

Ford Positions, F-150 Instruction Sheets Added to OEM1Stop

Ford Motor Company collision repair position statements and repair instruction sheets for its current-model F-150 have been added to OEM1Stop.com, as part of a major refresh of the popular OEM repair information website.

The site, which is operated by a coalition of automakers (including Ford) known as the OEM Collision Repair Roundtable, Inc., was introduced in 2008 in response to collision industry calls for easy access to important OEM collision repair information. Since then, the site has provided repairers a “one-stop” source for that information by offering direct links to the collision and mechanical repair websites of close to 40 automotive brands; and it’s been a hit in the industry, with just under 80,000 visits in 2015, an increase of 70 percent since 2010.

Over the last few years, however, as vehicles—and the materials and technologies used to make them—have become more complex, automakers have released a great deal of additional collision repair information, such as position statements on key repair questions. Repair technicians set on following OEM repair recommendations and procedures, along with the industry associations representing them, have continued to seek out and utilize the new information to help make proper repairs the first time, but it had once again become difficult to find at times.

Ford and the other participating OEMs are hoping the revamped OEM1Stop.com will help resolve that problem. The new site features a page dedicated specifically to OEM position statements, with common parts- and



OEM1Stop.com—a “one-stop” source for collision repair information—has updated and expanded its offering of information. In the case of Ford, it now includes all 13 official position statements, all of the F-150 instruction sheets as well as current and back issues of *On Target*.

repair procedure-related topics—such as structural parts, salvage airbags, clip repairs and wheel reconditioning—called out, and each OEM statement in that category listed for easy access.

In addition, most of the OEMs now have their own dedicated page on the site as well, allowing each a place to house their important repair-related materials. In the case of Ford, along with the usual links to Motorcraftservice.com, that means all 13 of its collision-related position statements, the 50-plus repair instruction sheets for the current F-150, and all current and recent back issues of *On Target* are now easily available in one location.

“OEM1Stop has always been a great source for getting the most up-to-date OEM collision and mechanical repair information—directly from Ford and the other OEMs—but with the addition of position statements and the other resources all in one place, it makes the site indispensable for repairers dedicated to fixing vehicles right,” said Lisa Fournier, Ford Customer Service Division’s powertrain & collision product marketing manager.

New OEM position statements and other information will be added to the site as they are made available, so repairers are advised to check back often.

Engineers Star in Ford Campaign

Building on the [Take A Good Look](#) consumer education campaign it launched in 2014, Ford has rolled out a new series of YouTube videos, this time featuring Ford engineers in their areas of expertise. Collectively titled [Why The Right Parts Matter](#), the short videos provide insight into vehicle repairs from an engineering

perspective, and highlight the importance of using genuine Ford parts.

In the series, we hear directly from the people who design and engineer Ford vehicles, as they discuss the intricate parts and systems that must work together to help keep vehicle occupants safe during a crash. In fact, the first video in the series is entitled [Every Part Has to Work Together](#), and features Ford Functional Safety Engineer Sarra Yako, who details the complex parts and systems that have to operate at the same time. The video also notes that one aftermarket, salvage or counterfeit part could compromise the thousands of parts contained inside Ford vehicles.

The different types of replacement parts are also discussed in another video, [Replacement Parts – There is a Big Difference](#). In it, Ford Systems Engineer Dave Bauch notes the startling results of previous crash tests of original Ford



parts and aftermarket parts, highlighted by video of an aftermarket front bumper reinforcement shattering on impact.

The new series also includes [Safety Engineering – It’s All in the Details and We Think of Things Before They Happen](#), while others are on the way, all available on [YouTube](#).

To learn more about why the right parts, insurance, and repairs matter to keep your Ford a Ford, visit collision.ford.com and check back often for new content throughout the year.

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Feature Vehicle – 2016 Focus RS

The all-new 2016 Ford Focus RS—the fastest production Focus currently available in the world—is the first global RS model, and makes its American debut this year.

Focus RS combines a 2.3-liter EcoBoost® engine, new innovative Ford Performance All-Wheel Drive and powerful Brembo brakes for thrilling performance and unbridled driving enjoyment.

The all-wheel-drive system is tuned for exceptional grip, with lateral acceleration of 1g. With neutral and adjustable limit handling, and the ability to achieve controlled over-steer drifts at the track, the system monitors input from multiple vehicle sensors to deliver a new kind of driving experience.

