



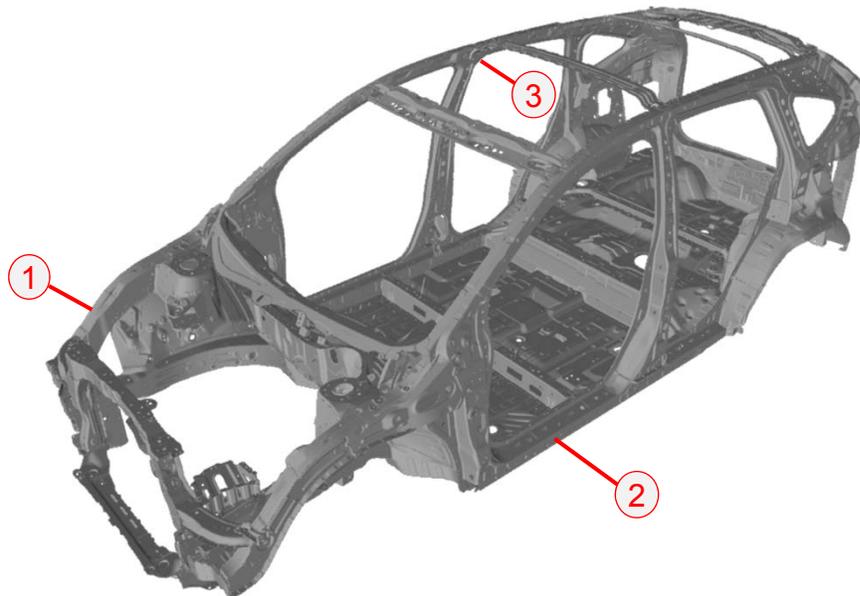
2012 CR-V: New Model Body Repair Information

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

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OVERVIEW OF BODY FEATURES



2012-14 models have these body features:

1. Advanced Compatibility Engineering™ (ACE™) body structure.
2. Extensive use of high tensile strength steel (58%), including 10% in grade 780.
3. Reinforced roof structure for improved rollover protection.

For the 2015 model year, a minor model change (MMC) added or upgraded these body features:

1. Next-Generation Advanced Compatibility Engineering™ (ACE™) body structure.
2. Introduction of 1,500 MPa ultra-high-strength-steel (UHSS) to improve frontal crash energy management through a wider range of offset and oblique collision modes.

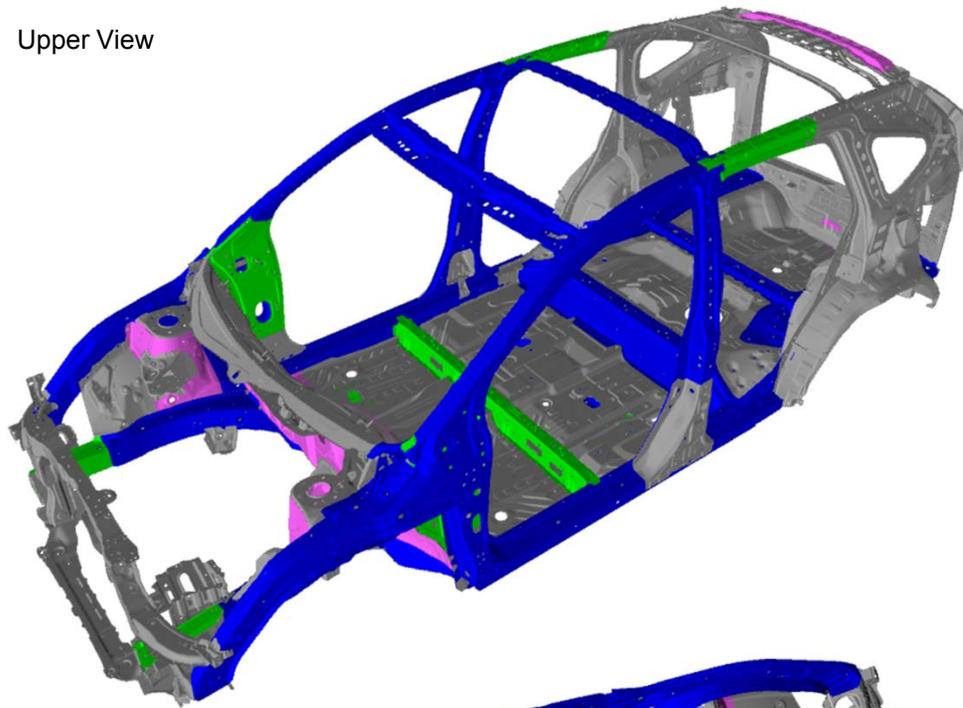
New Model Body Technology

BODY CONSTRUCTION AND HIGH STRENGTH STEEL CONTENT - 2012-14 MODELS

- Steel parts are color-coded based on their tensile strength in megapascals (MPa).
- High strength steel 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.

