

2024 ZDX Model Series: New Body Repair Information

APPLIES TO

2024 ZDX Model Series

- This publication contains a summary of new body and vehicle technologies that may affect collision and other body repairs. Always refer to the service information and body repair manual (BRM) for complete repair information. A subscription may be purchased at techinfo.honda.com.
- The ZDX was co-developed in partnership with General Motors (GM). The ZDX's service and body repair information reference GM information and may have the GM logo and likeness of GM's format.



CONTENTS

Topic	Page
Post-Collision Vehicle Storage	2
High-Voltage Power Cut-Off	2
High-Voltage Disabling	2
Vehicle Lifting	3
Vehicle Towing and Transportation	3
Body Construction & High-Strength Steel Content	4
Laser-Brazed Roof	5
Metal Panel Bonding	5
Baffles	6
Color Codes	6
Paint Booth Conditions	7
Shop Safety	7
Scan Tools	8
Service & Body Repair Manuals	9
Driving Support Systems	10
Collision Repair Consumables	10

POST-COLLISION VEHICLE STORAGE

A damaged ZDX can be stored in either an Open Perimeter Isolation or Barrier Isolation.

Open Perimeter Isolation

Vehicle is stored in an outdoor area separated from all combustibles and structures by a minimum distance of 50 feet (15.2 m) from all sides.



Barrier Isolation

- Vehicle is stored in an outdoor area separated from all combustibles and structures with a barrier constructed of earth, steel, concrete, or solid masonry designed to contain a fire and/or prevent the fire from extending to adjacent vehicles.
- The barriers should be of sufficient height to direct any flame or heat away from adjacent vehicles.
- If the barrier is only on three of the four sides of the vehicle, the open side would need to maintain the separation distance referenced above.
- It is not recommended to fully enclose the vehicle in a structure due to the risk of post-incident fire extending to the structure, and the possibility of trapped explosive or harmful gases. Therefore, a roof is not recommended for barrier isolation.

HIGH-VOLTAGE POWER CUT-OFF

The supplemental inflatable restraint sensing and diagnostic module determines the severity of a collision with the assistance of impact sensors located at strategic points on the vehicle. The battery energy control module will open the high-voltage contactor relays, placing the vehicle in a high-voltage lockout state and disabling the vehicle whenever a crash event of sufficient intensity has been detected.

In addition to the opening of the high-voltage contactor relays, a single-use pyro-fuse will be activated whenever the supplemental inflatable restraint system is deployed. An activated pyro-fuse will inhibit high-voltage current flow out of the battery pack to the under-hood components. Once activated, it cannot be reset and the high-voltage battery assembly must be replaced.



HIGH-VOLTAGE DISABLING

Always perform the high-voltage disabling procedure prior to removing any high-voltage components and connections. Refer to the **High-Voltage Disabling** procedure in SIS for step-step-step instructions.

The procedure will cover:

- How to disable high-voltage.
- How to test for the presence of high-voltage.
- Identifying conditions under which high-voltage is always present and personal protection equipment (PPE) and proper procedures must be followed.
- The use of digital multi-meters (DMM) to disable high-voltage.

NOTE:

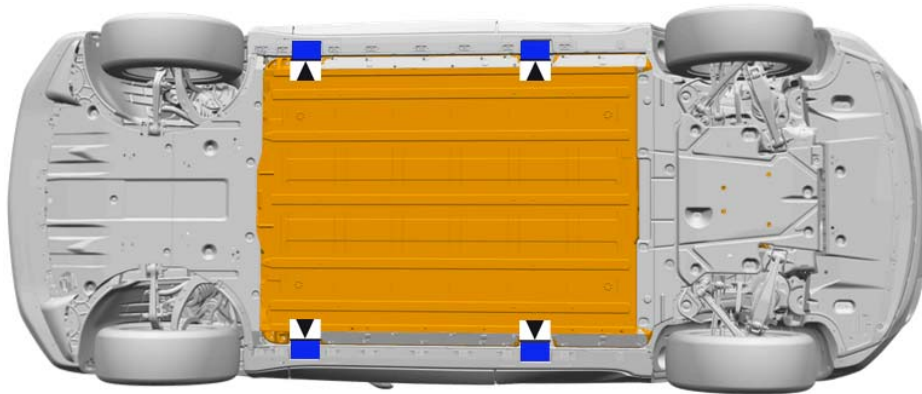
- The disable procedure only de-energizes the high-voltage circuits and components outside of the high-voltage battery. Dangerous voltage levels always exist within the high-voltage battery assembly.
- Refer to the **ZDX Emergency Response Guide** for additional information on safe practices.

