladder when weight of any occupant or object in the front passenger seat is present. The pressure is then transferred through a tube and sensed by the OCS pressure sensor and OCSM. The components of an OCS bladder system (bladder, tube and OCSM with integrated pressure sensor) are serviced as an assembly, and the OCS bladder system is serviced as a kit with the seat cushion and seat heater mat (if applicable).

On Target will continue to examine SRS components and operation in upcoming volumes.

For questions on this or the proper repair of any Ford or Lincoln vehicle, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com.

Getting Back on Track: 2021 in Review

As 2021 winds down, we look back at some of the main stories *On Target* covered during the year.

The first volume, released in early spring, introduced vehicle-specific body construction details on the Ford Bronco Sport SUV, and contained additional repair information on such topics as: body-sectioning guidelines for the Lincoln Corsair®; details on the supplemental restraint system airbag and seatbelt pretensioner system; and an overview of the lane keeping system message center. Volume 1 also highlighted two new *Collision Report* videos featuring updates to the F-Series bedside replacement repair and an overview of the Motorcraft® service site. In addition, the Automotive Anti-Counterfeiting Council (A2C2) released its white paper detailing the growing problem of counterfeit automotive parts sold through online resources.

Summer saw the release of Volume 2, which included a new Ford position statement on bumper fascia repair with advanced driver assistance systems (ADAS) that noted paint repairs can only be made if the material thickness does not exceed 12 mils (300 microns) and any bumper fascia damage that requires substrate repairs must be replaced. Ford also released three additional *Collision Report* videos: the dangers of counterfeit parts; ADAS camera calibration after windshield replacement; and the clear difference original equipment glass makes. Ford also unveiled a new, complete build procedure for the F-150 full-box assembly, and I-CAR® detailed a Ford EV course package that combines all eight courses meant to prepare technicians for electric vehicles.

Volume 3—distributed in the fall—noted the collaboration between Ford and State Farm and that Ford Certified Collision Network (FCCN) shops can now be found using the State Farm Select Service® Repair Assistant Locator. The issue also detailed updates to Ford diagnostic scanning equipment and software, available through rotunda.service-solutions.com, with the PROMO CODE: **OnTarget** able to be utilized for $250 off of your order (active through March 31, 2022).

New and past issues of *On Target* are available on FordCrashParts.com, OEM1stop.com, and I-CAR's RTS Portal at RTS.i-car.com.

On Target plans to produce four new volumes—detailing critical, OEM-approved repair procedures and other important information—in 2022.

CREF Announces Spring 2022 Career Fair Schedule

The Collision Repair Education Foundation (CREF) is preparing for a full slate of Transportation Career Fair events next spring. CREF expects the 13 events will be attended by over 10,000 students interested in careers in the automotive service industry. For more information, email Tiffany.Bulak@ed-foundation.org.

Spring 2022 Schedule

Jan. 21	Pittsburgh, PA
Feb. 4	North & South Carolina
Mar. 4	Oklahoma City, OK
Mar. 4	Detroit, MI
Mar. 11	Chicago, IL
Mar. 25	Indianapolis, IN
Apr. 8	Tulsa, OK
Apr. 19	Atlanta, GA
Apr. 19	Austin / San Antonio, TX
TBD	Tampa / Orlando, FL
TBD	Miami, FL
TBD	Columbus, OH
TBD	Dallas, TX

More Details on Proper Vehicle Diagnostic Methods

In an earlier issue (Vol. 2 - 2021), *On Target* detailed how to check circuits by back-probing a connector. In this installment, we look at circuit analysis using jumper wires, making voltage-drop measurements and parameter identification.

Please note that the following steps (using the 2020 F-150 as an example) 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.

Diagnostic Methods, Section 100-00: General Information – Description and Operation

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. Ford diagnostics assume the vehicle concern described by the test title is currently present. Exceptions to this rule are noted in each test. Do not replace modules or other components as directed by a diagnostic if the concern is not present at the time of testing.

Circuit Analysis Using Jumper Wires (Creating Substitute Circuits)

Jumper wires may be employed for circuit analysis if the following cautions are carefully observed:

- Always use fused jumper wires—the recommended universal-testing jumper wire fuse is 5 amperes or less; larger fuse ratings should be used only when the load requires them.
- Use flex probes or equivalent to prevent connector terminal damage.
  - » Flex probes are not intended to carry high current (greater than 5 amperes). Do not use them to connect power for cooling fans, blower motors or other high-current devices.
- Follow diagnostic test directions carefully when using jumper wires to avoid component or harness damage caused by incorrect jumper connections.
- Never repair a circuit by adding a new wire in parallel to the old one (overlaying the circuit) without fully understanding what caused the circuit to fail. Always find, examine and repair the fault to correct the root cause and to repair any adjacent wiring that has been damaged.

Making Voltage-drop Measurements

A voltage-drop test measures the loss of power or voltage in a circuit. Losses can be measured on the ground or power (negative or positive) circuits of any device.