2012-14 Body Construction

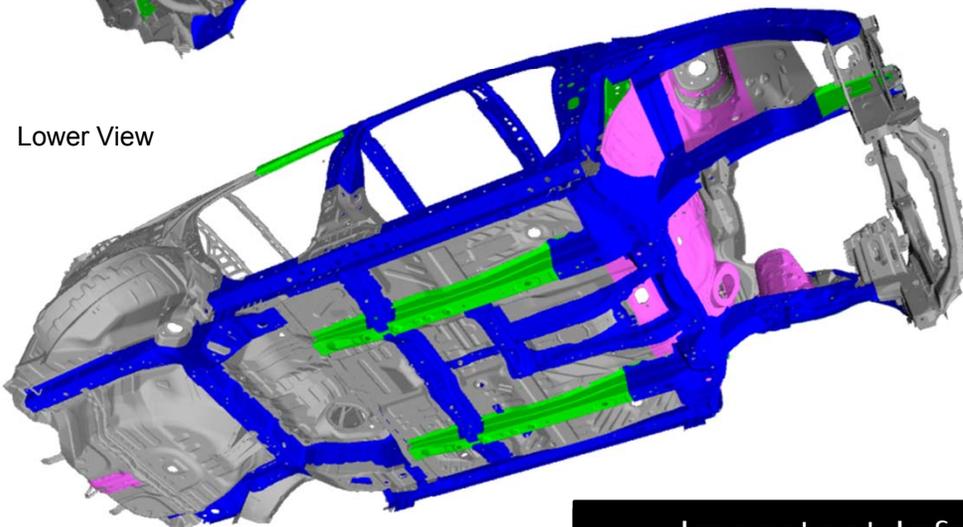
Upper View



270 MPa
440 MPa
590 MPa
780 Mpa

Steel Tensile Strength Legend

Lower View



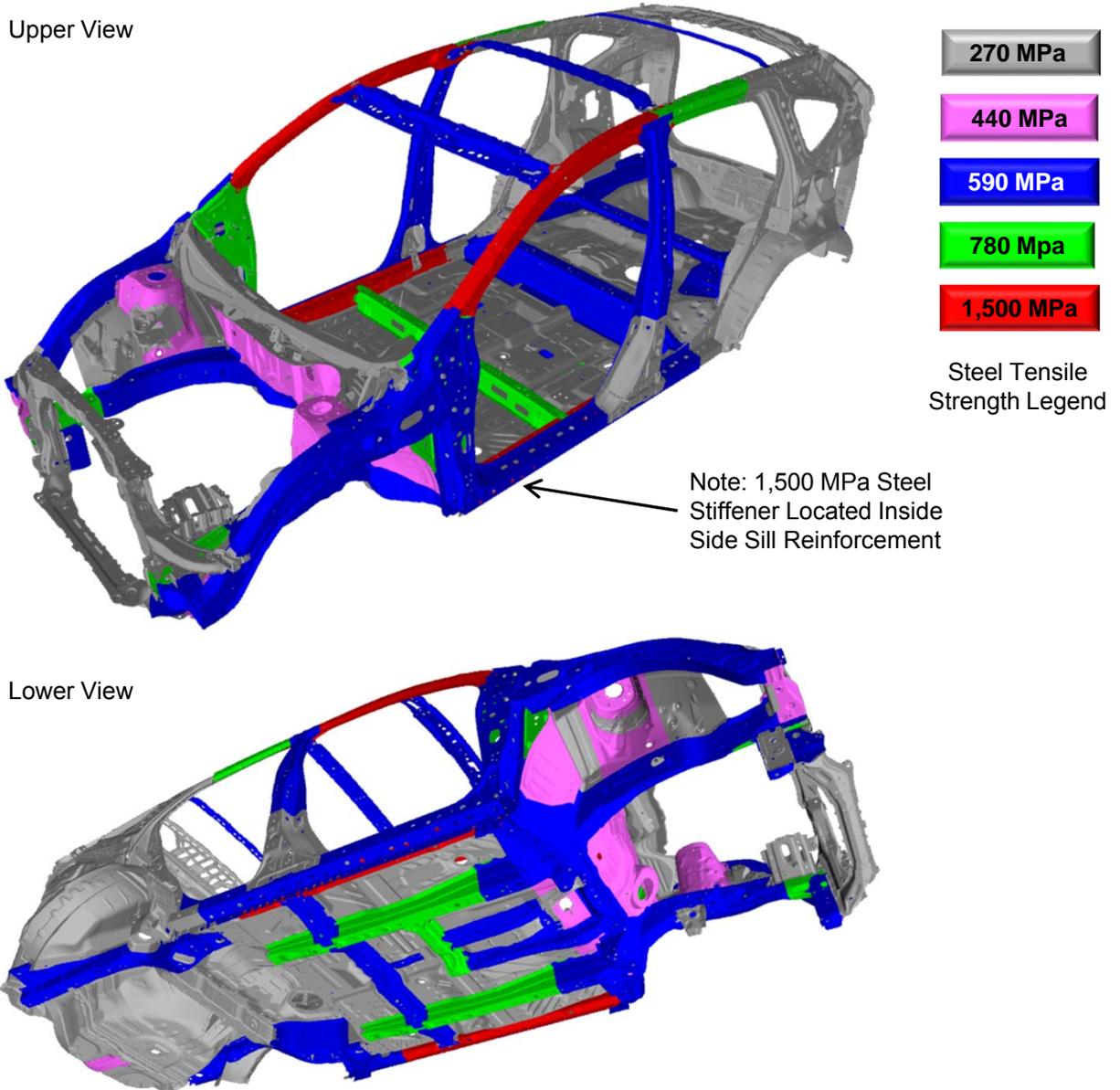
Important Information

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.

