

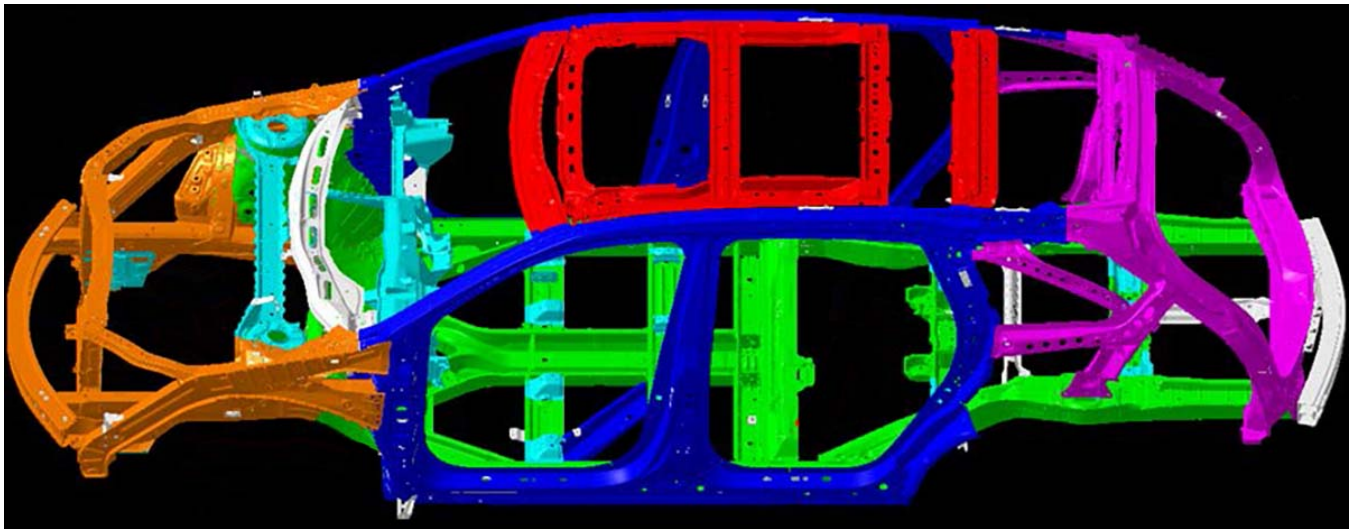
2014 MDX and 2017 MDX Sport Hybrid Series: Body Repair Information

