

2017 Clarity Series: Body Repair Information

APPLIES TO

Year	Model
2017 Series	Clarity Fuel Cell
2017 Series	Clarity Electric
2018 Series	Clarity Plug-In Hybrid

IDENTIFYING THE TYPE OF CLARITY MODEL

To determine the type of Honda Clarity vehicle you are working on, refer to characters 4 thru 6 of the VIN.

JHMZC4*****000001

ZC4	Clarity Fuel Cell
ZC5	Clarity Plug-In Hybrid
ZC6	Clarity Electric

OVERVIEW OF BODY FEATURES



- Advanced Compatibility Engineering™ (ACE™) body structure
- The same basic body platform supports three electric-powered model variations
- Body construction using **52%** lightweight materials, including aluminum and ultra-high-strength steel (UHSS - **980 MPa** and higher)
- World's first Glass Fiber Reinforced Polymer/Plastic (GFRP) rear bumper beam
- Bolt-on resin composite front bulkhead assembly

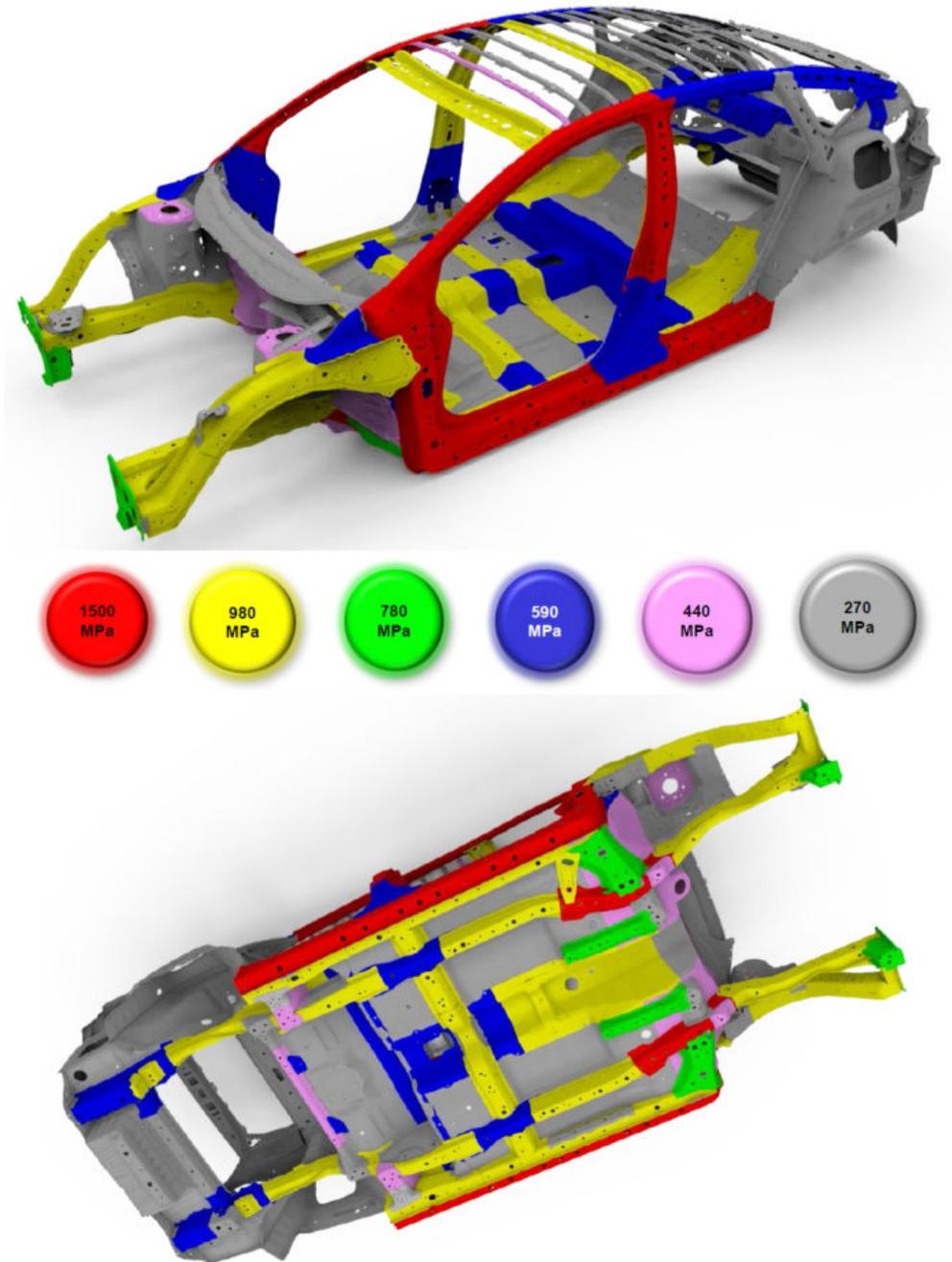
⚠ WARNING