Here are some vital details for the 2016 Focus RS, followed by valuable repair information on how to properly section the rear side-member of the vehicle.

Vehicle Highlights:

- First use of the new Ford Performance All-Wheel Drive with Dynamic Torque Vectoring, which can actively shift available torque to the rear axle (under certain circumstances) and distribute 100 percent of available torque to either rear wheel

- With enhanced aerodynamic redesign of the front grille, rear diffuser and the unique spoiler addition, the Focus RS creates zero lift overall for advanced high-speed handling
- Drive modes configure the car to deliver optimum performance in road or circuit driving conditions: normal, sport, track or a special, Ford-first drift mode

Engine:

- Specially-constructed, high-output 2.3-liter EcoBoost® I-4; 350 horsepower, 350 lb.-ft. torque*

Transmission:

- Six-speed manual

Body Style:

- Hatchback

Vehicle Features:

- Cockpit-like interior with RECARO® seats and D-bottom sport steering wheel, special gauges, contrast stitching, sill plates and RS badging
- Unique gauges for turbocharger boost pressure, oil temperature and oil pressure

Body Structure Components:

- High-strength low-alloy (HSLA), high-strength, ultra-high-strength (UHSS) and mild steels
- Roof outer-panel constructed of mild steel
- Steel hood
- Steel luggage compartment lid
- Body-side outer panels constructed of mild steel
- DP (dual-phase steel) in select body structure components
- Bolted, removable front fenders, hinged doors and hood
- Dent-resistant steel fenders
- Ultra-high-strength steel rear bumper beam
- Front and rear sub-frame assemblies housing suspension and steering components
- Underbody components constructed of mild, dual-phase and high-strength steels
- Mastic pads used on floor pan for sound deadening

*Horsepower and torque ratings achieved with 93-octane fuel.

2016 Focus RS: Rear Side-Member Sectioning

Below is an outline covering the rear side-member sectioning procedure for the 2016 Focus RS. For more in-depth repair information on this and other Ford vehicles, please consult the Ford Workshop Manual, which can be found on Motorcraftservice.com.

Tools / Equipment / Materials:

- Resistance spot-welding equipment
- Air body saw
- 8mm drill bit
- MIG/MAG welding equipment
- Spot-weld drill bit
- Seam Sealer TA-2-B

Removal:

1. Remove the rear floor panel, referring to Section 501-30: Rear End Sheet Metal Repairs, Removal and Installation.

NOTE: See Figure 1 for possible cut lines for the rear side-member section.

2. Drill out the spot welds, using the spot weld drill bit. [Figure 2]
3. Using the air body saw, carefully cut the rear side-member section only and remove. [Figure 3]

Installation:

1. Using the air body saw, cut the replacement rear side-member section to fit the repair.
2. Drill holes in the replacement panel for plug welding using the 8mm drill bit. [Figure 4]
3. Install and plug weld the rear side-member section, using MIG/MAG welding equipment.
4. Continuing with the MIG/MAG welding equipment, seam-weld the section. [Figure 5]
5. Install the rear bumper bracket and spot welds using the resistance spot-welding equipment.
6. Install the rear floor panel, referring to Section 501-30: Rear End Sheet Metal Repairs, Removal and Installation.
7. Using Seam Sealer TA-2-B, seal all of the work.

NOTE: All areas must be sealed to production level.

8. Restore corrosion protection, referring to Section 501-25: Body Repairs – General Information, General Procedures.

Please note that the illustrations are intended as a general guideline and are not all-inclusive. For additional questions, contact Ford Senior Damageability Engineer Gerry Bonanni at (313) 317-9000 or the Ford Crash Parts Hotline at cphelp@fordcrashparts.com.

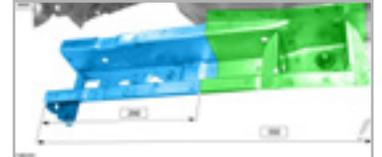


Figure 1



Figure 2

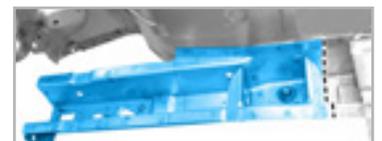


Figure 3

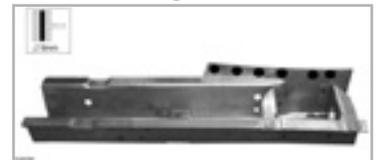


Figure 4

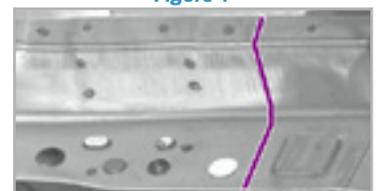


Figure 5

As Vehicle Repair Ends ... Corrosion Begins

Use of Cavity Wax Helps Mitigate Effects

Courtesy of Shawn Collins and Dennis Keicher (3M AAD Technical Service)