BODY CONSTRUCTION AND HIGH STRENGTH STEEL CONTENT - 2015 MODELS

- Steel parts are color-coded based on their tensile strength in megapascals (MPa).
- High strength steel 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.

2015 Body Construction



Important Information

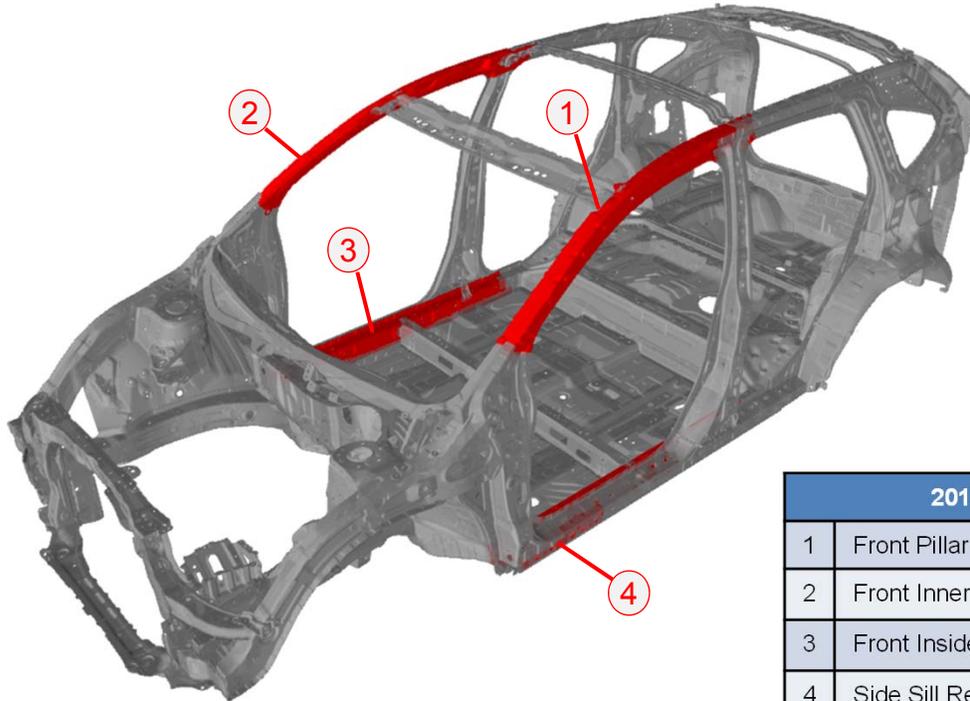
These illustrations are for general reference only. Some body parts are constructed from multiple layers of different tensile strength steels. Always refer to the body repair manual body construction section for specific steel tensile strength information.

1,500 MPa (HOT STAMP) STEEL LOCATIONS - 2015 MODELS

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.

NOTE: 1,500 MPa steel is not used in 2012-14 models.

The numbered parts in the diagram below are constructed of 1,500 MPa steel:



2015 Models	
1	Front Pillar Upper Stiffener
2	Front Inner Upper Pillar
3	Front Inside Sill Stiffener
4	Side Sill Reinforcement Stiffener

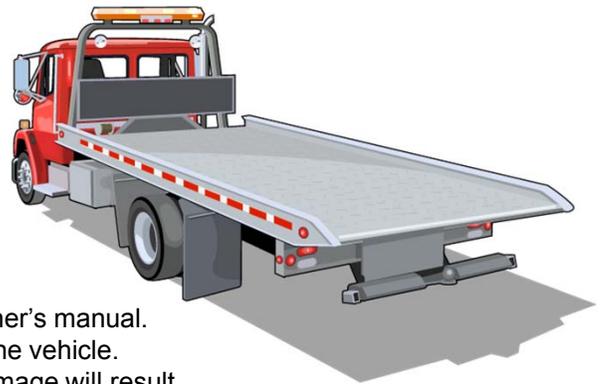
TOWING AND LIFTING PRECAUTIONS

- AWD models must be towed using only flat bed towing equipment to prevent AWD system damage.
- 2WD models may be towed using front wheel lift or flat bed towing equipment.
- AWD models do not have a manual switch to disable the system. Whenever service work requires spinning the front or rear wheels with the engine, always lift and support the vehicle so all four wheels are off the ground.

For more information, refer to “Emergency Towing” in the owner’s manual.

- Lift or jack only at the specified points to avoid damaging the vehicle.
- Do not lift or tow this vehicle by its bumpers, or serious damage will result.

For more information, refer to “Lift and Support Points” in the appropriate service or body repair manual.



Body Repair Information

NOTE: The following content is intended only to highlight new/special concerns. No body repairs should be attempted without first referencing the appropriate body repair manual for complete information.