Once you have safely disabled the high-voltage system, always use a lock out to prevent reconnection of the system.

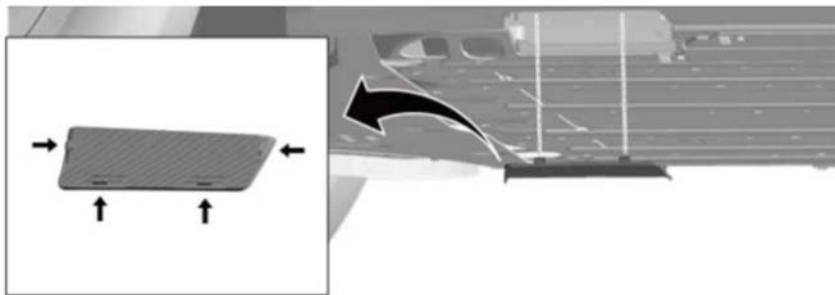


VEHICLE LIFTING

The lifting points are shown in blue. Never lift the vehicle from any locations on the high-voltage battery.



Make sure to remove the Rocker Panel Molding Jacking Opening Front Cover before positioning the lift onto the vehicle.

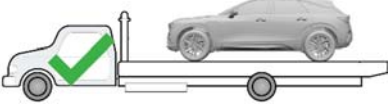
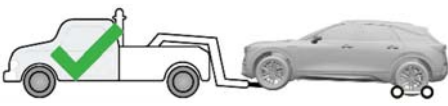






Due to the weight of the ZDX, a 10,000-pound lift with 3-stage arms and a drive-through clearance of a minimum **95-inches** is required to safely lift the ZDX. Contact the Acura Tool and Equipment Program at **1-888-424-6857** for recommendations on lifts.

VEHICLE TOWING AND TRANSPORTATION

The preferred method for emergency towing is to use a flat-bed tow truck or tow dollies to transport a disabled vehicle. If tow dollies must be used, be sure to suspend the rear wheels or both front and rear wheels. **DO NOT** use cable-type lift equipment.

NOTE: If there is a 12-volt power failure, the vehicle cannot be shifted into neutral; Use available tow dollies.

Towing Types		
		
		

Refer to the *ZDX Emergency Response Guide* for additional information on towing information and transportation.

BODY CONSTRUCTION & HIGH-STRENGTH STEEL CONTENT

- High-strength steel (HSS) is defined as any steel with a tensile strength of **340–440 MPa**.
- Advanced-high-strength steel (AHSS) is defined as any steel with a tensile strength of **590–780 MPa**.
- 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.