When asked to identify the most prevalent causes of corrosion on vehicles today, the common responses are salt and corrosive chemicals, moisture or damaged coatings from stone chips. Most people don't realize that collision repairs are commonly the cause of premature vehicle corrosion. Consider that the minute your repairs are completed the corrosion process has already begun on the repaired areas. If your shop is neglecting the often-forgotten step of applying a cavity wax to all newly-welded areas, you are inviting corrosion to attack your repairs, allowing the vehicle to become unsafe as corrosion eats away at the vehicle structure.

It is easy to spot vehicles that have been poorly protected from corrosion during collision repairs. When you see a vehicle that is nearly rust-free except for one panel that is rotting away—typically a quarter panel corroding around the wheel opening (**Figure 1**)—it is usually due to poor corrosion protection practices during repairs.

The fact that the collision repair process may cause corrosion is understandable and often unavoidable because necessary processes such as welding, heating and removing protective coatings create corrosion hot spots during repairs. Corrosion hot spots are areas that are exposed to moisture, air, humidity, road chemicals or other corrosive elements. Unfortunately, the collision repair shop doesn't have the same capabilities or equipment to duplicate the factory corrosion protection processes. Automotive manufacturers take extreme care to ensure cars and trucks have been treated with corrosion-resistant materials, beginning with the application of specific galvanizing treatments (zinc) applied to mill-stock steel, and continuing with the use of high-quality, heat-cured primers, sealers and coatings designed to last the life of the vehicle.

Continuous improvements at the factory are driven by consumer awareness and demands of safety and occupant protection. Increasing amounts of ultra-high-strength steels (UHSS), some reaching 1500 MPa (217,556 PSI), are being engineered into the modern vehicle structures to protect passengers during collision impact.

However, if the simple, yet critical, task of protecting the steel after welding operations during repairs is neglected, the entire process becomes flawed. Many modern repair facilities are equipped for, and understand, proper welding and repair techniques, yet, they pay little or no attention to corrosion protection, especially internal cavity protection. At the factory, when

welding is complete, the entire body structure is submerged in a bath of zinc phosphate, which saturates all the welded seams and provides ultimate weld sealing and corrosion protection.

Obviously, the collision repair shop cannot duplicate this process, so it needs to use the next best process to mitigate corrosion: applying a cavity wax after the parts are assembled and welded. Cavity waxes are designed to protect enclosed cavities such as frame rails (**Figure 2**) and sectioned areas (**Figure 3**), but also to seep in-between the welded flanges to duplicate the factory chemical dipping process as closely as possible. A high-quality cavity wax should:

- Wick into tight gaps between panels
- Seal the gaps from the elements and encapsulate welding hot spots
- Remain tacky and flowable
- Be self-healing by re-flowing into damaged or scratched areas

Most OEMs—including Ford Motor Company—recommend for collision repairs the use of a cavity wax, which may also be referred to as an anti-corrosion treatment/agent.

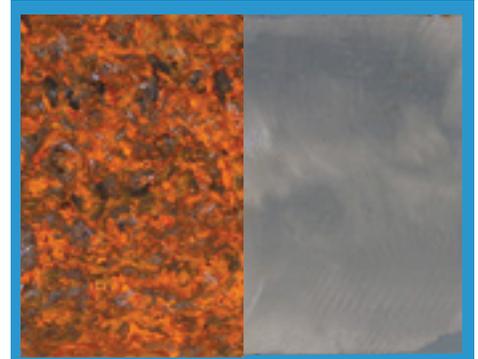
Generally speaking, it is a good idea to apply a cavity wax anywhere welding or heating has taken place unless it will be cosmetically unacceptable. It should also be sprayed into welded seams if no seam sealer will be applied to seal the joint, such as on radiator supports.

