



2013 ILX & ILX Hybrid: 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.acura.com

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OVERVIEW OF BODY FEATURES



2013–15 models have these body features:

- Advanced Compatibility Engineering™ (ACE™) crash compatible body structure.
- Extensive use of high-strength steel (59%), including 5% in grades 780 and 980.
- Aluminum hood panel, front bumper beam, and rear bumper beam (ILX Hybrid models only) for weight reduction and improved fuel efficiency (not shown in this view).

For the 2016 model year, a minor model change (MMC) added or upgraded these body features:

- Next-Generation Advanced Compatibility Engineering™ (ACE™) body structure.
- 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.
- Introduction of the AcuraWatch™ suite of advanced safety and driver-assistive technologies, including: Adaptive Cruise Control, Lane Keeping Assist System, Road Departure Mitigation, and enhanced Collision Mitigation Braking System™ with pedestrian sensing capability.

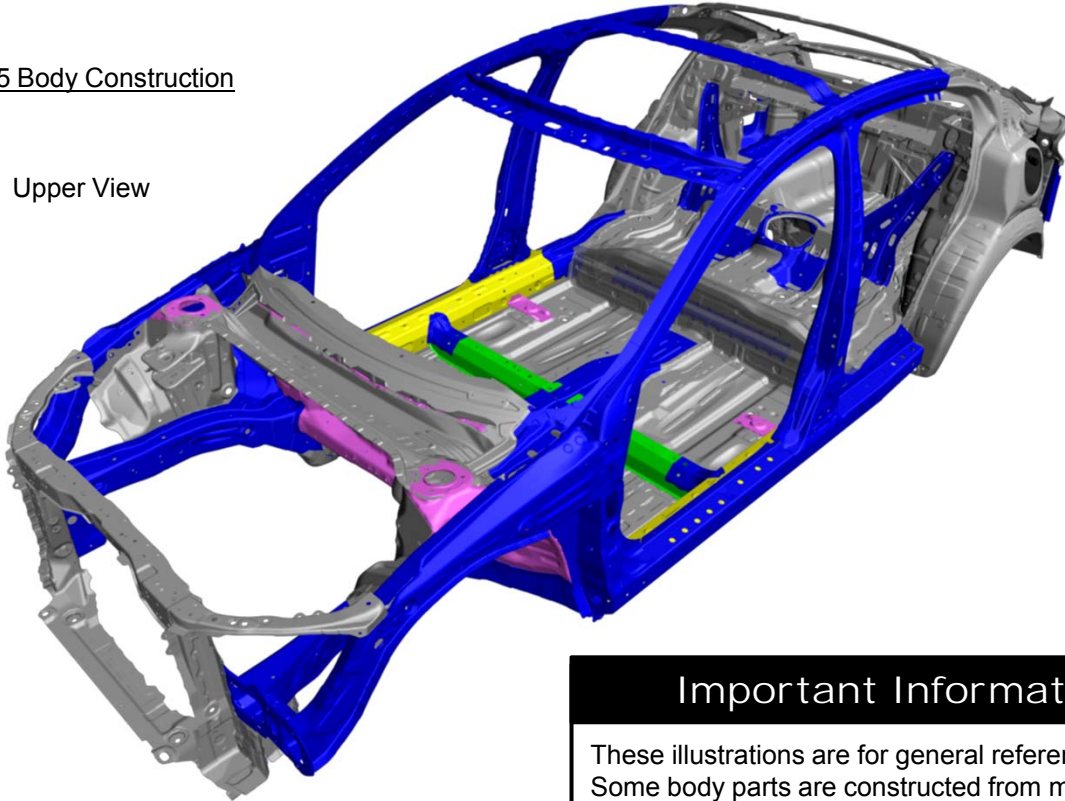
New Model Body Technology

BODY CONSTRUCTION AND HIGH-STRENGTH STEEL CONTENT - 2013–15 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.

2013–15 Body Construction

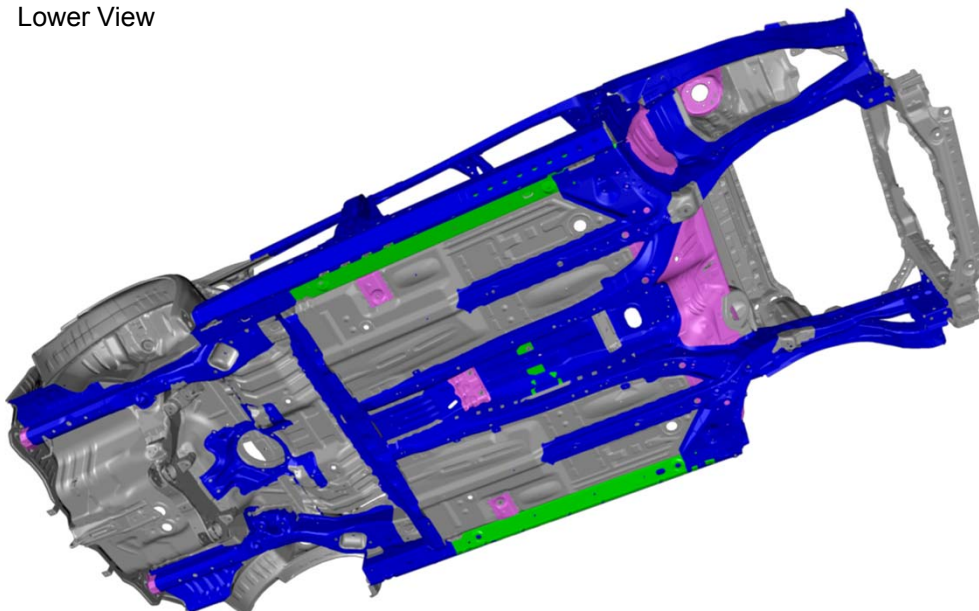
Upper View



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.