- Compressed hydrogen gas is flammable and highly explosive. You could be killed or seriously injured if leaking hydrogen gas is ignited.
- Keep heat, sparks, and flames away. In addition, keep electronic devices that can emit static discharge away.
- Hydrogen burns very quickly and radiates less heat than gasoline or other fuels; its flames are invisible.
- Always have a fire extinguisher (dry powder type or carbon dioxide gas type) at the work location at all times.
- Only properly trained technicians should inspect and repair the Clarity's high-voltage and/or hydrogen supply systems.
- The California Fire Code has specific requirements for welding and open flame repairs on hydrogen-fueled vehicles like the Clarity Fuel Cell. Make sure your facility and the vehicle are properly prepared before welding or doing any open flame repairs.

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.



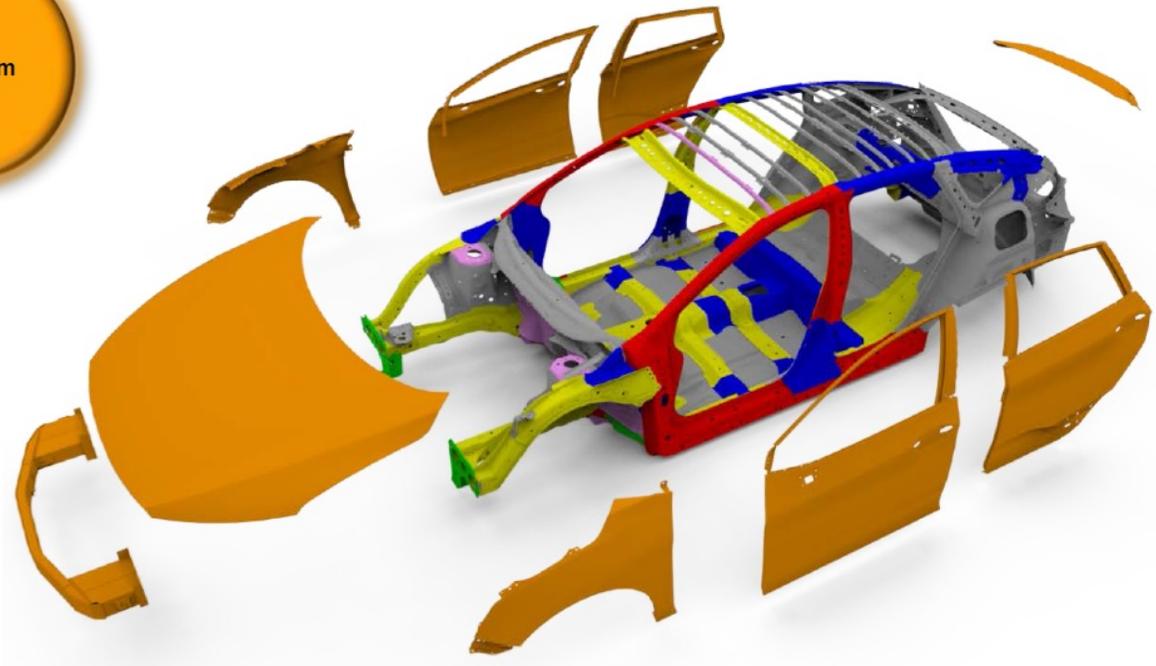
NOTE

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.