To help alleviate some concerns repairers have voiced in the past—and spread the use of cavity wax by making it easier to use—3M has launched the new 3M™ Cavity Wax Plus 08852. It uses a corrosion-inhibiting formula that will wick into tight seams to protect welded areas and enclosed cavities with a film that will remain flowable to self-heal if scratched or abraded, and will not harden.

When used with the 3M™ Cavity Wax Plus Applicator Wand Kit 08851, 3M™ Cavity Wax Plus will deliver the right amount of flow and wicking to provide consistent and uniform protection for your repair. The easy-to-use aerosol can eliminates the need for using antiquated and messy bulk spray technology to apply corrosion protection to a vehicle.

The wands can be easily cleaned by inverting the can and spraying until the wand is clean. The wand kit includes an 8" wand for easy-to-access areas such as radiator support seams, and two long wands (24" and 34") to access enclosed areas such as frame rails and rocker panels. The wands are also very small in diameter, so they can be easily inserted into small holes and tightly-formed structures on the car body, such as door frame drain holes or inner/outer side-panel structures (**Figure 4**).

For more information on cavity wax, contact



The above images show the results of two steel panels subjected to the 1,500-hour ASTM-B117 Salt Spray Test. While the second panel was protected by cavity wax, the first panel was not.



Figure 1



Figure 2



Figure 3

Unprotected sectioning joint.



Figure 4

manager, Automotive OEM/Collision Repair, at j.scharton@mmm.com.

2016 NORTHEAST Show® Sets New Marks



Ford Senior Damageability Engineer Gerry Bonanni (center, blue shirt) was on-hand at the recent 2016 NORTHEAST Show to answer questions inside the FCSD display, and also hosted a series of informative presentations (right), which included material on the upcoming all-new 2017 Ford Super Duty®.

The 39th annual NORTHEAST Automotive Services Show is being called the most successful yet, with new records set for attendance (5,000+), booth space and seminar registration. The three-day show, held in March in Secaucus, N.J., is the Alliance of Automotive Service Providers of New Jersey's flagship event, and featured nearly 150 exhibitors, including Ford Customer Service Division.

Ford Senior Damageability Engineer Gerry Bonanni was on-hand for technical repair presentations and to answer attendee questions, including those dealing with the differences between the F-150 and the all-new 2017 Super Duty, which also features a high-strength,

military-grade aluminum alloy body, and is due to reach showrooms later this year.

FCSD's new display also included representatives from the Ford National Body Shop Program, the Ford Collision Truckload Program and Rotunda Tools and Equipment, along with a 2016 Mustang 5.0 convertible—graciously loaned from Jersey City Ford—and a chance to win a 2017 model through the Mustang 5.0 Fever giveaway.

Ford Collision Marketing Manager Mark Mandl, who manned the display and also took part in a panel discussion on OEM shop certifications, was among the many who praised the turnout. "It's always good to be here because I get to spend

a lot more time talking to shop owners and repairers on a one-to-one basis," said Mandl.

Going forward, FCSD will be in Anaheim, Calif., for the first-ever West Coast NACE show (booth # 455), August 11 – 12. Joining FCSD will be the Ford Super Duty team, with displays and information on the brand-new, aluminum 2017 Super Duty.

Later in the year, FCSD will also head out to Las Vegas, Nev., for the SEMA show, November 1 – 4 (booth # 16207).

For more information, visit NACExpo.com and SEMAshow.com.

Collision Truckload Program Grows

Ford Customer Service Division has added 34 new parts to its Collision Parts Truckload Program, while reducing list prices on those parts by an average of 11 percent.

The additions include parts for the Ford Edge, Fusion, Escape, Explorer and F-Series pickup, numbering: five wheels, six grilles/GORs/GOPs, two radiators, two exterior lights, two valances, eight mirrors, two bumper bars, six fascias and one bracket.

"For nearly 20 years, the Truckload Program has played an integral part in providing wholesaling dealers, dealer and independent collision repairers, and insurance companies with high-quality OEM parts for the best possible repairs on our customers' vehicles," said George Gilbert, Truckload Program manager for FCSD. "The Genuine Ford replacement parts sold on the program also enable Ford to continually help reduce both repair cycle time and overall collision

repair costs—two more important factors for our body shop and insurance customers."

For more information on FCSD's Collision Parts Truckload Program, or for a list of the 600+ parts currently available, contact your local Ford or Lincoln collision parts wholesaling dealer or the Ford Crash Parts Hotline at cphelp@fordcrashparts.com.