USE OF HEAT DURING BODY STRAIGHTENING AND REPAIR

When you are doing body straightening and repair procedures:

- DO NOT apply heat to any body part during straightening. This may compromise the internal structure and strength of high-strength steel parts.
- Any part that has heat applied to it during straightening MUST be replaced with new parts.
- Ignoring these instructions may significantly reduce occupant protection in any subsequent collision.

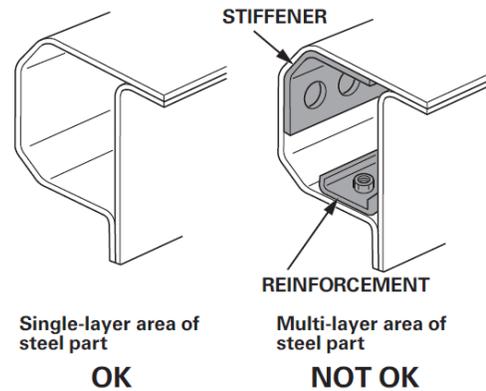


SECTIONING (CUT AND JOINT) GUIDELINES

Various high-strength steel materials with different sheet thicknesses and strengths are applied in many places that vary by body design in order to increase collision safety performance, body stiffness, and weight reduction. Stiffening members inside each part (patch, stiffener, etc.) are also specified in detail.

Follow these guidelines to avoid an unsafe repair:

- Sectioning (cut and joint) should usually be avoided except for mild steel outer panels and floor panels unless a specific procedure is provided in the body repair manual.
- However, depending on the type of vehicle damage, steel parts with a tensile strength ≤ 780 MPa may be sectioned provided ALL of the following conditions are met:
 - Sectioning must be done in a single-layer area of the part.
 - Multi-layer internal steel reinforcements and stiffeners must not be cut.
 - The repair is not in a load bearing area such as engine, transmission, or suspension mounting points.



Sectioning Area Examples

- Replace body structural components such as stiffeners, reinforcements, and other multi-layered steel parts as assemblies that match the replacement parts configuration.
- Approved welding methods are listed in the table.
- Refer to the body repair manual section "Parts Sectioning (Cut and Joint) Guidelines" for complete information.

Steel Part Tensile Strength (MPa)	Welding Method		
	Spot Weld	MAG Welding	
		Plug	Butt
<590	○	○	○
590	○	○	○
780	○	○	○
980	○	○	X
1500	○	X	X

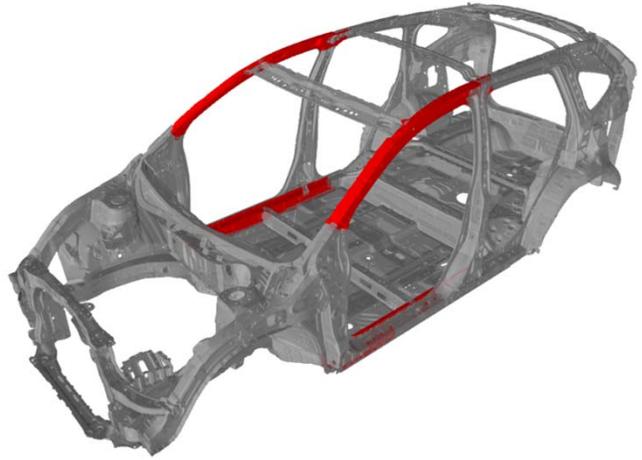
Welding Methods For Steel Parts
(○ = Approved X = Not Approved)

Welding Precautions and Information

REPAIRING 1,500 MPa STEEL PARTS

Observe these precautions when repairing 1,500 MPa steel parts:

- NEVER attempt to straighten damaged 1,500 MPa steel parts because they may crack.
- 1,500 MPa steel parts MUST be replaced at factory seams using squeeze-type resistance spot welding (STRSW). DO NOT SECTION these parts!
- MIG brazed joints should be used ONLY in locations not accessible by a spot welder.
- To assure adequate weld tensile strength, always set the spot welder to the specifications provided in the body repair manual.



Important Information

Parts made of Ultra High Strength Steel (UHSS/1,500MPa/USIBOR) must be installed as a complete part. No sectioning allowed. Ultra High Strength Steel requires special welding equipment, procedures, and settings. See the welding section of the appropriate body repair manual. Failure to use the proper equipment or follow the proper procedures can result in an unsafe repair.

- NEVER perform MAG welding on 1,500 MPa steel. The heat generated during MAG welding will significantly reduce the strength and structural integrity of 1,500 MPa steel parts.
- This photo shows tensile test results of MAG welded 1,500 MPa steel. The 1,500 MPa steel fractured first, because the welding heat reduced its strength to far below 590 MPa.
- For more information, refer to "Repair Guidelines for High-Strength Steel Parts" in the body repair manual.



Tensile Test Results of MAG Welded 1,500 MPa Steel

MIG BRAZING GUIDELINES FOR 1,500 MPa STEEL PARTS

Refer to the body repair manual for complete information:

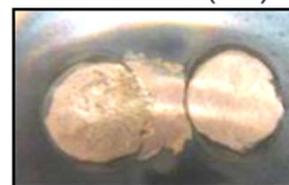
- MIG brazed joint locations are specified in the body repair manual.
- A single- or double-hole MIG braze may be specified in the body repair manual depending on the tensile strength of the parts being joined.
- The size and number of holes are critical to achieving adequate joint strength.
- A pulsed MIG welder MUST be used. Refer to the equipment manufacturer's instructions for welder voltage and current setup.
- The photos at right show the difference in results between pulsed and non-pulsed MIG brazing.