Lower View



270 MPa

440 MPa

590 MPa

780 MPa

980 MPa

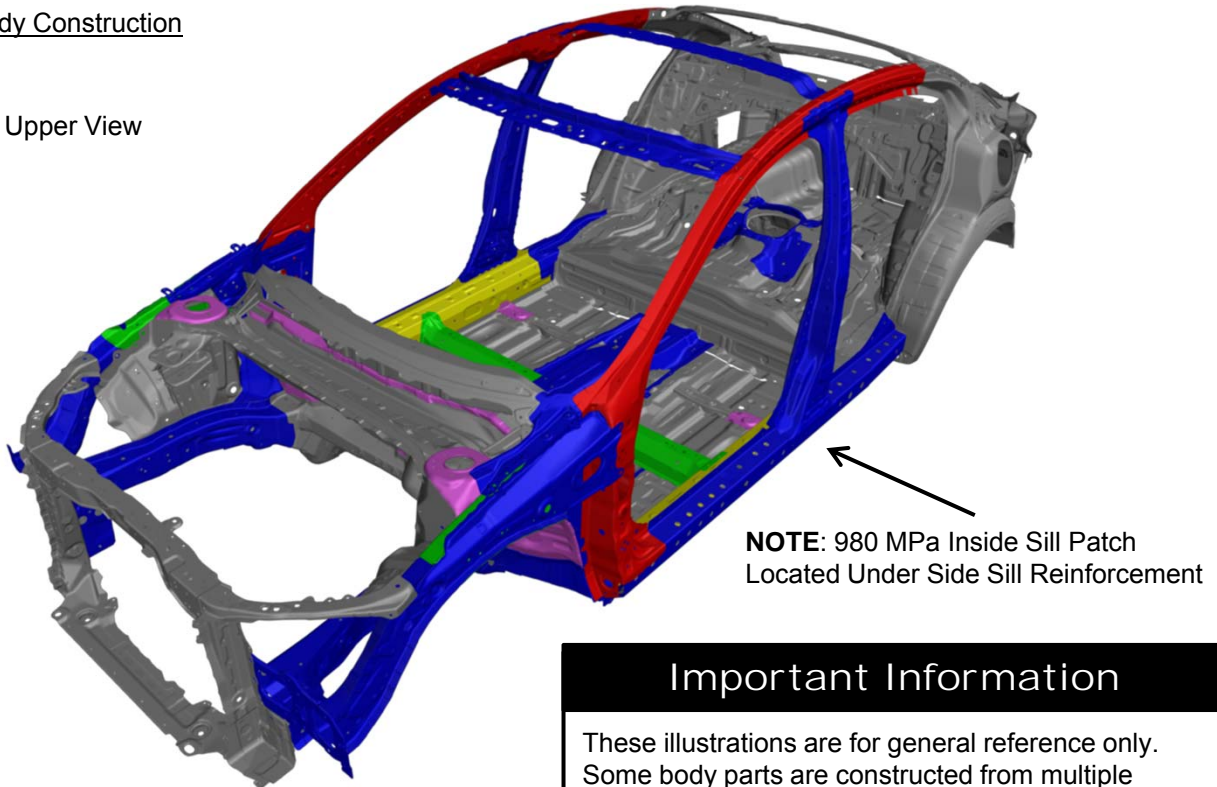
Steel Tensile
Strength Legend

BODY CONSTRUCTION AND HIGH-STRENGTH STEEL CONTENT - 2016 MODELS

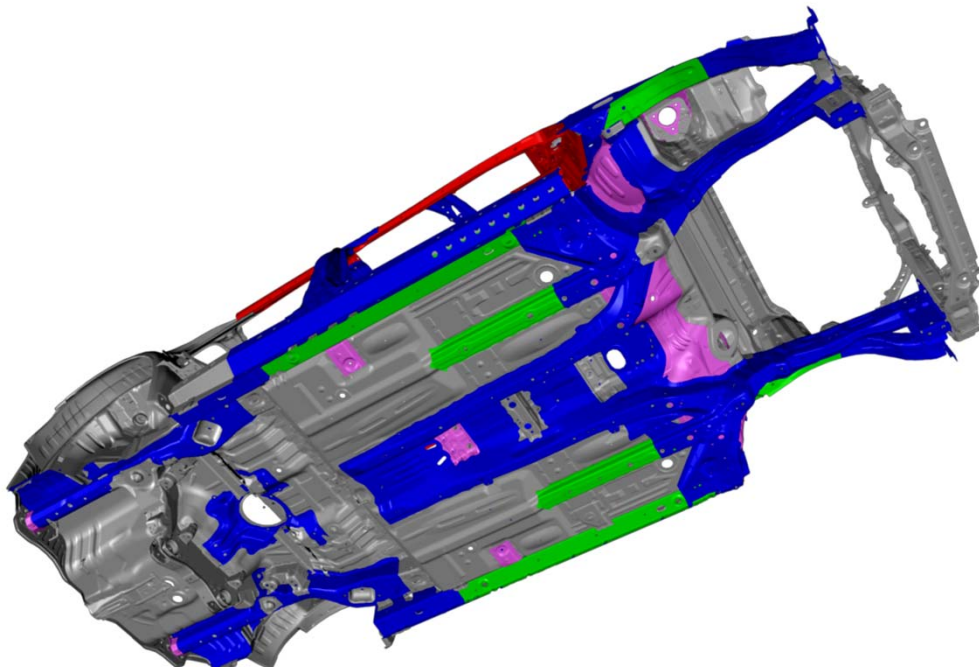
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2016 Body Construction

Upper View



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.

270 MPa

440 MPa

590 MPa

780 MPa

980 MPa

1,500 MPa

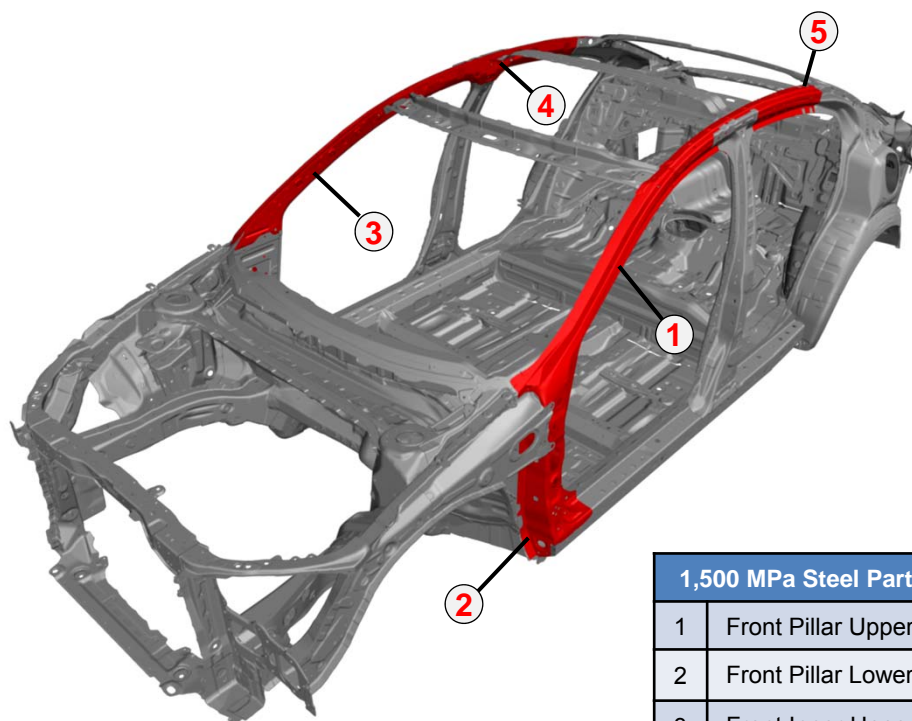
Steel Tensile
Strength Legend

1,500 MPa (HOT STAMP) STEEL LOCATIONS - 2016 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.

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

NOTE: 1,500 MPa steel is not used in 2013–15 models.



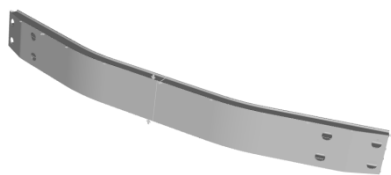
1,500 MPa Steel Parts - 2016 Models	
1	Front Pillar Upper Stiffener
2	Front Pillar Lower Stiffener
3	Front Inner Upper Pillar
4	Roof Side Rail
5	Roof Side Stiffener

ALUMINUM PARTS & REPAIRABILITY

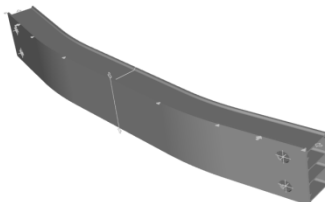
The hood panel, front bumper beam, and rear bumper beam (2013–14 ILX Hybrid models only) are all constructed of aluminum alloy.