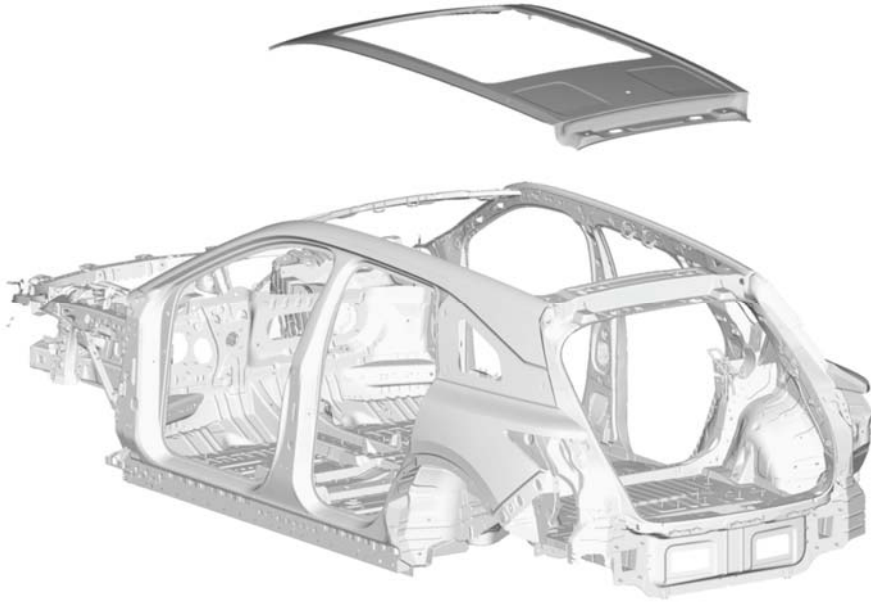
NOTE: Some body parts are constructed from multiple layers of different tensile strength steels.
Always refer to the body construction section of the BRM for specific steel tensile strength information.

HSS and UHSS for the ZDX are identified below:



LASER-BRAZED ROOF

Laser-brazed roof panels require a combination of welding, use of adhesives and mechanical fasteners for replacement. Refer to the *Roof Outer Panel Replacement* procedure for more details.



METAL PANEL BONDING

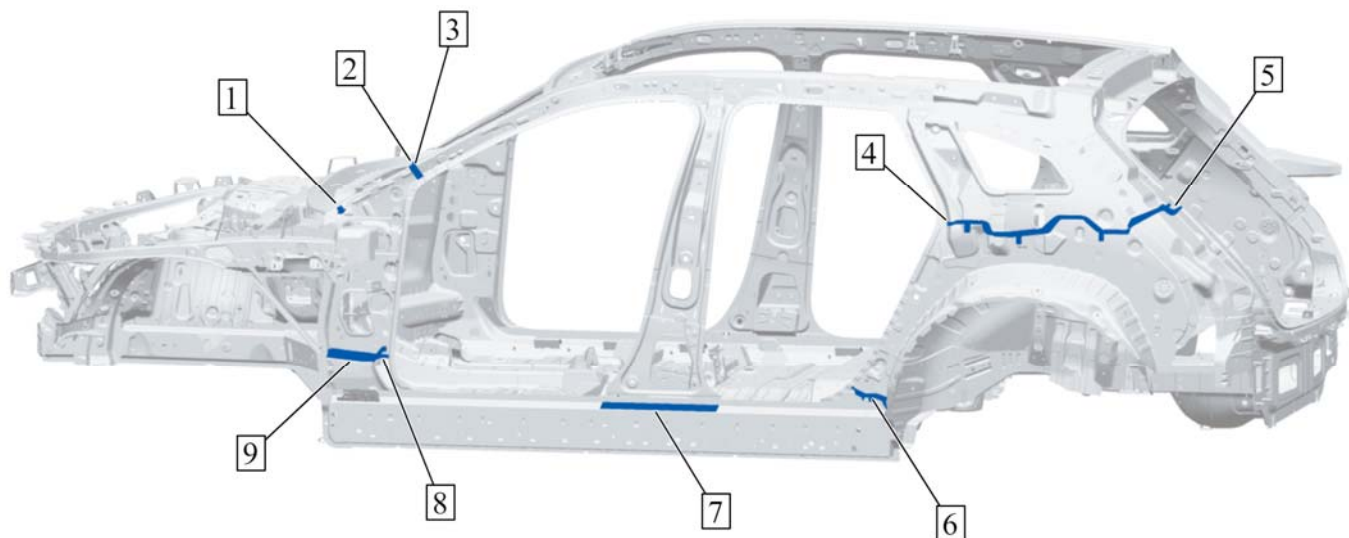
Adhesives currently meeting the performance requirements include the adhesive products listed below that meet these guidelines. Always refer to repair procedure for recommended fastening strategy.