Pulsed MIG (OK)



w/o Pulsed MIG (Bad)



MAG WELDING SPECIFICATIONS FOR 590-980 MPa HIGH-STRENGTH STEEL PARTS

NOTE: In this publication and the body repair manuals, gas metal arc welding (GMAW) is referred to by its subtypes depending on the welding/brazing requirements:

- **MIG welding/brazing** = Metal inert gas welding or brazing where 100% argon (Ar) shielding gas is used. Argon is inert and does not react with the molten weld pool or brazing operation.
- **MAG welding** = Metal active gas welding where the shielding gas being used contains a mixture of 80% argon (Ar) and 20% carbon dioxide (CO₂). It is considered active because the CO₂ undergoes a limited reaction with the molten weld pool.

Important Information

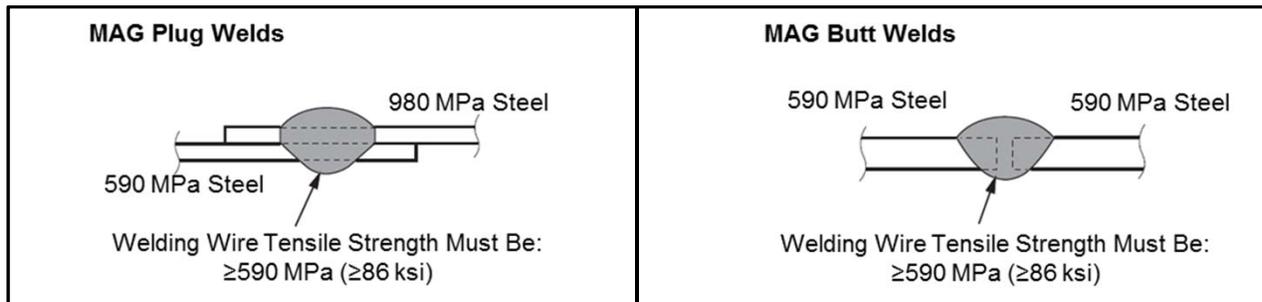
Parts made of High Strength Steel (590-980 MPa) must often be installed as a complete part. Section only according to published repair information and guidelines. This high-strength steel requires special welding equipment, procedures, and settings. See the welding section of the appropriate body repair manual. Failure to use the proper equipment or follow the proper procedures can result in an unsafe repair.

The body repair manual specifies the weld types and locations for each body panel:

- The welding wire used must have a tensile strength equal to, or greater than, the lowest tensile strength of the parts being welded. This conversion chart shows the relationship of steel tensile strength (MPa) to the minimum welding wire tensile strength (ksi).
- Typical ER70S-6 MIG wire has a minimum tensile strength of 70 ksi (483 MPa). It can be used when welding up to 440 MPa steel parts. Refer to the diagrams shown below:

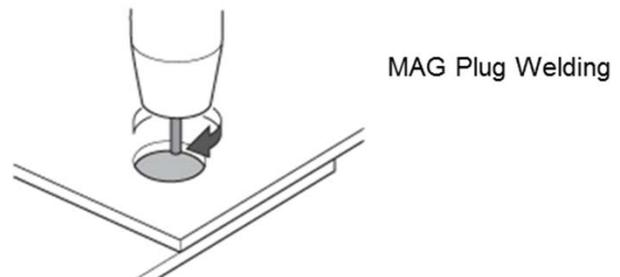
Steel Tensile (MPa)	Wire Tensile (ksi)
590	≥86
780	≥113
980	≥142

(1,000 psi = 1 ksi)



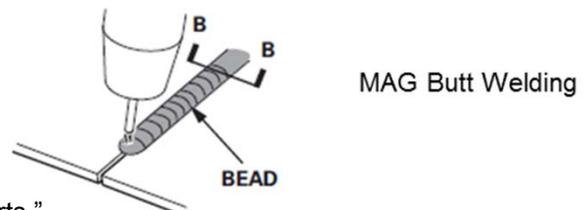
MAG PLUG WELDING GUIDELINES

- MAG plug welding may be done when joining body components to 590-980 MPa steel parts.
- Follow the recommendations described in the body repair manual sections “Repair Guidelines for High-Strength Steel Parts” and “MAG Welding Conditions for High-Strength Steel (Except 1,500 MPa) Parts.”



MAG BUTT WELDING GUIDELINES

- MAG butt welding may be done only on steel parts with a tensile strength of 780 MPa and lower.
- Welding speed is critical to achieve the correct weld strength and minimize the heat affected zone (HAZ).
- Follow the recommendations described in the body repair manual sections “Repair Guidelines for High-Strength Steel Parts” and “MAG Welding Conditions for High-Strength Steel (Except 1,500 MPa) Parts.”