ALUMINUM PARTS & REPAIRABILITY

The following parts are made from aluminum alloy:

- Front Bumper Beam
- Hood Panel
- Front Fenders
- Front and Rear Doors
- Rear Shelf Panels
- Trunk Lid
- Front and Rear Subframe (Not Shown)

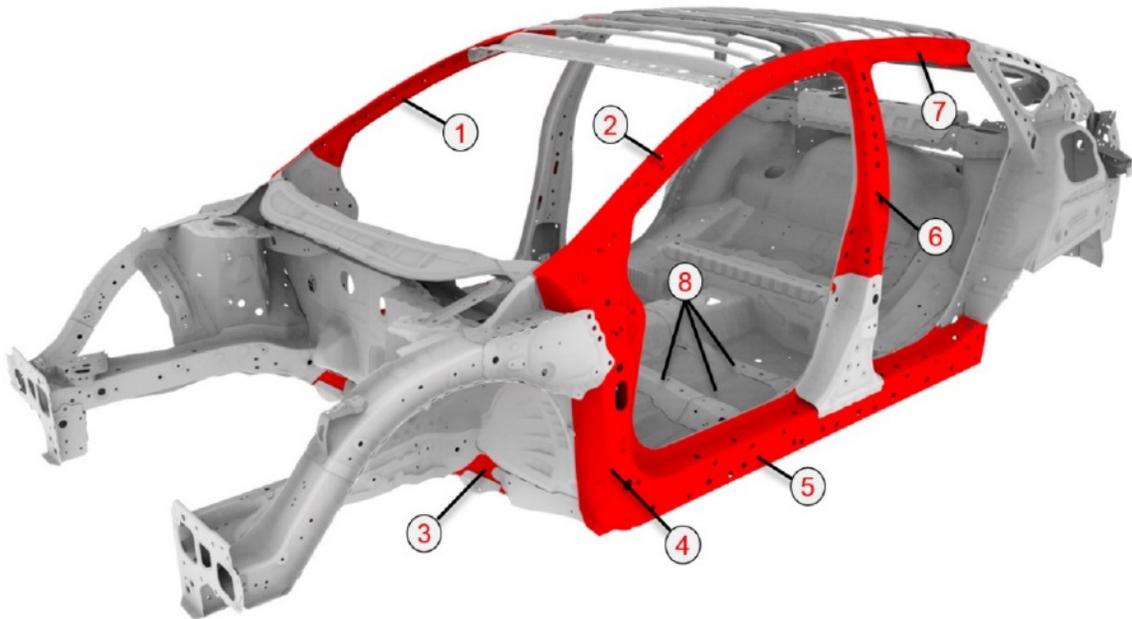


1,500 MPa (HOT STAMP) STEEL LOCATIONS

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 following numbered parts are constructed of 1,500 MPa steel:

1. Front Inner Upper Panel
2. Front Pillar Upper Stiffener
3. Front Side Frame Extension
4. Front Pillar Lower Stiffener
5. Side Sill Reinforcement
6. Center Pillar Upper Stiffener
7. Rood Side Stiffener
8. Floor Crossmember Stiffener



NOTE

1,500 MPa stiffeners are located inside the front floor frame, front floor crossmember, and front floor rear crossmember.

RESIN COMPOSITE (PLASTIC) FRONT BULKHEAD

This vehicle has a lower bulkhead assembly constructed of resin composite material.

- The bulkhead design improves engine compartment access during factory assembly and service.
- The front bulkhead is attached with multiple bolts and is sold and replaced only as a complete assembly.
- The cooling fans, radiator, A/C condenser, hood lock, outside air temperature sensor, and related piping/ components are attached to the front bulkhead.
- Over-torquing or using power tools may break these inserts loose, requiring front bulkhead replacement.
- A damaged bulkhead must be replaced, not repaired.
- For more information, refer to the Front Bulkhead Replacement section in the service information.



LASER-BRAZED ROOF ATTACHMENT

The factory roof panel is attached using a laser-brazed joint to the outer side panels.

- Laser-brazed joints cannot be duplicated during roof panel replacement.
- The original roof panel must be cut off near the laser-brazed joint, and the remaining flange must be removed separately.
- The service roof panel is attached using service replacement bolted clamp-type brackets (5 each side) and panel bonding adhesive.
- The roof panel, service brackets, and bolts must be ordered separately. Refer to the online parts catalog.
- Refer to the Roof Panel Replacement section in the body repair manual.



Service Replacement Roof Panel (Underside View)

BEFORE STARTING COLLISION REPAIRS

With any collision repairs, always refer to and follow the information outlined in the Generation Information section of the body repair manual. The following information outlines special consideration when repairing a Honda Clarity vehicle.

