



HONDA

CR-V

HYBRID

Emergency Response Guide

2019~ Honda CR-V HYBRID



This guide has been prepared to assist emergency service professionals in identifying a 2019 ~ Honda CR-V HYBRID and safely respond to incidents involving this vehicle.

The CR-V HYBRID is equipped with a motor and petrol engine and uses both units as a power source. The motor is driven by electricity supplied from a high voltage battery and generator, the high voltage battery is charged not only by the generator but also by regenerative braking, etc. while driving.

Copies of this guide and other emergency response guides are available for reference or downloading at

www.techinfo.honda-eu.com.

For any questions, please contact your local authorized Honda dealer.

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The Honda CR-V HYBRID can be identified by the emblem **CR-V**, mounted on the tailgate and the **HYBRID** emblem mounted on the tailgate and the front wings.



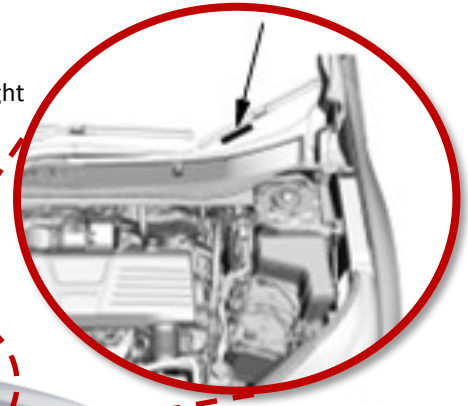
CR-V



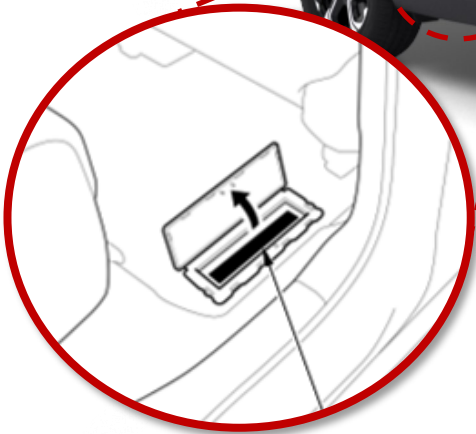
A Honda CR-V HYBRID can also be identified by inspecting the VIN at the locations shown below.
Characters 4–6 of the VIN will show either **RT5** or **RT6** indicating that it is a Honda CR-V HYBRID.

JHMRT5**000001** or **JHMRT6****000001**

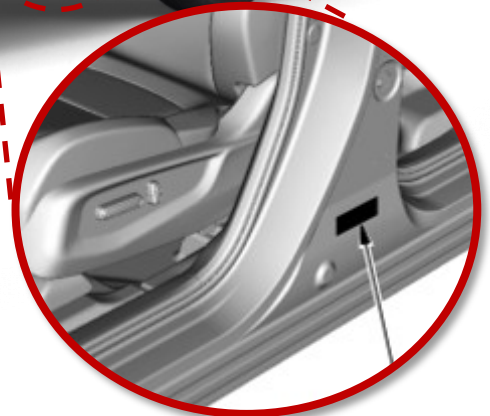
VIN plate located on the lower-right corner of the windscreen