Repairability Issues:

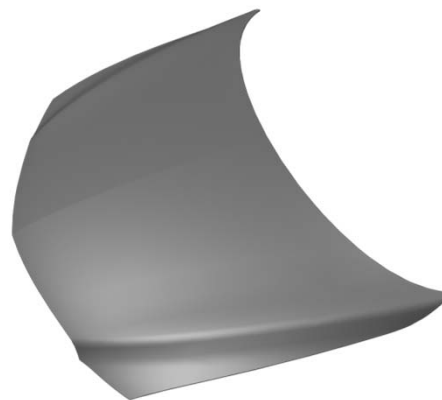
- Do not repair the bumper beams if damaged (aluminum or steel).
- Minor damage to the aluminum hood may be repaired by body shops that have dedicated aluminum repair facilities and tools.
- To prevent galvanic corrosion, some fasteners for aluminum parts are considered one-time use and must be replaced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



Front Bumper Beam



Rear Bumper Beam
(2013–14 Hybrid Only)



Hood Panel

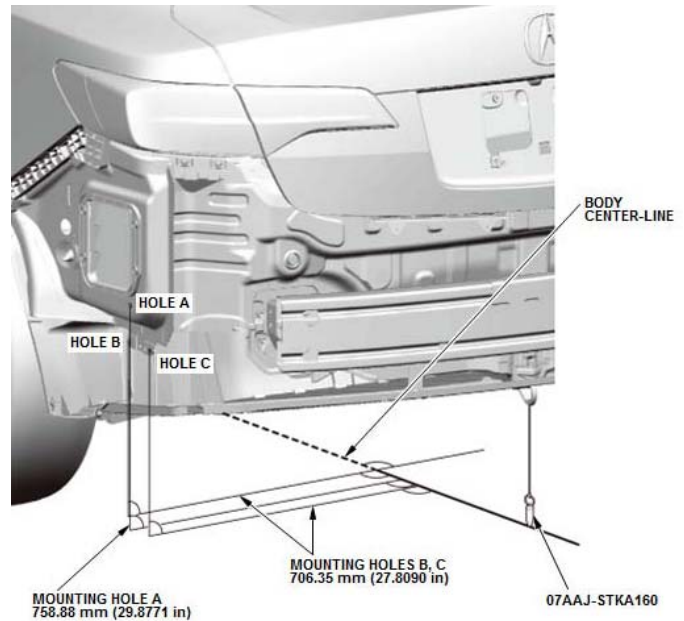
BLIND SPOT INFORMATION (BSI) SYSTEM

Beginning with the 2016 model year, models equipped with this system can be identified by the BSI Alert Indicators located on both outside rearview mirrors.

- The system uses two radar units, one mounted on each side of the vehicle under the rear bumper.
- The system may malfunction and set DTCs because of damage, improper repairs, or excessive foreign material on any of the following:
 - Rear bumper
 - Outer side panels
 - Radar unit mounting locations
- Several checks and inspections must be done during repairs to the radar unit mounting area. If the mounting area check is not done, an Acura dealer may not be able to properly aim the radar units.
- For more information, refer to “BSI Radar Unit Mounting Area Check” in the service manual.



BSI Alert Indicator



LH BSI Unit Mounting Area Check
(RH Side is symmetrical)

LIFTING AND TOWING PRECAUTIONS

- Flat bed towing equipment is the preferred method to transport this vehicle.
- Front wheel lift towing equipment may also be used to tow this vehicle.

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 service or body repair manual.



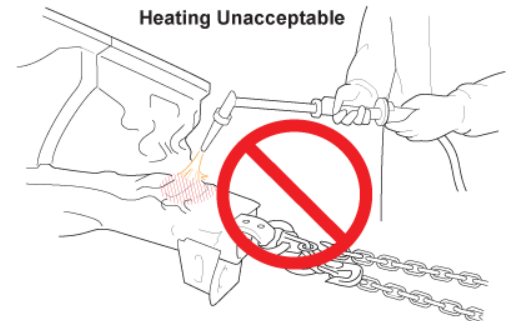
Body Repair Information

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, follow these guidelines:

- 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.

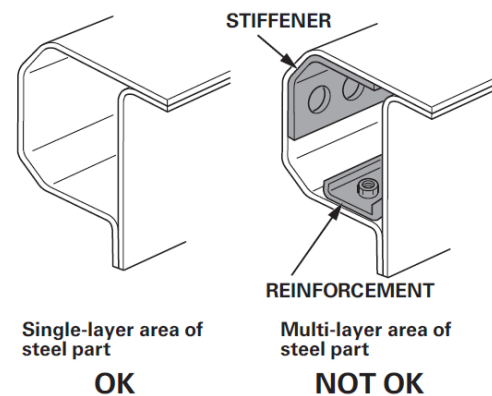


SECTIONING (CUT AND JOINT) GUIDELINES

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

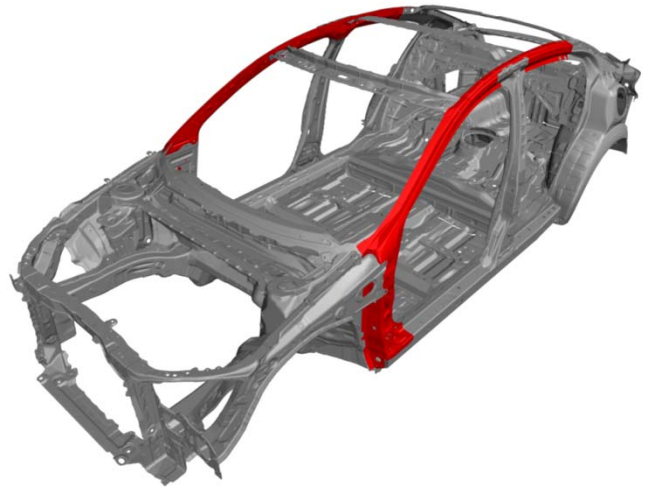
Welding Methods For Steel Parts
(○ = Approved X = Not Approved)