INSIDE THE INDUSTRY

Legislative Update

- **Michigan's** governor has vetoed **HB 4344**, which would have required consumers to give their written consent before most types of **uncertified aftermarket crash parts** could be used in a collision repair during a vehicle's first five years or during its original warranty period. The bill was supported by ASA Michigan.
- **South Carolina** and **Maryland** have recently passed new laws prohibiting the sale and installation of **counterfeit or non-functioning airbags**. They become the 12th and 13th states to pass such laws in recent years.

- **New Hampshire** has passed a law (**SB 436**) prohibiting insurers from requiring or specifying the use of **non-OEM** crash parts on a vehicle during its first two years or 30,000 miles. The law is based on a state department of insurance bulletin issued in 1999.
- **Delaware, Pennsylvania** and **Virginia** have approved laws or regulations this year that allow **for the use of photographs or videos** in the collision repair estimating process. In each case, the vehicle owner can still request a physical inspection be conducted.

Automakers Commit to AEB

The National Highway Traffic Safety Administration and the Insurance Institute for Highway Safety have announced 20 automakers, including Ford Motor Company, have now committed to make automatic emergency braking (AEB) a standard feature on all their vehicles by Sept. 2022. A recent study conducted by the IIHS found AEB technology could cut rear-end collisions by approximately 40 percent and all police-reported accidents by 13 percent.

Autonomous Vehicle Forecast

A new forecast offered by IHS Automotive predicts the number of autonomous vehicles worldwide will approach 600,000 by 2025, then spike to nearly 21 million by 2035. Of those, the company expects 4.5 million will be in the U.S.

We Own Work:

All-New 2017 Ford Super Duty® Tested by Real-World Customers



As Ford continues to put the finishing touches on its 2017 F-Series Super Duty, five real-world heavy-duty truck customers were given an all-access insider pass to see how the truck—the toughest, smartest, most capable Super Duty ever—lives up to its Built Ford Tough promise.

These truck customers, representing industries such as forestry, manufacturing, heavy construction, electric, gas, sanitation, and oil and gas extraction, were the first to witness a set of torture tests on the all-new Super Duty, as documented in Ford's six-part *We Own Work* video series. The *first video*—posted earlier this year—introduced the heavy-duty truck customers and provided background on their businesses and how they use their fleet of Super Duty trucks.

"Every day these customers work hard and rely on our trucks," said Craig Schmatz, Ford F-Series Super Duty chief engineer. "They know better than anyone what it takes to get the job done and how Super Duty can make that happen."

Other episodes explore how weight savings are reinvested to improve towing and hauling capabilities in the Super Duty, which also features innovative, new driver-assist technology developed specially for heavy-duty truck customers.

Built on an all-new, high-strength steel frame, the 2017 F-Series Super Duty has a segment-first, high-strength, military-grade, aluminum-alloy body with upgraded axles, springs and suspension. It's expected to reach dealerships sometime later this year.



Chief Videos Show Proper Ford F-150 Anchoring

Chief Automotive Technologies has developed six new videos that show how to properly secure the Ford F-150 to a frame rack for pulling or sectioning. The videos—which can be viewed at ChiefAutomotive.com and on Chief's video library page—are part of Chief's structural holding series. The series covers the components included in its F-150 aluminum cab holding system (Part # 300002), which contains 26 individual components allowing for proper anchoring and repairs when used in conjunction with Chief's FAST anchor (Part # 128-619203) and its Universal Structural Holding System (Part # 128-300000).

"Using Chief's F-150 holding system, technicians can anchor the aluminum-bodied truck in up to 10 locations," said Richard Perry, Chief OEM and strategic account sales manager, and host of the videos. "This helps to distribute pulling pressure evenly, which reduces the chance that additional damage will be inflicted into the body during the repair. Multiple holding points are also needed to secure the vehicle during sectioning to ensure it does not shift out of place."

The video series includes demonstrations of how to temporarily [replace the F-150's rubber cab mounts with rigid mounts](#), which locks the cab to the frame, preventing it from flexing



Chief's Richard Perry hosts a video series that shows how to properly anchor a Ford F-150 for collision repair.

during the repair; how to position [anchoring points along the F-150's cab flange](#); how to use the truck's running board mounts to create a [holding point that will not leave marks on the vehicle's exterior](#); how to set up the [Universal Structural Holding \(USH\) Clamp System](#), which enables technicians to use the Structural Holding Package on frame racks with non-rectangular tie-downs; and others.