APPLIES TO

2017 MDX & MDX Sport Hybrid 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.acura.com.

OVERVIEW OF BODY FEATURES

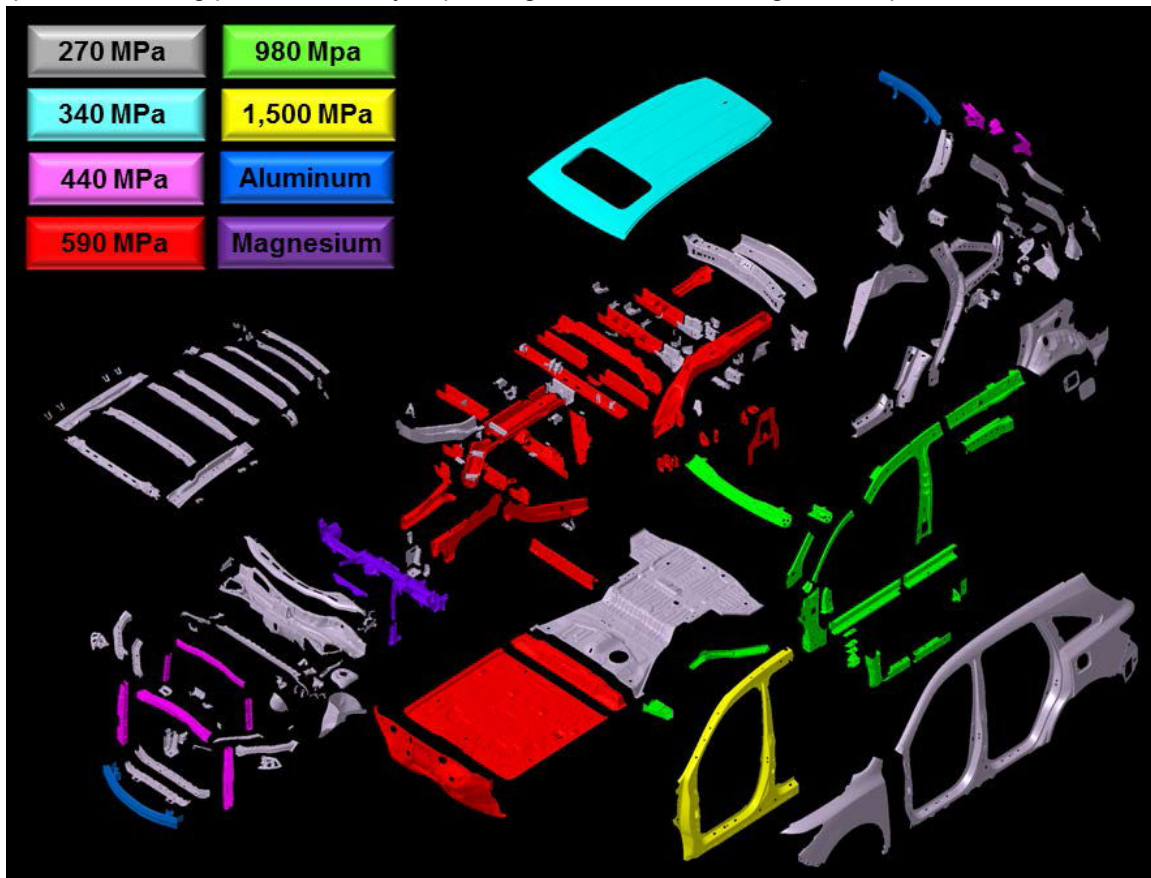


- Next-Generation Advanced Compatibility Engineering™ (ACE™) body structure.
- Rigid magnesium steering hanger beam mounts steering column and dashboard components.
- Reinforced cabin with 1,500 MPa one-piece front door outer stiffener rings.
- Reinforced roof structure.
- 3-Bone platform with additional stiffeners.
- Rigid tailgate opening ring with structural foam bulkheads applied at four locations.

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.
- Steel repair and welding procedures vary depending on the tensile strength of the parts involved.



