2017 Ridgeline Series: Body Repair Information

APPLIES TO

2017 Ridgeline Model Series

DISCLAIMER : This publication contains a summary of body and vehicle technology that may affect collision and other body repairs. Always refer to the appropriate service information and body repair manual (BRM) for complete repair information. A subscription may be purchased at *techinfo.honda.com*.

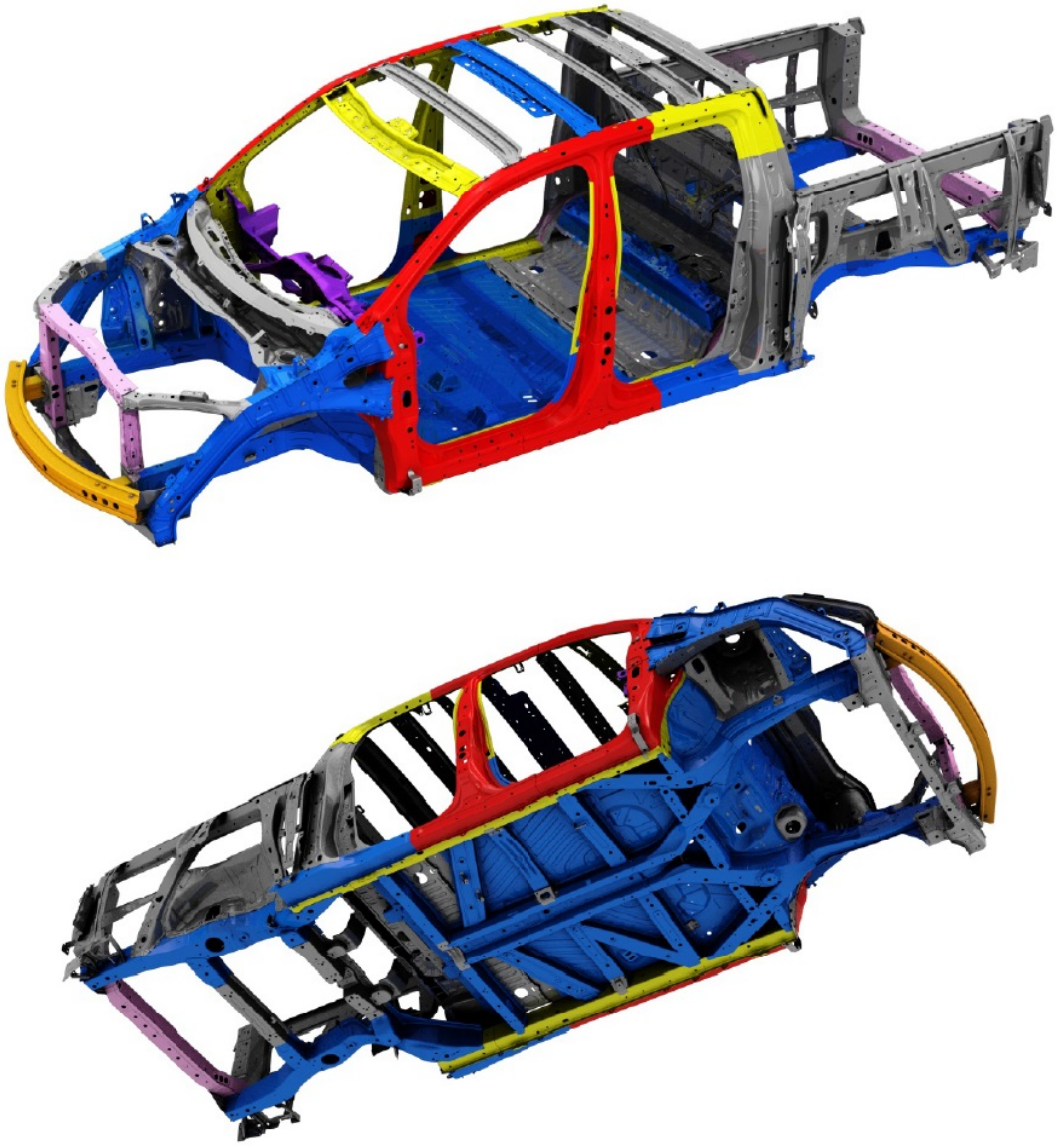
OVERVIEW OF BODY FEATURES

- Next-Generation Advanced Compatibility Engineering™ (ACE™) body structure
- Body construction using **57%** high-tensile-strength steel (HSS - **340 MPa** and higher), including ultra-high-strength steel (UHSS - **980 MPa** and higher)
- Reinforced cabin with **1,500 MPa** front door outer stiffener rings and reinforced roof structure
- 3-bone platform with additional stiffeners
- Optimized truss-style rear inner construction contributes to **28%** torsional rigidity increase over previous model Ridgeline while allowing more conventional three-box pickup styling.

BODY TECHNOLOGY

BODY CONSTRUCTION AND HIGH-STRENGTH STEEL CONTENT

- Steel parts are color coded based on their tensile strength in megapascals (MPa).
- High-strength steel (HSS) is defined as any steel with a tensile strength of **340 MPa** or higher.
