

On Target



FORD PARTS

For Ford and Lincoln wholesalers and the collision repair industry

I-CAR® Ford and I-CAR® Detail the Emergency Response Guide for the Mustang® Mach-E®

To help collision repairers obtain updated information they need to properly repair today's complex vehicles, I-CAR (Inter-Industry Conference on Auto Collision Repair) has created the *Repairers Realm*, a live web-series in which I-CAR's technical experts—along with special guests—talk shop to help make sense of the sometimes-overwhelming amount of information out there.

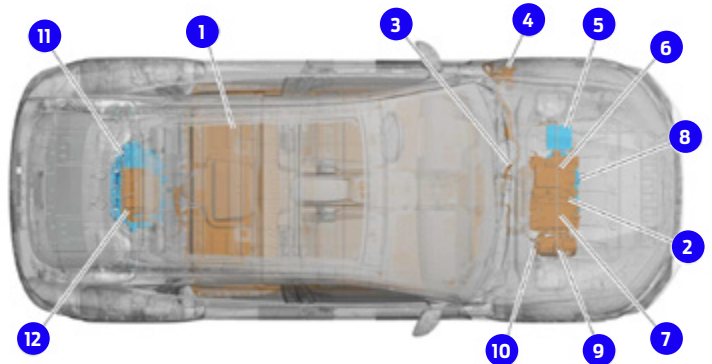
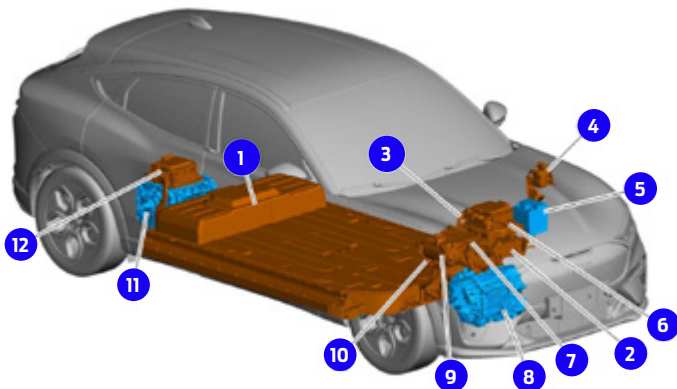
On a recent episode of *Repairers Realm*, I-CAR and Ford Motor Company provided an overview of the Ford Mustang Mach-E SUV Emergency Response Guide (ERG). While the information is provided for emergency crews and first responders, the wealth of information specific to the Mustang Mach-E—including large, easy-to-read color-coded diagrams, photos, precautions and other details—makes it worthwhile reading for every repairer.

The live-training session was hosted by four I-CAR technical experts and was based in their new Chicago technical center. Joining the I-CAR team via streaming video was Gerry Bonanni, senior damageability engineer for Ford Motor Company.

The video opens with directions on where the response guide can be found, by navigating to the electric vehicle (EV)/hybrid page of FordCrashParts.com.