Steel Panel Bonding Impact Resistant		
Manufacturer and Part Number	Description	Currently Used for Acura
Plio Grip 5770P	Structural Impact Durable Adhesive.	New
Fusor 2098	Impact Resistant Adhesive.	Yes
3M 07333	Impact Resistant Structural Adhesive	New
SEM 39757	Structural Impact Resistant Adhesive	Yes
Henkel Teroson EP 5065 SB	Structural Impact Resistant Adhesive	New

Steel Panel Bonding		
Manufacturer and Part Number	Description	Currently Used for Acura
Fusor 110B / 111B	Fast Set Panel Bonding Adhesive	New
Fusor 108B / 109B	Medium Set Panel Bonding Adhesive	Yes / New
3M 8116	Panel Bonding Adhesive	Yes
Plio Grip Panel 60	Panel Bonding Adhesive	New
SEM 39337	Door Skin and SMC Adhesive	Yes
Henkel Teroson EP 5055 SB	Panel Bonding Adhesive	New

BAFFLES

Electric vehicles operate quieter than normal internal combustion engine or hybrid vehicles. It is important that any components that help control external road noise are installed correctly according to the installation instructions. One of these components are baffles used around the frame as shown below. For more information refer to the *Baffle Specifications and Overview Baffle Positions* in the service manual for more information.



Number	Description	Number	Description
1	Baffle	6	Baffle
2	Sealing Strip	7	Baffle
3	Sealing Strip	8	Sealing Strip
4	Baffle	9	Baffle
5	Baffle		

Make sure to apply the following materials when installing the baffle.

Manufacturer and Part Number	Description	Notes
3M 04248	Super Fast Repair Adhesive	Equivalent can be used
Fusor 143	Plastic Repair Adhesive 50cc	Equivalent can be used
SEM 39357	Flexible Urethane Foam	<ul style="list-style-type: none"> - For Baffles that require an expanding foam bead on the edge - Equivalent can be used
3M 08463	Flexible Foam	
Kent P10601	URE Foam	

COLOR CODES

The exterior color code of the ZDX can be found on the certification label located under the QR code.



PAINT BOOTH CONDITIONS

- Do not use the paint booth heating system for curing applied structural adhesives. Use only infrared heaters.
- Maximum paint booth baking temperatures must not exceed **140 °F (60 °C)** and **30 minutes** of bake time.
- The high-voltage battery temperature must not exceed **105°F (40.5°C)**.

SHOP SAFETY

Wheel Dollies

When a vehicle has been made immobile, either through the collision repair process or a collision, avoid pushing or rolling the vehicle on its drive wheels. The wheels rotating motion may charge the high-voltage inverters and cause an electric shock to yourself and other assisting personnel if any of the high-voltage components and electrical harness is exposed. Always use wheel dollies at each wheel to move the vehicle around the repair shop.

Danger Signs

When working on high-voltage components, always place danger signs inside or around the high-voltage vehicle being repaired to inform others.



Buffer Zones

Designate a buffer zone around the vehicle and place cones around the perimeter. This will keep unauthorized personnel from entering the work area. For additional safety, cone bars with a danger sign should be used.



When removing the high-voltage battery, designate an area of the shop where it can be safely stored during repairs. A buffer zone should also be created, and cones placed for safety.

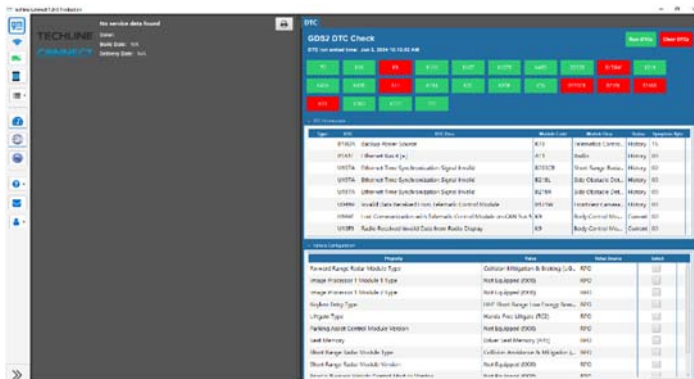


Welding Blankets

Make sure to use welding blankets when welding, cutting, and grinding around the high-voltage battery and components.