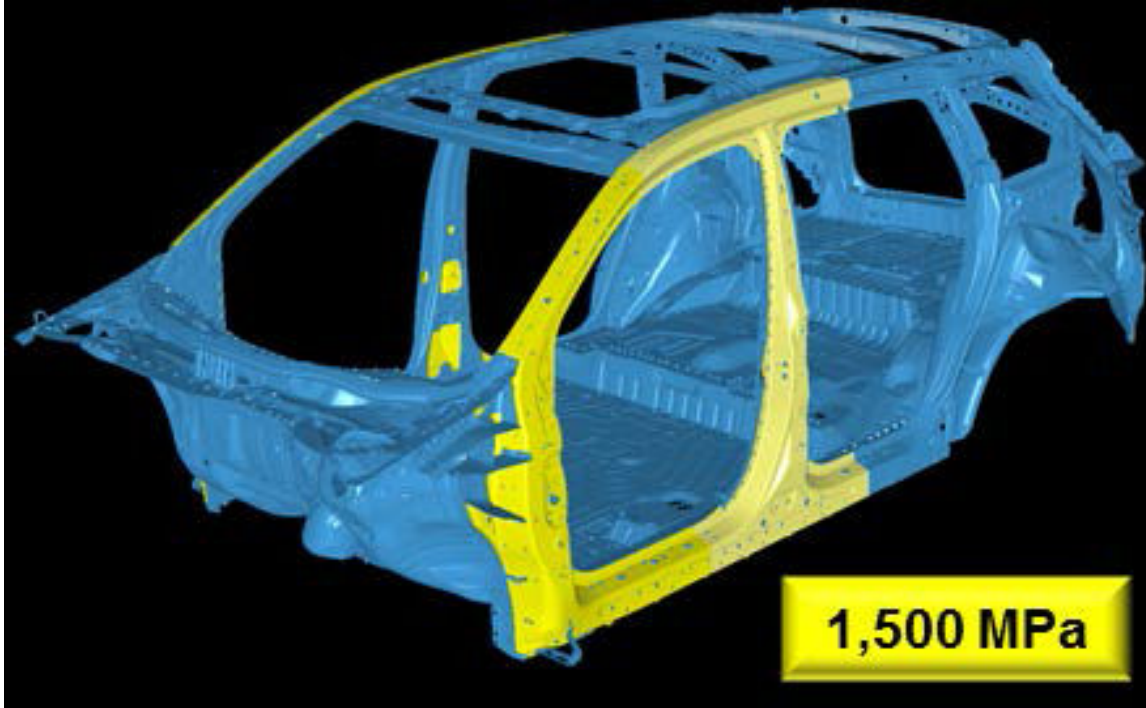
NOTE

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.

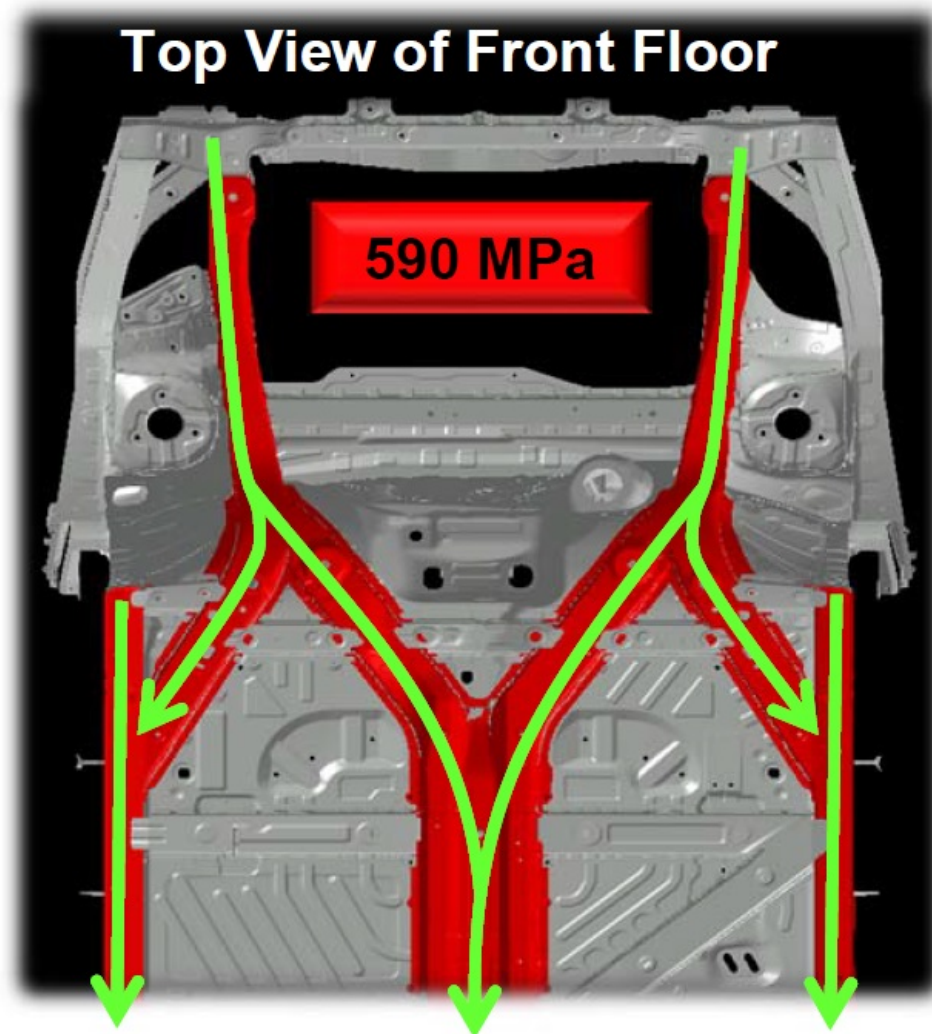
The one-piece front door outer stiffener rings and door reinforcement beams are made from **1,500 MPa** steel. This steel is stronger than ordinary steel, so it can help protect vehicle occupants while reducing overall vehicle weight to improve fuel efficiency.