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Item	Component	Location/Description	Function
1	High-Voltage Battery — Approximately up to 450 Volts DC	Located under the vehicle. Liquid-cooled lithium ion battery.	Provides high-voltage storage for the vehicle electric motors and for the other high-voltage components.
2	Charge Unit	Located under the vehicle directly forward of the high-voltage battery.	To charge high-voltage battery.
3	High-Voltage Wiring	Runs underneath the vehicle from the rear electric drive assembly to the front electric drive assembly. All high-voltage wiring is orange in color.	Provides high-voltage for the vehicle electric motors and for the other high-voltage components.
4	High-Voltage Battery Charging Port	Located in the left-hand front fender.	Allows high-voltage battery charging using suitable charging stations.
5	12-Volt Battery	Located in the engine on the left hand side, next to the charge unit.	The battery is a 12V DC source connected in a negative ground system and is a voltage stabilizer for the 12V electrical system.
6	Inverter System Controller (ISC)	Located under the hood, mounted on top of the charge unit and next to the power converter.	To convert AC power to DC and controls the front electric drive assembly speed.
7	DC/DC Converter	Located under the hood, mounted on top of the charge unit and next to the Inverter System Controller.	Provides 12 volts to charge the 12-volt battery and run vehicle accessories.
8	Front Electric Drive Assembly	Located under the vehicle, centered between the front wheels.	To provide power to the front wheels.
9	Electric A/C Compressor	Located in the engine on the right-hand side, next to the charge unit. It has an orange high-voltage wire attached to it.	Provides electric A/C operation. Replaces the belt-driven A/C compressor.
10	Electric Heater	Located in the engine on the right-hand side between the high-voltage battery and the charge unit.	Heats the coolant to provide the passenger compartment with consistent heat.
11	Rear Electric Drive Assembly	Located under the vehicle, centered between the rear wheels.	To provide power to the rear wheels.
12	Inverter System Controller (SOBDMB)	Located in the rear cargo area.	To convert AC power to DC and controls the rear electric drive assembly speed.



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Mustang® Mach-E® Emergency Response Guide

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This page contains information on Ford's electric and hybrid vehicles including the Escape®/Corsair®, Maverick®, Explorer®, Aviator®, F-150® and the Mustang Mach-E. Details on future electric vehicles will also be provided here once the information becomes available. Clicking on the Mustang Mach-E at the bottom of the page will open a new window containing the emergency response guide.

The 34-page guide contains information collected into six sections:

Section 1: High-Voltage Electrical System Information

Section 2: Battery High-Voltage System Depower

Section 3: High-Voltage Charge Cord Lock – Manual Release

Section 4: Supplemental Restraint System and Structural Reinforcement, Component Location

Section 5: Approaching a Damaged Electrical Vehicle

Section 6: Damaged Vehicle Guidance and Storage

The guide first notes a series of important warnings and precautions, and specifies the personal protection equipment (PPE) that is required to begin repairs. Further in, it provides a detailed three-quarter and a top-down cutaway view of the Mach-E, with the important electrical components identified.

Jeff Poole, subject matter expert team manager for I-CAR, noted in the video that the graphic gives a better understanding of where the high-voltage components are within the vehicle, which can help repairers—even as they approach a damaged EV—to note where the damage is in relation to any potentially dangerous electrical components.

The I-CAR technicians noted some of the terminology in the emergency response guide is slightly different from the official *Ford Workshop Manual*,



which can be found on [Fordserviceinfo.com](https://www.fordserviceinfo.com).

When repairing any Ford or Lincoln vehicles, **always** consult the *Workshop Manual*, as it provides step-by-step repair instructions. Repairers are encouraged to check back often as repair procedures can be updated without notice.

“The main thing to remember is that the structure around the battery is similar to any other ultra-high-strength steel-intensive unibody [vehicle],” stated Bonanni in the video. “Any other repair items that you’re going to look at as far as sectioning [options] or full component replacement will be dictated in the *Workshop Manual*.”

“The ERG provides a lot of detailed information on how to approach a damaged BEV, what to listen for, what to look for,” said Bonanni. “Yes, [the ERG] is for emergency responders, but it’s also good for body shops to look at any available information they have in addition to the *Workshop Manual*.” Bonanni also pointed out the vehicle owner’s guide contains helpful information as well.

On Target will continue to provide installments from the emergency response guide and other important information on EVs in future volumes.

A video library containing this and other *Repairers Realm* topics can be found at [I-CAR.com/Repairers-Realm](https://www.i-car.com/Repairers-Realm).

For more information on electric vehicles, or the repair of any Ford or Lincoln vehicle, visit [FordCrashParts.com](https://www.fordcrashparts.com).

Additional information on EVs can also be found on [Fordserviceinfo.com](https://www.fordserviceinfo.com). Under ‘Free Resources,’ click on ‘Rescue Cards.’