Welding Precautions and Information

REPAIRING 1,500 MPa STEEL PARTS - 2016 Models

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:

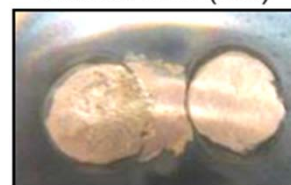
- MIG-brazed joint locations are specified in the body repair manual.
- A single- or double-hole MIG braze may be specified in the body repair manual depending on the tensile strength of the parts being joined.
- The size and number of holes are critical to achieving adequate joint strength.
- A pulsed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

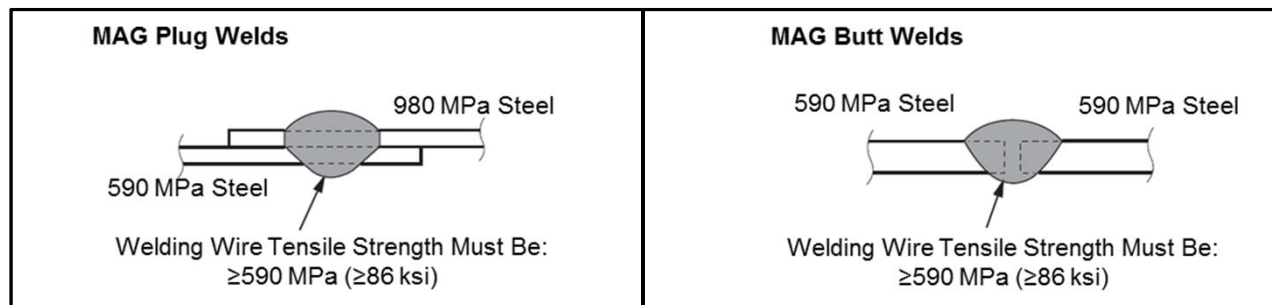
Parts made of High-Strength Steel (590-980 MPa) must often be installed as a complete part. Section only according to published repair information and guidelines. This high-strength steel requires special welding equipment, procedures, and settings. See the welding section of the appropriate body repair 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 on the right 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)

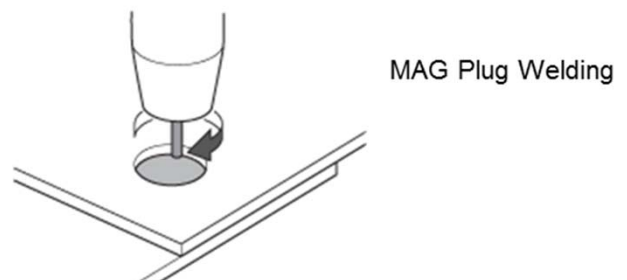


MAG PLUG WELDING GUIDELINES

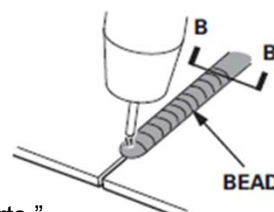
- MAG plug welding may be done when joining body components to 590–980 MPa steel parts.
- Follow the recommendations described in the body repair manual sections “Repair Guidelines for High-Strength Steel Parts”, and “MAG Welding Conditions for High-Strength Steel (Except 1,500 MPa) Parts.”

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.”



MAG Plug Welding



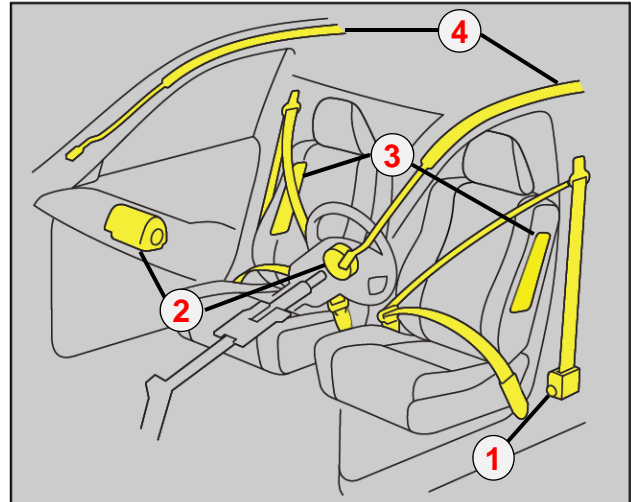
MAG Butt Welding

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.



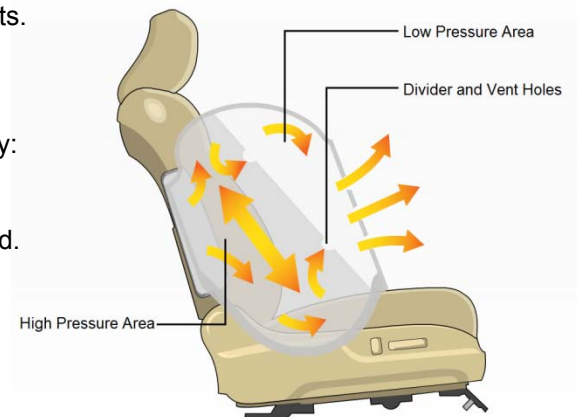
SMARTVENT™ SIDE AIRBAGS

Beginning with the 2016 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 ignition to ON, 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 an Acura 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 an Acura dealer for assistance if necessary.