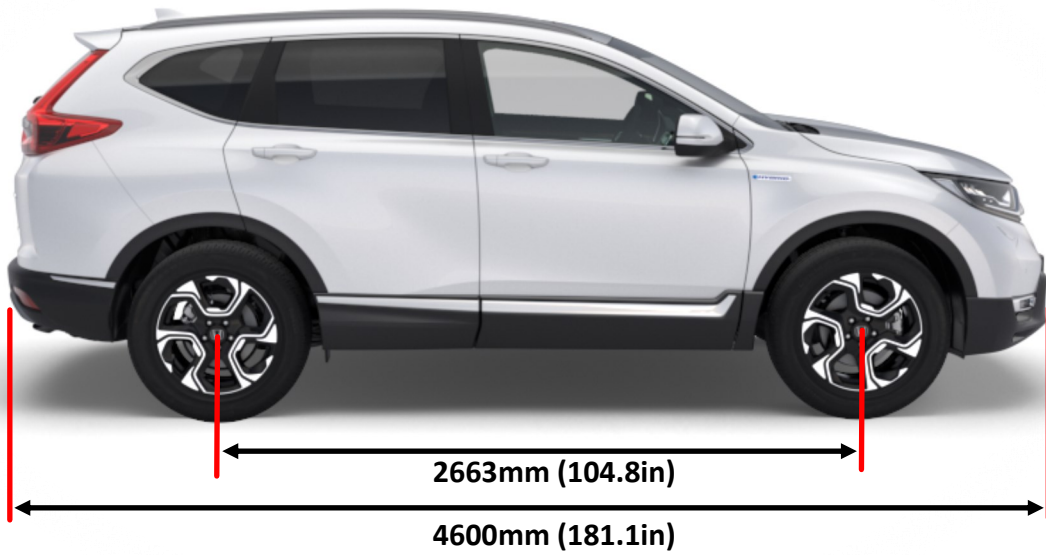
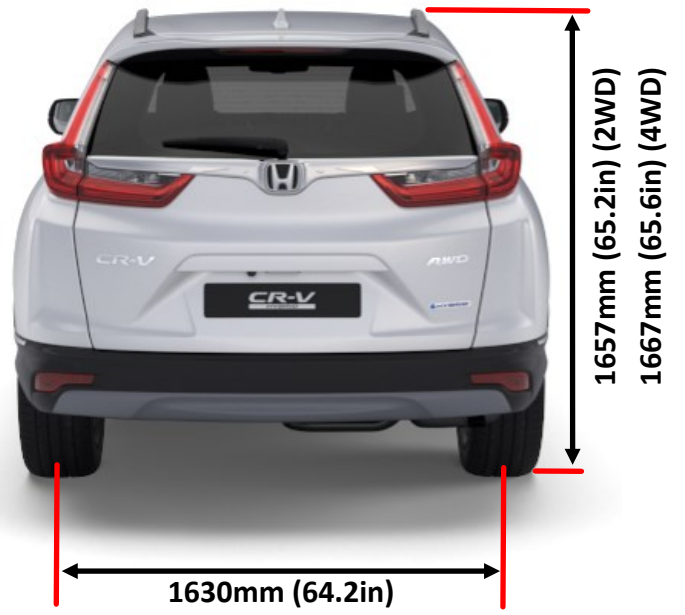


VIN stamped into the floor panel behind the front seat under a plastic panel



Printed VIN label on the door opening





Hybrid System

The hybrid system of the CR-V HYBRID uses high voltage that exceed 260V in total voltage.

Therefore, precautions and handling is required to address the high voltage in order to perform the rescue operations.



- If the orange-coloured high voltage cables, high voltage covers, etc. are damaged to expose the wires, terminals, etc., make absolutely sure to never come into contact with the exposed areas. In addition, do not touch even when it is unknown whether the exposed wires or terminal are high voltage areas or not. If it is touched inadvertently, there is a risk of death or serious injury due to serious burns or electric shock.

- If there is no other option available but to touch the exposed portion of high voltage cables and high voltage parts, always make sure to wear protective gear [insulated gloves, protective glasses, insulated shoes]

- If authorized personnel concerned will be separating from the vehicle such as to store the vehicle after processing the accident scene, etc., to keep any other person from touching the hybrid vehicle inadvertently, please post a sign saying "WORKING WITH HIGH VOLTAGE, DO NOT TOUCH" on the vehicle.

What to Prepare

In order to perform rescue operations on a CR-V HYBRID, please prepare the following items beforehand.

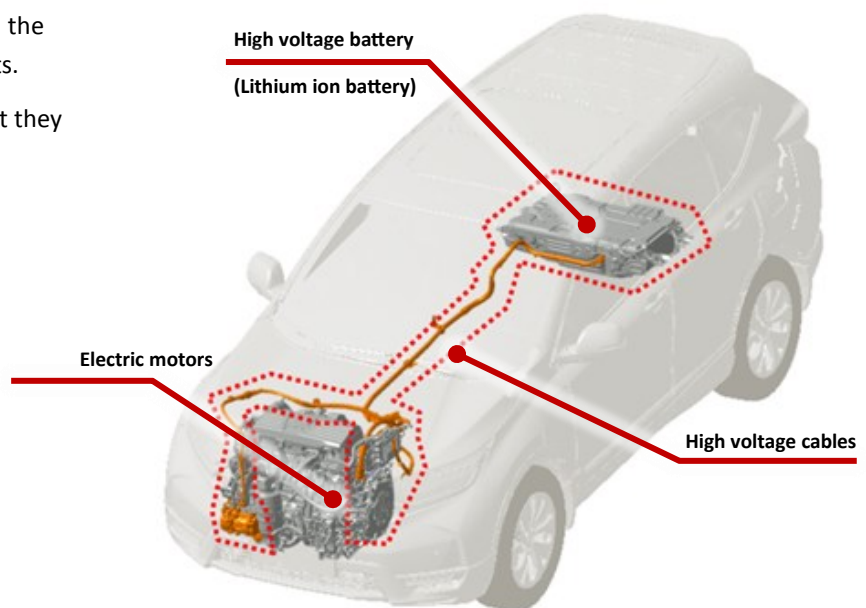
- ① Protective gear [insulated gloves, protective glasses, insulated shoes]
- ② ABC fire extinguisher
- ③ Solvent resistant protective gear [Gas mask (for organic gas), rubber gloves (for chemical resistance)]
- ④ Rag or old towel

High Voltage Parts

The high voltage parts of the CR-V HYBRID are as shown.