3-BONE PLATFORM STRUCTURE

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

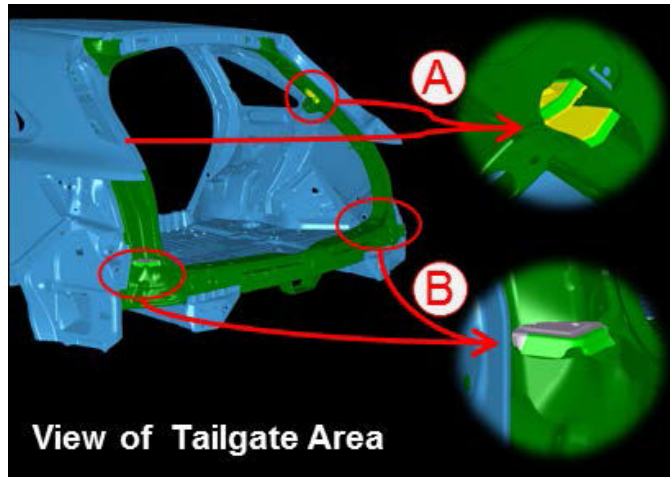
- The structure improves impact load management around the cabin while reducing weight.
- Additional floor reinforcements may require replacement or spot weld removal if damaged in a collision.
- Limited sectioning allowed to the front side frame and rear frame B parts. Refer to the body repair manual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



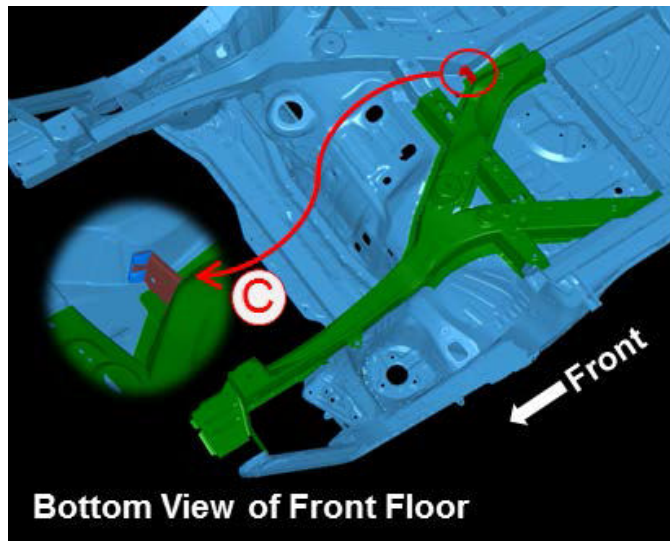
Green Arrows = Impact Load Paths

STRUCTURAL FOAM LOCATIONS AND REPAIR

Structural foam bulkheads are used to improve body stiffness at the left and right inner panel assembly (A) and inside the floor rear cross member assembly (B). Replacement part assemblies have the structural foam pre-installed.