Passenger Airbag
OFF Indicator

SIDE AIRBAG OFF Indicator (2013–15 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 2016 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 ignition to OFF, 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.



Airbag System Connectors
& Harness (Yellow)

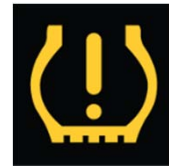
Electrical Repair Information

TIRE PRESSURE MONITORING SYSTEM (TPMS)

2013–15 Models

These vehicles are equipped with an initiator-less type TPMS that uses four tire pressure sensors. Tire pressures are monitored, but actual pressure readings are not displayed to the driver.

- 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 wheels, including the compact spare tire, may also cause the indicator to come on.
- The 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 do any of the following:
 - 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 an Acura dealer for assistance if necessary.

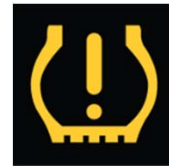


Low Tire Pressure/TPMS Indicator

2016 Models

These vehicles are equipped with an initiator-type TPMS that uses four tire pressure sensors and four initiators. The tire pressure readings appear on the multi-information display.

- The Low Tire Pressure/TPMS indicator comes on if the air pressure is too low in one or more tires. TPMS messages will also appear on the multi-information display in the gauge control module.
- The 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 replace a wheel and/or tire pressure sensor.
- Refer to “Memorizing a Tire Pressure Sensor ID”, in the service manual for complete information.
- The HDS (or equivalent) scan tool may be required to perform this memorization. Contact an Acura dealer for assistance if necessary.



Low Tire Pressure/TPMS Indicator

Temporary Tire Repair Kit

The following models replace the compact spare tire with a temporary tire repair kit that is capable of sealing small punctures, such as a nail. A traditional compact spare tire is available as a dealer accessory.

- 2013–14 ILX Hybrid
- 2016 ILX



Temporary Tire Repair Kit

SYSTEMS THAT MAY REQUIRE DEALER ASSISTANCE WITH AIMING

Beginning with the 2016 model year, vehicles equipped with these systems may require aiming after collision repairs. Special tools are required to complete the aiming procedures. Contact an Acura dealer for assistance.

Blind Spot Information (BSI) System With Cross-Traffic Monitor:

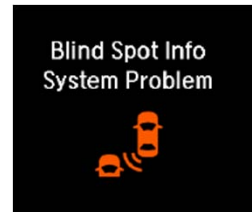
The BSI radar units must be re-aimed in these instances:

- After replacing or removal and installation of one or both BSI radar units.
- After replacing/repairing the body rear outer side panel(s).
- Stored DTCs B18B8 or B1E68 - left or right side BSI radar unit azimuth off alignment.

If a problem occurs in the BSI system, the amber BSI indicator will come on and this warning message may also appear.



BSI Indicator



NOTE: Vehicles equipped with the AcuraWatch™ suite of advanced safety and driver-assistive technologies include all of the following systems:

Forward Collision Warning and Lane Departure Warning (FCW/LDW):

The multipurpose camera unit must be re-aimed in these instances:

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

If the aiming is incomplete, the FCW and LDW indicators come on and blink. The FCW and LDW warning messages may also appear.



FCW/CMBS Indicator



LDW Indicator



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

The millimeter wave radar for the ACC/CMBS must be re-aimed in these instances:

- The radar unit is removed or replaced.
- The radar unit's mounting area was damaged.
- The ACC indicator changes to amber if the aiming process is not completed, or the service manual procedure is not followed. The ACC warning message may also appear.

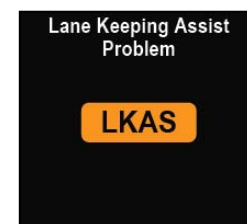


Lane Keeping Assist System (LKAS):

The multipurpose camera unit must be re-aimed in these instances:

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

The LKAS indicator changes to amber and blinks if the aiming is not done or is not completed. The LKAS warning message may also appear.



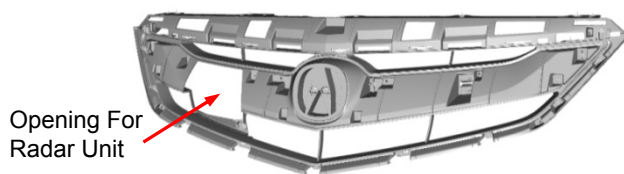
Windshield Replacement on FCW/LDW/LKAS-Equipped Vehicles:

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

CMBS GRILLE DIFFERENCES

Models equipped with the Collision Mitigating Braking System™ (CMBS™) use a millimeter wave radar unit.

- This unit senses through the front grille upper molding.
- The front grille base and front grille upper molding are specially manufactured and finished to accommodate installation and interference-free operation of the millimeter wave radar unit.
- Installation of the wrong grille molding will cause the CMBS indicator to come on and DTC P2583-97 (dust or dirt on the millimeter wave radar) to set.
- Using the wrong grille base will cause physical interference with the millimeter wave radar unit.
- Confirm the correct grille molding by inspecting for a rectangular radar unit cover on the right side.