Be sure to check out the [Mustang Mach-E diagram](#) on the top of page 6 in this issue.

Functional Exterior Coatings in the Age of ADAS

The proliferation of advanced driver-assist systems (ADAS) and their integration into more vehicle systems is something that cannot be understated. In fact, ADAS technology has affected one vehicle item that many may not realize: exterior paint.

With various ADAS sensors appearing all over a vehicle—including being embedded in front and rear bumper fascias—exterior coatings are now becoming a functional element, pulling vehicle painters and paint-booth technicians more into the world of collision repair.

“ADAS sensors work by transmitting a signal out from the vehicle,” said Jeff Wildman, expert, automotive aftermarket industry, BASF. “Anything that absorbs part of that transmission could affect how the system works, and that includes the exterior coating on the vehicle, extending to the actual color itself, the thickness of the paint layer(s) and the use of any metallics within the paint.”

Last year, Ford Motor Company [released a position statement](#) detailing the proper repair procedures for bumper fascias that contain ADAS sensors and it included the following information as it relates to exterior coatings:

Repair of bumper fascias using fillers, reinforcement tape, hot staples or plastic welding can adversely affect ADAS operation. For this reason, Ford Motor Company is limiting repairs on front and rear bumper fascias on all Ford Motor Company vehicles equipped with any ADAS features to topcoat refinishing only. Topcoat finish cannot exceed 12 mils (300 microns) in total thickness. Any bumper fascia damage that requires substrate repairs must be replaced.

Measurement of the topcoat finish requires the use of an ultrasonic paint thickness gauge, such as PosiTector 200 or Phase II UTG-2900, available through Rotunda.

The following points provide an overview of bumper fascia repairs:

- *Paint repairs can be made if the material thickness does not exceed 12 mils (300 microns) in total thickness*

- *Use of any filler materials or reinforcement tapes to repair substrate damage **is not permitted***
- *Use of hot staples or plastic welding to repair cracks or damage **is not permitted***
- *Repair of any sonic-welded sensor retainer rings or tabs **is not allowed**, due to possible misalignment and incorrect operation of the sensor*
- *Note that vehicle wraps, bumper stickers and aftermarket accessories in the area of the fascia **can create system operation concerns***

“I would note that the critical requirement here is a paint thickness gauge for these substrates,” said Ford Senior Damageability Engineer Gerry Bonanni. “With bumpers being the most common repair areas within the collision industry, the guidelines established in this document will assist shops in these repairs.”

In addition to always researching the repair, it is important to follow your paint manufacturer’s recommended application process to reduce the amount of material required for optimum color match.

This and other Ford position statements can be found on [FordCrashParts.com/position-statements](https://www.fordcrashparts.com/position-statements). More information on Ford-approved paint systems can be found here: [FordCrashParts.com/paint-systems](https://www.fordcrashparts.com/paint-systems).

Paint thickness gauges can be ordered through [OneRotunda.com](https://www.onerotunda.com), under the following Rotunda part numbers:

[355-MS-C69974616](#) (PosiTector® 200 Coating Thickness Gages for Non-Metal Substrates)

[355-MS-C52845781](#) (Phase II Electronic Thickness Gage)

More information on this topic is planned for future editions of *On Target* as it becomes available. For any questions on this, contact the Ford Crash Parts hotline at cphep@fordcrashparts.com.

Fixed Glass: Proper Substrate Preparation Required for Safe Repairs

Ford Motor Company has reminded collision repairers for many years that vehicle fixed glass—including and especially the windshield—plays a critical role in the overall strength, stability and structure of the vehicle, and can affect how it performs in a collision event. The [Ford Certified Glass Network](#), announced this summer, was created in recognition of the growing importance of automotive glass.

With the implementation of advanced driver-assist systems (ADAS), the importance of using OEM glass and OEM-approved repair procedures—including proper preparation of the substrate or pinch weld to receive the new fixed glass—will only increase when it comes to ensuring safe, quality repairs.