- Ultra-high-strength steel (UHSS) is defined as any steel with a tensile strength of **980 MPa** or higher.
- Steel repair and welding procedures vary depending on the tensile strength of the parts involved.



NOTE

These illustrations are for general reference only. Some body parts are constructed from multiple layers of different tensile strength steels. Always refer to the body repair manual body construction section for specific steel tensile strength information.

1,500 MPa (HOT STAMP) STEEL LOCATIONS

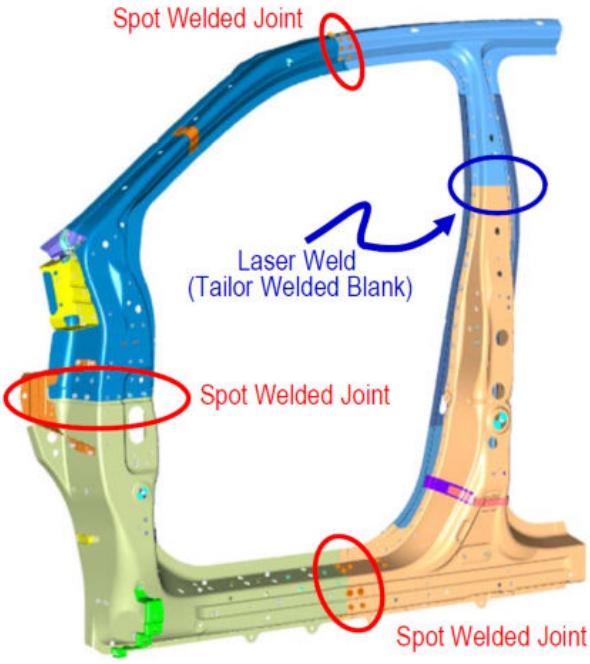
1,500 MPa steel is stronger than ordinary steel, so it can help protect vehicle occupants while reducing overall vehicle weight to improve fuel efficiency.

- The door outer stiffener rings are constructed of 1,500 MPa steel.

  NOTE

  The door outer stiffener ring **must** be replaced as a single assembly if it is damaged.

- The stiffener rings are constructed from multiple stampings that are spot welded together at the factory.
- With the door ring assembled and installed, there is no spot welder access to these factory joints, so they **cannot** be repaired.
- The door ring service part is sold as a complete assembly.
- **Do not** substitute MAG welding or MIG brazing for these factory spot welds on the door ring.