The area surrounded by the dotted line in the illustration indicates the high voltage parts.

The high voltage cables are orange so that they can be identified.



Isolation of High Voltage

High voltage is isolated on the CR-V HYBRID.

- Both the positive (+)/negative (-) terminals on high voltage circuits are isolated by single units.
- Cases and covers are set on the high voltage devices & high voltage wires to eliminate exposure of the high voltage parts.
- The high voltage electronic parts and lithium ion battery are concentrated to be placed under the TRUNK and are stored in a case.
- Even the high voltage wires inside the engine room are isolated by cable covers.
- High voltage wires are identified by an orange colour.
- A warning label is affixed to the high voltage parts.

Cutting Off High Voltage

The CR-V HYBRID is equipped with a system that can cut off high voltage.

- High voltage is cut off by the battery control unit if there is a short circuit or overcurrent due to a crash or water immersion. In addition, high voltage is also cut off by fusion cutting the fuse.
- The cut off of the high voltage circuit is linked to the power switch. The high voltage circuit is cut off by the power switch being turned OFF.

Lithium Ion Battery

Other than a 12V battery for automobiles, the CR-V HYBRID is equipped with a high voltage lithium ion battery (battery for driving torque). This lithium ion battery has total voltage that exceeds 260V.

The lithium ion battery is in a case and stored under the trunk at the rear of the vehicle thus the main unit of the battery is arranged to not be normally visible. In addition, the electrolytic fluid is also sealed inside the battery therefore there is no need to replace or replenish this fluid.

In the unlikely chance that the lithium ion battery were to be damaged, there is not risk of a large volume leak. Please read the next page regarding what to do if fluid leaks.



- If component parts inside the high voltage parts or conductors of high voltage wires are exposed due to vehicle damage, etc. make absolutely sure to never come into contact with such parts. If high voltage parts are touched inadvertently, there is a risk of death or serious injury due to serious burns or electric shock

- If there is no other option available but to touch the exposed parts of the high voltage parts or high voltage cables, or when there is a risk of touching such parts, always make sure to wear protective gear [insulated gloves, protective glasses, insulated shoes]

Lithium Ion Battery Fluid Leaks

The lithium ion battery of the CR-V HYBRID uses volatile organic solvent in the electrolytic fluid. In addition, it cannot be distinguished by just looking at it as it has no colour and is transparent.

If leaking fluid is confirmed nearby the lithium ion battery, if there is a suspicion that it is electrolytic fluid, always make sure to wear solvent resistant protective gear (Gas mask (for organic gas), rubber gloves (for chemical resistance)) and wipe the leaked fluid with a dried rag, etc. Put the rag, etc. that was used into an air sealable bag or container and dispose properly as industrial waste.



The electrolytic fluid of the lithium ion battery is harmful to humans therefore if the fluid gets into the eye or adheres onto the skin, there is a risk of blindness and injury. In the unlikely event that electrolytic fluid gets into the eye or adheres onto the skin, wash immediately with a large amount of water and get treatment from a specialist doctor.

Lithium-ion Battery Fumes or Fire

A damaged high-voltage lithium-ion battery can emit toxic fumes and the organic solvent used as electrolyte is flammable and corrosive, so responders should wear appropriate personal protective equipment. Even after a lithium-ion battery fire appears to have been extinguished, a renewed or delayed fire can occur. The battery manufacturer cautions responders that extinguishing a lithium-ion battery fire will take a large and sustained volume of water.



Responders should always ensure that a Honda CR-V HYBRID with a damaged battery is kept outdoors and far away from other flammable objects in order to minimize the possibility of collateral fire damage should the battery catch on fire.

Electric Shock

Unprotected contact with any electrically charged high-voltage component can cause serious injury or death. Receiving an electric shock from a Honda CR-V HYBRID, however, is highly unlikely because of the following:

Contact with the battery module or other high-voltage components can only occur if they are damaged and the contents are exposed or if they are accessed without following proper precautions.

Contact with the electric motor can only occur after one or more components are removed.

The high-voltage cables can be easily identified by their distinctive orange color and contact with them can be avoided.



If severe damage causes high-voltage components to become exposed, responders should take appropriate precautions and wear appropriate insulated personal protective equipment.

Making the Vehicle Stable

Apply the parking brakes as you would normally do to bring the wheels to a complete stop.