Utilizing the 2022 Ford Bronco®, we're presenting some helpful repair tips straight from the official *Ford Workshop Manual*, as detailed in **Section 501-11: Frames and Mechanisms, General Procedures**.

For more in-depth repair information on this and other Ford and Lincoln vehicles, consult the *Ford Workshop Manual*, which can be found at [Fordserviceinfo.com](#). Check back often as repair procedures can be updated without notice.

The procedure directs repairers to remove the [old] fixed glass and discard, and then to choose the best repair method for the type of glass being replaced:

Cold-Knife Method can be used to cut the urethane from the outside of a vehicle, provided the blade can reach the urethane bead.

Power Tool Method uses various power tools from inside the vehicle using a cutting or paddle-type blade.

Piano Wire Method uses piano wire to cut the urethane from inside and outside a vehicle with the help of an assistant.

If utilizing the cold-knife method, apply tape to protect the perimeter of the window opening from paint damage. Multiple layers of tape may be required.

"The *Workshop Manual* provides a lot of important details with regard to windshield repairs and replacement," said Gerry Bonanni, senior damageability engineer for Ford Motor Company. "Like other repair procedures, we provide options for technicians and glass installers to choose the one that best fits the current job in front of them. In some instances, it should be noted that repair methods may be combined to achieve the best results."

"Another very important note for repairers is if the windshield is damaged and is equipped with a camera bracket or adhesive mouldings, the glass **cannot be reused**," stated Bonanni. "It must be discarded. A new windshield is required in both instances."

The procedure includes detailed warnings and precautions, especially as it relates to properly preparing the substrate to which the glass will affix, and proper preparation of the adhesives. These are very important to note as they affect

how the glass adheres to the vehicle and helps to provide structural integrity. The warnings include:

- **New or re-used fixed glass must be installed within *two hours* of cutting the urethane adhesive. Cut or scraped urethane becomes oxidized and inactive beyond two hours, reducing the effectiveness of the repair bond.**
- **To avoid rust formation, use extreme care not to scratch the paint or primer, or damage the pinch weld during glass removal.**
- Take precautions to prevent damage to other components when cutting urethane.
- **Repair any corrosion found on the pinch weld. The pinch weld is a structural component of the vehicle. Corrosion left unrepaired may reduce the structural integrity of the vehicle. Failure to follow this instruction may result in serious injury to the vehicle occupants.**
- Avoid scratching the pinch weld. Repair all minor scratches and exposed metal on the pinch weld following manufacturer's instructions on the product being used. Use the same brand primer and urethane adhesive.
- Do not touch the adhesive surface as it impairs re-bonding; ensure the mating surfaces are clean and free of foreign material.
- Fixed glass may have locating pins that vary in location. It may be necessary to cut these pins with a utility knife.
- If replacing the windshield glass and it is equipped with a camera bracket, it **must** have locating pins and spacers to ensure correct alignment. **Do not** use a replacement windshield glass, without locating the pins and spacers.
- Minimize applying primer over areas with remaining urethane adhesive and observe a minimum flash time of 10 minutes.
- **The fixed glass must be installed within 10 minutes of applying the urethane adhesive.** Using a power caulk gun will apply the adhesive with less effort and in a continuous bead. Ensure the urethane bead is uniform to prevent air and water leaks.
- **The door windows must be left open during the adhesive curing time to prevent pressure from compromising the urethane adhesive bond.**
- **Do not drive the vehicle until the urethane adhesive seal has cured. Follow the manufacturer's curing directions. Inadequate or incorrect curing will adversely affect glass retention and may result in serious injury to vehicle occupants.**
- If equipped, the adhesive strip backings must be removed from the A-pillar moldings before installing the new fixed glass.

For more information on Ford/Carlex OEM glass, including job aids, official position statements, repair videos and more, visit [FordCrashParts.com/Glass](#).