For more information on this and other Ford-approved equipment, visit OneRotunda.com (Rotunda part # [128-300002](#)) or the Chief website at ChiefAutomotive.com, call (800) 445-9262 (option 2) or e-mail salesorders@chiefautomotive.com.

Guidelines on properly sectioning the F-150 can be found in *On Target*, Volume 2, 2015. For additional information on this and repairs for any other Ford or Lincoln vehicle, contact Ford Senior Damageability Engineer Gerry Bonanni at (313) 317-9000 or the Ford Crash Parts Hotline at cphelp@fordcrashparts.com.

I-CAR and Fusor® Offer First-Ever Structural and Mechanical Bonding Course

I-CAR (the Inter-Industry Conference on Auto Collision Repair) and LORD Corporation—maker of Fusor® Repair Adhesives—have jointly launched a new I-CAR Alliance course based specifically on repair procedures for structural and mechanical bonding—the first time such a course has been offered.

The new course—*Fusor 008 Structural and Mechanical Bonding*—has been available since April 1 and was developed in response to changing industry trends and repair procedures. The course focuses on understanding the differences between structural and crash-durable adhesives, recognizing the different types of mechanical fastenings, knowing how to safely use adhesives, and an overview of adhesive options and applications.

"Collision repair professionals need to be up-to-date on the repair solutions and processes available to them to make the right repair," said Douglas Craig, technical application engineer & collision industry liaison for LORD Corporation. "This new training course brings the most current information on adhesives and mechanical bonding repair solutions to everyone involved in the repair process, while earning I-CAR Gold Class Professionals and Platinum Individual designations."

For more information or to register, contact your local Fusor representative or call 800-234-Fusor (3876). You can also sign up at Fusor.com.

Additional information on structural adhesives and tips from Fusor® can be found in *On Target*, Vol. 1, 2016.

Get it right.



From the source.

Ford and Lincoln Dealers are the one-stop source for all of your collision repair needs.

Not only are they a great source for technical and repair information, their Ford Motor Company Genuine Parts can help your body shop reduce cycle time, improve relationships with insurance companies and satisfy customers. So call your local Ford or Lincoln Wholesaling Dealership today for all your Genuine Parts needs.



FORD PARTS

SHARE YOUR THOUGHTS

The purpose of **On Target** is to provide Ford and Lincoln dealership parts departments and independent collision repair shops with the general and technical information needed to deliver efficient, high-quality repairs to Ford, Lincoln and Mercury vehicle owners. In addition, information on parts wholesaling policies and procedures, and collision repair industry activities will also be featured.

On Target is scheduled to be published three times a year.

Your comments and article ideas are welcome.

You can e-mail **On Target** at: cphelp@fordcrashparts.com.

Additional copies of **On Target** are available on the home page on FMCDealer.com.

Independent collision repair shops should contact their Ford or Lincoln wholesaling dealer.

On Target is also available free of charge by clicking on the Ford page at OEMIStop.com

On Target

Produced for Ford and Lincoln wholesaling dealers and their collision repair customers.

Editor

George Gilbert

Contributors

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Steven Lubinski Andrea Presnell



FORD PARTS

Dealership Information

Crash Parts Order Form

Use this form to provide us with the information necessary to make certain we deliver the right parts on time ... the first time!

The information below can be found on the certification label located on the driver's-side door jamb.

If the vehicle is damaged in this area provide us with the Vehicle ID# located on the driver's-side front corner of the dashboard.

VEHICLE ID#	(Need all 17 Digits)				
TRIM CODE		YEAR		DAMAGE AREA (Circle)	
MLDG. CODE		MAKE		FRONT	REAR
BODY CODE		PHONE:	()	LEFT SIDE	RIGHT SIDE
CONTACT:		SHOP:		UNDERBODY	LEFT / RIGHT