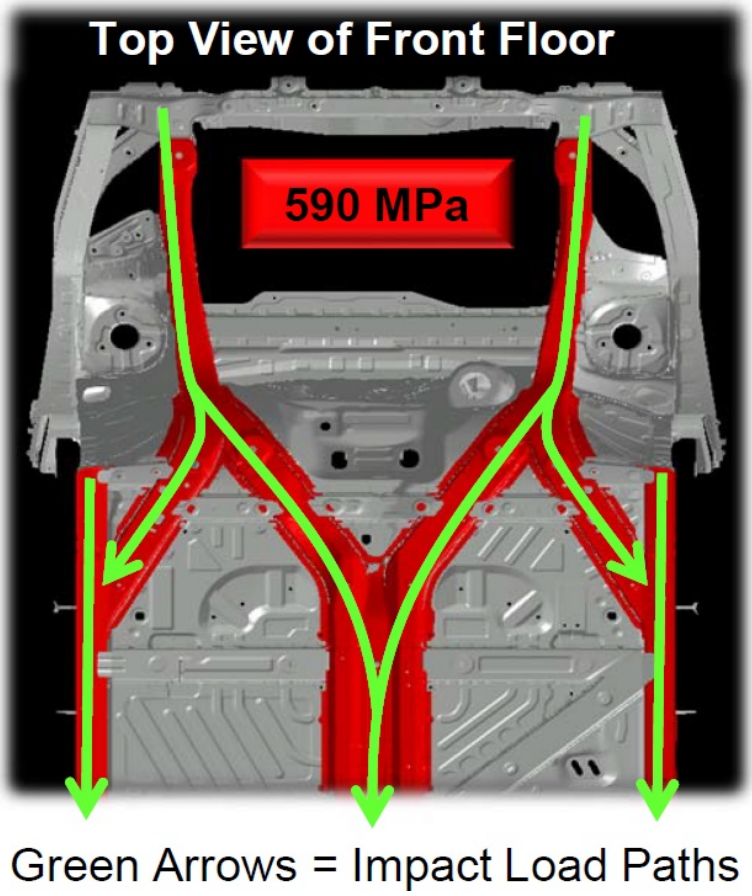


Door Outer Stiffener Ring Construction

3-BONE PLATFORM STRUCTURE

A 3-bone platform structure is used on this vehicle.

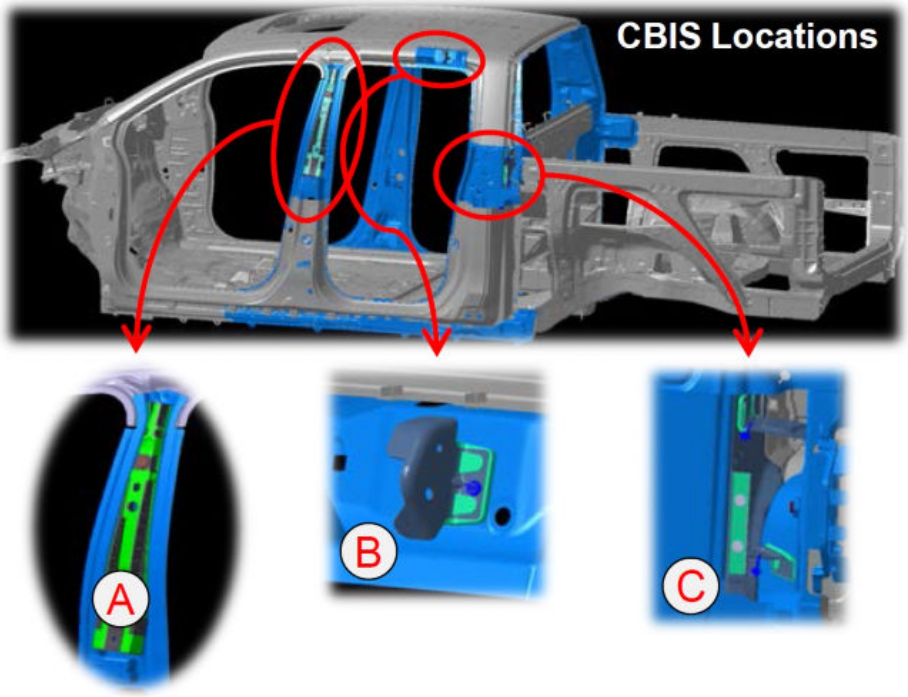
- The structure improves impact load management around the cabin while reducing weight.
- Additional floor reinforcements may require replacement or spot weld removal if damaged in a collision.
- Limited sectioning allowed to the front side frame and rear frame B parts. Refer to the body repair manual for complete information.