To ensure the correct OEM replacement glass is being utilized, visit the Carlex OEM replacement glass search tool at [Carlex.com/automotive-replacement-glass](#).

FCCN Provides Fast, Easy Access to OEM Repair Procedures with RepairLogic™

The Ford Certified Collision Network (FCCN) is proud to announce a new resource for its members—RepairLogic, a tool developed by Advanced Repair Technologies (a division of OEConnection) to help repairers more easily locate the important OEM repair procedures and information they need for each repair.

The RepairLogic Repair Planning platform is an innovative repair planning solution that provides shops with fast and easy access to repair data.

RepairLogic combines genuine OEM content with modern technology to enable comprehensive repair planning. It offers standardized access to repair information that increases OEM procedure utilization, repair team collaboration, and overall accountability to help deliver a documented, safe and proper repair.

"RepairLogic offers some good benefits, such as calling out calibration instructions for advanced driver-assist systems (ADAS), identifying single-use parts and keeping track of OEM procedure updates," said Dean Bruce, Ford collision marketing manager. "While the official *Ford Workshop Manual* remains the one-stop location for all Ford OEM repair procedures and should always be utilized, RepairLogic enhances the information found within it, helping to reduce time spent researching the repair, while helping to ensure critical operations are not overlooked."

For more information on RepairLogic, visit [OEConnection.com/RepairLogic](#).

For more information on the FCCN, or to join, visit [collision.ford.com/ford-certifiedcollisionnetwork](#) or call (833) 837-7694.

For detailed OEM repair procedures contained in the *Ford Workshop Manual*, it can be accessed through [Fordserviceinfo.com](#) or the Ford Professional Technician Society (PTS) site.



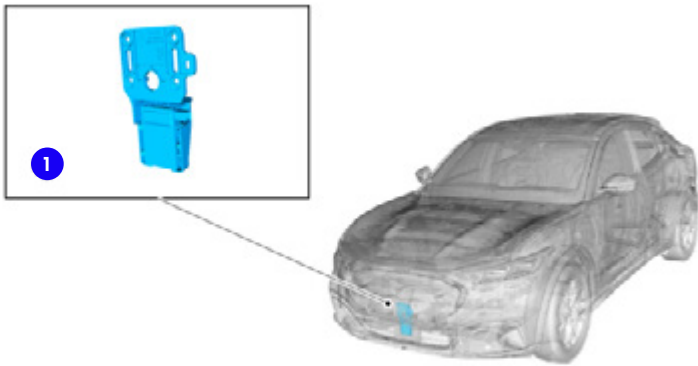
For more information on the Ford Certified Glass Network, or to join the program, visit [Collision.Ford.com/FordCertifiedGlassNetwork](#) or call (833) 837-7694.

Ford BlueCruise System Details

On Target continues the new series it began in its last volume (*On Target, 2022 Vol. 3*) on vehicles equipped with Ford BlueCruise* hands-free highway driver-assist technology.

This technology allows owners to operate their vehicle hands-free on the highway while being monitored by a driver-facing camera to help ensure they keep their eyes on the road. It is compatible on prequalified sections of divided highways called Hands-Free Blue Zones.

Using the 2022 Mustang® Mach-E® SUV as an example vehicle, we continue providing details on Ford BlueCruise technology to help repairers correctly repair vehicles that include this feature. More information can be found in **Section 419-03A: Cruise Control, Description and Operation** of the official *Ford Workshop Manual*—accessible through Fordserviceinfo.com or the Ford Professional Technician Society (PTS) site—where BlueCruise is referred to as Active Drive Assist with Intelligent Adaptive Cruise Control.



Item	Description
1	CCM

Please note the vehicle owner's guide contains important information on the Active Drive Assist with Intelligent Adaptive Cruise Control (ACC) system, including complete illustrations and graphic displays on control indicators, and numerous warnings that need to be reviewed and followed.

Based on vehicle options and availability, Intelligent ACC can contain several features, such as Lane Centering, Stop-and-Go, Speed Sign Recognition with Navigation and Highway Assist that contains active drive assist.