- A structural foam joint is used on a bracket that connects the left and right side center frames under the front floor (C). When replacing either the left or right front side frame assemblies, a special room-temperature cured 2-part epoxy structural adhesive (L&L Products L-0504, 3M 7333 Impact Resistant Structural Adhesive, or equivalent) is required to replicate this joint.
- Because of limited shelf life, the adhesive must be ordered at the same time as the replacement front side frame.
- Once the adhesive/foam is applied, the parts can be assembled and welded. The repair adhesive material will cure at room temperature in **24** hours.



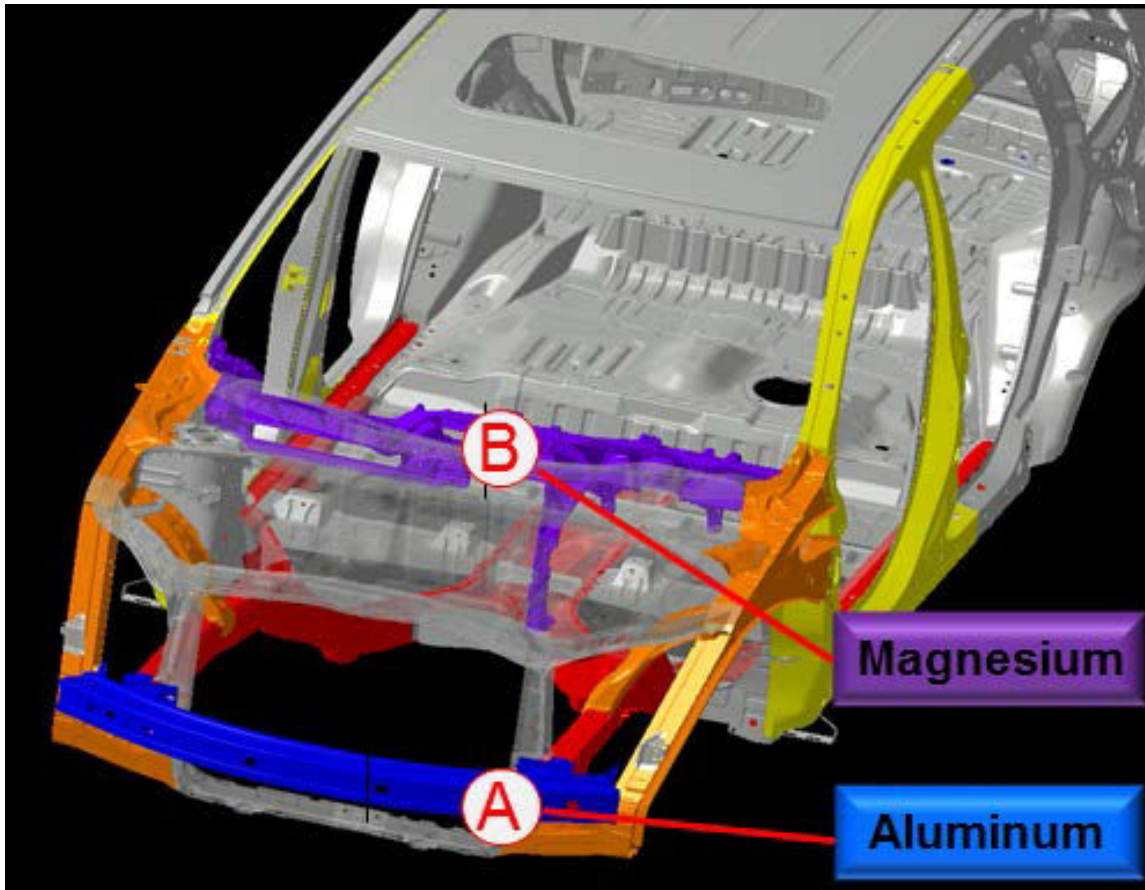
ALUMINUM AND MAGNESIUM PARTS

Aluminum alloy parts include these items:

- Hood panel
- Front and rear bumper reinforcement beams (A)