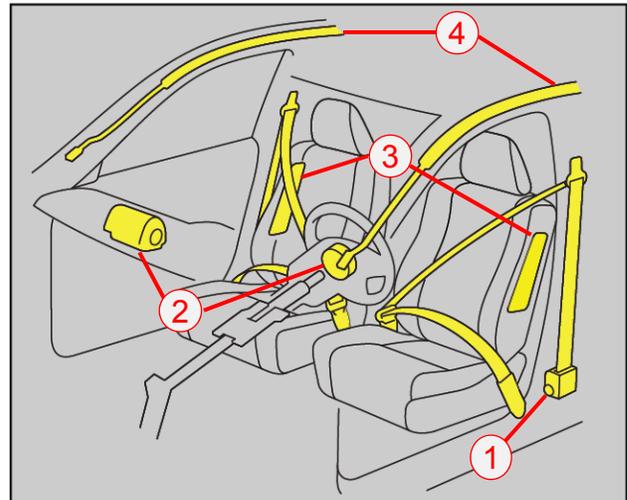


Airbag System Components and Repairs

AIRBAG SYSTEM COMPONENTS

The airbag system in this vehicle includes the following components that may deploy in a collision:

1. Driver and front passenger seat belt tensioners (may deploy independently from any airbags).
2. Driver and front passenger SRS airbags.
3. Side airbags mounted in the outer driver and front passenger seat-backs.
4. Side curtain airbags mounted above the left and right side windows under the headliner.



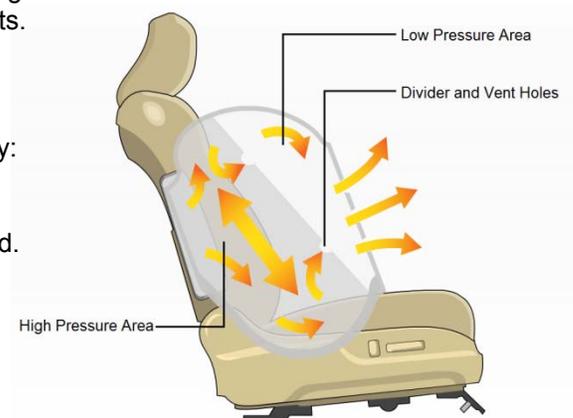
SMARTVENT™ SIDE AIRBAGS

Beginning with the 2015 model year, these vehicles are equipped with SmartVent side airbag construction:

- This airbag design helps mitigate the risk of excessive airbag deployment force and risk of injury to smaller seat occupants.
- Eliminates the need for the Occupant Position Detection System (OPDS) sensor located in the front passenger's seat-back.

As with all side airbags, the following service precautions apply:

- Special seat covers and/or breakaway thread are used to ensure proper deployment path.
- Damaged front seat covers should be replaced, not repaired.
- Do not install non-factory seat covers, because they may alter the airbag's intended deployment path.



SmartVent Side Airbag

AIRBAG SYSTEM REPAIRS REQUIRED AFTER DEPLOYMENT

To restore proper function and allow DTCs to be cleared, the airbag system **MUST** be repaired as specified in the service manual. Refer to "Component Replacement/Inspection After Deployment" for complete information.

- **DO NOT** install used, refurbished, or modified airbag system parts!
- When making airbag system repairs, only use new genuine replacement parts, which are manufactured to the same standards and quality as the original parts.
- To ensure the correct replacement airbag system parts are installed, provide the vehicle's VIN when ordering parts. Compare the part numbers on the new and removed parts to make sure they match.

AIRBAG SYSTEM INDICATORS

There are three indicators used for the airbag system:

Supplemental Restraint System (SRS) Indicator

When you turn the vehicle to the ON mode, this indicator should come on and then turn off after about 6 seconds.

- If the SRS indicator does not go off, or does not come on at all, there is a problem with the system.
- DTCs must be read and cleared using the HDS (or equivalent) scan tool. Contact a Honda dealer for assistance if necessary.
- If a vehicle is sent to the dealer for airbag system repair or troubleshooting, include a copy of the repair estimate with part numbers and the source for any replaced airbag system parts.



SRS Indicator

Passenger Airbag OFF Indicator

The indicator comes on to alert you that the passenger's front airbag has been turned off.

- This occurs when the front passenger's weight sensors detect 65 lb. (29 kg) or less, the weight of an infant or small child, on the seat.
- If the indicator comes on with no front passenger and no objects on the seat, or with an adult occupying the seat, something may be interfering with the seat weight sensors, or there may be a problem with the system. Refer to "SRS Symptom Troubleshooting" in the service manual, or contact a Honda dealer for assistance if necessary.



Passenger Airbag OFF Indicator

Side Airbag OFF Indicator (2012-14 Models Only)

This indicator comes on when the OPDS sensor detects that the front passenger side airbag needs to be shut off for safety:

- This may occur because the passenger is too small to be sitting in the front seat, is slouching or not sitting upright, or has leaned into the airbag's deployment path.
- This light is not used to indicate problems with the OPDS or airbag system.
- This light is not used on 2015 and later models because the OPDS sensor is not required when SmartVent™ side airbag construction is applied.