Intelligent ACC with speed sign recognition has several speed warning levels that can be programmed. When this mode is selected, a bracket appears around the set speed and the detected speed limit sign in the Information and entertainment display unit. The system is designed to set the vehicle speed to the limit detected by the speed sign recognition system before the vehicle passes the speed limit sign. The technology uses a camera behind the interior mirror to detect speed signs. Intelligent ACC combines speed sign recognition with ACC to adjust the cruise settings to the limit detected by the speed sign recognition system. As the system detects new speed signs, the set speed updates.

Speed Sign Recognition

Speed sign recognition detects speed limit signs and informs the driver of the current speed limit. Detected speed signs appear in the information and entertainment display unit. Stored speed sign data may influence the indicated speed limit value on vehicles equipped with this specific feature.

Speed sign recognition may not operate correctly due to:

- Outdated map data from navigation
- Incorrect recognition of speed limit signs on parallel roads or exit ramps
- Missed recognition of faded, dirty, or distorted signs

To turn this feature on and off, and to adjust the level of tolerance, follow the on-screen prompts from the information and entertainment display unit. For additional speed sign recognition information messages, refer to the owner's guide.

For deceleration control, the CCM commands the ABS module to automatically apply the brakes to slow the vehicle and maintain a safe distance to the vehicle in front.

Gap Setting

The ACC gap setting automatically adjusts the vehicle speed to maintain a set distance gap from the front of the vehicle and the vehicle in the same path of travel. When the ACC system is on and is following a vehicle or a vehicle enters the same driving lane, a follow vehicle graphic is displayed in the message center.

With the gap setting activated, when a vehicle ahead enters the same lane or a slower vehicle is ahead in the same lane, the vehicle speed adjusts automatically to maintain a preset distance gap. Four horizontal bars with preset graph settings are displayed in the message center. Pressing up (decrease) or down (increase) on the steering wheel cruise control gap switch increases or decreases the distance to the vehicle ahead. If all the bars are illuminated, this is the longest gap setting. If only one bar is illuminated, that is the shortest gap setting.

The vehicle maintains the distance gap to the vehicle ahead until:

- Vehicle ahead accelerates to a speed above the set speed
- Vehicle ahead moves out of the lane or out of view
- Vehicle speed falls below 20 kph (12 mph)
- New gap distance is set

After each ignition cycle, the previous gap setting is remembered, and the system is set to that gap. The distance gap is overridden by pressing the accelerator pedal. The graphic or icon representing the follow vehicle is not displayed in the message center and the **green** indicator illuminates. When the accelerator pedal is released, the ACC system returns to normal operation and the vehicle speed decreases to the set speed or a lower speed if following a vehicle ahead.

The gap distance increases when the tow/haul mode is selected compared to the gap distance when tow/haul mode is off.

On Target plans to include more details on BlueCruise in future volumes.

For more information, contact the Ford Crash Parts Hotline at cphelp@fordcrashparts.com.



*Available feature. Includes a three-year connected service plan with regular map updates after which purchase is required. Requires FordPass® App and modem activation. Driver-assist features are supplemental and do not replace the driver's attention, judgment and need to control the vehicle. Ford BlueCruise is a hands-free highway driving feature. Only remove hands from the steering wheel when in a Hands-Free Blue Zone. Always watch the road and be prepared to resume control of the vehicle. It does not replace safe driving. See Owner's Manual for details and limitations. The 2023 Ford Mustang Mach-E® Select includes a 90-day trial with the option to purchase a three-year connected service plan with regular map updates. Requires FordPass App and modem activation.

Ford F-150® Box Assembly Procedure

The procedure to assemble an entire box assembly continues, utilizing the 2015 – 2020 Ford F-150® as an example vehicle.

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 Fordserviceinfo.com. Repairers are reminded to check back often as repair procedures can be updated without notice.