Magnesium alloy parts include:

- Steering hanger beam (B)

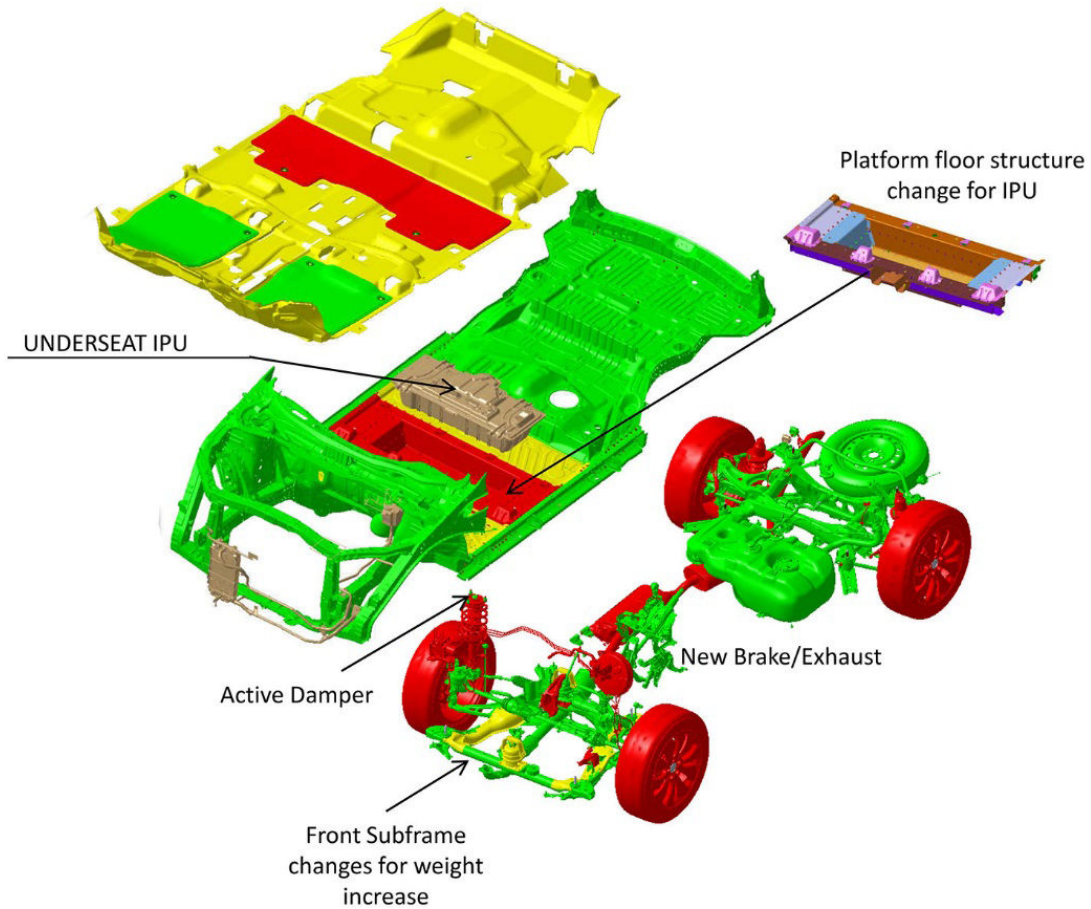


Do not attempt to repair magnesium parts and aluminum bumper reinforcement beams if damaged.

MDX SPORT HYBRID INFORMATION

Frame Change Points

- Active damper
- New Brake/Exhaust
- Platform floor structure change for IPU (Intelligent Power Unit)
- Underseat IPU



Emergency Shutdown System for the High Voltage System

The emergency shutdown system may activate when the vehicle is impacted by some incident such as a crash. When this system activates, the high voltage system automatically shuts down, and your vehicle no longer will move under its own power. To return the high voltage system back to normal operation, consult an Acura Dealer.