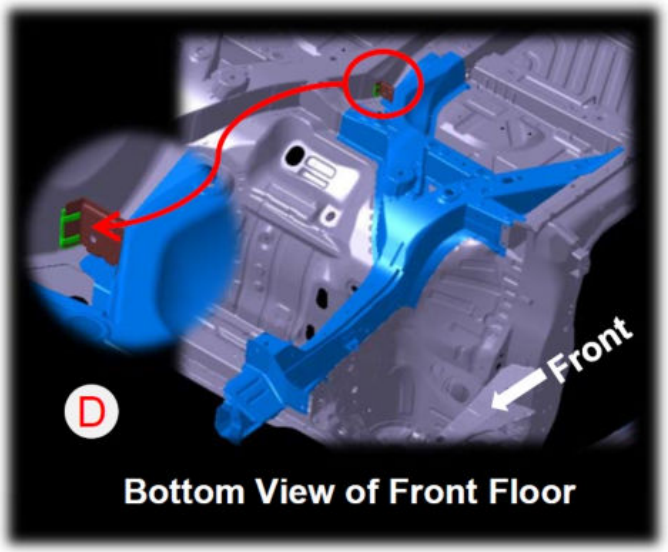
COMPOSITE BODY INNER STRUCTURE (CBIS)

CBIS is used in strategic body locations to increase global rigidity and local buckling resistance.

- Factory CBIS uses L&L Products L-5520 expanding structural foam (not commercially available), which expands during the E-coat bake process.
- CBIS is applied at the following locations:
  - Upper center pillar with composite insert A
  - Quarter inner rear pillar upper B
  - Quarter inner rear pillar center C



  - Center frame bracket D



CBIS Service During Body Repairs

- CBIS locations A, B, & C have the structural foam pre-installed and baked in the service part comps.
- CBIS location D requires a special room-temperature-cured, 2-part epoxy, expandable structural adhesive to replicate these joints.

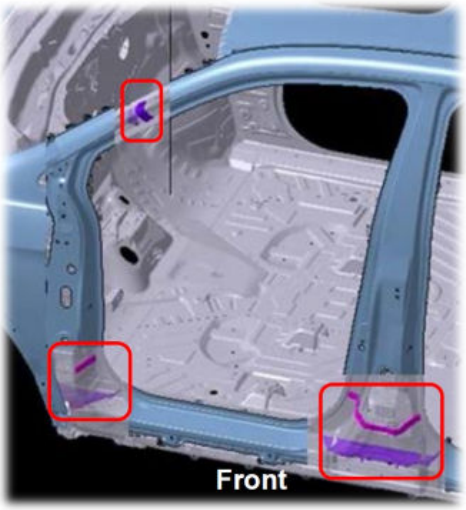
NOTE

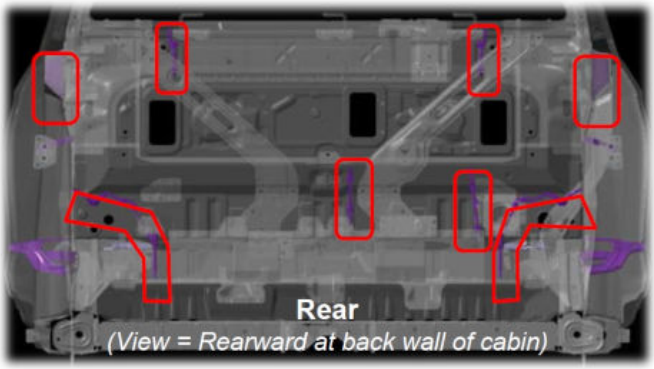
The body repair manual will indicate to use Honda L-0504; however, this product has been discontinued and replaced with 3M Impact Resistant Structural Adhesive 07333.