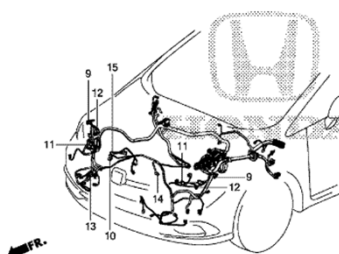
Front Grille Base (w/Radar)



Front Grille Upper Molding (w/Radar)

ELECTRICAL PIGTAIL AND CONNECTOR REPAIR

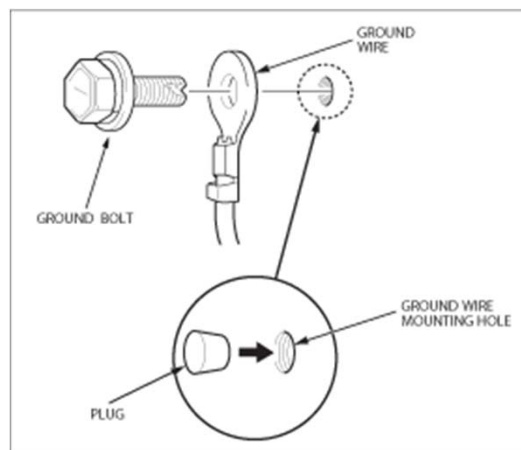
- Disconnect the vehicle's battery before doing any welding or electrical repairs. Refer to "12 Volt Battery Terminal Disconnection and Reconnection", in the service or body repair manuals for more information.
- Certain front and rear electrical connectors subject to collision damage may be repaired 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 (EWDs).
- 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.



Pig. No.	ILLUSTRATION	LOCATION	SIZE	TERMINAL JOINT	
				Pig. Tail	Ref. No.
9		REL. TURN	0.5	2	16
10		HORN	0.5	5	16
11		HEADLIGHT (HORN)	1.25	4	17
12		HEADLIGHT (LOW)	0.5	3	16
12		HEADLIGHT (LOW)	1.25	4	17
13		WASHER MOTOR	1.25	1	17
14		RADIATOR FAN MOTOR	1.25	6	17
14		RADIATOR FAN MOTOR	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.



ILX Hybrid Information

ILX HYBRID MODEL IDENTIFICATION

- Available nationwide during the 2013–14 model years only.
- HYBRID badges on both front fenders and trunk lid.
- Orange high voltage cables under the hood.



ILX Hybrid Identification Badge

ILX HYBRID MODEL DIFFERENCES

The following systems are unique or significantly different from regular ILX models. Refer to the service manual for complete information on these systems. If needed, contact an Acura dealer for repair assistance.

IMA Indicator:

The gauge control module includes an IMA indicator.

- This Indicator comes on when faults occur in the hybrid system.
- Checking DTCs requires an HDS (or equivalent) scan tool.
- Contact an Acura dealer for assistance, if necessary.

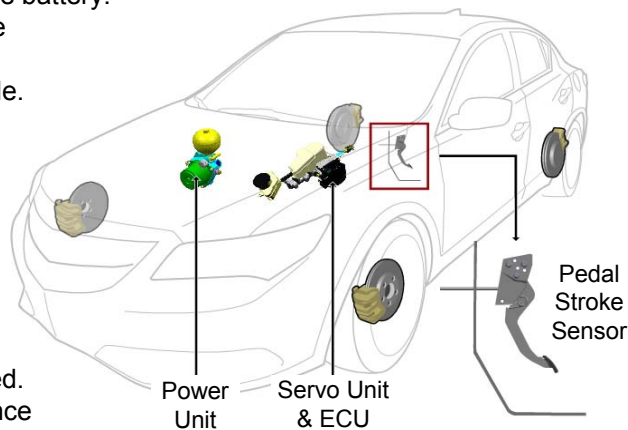


IMA Indicator

Advanced Hydraulic Booster Brake System :

An advanced hydraulic booster brake system is used to convert as much of the vehicle's kinetic energy as possible into electricity and store it in the battery.

- The system enables to maximize the regenerative brake force depending on the brake pedal pressure available.
- Some brake system components appear significantly different than traditional brake systems.
- The amber BRAKE SYSTEM indicator comes in the event of advanced hydraulic booster brake system malfunction.
- Special brake fluid replacement and bleeding procedures are required. Contact an Acura dealer for assistance if necessary.