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

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

The previous installment detailed the application of NVH sealer and the installation of the B- and A-braces, which is where this installment begins.



1. On both sides, install the underbody braces. All seams must be sealed to production level (Motorcraft® TA-2-B; 3M™ 08308; LORD Fusor® 803DTM).
2. Refinish the entire repair utilizing a Ford-approved [paint system](#).
3. Restore the vehicle's corrosion protection (refer to **Corrosion Prevention, Section 501-25: Body Repairs, General Procedures**).
4. On both sides, install the Torx® screw, tailgate tether and bolt, tailgate bumper and bolt, tailgate striker and bolt, and the tailgate hinges and bolts. [See [Figure 1](#)]

5. Install the pickup bed seals and plugs. [See [Figure 2](#)]

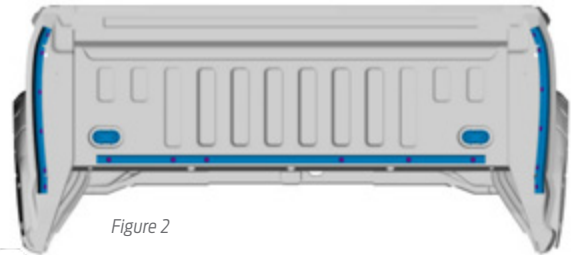


Figure 2

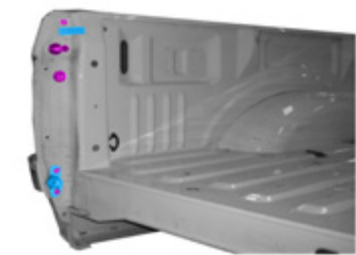


Figure 1

Torx® Screw	20 Nm
Tailgate tether bolt	40 Nm
Tailgate striker bolt	40 Nm
Tailgate hinge bolts	40 Nm

6. On both sides, install the taillamp assemblies (refer to **Section 417-01: Exterior Lighting**).
7. Install the pickup bed trim, including the side step, rear quarter panel moulding and the tailgate moulding (refer to **Section 501-08: Exterior Trim and Ornamentation, Removal and Installation**).
8. Install the pickup bed (refer to **Section 501-04: Pickup Bed and Platform Body, Removal and Installation**).

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

Motorcraft is a trademark of Ford Motor Company.

A Little More Normal: 2022 in Review

As 2022 ends, we look back at some of the main stories *On Target* included throughout the year.

Distributed in early spring, [the first volume of *On Target*](#) reminded consumers of the Collision Assistance resource—available through the FordPass® and The Lincoln Way® apps*—which provides step-by-step support for all customer collision needs, from the immediate aftermath of an accident through the repair of the vehicle, or the purchase of a replacement. The issue also introduced repairers to the new, miniaturized scanning capabilities of VCM™ Lite, available through OneRotunda.com. With the accompanying Ford DiagNow mobile app, technicians can now diagnose vehicles with their Smartphone or tablet. Ford dealership technician subscriptions to the Ford DiagNow mobile app remain on promotion and will be available at no charge until January 2023. Volume 1 also included additional repair information on the Ford Maverick®; details on the supplemental restraint and blind spot information systems; front sub-frame repair details on the Lincoln Aviator®; and continued details on building a complete box for the F-150®.

Volume 2, a summer release, announced the newly created [Ford Certified Glass Network \(FCGN\)](#), designed to help ensure certified glass installers are prepared to meet the high quality standards for every Ford and Lincoln vehicle glass installation, utilizing original equipment procedures and parts. Separately, the [Ford Certified Collision Network \(FCCN\)](#) announced a new, optional certification for

advanced driver-assist systems (ADAS), in conjunction with I-CAR®. Bolstering that relationship, I-CAR also announced the creation of a new 16-hour, Ford-specific [ADAS hands-on skills development course \(HOSD\)](#) at its new Chicago technical center. Volume 2 also included body-construction details on the Ford Bronco® and Bronco Sport; and concluded a series on proper vehicle diagnostic methods from the official *Ford Workshop Manual*.