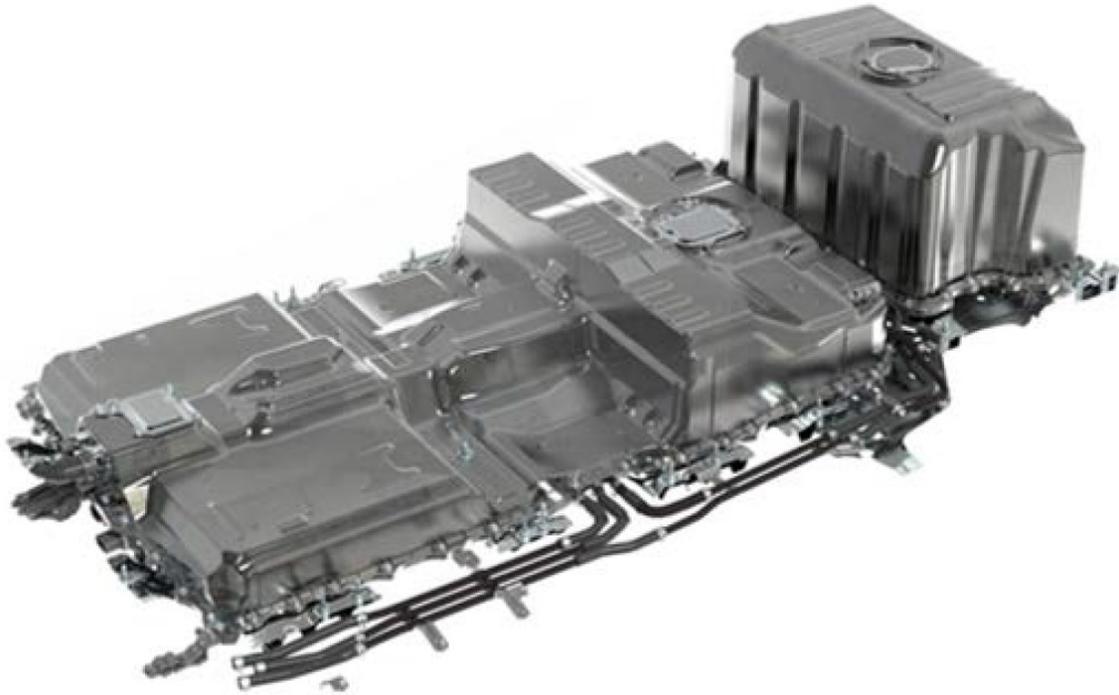
IPU (Intelligent Power Unit) Leak Test After Airbag Deployment

This unit applies to the following vehicles:

- Clarity Electric
- Clarity Plug-In Hybrid

An IPU leak test must be done on any Clarity Electric or Clarity Plug-In Hybrid involved in a collision severe enough to deploy the airbags. This test consists of pressurizing the IPU with shop air to check for any leaks. If the IPU fails the leak test, it **must** be replaced.

The Clarity Electric has a front and rear IPU. Both of these units must be tested. If you have a vehicle with deployed airbags, take it to an authorized Honda dealer to have this test done before starting any repairs.



High-Voltage System Components

These components apply to the following vehicles:

- Clarity Electric
- Clarity Plug-In Hybrid
- Clarity Fuel Cell

If you are doing any repairs that require the removal of high-voltage system components, the vehicle must be taken to an authorized Honda dealer. Authorized Honda dealers have the training and equipment needed to remove and install high-voltage components.

Refer to the Electrical Powertrain Component Location Index in the service information for a complete list of high-voltage system components.

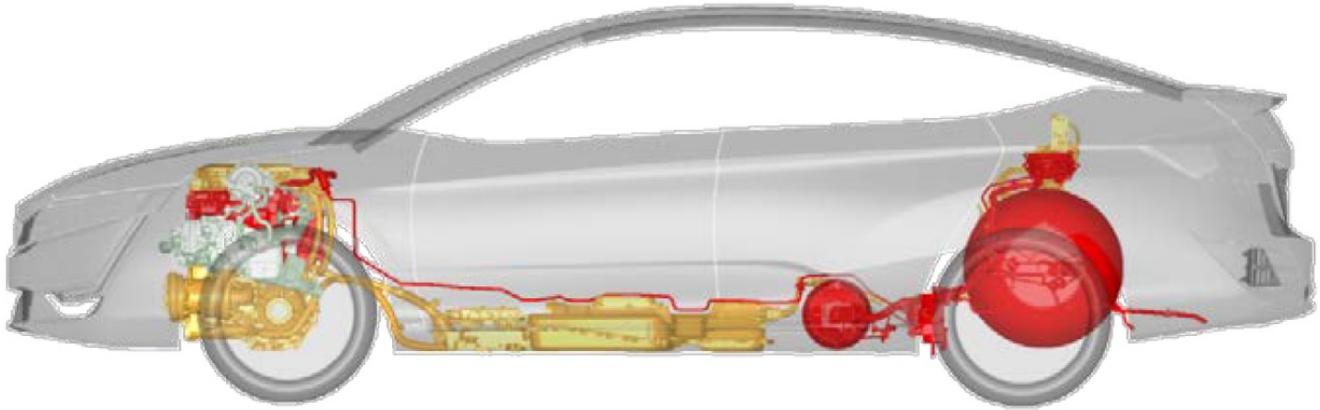
Hydrogen System/Fuel Cell System Components