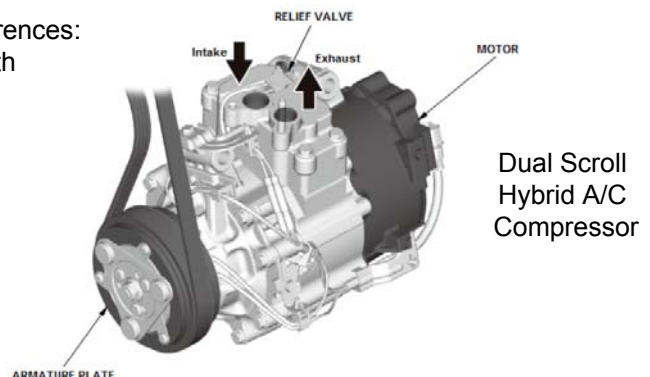
Brake System Indicator

Advanced Hydraulic Booster Diagram

HVAC System:

Hybrid models include the following HVAC system differences:

- A dual scroll hybrid A/C compressor that can use both mechanical (belt drive) and high-voltage electric power (motor drive) to compress refrigerant.
- Mechanical side uses a normal electric A/C clutch.
- Electric motor side uses a brushless, three-phase motor driven by a controller in the IPU.
- An electric heater coolant pump circulates engine coolant through the heater core under certain conditions such as idle stop during cold weather.

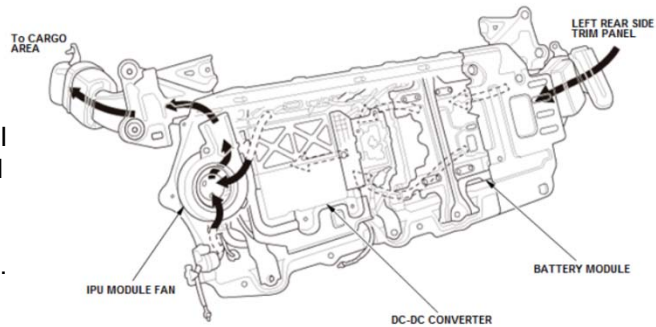


Dual Scroll Hybrid A/C Compressor

IPU (High-Voltage Battery) Cooling System:

The battery module, the MPI module, and the DC-DC converter generate heat during charge/discharge.

- These components must be kept within a specific temperature range for optimum performance.
- The IPU is equipped with a fan and ducts to cool these parts and assure proper battery performance.
- When the temperature of the battery module, the MPI module, or the DC-DC converter exceeds a specified value, the MCM operates the IPU module fan. Cooling air is drawn into the battery module from the left side of the rear seat and exhausted into the trunk.



IMA SYSTEM

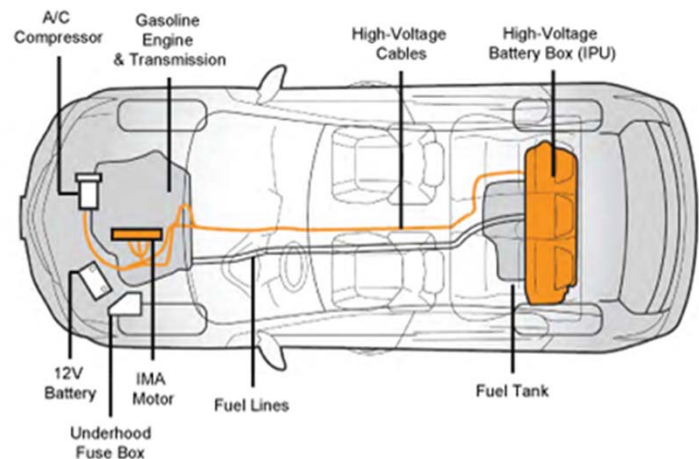
The IMA system improves fuel economy by capturing energy with the electric motor during deceleration and using that energy to charge the IMA battery.

The IMA system includes these components:

- 144V DC (nominal voltage) battery,
- IMA motor
- Intelligent power unit (IPU)
- IMA motor power cable
- IMA control system and related parts.

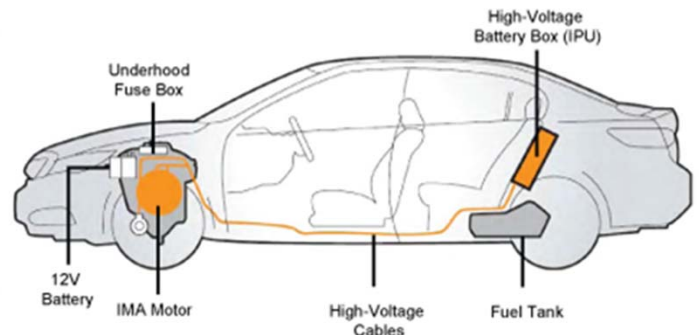
The IPU contains the following components:

- Battery module
- Motor control module (MCM)
- DC-DC converter
- Motor power inverter.



Service Issues

- High voltage is identified using bright orange colored cables and coverings.
- A damaged high-voltage lithium-ion battery can emit toxic fumes, and the organic solvent used as electrolyte is flammable and corrosive. Always wear protective equipment.
- High temperatures may damage the high voltage battery module. For example, when drying paint in a heated paint booth, the temperature must not exceed 150 °F (65 °C).



Improper high voltage handling or service may cause serious injury, such as electrocution.

- Service or repair of the hybrid system should only be done by properly trained technicians. Contact an Acura dealer for assistance if necessary.
- Follow high voltage safety precautions when working on or around the hybrid system. Isolate the high voltage before doing any welding or electrical repairs.
- Refer to “IMA System Information”, in the body repair manual or “IMA System Service Precautions”, in the service manual for complete information.
- Additional high voltage safety information may be found in the Acura ILX Emergency Response Guide. These are available free of charge on the Acura ServiceExpress website.