Released in the fall, [Volume 3](#) stressed the importance of using OEM replacement glass, especially as ADAS technology becomes more prevalent, complex and integrated into more vehicle systems. The issue highlighted the extremely helpful [Carlex OEM replacement glass tool](#) to aid repairers in identifying the correct replacement glass for the vehicle; provided body-construction details on the Ford Mustang® Mach-E®; and included details on the Ford-approved mobile lift table from Bosch, available through One-Rotunda.com under item number [014-3KLIFTTABLE](#).

Current 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 2023.

*FordPass and The Lincoln Way, compatible with select smartphone platforms, are available via a download. Message and data rates may apply.

Mustang® Mach-E® Identification —Vehicle Exterior

Mach-E vehicles are identified by the charging port located in the LH front fender.

Vehicle Identification Number (VIN) Layout

The 5th, 6th and 7th positions of the VIN identify the vehicle.



Inside the Industry

Calif. Takes Steps to Reduce Catalytic Converter Thefts

California's governor has signed two bills into law aimed at cracking down on the theft of catalytic converters, prized for their precious metal content. The laws make it illegal to purchase a catalytic converter without proof it had been purchased by the legal owner or a licensed dealer. According to the National Insurance Crime Bureau, California has seen thefts of catalytic converters soar from 1,298 in 2018 to 14,433 in 2020.

SCRS Presents Blend Study Results

The Society of Collision Repair Specialists (SCRS) presented the findings of its recently completed blend-refinish study at the November Collision Industry Conference (CIC) meeting in Las Vegas. The study concluded that, on average, blending a panel takes 30 percent more time than a full refinish on the same panel, a stark difference from the 50 percent less time noted in the three major estimating systems. Ford Motor Company donated panels from the F-150® for the study, which was noted by CCC as being the most frequently appraised truck in 2021. Materials and technical experts from five major refinish companies took part in the study, which also included the most common types of panels to blend, and the most popular colors for the F-150. The entire study can be downloaded here: [SCRS.com/Blend Study](https://www.scrs.com/Blend-Study).

Customer Satisfaction in Auto Insurance Claims Drops

The latest edition of a popular study finds customer satisfaction with nearly all aspects of the auto insurance claims process declined this year, including the repair process. Customer concerns included high costs for vehicle repair or replacement—due to inflation—and the perceived slow pace of the collision repair and claims submitting processes.

Ford Files Counterfeit Parts Federal Lawsuit

Ford Motor Company has filed a federal trademark infringement lawsuit against three U.S. companies and one Chinese manufacturer, claiming the companies distributed, advertised and sold thousands of counterfeit truck grilles and other parts for at least the last two years. Ford stated it first became aware of a possible counterfeit parts ring in late 2019, with one of the companies distributing a catalog noting "Ford" grilles for sale. With the help of state and federal law enforcement, various test buys indicated the products in question were below Ford's high-quality standard. The suit asks for unspecified monetary damages and an order to halt the companies' actions.

VMT Up Slightly in August

Vehicle miles traveled (VMT) nationwide hit 289.3 billion in August, an increase of 0.7 percent versus August 2021. That's according to the Federal Highway Administration, which also noted that the seasonally adjusted traffic volume for the month was up 1.5 percent, or 4.0 billion miles, compared to July.

CREF Facilitates Scholarships and Grants

The Collision Repair Education Foundation (CREF) has announced that 69 collision schools will receive \$436,000 in funding through its Benchmark Grant program, supporting their efforts to educate the future collision repair industry workforce. Each school was selected for its efforts in a unique category respective to the program. "CREF is in a unique role of directing industry support to collision programs in need," said Brandon Eckenrode, CREF managing director. "These grants will help instructors with their limited program budgets." For more information, visit [Collisineducationfoundation.org](https://www.collisineducationfoundation.org).

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



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