Measuring voltage-drop requires:

- A voltmeter connected at the beginning and end of the suspect circuit.
- An operating, or attempting to operate, circuit. Power must be on and available to flow.
- The polarity of the voltmeter lead connections should follow conventional current flow.
- A zero-volt reading indicates bad voltmeter connections or the component has not been turned on.
- A small amount of voltage indicates normal circuit loss. In 12-volt circuits, this is usually less than 0.5 volts (expect less than 5 percent of circuit operating voltage).
  - » Voltage indications greater than 0.5 volts indicate abnormal voltage loss. Abnormally high voltage drop indicates bad wires or connectors are causing high circuit resistance.

On Target plans to include more on proper diagnostic methods in future volumes.

For questions on proper diagnostic methods, or the repair of any Ford or Lincoln vehicle, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com or visit I-CAR's RTS Portal at RTS.i-car.com.

Ford F-150 Full Box Assembly Build Procedure

On Target continues with the new procedure on assembling an entire box assembly for the 2015 – 2020 Ford F-150®. For the first two installments on this procedure, please see *On Target*, 2021 - Vol. 2 and 2021 - Vol. 3.

This comprehensive procedure combines all 13 individual repair procedures—noted in the *Ford Workshop Manual* under **Section 501-30: Rear End Sheet Repairs**—into a chronological, step-by-step order. This specific build procedure can be found in **Section 501-30: Rear End Sheet Metal Repairs, General Procedures, Pickup Bed Assembly**, and is available on Motorcraftservice.com.

[8-foot pickup bed shown. 5.5-foot and 6-foot pickup beds similar.]

NOTE: To help ensure correct pickup bed component alignment, all steps must be performed working from a solid, stable and level support base.

The previous step included installing and properly clamping the front panel into position, drilling guide holes and installing the necessary blind rivets (part number W707638-S900C).

1. Using 80–120-grit sandpaper, sand to remove the e-coat and clean the **outer edges** of the front panel on both sides and the **inner edges** of the front panel extensions. Apply metal bonding adhesive to the outer edges of the front panel (on both sides) and install, properly position and clamp the front panel extensions, using locking pliers.
2. Using a 6.5 mm drill bit, drill guide holes and then install the necessary blind rivets:
    1. W702512-S900C
    2. W707638-S900C
    3. W708777-S900C

    [Figure 1]

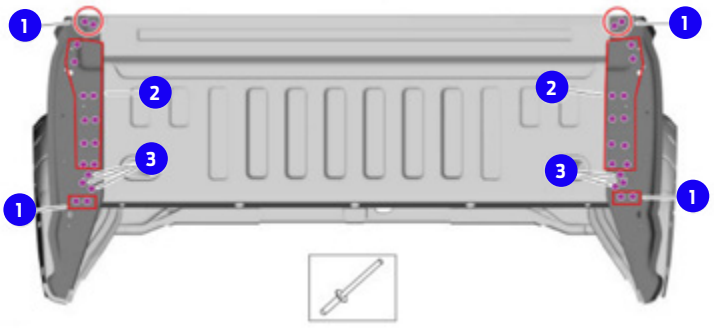

Figure 1

3. On both rear edges of the inner side panel, use 80–120-grit sandpaper to remove the e-coat and clean, and apply metal bonding adhesive. Then, on both sides, install, properly position and clamp the corner reinforcements.
4. Drill guide holes and install the necessary blind rivets:
    1. W702512-S900C
    2. W707638-S900C
    3. W708777-S900C

    [Figures 2 and 3]

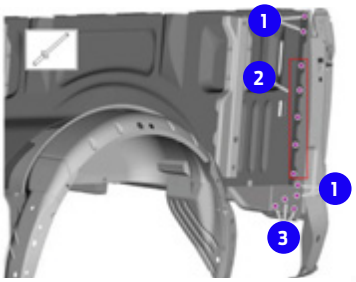

Figure 2

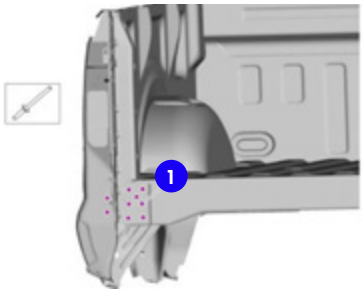

Figure 3

5. Using 80–120-grit sandpaper, remove the e-coat and clean both inner side panels, inner wheel well and the corner reinforcements, as well as the outer body-side panel on both sides.
6. On both sides of the outer body-side panel, install locally obtained NVH patches.

This now prepares the emerging box assembly to be fitted with the outer body-side panels, which will be covered in the next installment of *On Target*.

Questions on this, or the proper repair of any Ford or Lincoln vehicle, can be sent to cphelp@fordcrashparts.com.

Ford Returns to Collision Trade Shows

Attendees of the 2021 NORTHEAST Show—held in mid-September this year—inspect the new Ford Bronco display, which highlights the vehicle-specific body components and their compositional makeup.