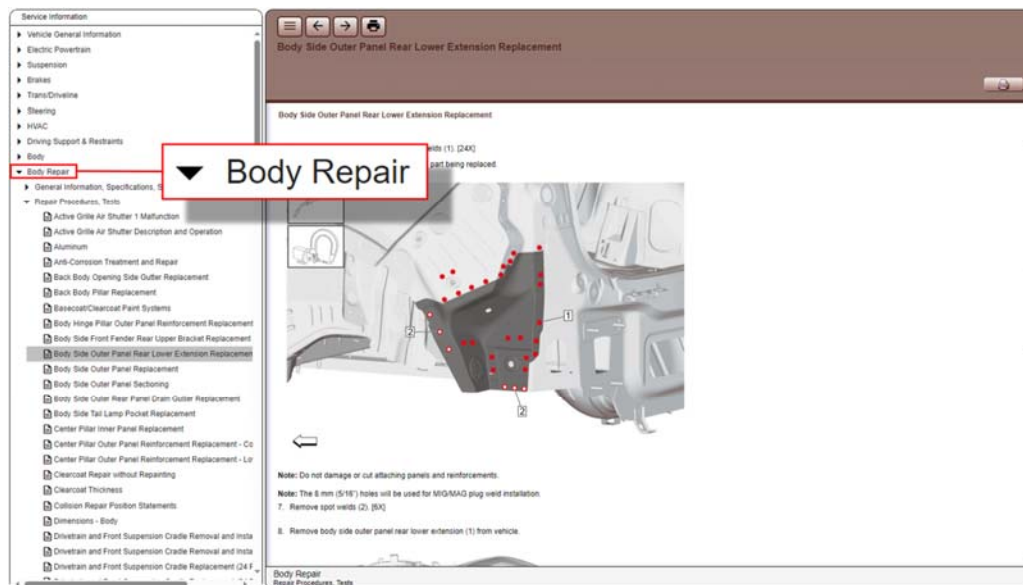
SCAN TOOLS

The ZDX will use the same vehicle communication interface tool, the MDI-2 and the Techline Connect software that is used by GM. If you already have both the MDI-2 and access to Techline Connect, they can be used for the ZDX. Do not use the DST-i or the i-HDS for this model.



SERVICE & BODY REPAIR MANUALS

The service and body repairs manuals for the ZDX will be similar to GM's format and is integrated as part of the service manual.



DRIVING SUPPORT SYSTEMS

The ZDX features the following driving support systems:

Collision Mitigation Braking System	Blind Spot Information
Road Departure Mitigation System	Cross Traffic Monitor
Adaptive Cruise Control with Low-Speed Follow	Rear Cross-Traffic Braking
Front Parking Sensor System	Multi-View Camera System (Surround Vision Camera System)
Rear Parking Sensor System	Lane Change Collision Mitigation
Low Speed Braking Function	Rear Pedestrian Alert

Rear Cross Traffic Braking	Parking Pilot
Adaptive In-Lane Driving	Active Lane Change with Hands-Off Function
Active Lane Change Assist with Hands-Off Function	

Refer to the information in **Driver Assistance Systems Configuration Reference** found on SIS for more information about each system, when to perform a learn; and how to do it.

NOTE: Some components listed may not apply to the ZDX.