Side Airbag OFF Indicator

AIRBAG SYSTEM ELECTRICAL REPAIRS

Except when doing electrical inspections that require battery power, always turn the vehicle to the OFF (LOCK) mode, disconnect the negative battery cable, then wait at least 3 minutes before starting work.

- For easier identification, electrical connectors that contain only airbag system wiring are yellow in color.
- Many harnesses that contain primarily airbag wiring are also wrapped in yellow tape.
- Airbag system wiring that runs in a common harness, such as a floor harness, is generally not marked.
- NEVER attempt to modify, splice, or repair airbag system wiring. If airbag system wiring is damaged, replace the wiring harness(es).

NOTE: Refer to the service manual for complete restraint system operation, diagnostic, and repair information.



Electrical Repair Information

TIRE PRESSURE MONITORING SYSTEM (TPMS)

2012-13 Models

These vehicles are equipped with an initiator-less type TPMS that uses 4 tire pressure sensors:

- The low tire pressure indicator comes on if the air pressure is significantly low in one or more tires.
- Cold weather, the use of tire sealants, or installing non-TPMS type wheels, including the compact spare tire, may also cause the indicator to come on.
- The TPMS, or low tire pressure/TPMS, indicator will stay on and the system will set DTCs if all four tire pressure sensor IDs are not memorized by the TPMS control unit after you:
 - Substitute a known-good wheel with tire pressure sensor.
 - Replace a tire pressure sensor
 - Replace the TPMS control unit
- Refer to “Memorizing a Tire Pressure Sensor ID” in the service manual for complete information.
- A TPMS trigger tool, such as the ATEQ VT55, and an HDS (or equivalent) scan tool are required to do the memorization procedure. Contact a Honda dealer for assistance if necessary.
- NOTE: The system indicators used vary depending on whether the vehicle has an information display or a multi-information display.



Low Tire Pressure Indicator



TPMS Indicator

2014-15 Models

These vehicles are equipped with an indirect TPMS. This system design uses the VSA wheel speed sensors to monitor and compare tire characteristics while driving to determine if one or more tires are significantly underinflated.

The low tire pressure/TPMS indicator blinks and/or comes on if:

- The air pressure is too low in one or more tires.
- The system requires calibration or is calibrating.
- The compact spare is mounted.
- There is a TPMS problem.

TPMS calibration must be started every time you:

- Adjust the pressure in one or more tires.
- Rotate the tires.
- Replace one or more tires.
- Replace or update the VSA-modulator control unit.

Refer to “TPMS Calibration” in the service or owner’s manual for complete information.

Contact a Honda dealer for assistance if necessary.



Low Tire Pressure/TPMS Indicator

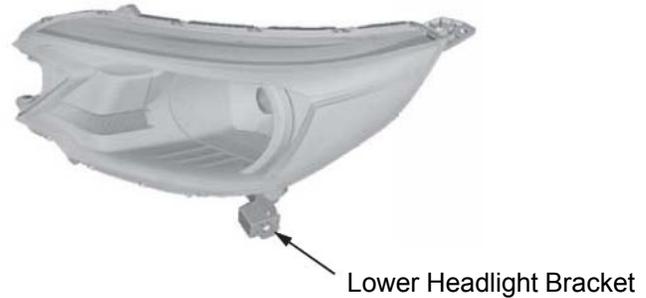
REPLACEABLE HEADLIGHT BRACKET

If the lower bracket on the headlight assembly is broken, a service replacement bracket is available.

The bracket can be replaced provided the following criteria are met:

- The headlight assembly itself is not damaged.
- Sealing of the headlight lens and headlight housing is maintained.

Refer to “Headlight Bracket Replacement” in the body repair manual for complete information.

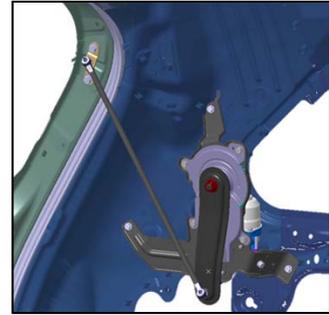


POWER TAILGATE INFORMATION

Beginning with the 2015 model year, Touring models include a power tailgate:

- The power tailgate will not be able to open or close automatically until it is reset when:
 - The battery is disconnected, or the No. A7 (10 A) fuse in the under-hood fuse/relay box is removed while the power tailgate is operating.
 - Certain power tailgate components have been replaced.
- Refer to “Resetting the Power Tailgate Control Unit” in the service manual for complete information.

Power Tailgate Actuator



View Inside Left Rear Pillar Area

SYSTEMS THAT MAY REQUIRE DEALER ASSISTANCE WITH AIMING

Some models may be equipped with one or more of the following systems that require aiming after collision repairs. Special tools are required to complete the aiming procedures. Contact a Honda dealer for assistance.

LaneWatch™:

LaneWatch uses a camera and the center display to help drivers recognize objects in the blind spot of the passenger side door mirror.

The LaneWatch camera must be aimed after one or more of the following procedures are done:

- LaneWatch camera removal or replacement
- Door mirror removal or replacement
- Door panel removal or replacement
- Door panel body repair

LaneWatch does not set DTCs. Troubleshooting and camera aiming are done using the navigation system or center display self-diagnostics. LaneWatch does not use an indicator to inform the driver of a malfunction.