Ford Collision Marketing Manager Dean Bruce (center) interacts with attendees in the Ford Collision display in the Upper South Hall of the 2021 SEMA Show.

The COVID-19 pandemic and resulting shutdowns disrupted many industries and schedules for 2020, including various trade shows, meetings and events. For 2021, Ford Motor Company was proud to be able to attend in person—for the first time in over a year—the 2021 NORTHEAST® Automotive Services Trade Show, in Secaucus, New Jersey, and the 2021 SEMA® Show in Las Vegas, Nevada.

Though some level of uncertainty remains regarding trade shows and public gatherings in the future, Ford currently plans to attend both shows in 2022, with the NORTHEAST® Show planned for March 18–20, 2022, and the SEMA® Show planned for November 1–4, 2022. For more information, visit aaspnjnortheast.com and semashow.com.

I-CAR and Ford Present High-Voltage Best Practice Procedures and Online Training Opportunities

In conjunction with Ford Motor Company, collision repairers, insurers and tool and equipment makers, I-CAR subject matter experts have published a best practice for a high-voltage (HV) disconnecting/initialization procedure.

This published I-CAR best practice document is an inter-industry-developed-and-vetted guideline and is intended to be used in addition to Ford OEM procedures. This guideline does **not** take the place of any Ford procedures or requirements, or contribute to any Ford specifications of skills, tooling, training or equipment that enables a repair facility to work on high-voltage vehicles.

Only qualified high-voltage technicians with proper personal protection equipment (PPE) are permitted to work on high-voltage systems. Ford Certified Collision Network (FCCN) facilities should always reference documented Ford OEM procedures for the make, model and year of the vehicle before starting any collision work to help ensure a safe and proper repair.

Key documents within the best practice include the following, which can also be found on the I-CAR website:

- I-CAR Best Practice - HV Disconnecting/ Initialization Procedure, which is used to safely disable and test the vehicle.
- I-CAR Best Practice - HV Safety Protocol, which is a form that is used to document inspections and tests.
- I-CAR Best Practice - HV Disconnecting Procedure Status Cards, which are printable and used to identify the immediate status of the HV vehicle.

Repairers in the FCCN are also encouraged to train online to prepare for electric vehicle collision repairs. To support new hybrid electric vehicles (HEV) and battery electric vehicles (BEV), I-CAR recently launched a new series of eight (8) electric vehicle (EV) courses that contribute to complete, safe and quality repairs and are mandated to fulfill FCCN requirements. Please note that a minimum of one tech per shop is required to take all these courses.

Technicians can select and register for individual courses or take all eight together in a Ford EV Course Package. For more information, see *On Target* - 2021, Vol. 2, and to register, visit www.I-CAR.com.

For more details on the FCCN, visit collision.ford.com/FordCertifiedCollisionNetwork.

Inside the Industry

A2C2 Calls on eBay to Remove Airbags

The Automotive Anti-Counterfeiting Council (A2C2), whose members include Ford and 10 other automakers, is publicly urging eBay to prohibit the sale of all airbags on eBay.com, saying that's the only effective way of preventing the sale of dangerous counterfeit airbags on the site. A2C2 says it has made the request of eBay since 2017, and while several other major e-commerce platforms have enacted broad sales prohibitions of all airbags and airbag components since then, eBay has not yet followed suit.

Traffic Volume Approaches "Normal"

Vehicle miles traveled on the nation's roadways in September jumped 7.9 percent versus the same month a year ago, and fell just 1.0 percent shy of the pre-pandemic level of September 2019. That's according to the Federal Highway Administration, which reports traffic volume has been within 1.0 percent of 2019 levels in three of the last four months. Through the first nine months of the year, the 2.34 trillion miles traveled is up 11.7 percent from last year but still down 4.5 percent from 2019.

Changes at ASA

The Automotive Service Association (ASA), which represents both collision and mechanical repair shops nationwide, has announced it is abandoning its current state affiliate structure in favor of one using multiple geographic regions. The association says the change will allow it to support shops better in all 50 states.

Meanwhile, ASA Executive Director Ray Fisher has resigned after nearly three years on the job. Blair Calvo, ASA's vice president of regional service, has been named interim executive director.

ADAS Reduces Teen Driver Crashes

A new study by the Insurance Institute for Highway Safety finds vehicle crash-avoidance features and several teen-specific technologies have the potential to cut the number of crashes involving teenage drivers by 41 percent and fatalities by 78 percent. The study found the teen-specific features—speeding prevention, extended seatbelt reminders and interlocks, and nighttime curfew violation alerts—were most effective at reducing collisions, followed by lane departure prevention, front crash prevention and blind spot monitoring.

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 shops 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 *On Target* for free at **FordCrashParts.com**, or by clicking the Ford page on **OEM1Stop.com.**

Genuine Parting Thoughts

Have an idea?

We'd love to hear from you. Your comments and article suggestions can be sent to:

cphelp@fordcrashparts.com