These components apply to the Clarity Fuel Cell

According to the California Fire Code, the hydrogen level in the hydrogen tanks must be less than **0.5 kg** before the vehicle is brought inside the shop for repairs related to the hydrogen system. These rules do not apply to service/repair of non-hydrogen system components and collision repairs as long as no repairs involving welding or open flame are done and the hydrogen system components are not involved.

If you are doing any repairs that involve any hydrogen system or fuel cell system-related components or involve welding or open flame, the vehicle must be taken to an authorized Honda Clarity Fuel Cell dealer. For a list of authorized Honda Clarity Fuel Cell dealers, refer to page 10.

Refer to the Fuel Cell System Component Location Index in the service information for a complete list of hydrogen/fuel cell system components.



DURING COLLISION REPAIRS

With any collision repairs, always refer to and follow the information outlined in the General Information section of the body repair manual. The following information outlines special precautions when repairing a Honda Clarity.

Precautions When Using a Heated Paint Booth

System	Precautions
SRS	<ul style="list-style-type: none">Do not apply heat greater than 212°F (100°C) when drying painted surfaces anywhere around the SRS components.
Fuel Cell	<ul style="list-style-type: none">When drying paint in a heated paint booth, cover the air intake duct, exhaust pipe, and ventilation ducts with tape. Refer to the Fuel Cell System Component Location Index in the service information for the location of these components.High temperature may damage the fuel cell (FC) stack and the compressed hydrogen gas (CHG) tank. When drying paint in a heated paint booth, make sure the temperature does not exceed 149°F (65°C).
Electric Powertrain	<ul style="list-style-type: none">High temperature may damage the battery module. When drying paint in a heated paint booth, make sure the temperature does not exceed 149°F (65°C).

AFTER COLLISION REPAIRS

Collision Shut-off History Clear Command

When the battery condition monitor module receives a collision detection signal (CDS) from the SRS unit or the H2 (hydrogen) shut-off unit (Clarity Fuel Cell only), it updates the collision shut-off history and stores it in the module's nonvolatile memory. The battery condition monitor module stops supplying power to the high-voltage circuits, disrupting the control signal to be sent to the high-voltage contactor inside the battery module the next time the system is being turned on.

The battery condition monitor module also stops supplying hydrogen to the fuel cell (FC) stack by turning the FC cut relay at the same time. To resume power supply to the high-voltage circuits and hydrogen supply to the FC stack, the collision shut-off history must be cleared.

AUTHORIZED HONDA CLARITY DEALERS

The Clarity Electric and Clarity Plug-In Hybrid can be taken to any Honda dealer for service and repairs. To locate an authorized Honda dealer, contact Honda Customer Service at **(800) 999-1009**.

Clarity Fuel Cell repairs should be done only by Authorized Clarity Fuel Cell dealers. For a list of authorized Clarity Fuel Cell dealers, see below.

Southern California

City	Dealer Name	Telephone Number
Cerritos	Norm Reeves Honda Superstore	(888) 849-4466
Culver City	Culver City Honda	(424) 298-4875
Irvine	Norm Reeves Honda Superstore Irvine	(888) 721-4053
Pasadena	Honda of Pasadena	(866) 788-5832
Torrance	Scott Robinson Honda	(855) 725-2211
Woodland Hills	Woodland Hills Honda	(800) 494-1164

Northern California

City	Dealer Name	Telephone Number
Colma	Honda of Serramonte	(888) 892-5396
Dublin	Dublin Honda	(877) 412-7199
Oakland	Honda of Oakland	(800) 352-1859
Palo Alto	Anderson Honda	(650) 843-6041
Roseville	AutoNation Honda Roseville	(916) 467-8056
San Jose	Honda of Stevens Creek	(855) 357-6146