Driver Assistance Systems Configuration Reference

Learn

Note: Unless otherwise noted, learn is performed using QDS2

Component	When Learn is Required	Comment
Frontview Camera - Windshield	Frontview Camera - Windshield was replaced	SPS programming is required after replacement. Some vehicles will immediately begin the learn after programming. Other vehicles may require the learn to be started using QDS2. Refer to Service Information for specific programming and learn instructions after replacement.
	Frontview Camera - Windshield was removed from the bracket and reinstalled	---
	Windshield was replaced or removed and reinstalled	---
	After collision repair in instances of vehicle collision where damage exceeds minor outer body panel cosmetic distortion or when collision damage requires a suspension alignment to be performed	---
	After any airbag deployment	---
Long Range Radar Sensor Module	Any of the following DTCs are set in the Frontview Camera - Windshield	Always refer to the appropriate diagnostic procedure in Service Information when diagnosing DTCs.
	• DTC B1008 - Calibration Data	
	• DTC B395D - Camera Misaligned	
	Any of the following DTCs are set in the Image Processing Module	
	• DTC B101E - Electronic Control Unit Software	
Long Range Radar Sensor Module	Long Range Radar Sensor Module was replaced	SPS programming is required after replacement. Refer to Service Information for specific programming and learn instructions after replacement.
	Long Range Radar Sensor Module was removed and reinstalled	---
	After collision repair in instances of vehicle collision where damage exceeds minor outer body panel cosmetic distortion or when collision damage requires a suspension alignment to be performed	Because of the Long Range Radar Sensor Module location at the front of the vehicle, it is susceptible to damage in even minor collisions. Ensure appropriate scans are performed in accordance with Honda Position Statements on pre- and post-scan of collision vehicles.
	After any airbag deployment	---
	Any of the following DTCs are set in the Image	---

Driving Support & Restraints | Driving Assistance & Warning
Repair Procedures, Tests

There are no special paint requirements except for the front and rear parking sensors.

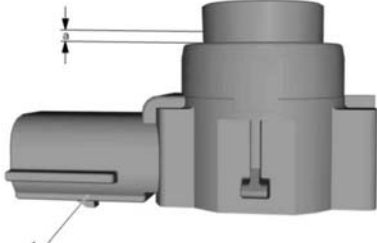
- Do not refinish previously painted sensors. Excess paint build-up will cause the sensor to be inoperative.
- Pay attention not to scratch the sensor. The sensor already comes prepared to be painted.
- Do not sand or prep the sensor head with a Scotch-Brite pad or equivalent. The sensor does not need to be sanded to be painted. Use only approved pre-clean solvent from your paint manufacturer.
- Apply paint, paint thickness shall not exceed 4.4 mils of paint to the head of the sensor using care to ensure the sides maintain the same paint film thickness as the top.

Refer to the specific parking sensor (referred to as Parking Assist Object Sensor) replacement procedure for more information.

Front Parking Assist Alarm Sensor Replacement

Front Parking Assist Alarm Sensor Replacement

Painting Procedure



Note: Do not refinish previously painted sensors. Excess paint build up will cause the sensor to be inoperative.

- Pay attention not to scratch sensor (1), sensor already comes prepared to be spray painted.
- Do not sand or prep the sensor head with a Scotch-Brite pad, sensor (1) does not need to be sanded to be spray painted. Use only approved pre clean solvent from your paint manufacturer.
- Mask off the sensor 1/4 in up the sensor shaft (a) from the body of sensor (1) and mask the remainder of the sensor body that will not be painted.
- Apply paint, paint thickness shall not exceed 4.4 mils of paint to the head of the sensor (1) using care to ensure the sides maintain the same paint film thickness as the top.

Driving Support & Restraints | Driving Assistance & Warning | Smart Parking Assist System
Repair Procedures: Tests

COLLISION REPAIR CONSUMABLES

Structural Bonding Rivets and Adhesives

For replacement procedures on some structural components, the use of structural rivets and adhesives will be required to bond multiple structural components together. Procedures will generally list the required consumables before the removal procedure. Sourcing the required rivets will require collision centers to purchase the rivets directly from an authorized General Motors dealership. The chart below should be used when ordering these rivets.

Front Wheelhouse Panel Replacement
2024 ZDX

Front Wheelhouse Panel Replacement

Danger: Always perform the High Voltage Disabling procedure prior to servicing any High Voltage component or connection. Personal Protection Equipment (PPE) and proper procedures must be followed.

The High Voltage Disabling procedure will perform the following tasks:

- Identify how to disable high voltage.
- Identify how to test for the presence of high voltage.
- Identify condition under which high voltage is always present and personal protection equipment (PPE) and proper procedures must be followed.