LaneWatch Camera

Touring models are equipped with the following driver support systems that may require aiming after collision repairs. Special tools are required to complete the aiming procedures. Contact a Honda dealer for assistance.

Lane Departure Warning (LDW):

The multipurpose camera unit must be re-aimed if:

- The camera unit is removed or replaced.
- The windshield is removed or replaced.

If the aiming is incomplete, the LKAS and ACC indicators come on and blink.

- The LDW warning message may also appear.



LDW Indicator



LDW Warning Message

Adaptive Cruise Control (ACC) and Collision Mitigating Braking System™ (CMBS™):

The millimeter wave radar for the ACC/CMBS must be re-aimed if:

- The radar unit is removed or replaced.
- The radar unit's mounting area was damaged.

The ACC indicator comes on if the aiming process is not completed, or the service manual procedure is not followed.

- The ACC warning message may also appear.



ACC Indicator



ACC Warning Message



CMBS Indicator



CMBS Warning Message

Lane Keeping Assist System (LKAS) System:

The multipurpose camera unit must be re-aimed if:

- The camera/control unit is removed or replaced.
- The windshield is removed or replaced.

The LKAS indicator comes on and blinks if the aiming is not done or is not completed.

- The LKAS warning message may also appear.



LKAS Indicator



LKAS Warning Message

Windshield Replacement On LDW/LKAS Equipped Vehicles:

- Windshield damage within the multipurpose camera unit's field of vision can cause driver support systems to operate abnormally.
- Only a Honda Genuine replacement windshield should be installed. Installing an aftermarket replacement windshield may also cause abnormal operation.

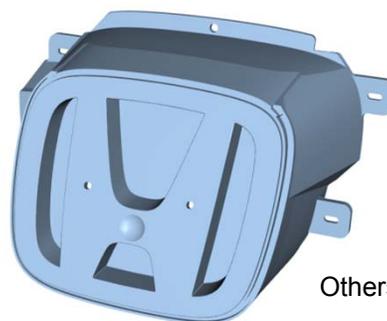
CMBS GRILLE DIFFERENCES

Touring trim level models are equipped with a Collision Mitigating Braking System™ (CMBS™) that uses 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.
- The Honda emblem is flat and integrated into the base lens on the correct radar-compatible emblem base.
- If the Honda emblem has a raised texture and is a separate part from the base, the wrong parts were installed.



Touring (w/CMBS)



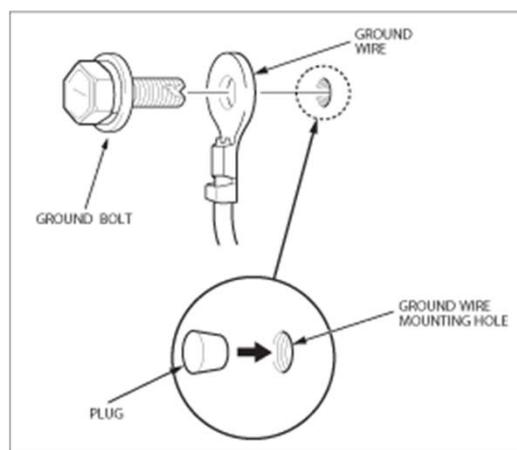
Others (w/o CMBS)

Front Grille Emblem Bases

ELECTRICAL PIGTAIL AND CONNECTOR REPAIR

- Disconnect the vehicle's battery before doing any welding or electrical repairs. Refer to "12 Volt Battery Terminal Disconnection and Reconnection" in the service or body repair manuals for more information.
- Certain front and rear electrical connectors subject to collision damage may be repaired using pigtails and connectors listed in the ELECTRICAL CONNECTORS illustrations in the parts catalog (example shown here).
- Pigtails attach to the vehicle wiring using special crimp-and-seal terminal joints. After crimping, the joints are heated using a heat gun to seal out the environment.
- Repair pigtails come in a limited range of colors that usually do not match the vehicle's wiring. Pay close attention during repairs to ensure correct locations.
- Vehicle wiring schematics service information can be found in the Electrical Wiring Diagrams (EWD).
- If wiring is damaged and a repair pigtail or connector is not available, replace the affected harness.
- NEVER attempt to modify, splice, or repair airbag system wiring.

FIG. No.	ILLUSTRATION	LOCATION	SIZE	TERMINAL JOINT	
				PIG TAIL	REF. No.
9		FIL. TURN	0.5	2	16
10		HORN	0.5	5	16
11		HEADLIGHT (HIGH)	1.25	4	17
12		HEADLIGHT (LOW)	0.5	3	16
			1.25	4	17
13		WASHER MOTOR	1.25	1	17
14		RADIATOR FAN MOTOR	1.25	6	17
			2.0	7	18
15		CONDENSER FAN MOTOR	1.25	8	17



ELECTRICAL GROUND WIRE PROTECTION

- Painting over electrical ground locations may cause electrical systems, such as Vehicle Stability Assist (VSA), to malfunction and set DTCs that may be difficult to diagnose.
- Protect the ground wire and the ground wire mounting hole threads with a bolt or silicone plug when priming or painting.