ACOUSTIC SEPARATOR LOCATIONS

A combination of molded, extruded, and tape acoustic separators are applied in various body locations.

- These are applied within the body pillars.
- They are designed to block the noise paths into the cabin from hollow body cavities.
- Repairs are similar to previous models using commercially-available products.





TRUCK BED REAR FENDER, FLOOR, AND SIDE SERVICE

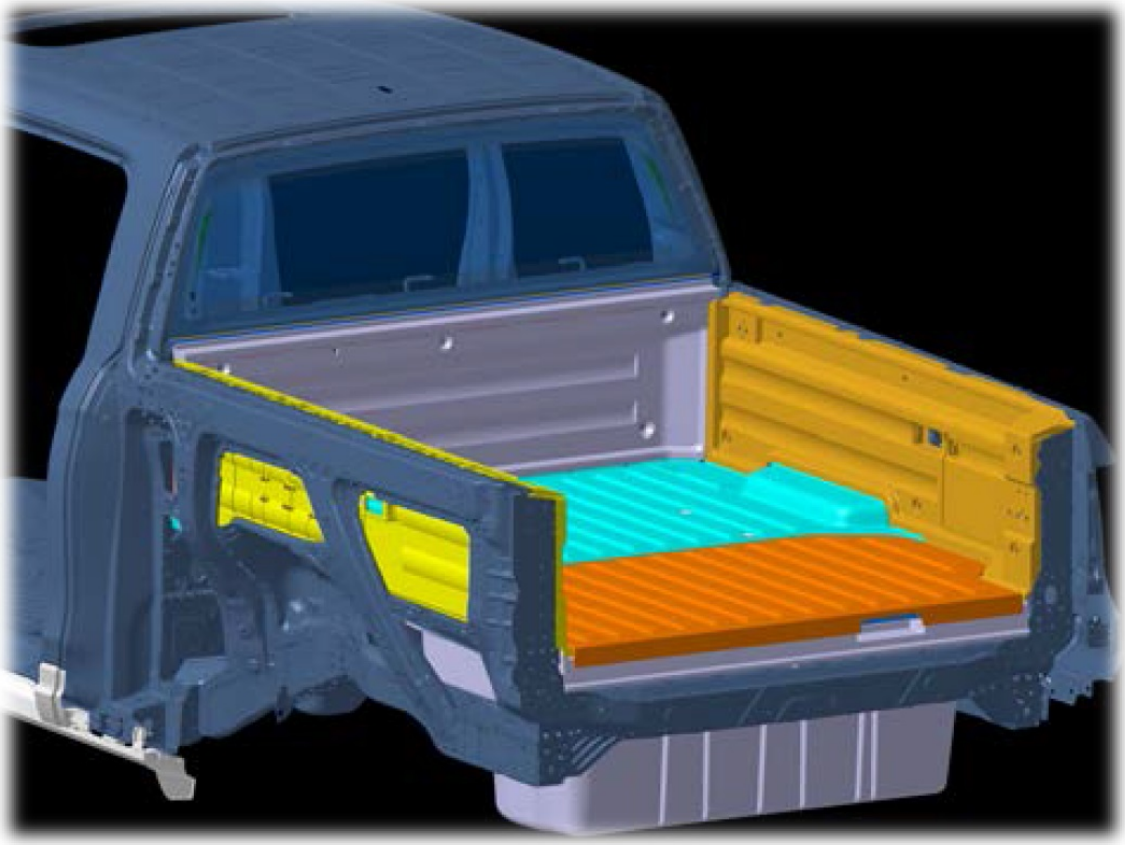
The truck bed rear fender comps are bolted to the Ridgeline's welded body structure. Bolting the rear fenders to the body provides traditional pickup truck appearance while allowing easier removal and replacement in case of outer bed panel damage.