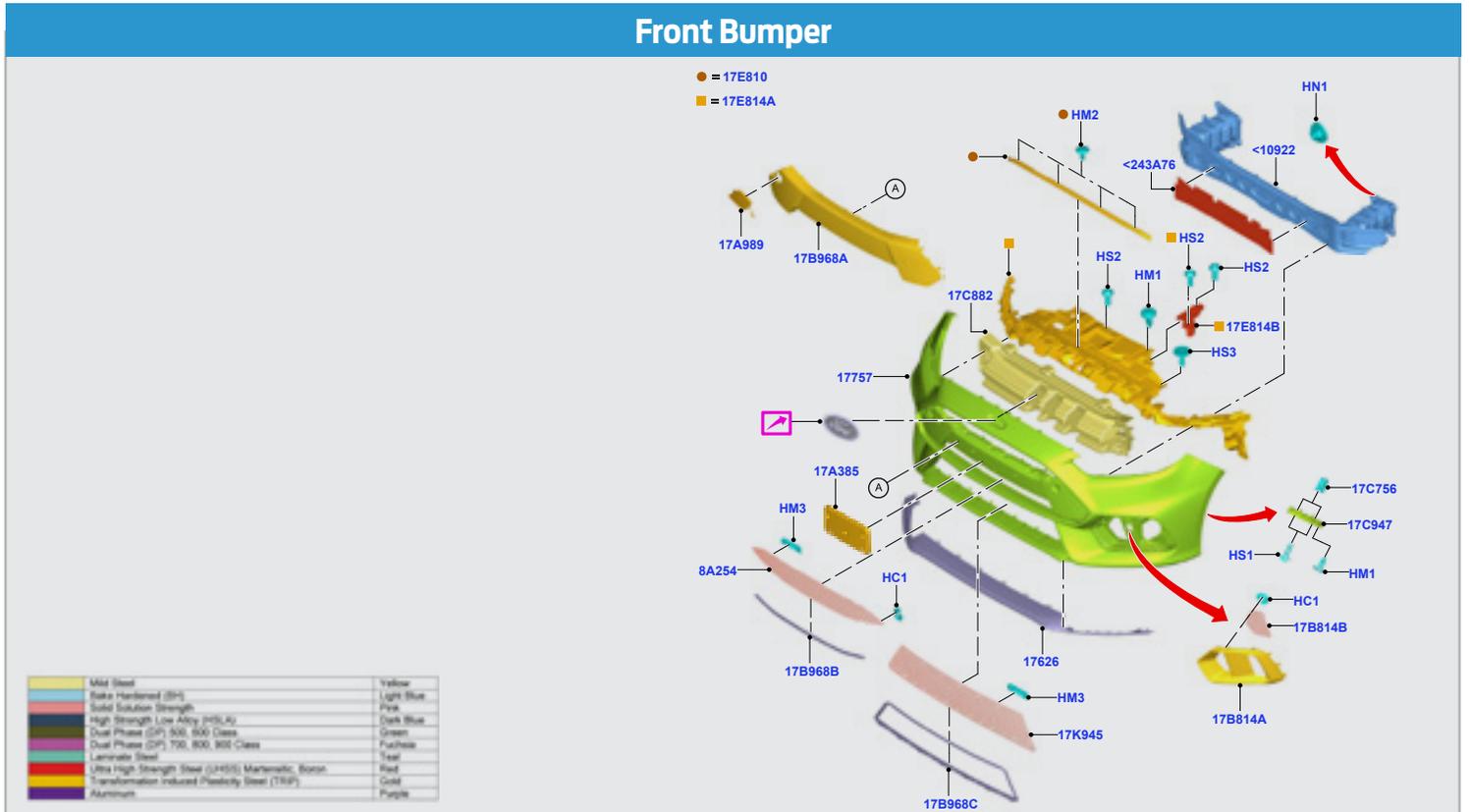
2016 FORD FOCUS RS

Date Ordered:	PARTS ORDER	Date Needed:
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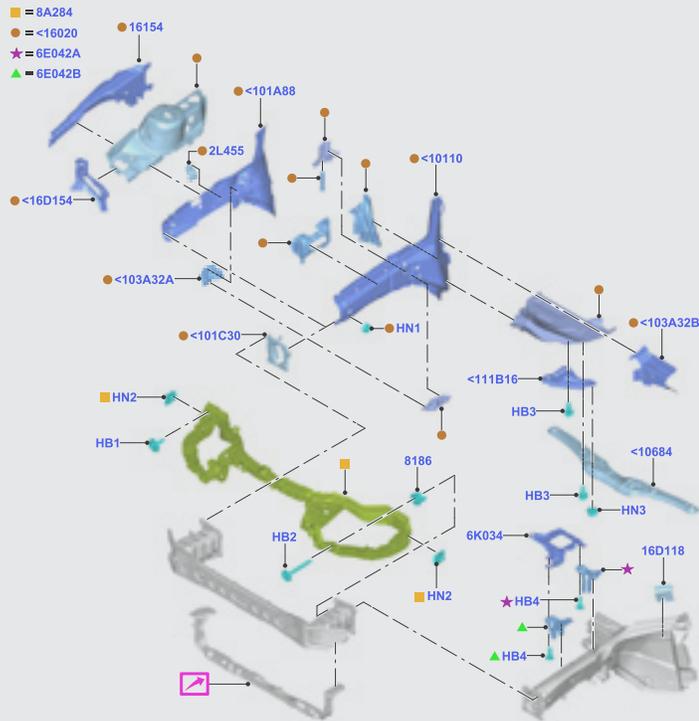
QUANTITY	PART NUMBER / PART DESCRIPTION