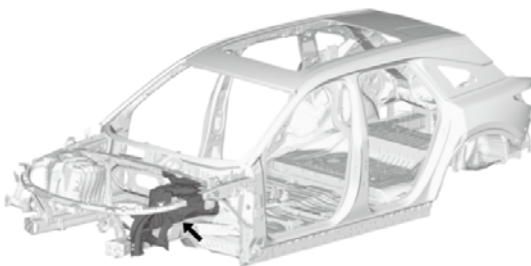
Failure to follow the procedures exactly as written may result in serious injury or death.

Materials

- Structural Adhesive [Metal Panel Bonding](#)
- Structural Rivet [SR1 10X] [Fastener Specifications](#)
- Structural Rivet [SR2 9X] [Fastener Specifications](#)

Removal Procedure

- Disable the SIR system. [SIR Disabling and Enabling](#).



Metal Panel Bonding

This information is intended to provide general guidelines for adhesive bonding of steel panels. Always refer to service procedure for recommended fastening strategy. Panel bonding of steel is recommended when the panel is originally bonded to the vehicle. In almost every application adhesive bonding is combined with resistance spot welding, rivet bonding or other types of mechanical fastening. The only joints that use adhesive only are joints which have no way to introduce a resistance spot weld or rivet or other mechanical fastener. These will always be outlined in their specified procedure.

The adhesives listed in this document are known to meet the Honda specifications and requirements for bonding of steel body panels.

Bonding procedures in general are applicable only at factory joints.

The use of adhesive to section steel panels is not recommended by Honda.

Rivets, or other mechanical fasteners, need to be used in combination with adhesive bonding of steel panels. The specified rivets, or fasteners, should be used with adhesive, when replacing the original panel.

Two types of adhesives are listed here. Impact Resistant Adhesive is used in joints in frame rail assemblies and shuf lower assemblies and other body structure joints that have critical strength requirements. The factory applied Impact Resistant Adhesive is purple in color when cured. The Impact Resistant adhesives available for servicing these joints are considerably stronger once cured than panel bonding adhesives. The other bonding adhesives are non-impact resistant, offer a lower strength rating and are only used in door outer panel attachment fast joints.

Note: Always follow the adhesive manufacturer's instructions for application, handling, and curing for the specific product.

Adhesives currently meeting the performance requirements include the adhesive products listed below meet these guidelines:

Steel Panel Bonding Impact Resistant	
Manufacturer and Part Number	Description
Progrip 5770P	Progrip 5770P Structural Impact Resistant Adhesive Available from Ashland 800-PLUGRIP www.ashland.com/pages/5770p
Fuser 2086	Fuser 2086 Impact Resistant Adhesive Available from Lord Fuser 800-234-3876 www.tyco.com/products-and-solutions/adhesives/Fuser-2086-crash-durable-structural-adhesive-%282086%29
3M 87333	3M Impact Resistant Structural Adhesive Available from 3M www.3MCollision.com/IRA
SEM 36757 Structural Impact Resistant Adhesive	www.semproducts.com/products/semi-structural-impact-resistant-adhesive/36757
Henkel Torson EP 5065 SB Structural Impact Resistant Adhesive	www.Henkel-Adhesives.com

Steel Panel Bonding	
Manufacturer and Part Number	Description
Lord Fuser P/N 110B/111B	Fast Set Panel Bonding Adhesive
Lord Fuser P/N 108B/109B	Medium Set Panel Bonding Adhesive
3M P/N 8115	Panel Bonding Adhesive
Ashland Flex Grip Panel 60	Panel Bonding Adhesive
SEM 36337	Door Skin and SMC Adhesive
Henkel Torson EP 5065	Panel Bonding Adhesive

Structural Blind Rivet

Code	Grip Range
SR1	1.5-3.5 mm
SR2	3.3-5.3 mm
SR3	4.8-6.8 mm

Blind Rivet

Code	Grip Range
BR1	NA
HR1	NA

Structural Countersunk Rivet

Code	Grip Range
CR1	3.8- 5.8
CR2	5.8- 7.8
CR3	7.8- 9.8

Self Piercing Rivet (SPR)

Type
SPR 1
SPR 2
SPR 3