- The truck bed rear fenders are attached using twelve bolts per side.
- Replacement procedure is similar to traditional front fender replacement.

The bed's working surfaces are improved as follows:

- The truck bed floor is made of UV-stable sheet molding compound (SMC).
- Vertical panels are finished with UV-stable polypropylene plus long-glass fiber.
- The black substrate used in the bed floor minimizes the visibility of scratches.

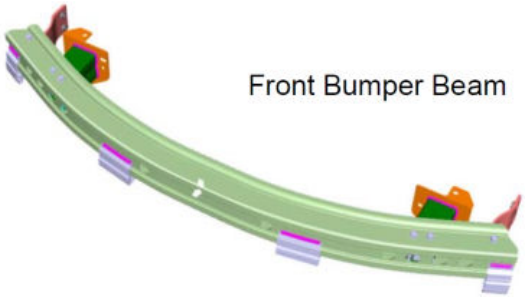
If damaged, all bed components can be disassembled from the body and individually replaced.



ALUMINUM PARTS & REPAIRABILITY

All of the parts shown use aluminum alloy construction.

Hood



Front Bumper Beam

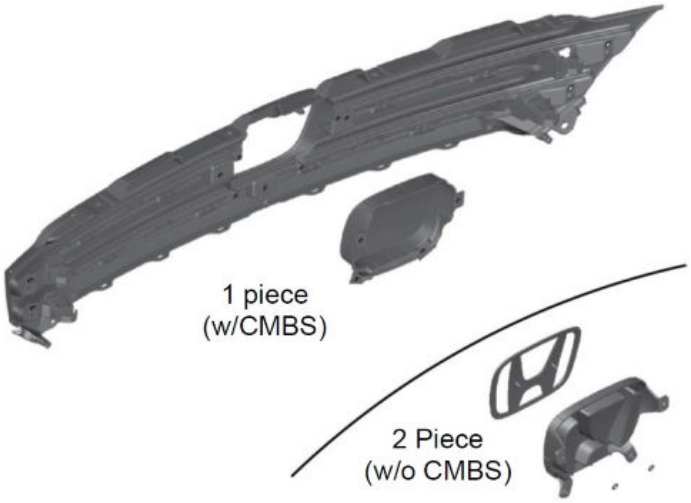
Repairability Issues

- Do not repair bumper beams if they are damaged.
- Minor damage to the aluminum hood may be repaired by body shops that have dedicated aluminum repair facilities and tools.
- To prevent galvanic corrosion, some fasteners for aluminum parts are considered one-time use and must be replaced if removed.

ADAPTIVE CRUISE CONTROL (ACC)/ COLLISION MITIGATION BRAKING SYSTEM™ (CMBS) GRILL DIFFERENCES

Models equipped with ACC and CMBS use a millimeter wave radar unit.

- This unit senses through the front grille emblem base.
- This part, and its Honda emblem, are specially designed to prevent radar interference. This design change also significantly increases the part's cost.
- Installing the wrong front grille emblem base will cause the CMBS indicator to come on and DTC P2583-97 (dust or dirt on the millimeter wave radar) to set.



Front Grille Emblem & Bases

BATTERY JUMP STARTING/CHARGING/TESTING LOCATIONS

This vehicle uses a 12-volt battery sensor on the negative battery cable at the battery terminal.

- This sensor is fragile and can be damaged during jump starting or battery charging/testing procedures.
- To avoid damage to the battery sensor and the chance of electrical sparks, do not to use the negative battery post for these procedures. Instead, connect the negative jumper cable or the testing/charging equipment's negative cable to the engine hanger bracket on the passenger's side of the engine under the plastic engine cover.

12-Volt Battery Under-Hood Jump Starting/Charging/Testing Locations