NOTE: Refer to vehicle diagrams for part identification and numbers.

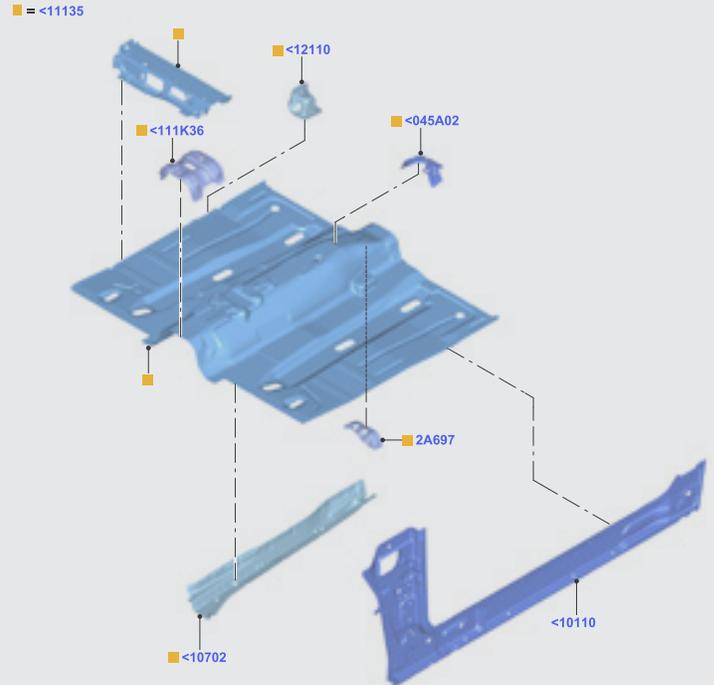
Front Bumper



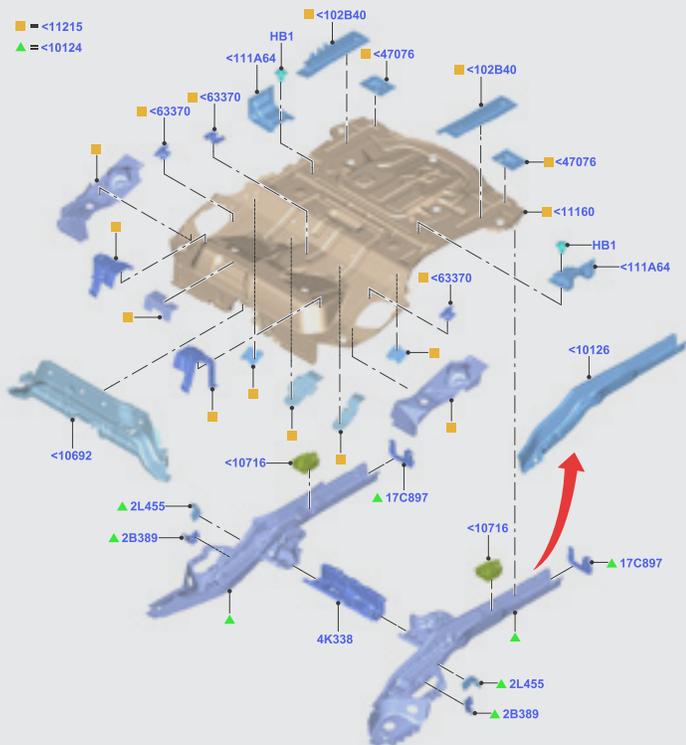
Front Apron



Front Floor Pan



Rear Floor Pan



Inner Side Panels