To further stabilize the vehicle, place supports such as wooden blocks, etc. under the vehicle then either remove air from the tyres or use something like a lift air bag device for rescues, etc. to further stabilize the vehicle.



Set up the supports and/or lift airbag device to avoid high voltage parts under the floor, the exhaust system, the fuel system, etc. There is a risk of causing damage to the high voltage part and becoming the cause of unpredictable fires due to heat.

Vehicle Collision

In the event of a crash, the SRS (supplemental restraint system) unit makes a judgment based on input from the impact sensors. If the input values meet various threshold requirements, the SRS unit sends a signal to the high voltage battery ECU (electronic control unit). The high-voltage battery ECU then turns off the high-voltage battery contactors, stopping the flow of electrical current from the high-voltage battery.

When responding to an incident involving a Honda CR-V HYBRID, we recommend that emergency personnel follow their organization's standard operating procedures for assessing and dealing with vehicle emergencies.

Responders should always assume, however, that the HV system is powered on and take the appropriate action described later in this guide to power off the system.

Seatbelts and Airbags

The Honda CR-V HYBRID is equipped with lap/shoulder belts in all seating positions. The front and rear outer seat belt reels and the front lap belts are equipped with pyrotechnically activated tensioners that help tighten the seat belt in a crash.

In addition, the Honda CR-V HYBRID is equipped with the following airbags:

Front Airbags - Driver / Passenger

Side Airbags - Driver / Passenger

Side Curtain Airbags - Driver / Passenger

It takes up to 3 minutes for the airbags and tensioners to power off after the 12-volt system has been turned off by following the emergency shutdown procedures provided later in this guide.

Submerged Vehicle

If a Honda CR-V HYBRID is submerged or partly submerged in water, first pull the vehicle out of the water. Then, shut down the high-voltage system using one of the two procedures described on the following pages.

Aside from severe damage to the vehicle, there is no risk of electric shock from touching the vehicle's body or framework — in or out of the water. If the high-voltage battery was submerged, you may hear noises from the battery as the cells are being discharged from shorting.

Preventing Current Flow Through High-Voltage Cables

Before attempting to rescue occupants or move a damaged Honda CR-V HYBRID, you should reduce the potential for current to flow from the electric motor or the HV battery through the high-voltage cables.

There are two recommended methods for preventing current flow, these are described on the following pages.

BEST METHOD for High-Voltage Shutdown

Push and hold the POWER button for 3 seconds.

This simple action turns off the petrol engine and immediately shuts down the high-voltage system controllers, thereby preventing current flow into the cables. It also cuts power to the airbags and the seat belt tensioners, though these pyrotechnic devices have up to a 3-minute deactivation time.

To prevent accidental restarting, you must remove the keyless remote from the vehicle and move it at least 10 meters away.

If you cannot locate the keyless remote, you should also do the **SECOND-BEST METHOD for high-voltage shutdown** (for preventing high-voltage current flow) on the following page.



Push and hold button for 3 seconds.



Even after the power switch is turned OFF, the electric charge that has built up inside the condenser, etc. needs about 5 minutes to fully discharge. After cutting off the high voltage, take sufficient care of short circuits, etc. when performing further operations.

SECOND-BEST METHOD for High-Voltage Shutdown

Disconnect the 12 volt battery

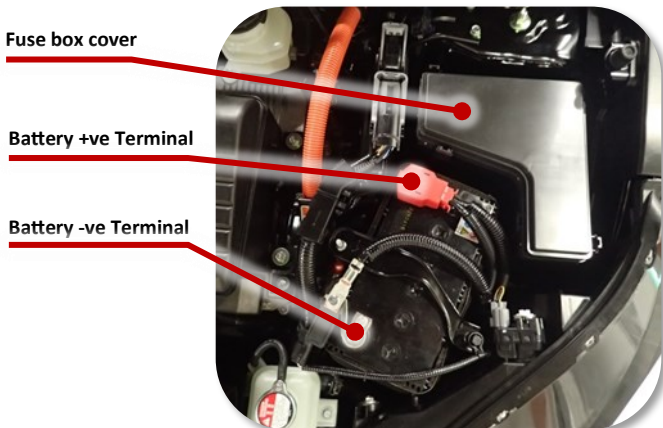
1. Open the bonnet by pulling the release lever in the drivers side footwell.



2. Push the lock mechanism at the front centre of the bonnet that has popped up to release the lock then open up the bonnet.



2. Remove or cut the negative (-ve) terminal side cable from the 12V battery.
3. Remove the fuse box cover and remove or cut off the front terminal in the picture below.



Even after the power switch is turned OFF, the electric charge that has built up inside the condenser, etc. needs about 5 minutes to fully discharge. After cutting off the high voltage, take sufficient care of short circuits, etc. when performing further operations.

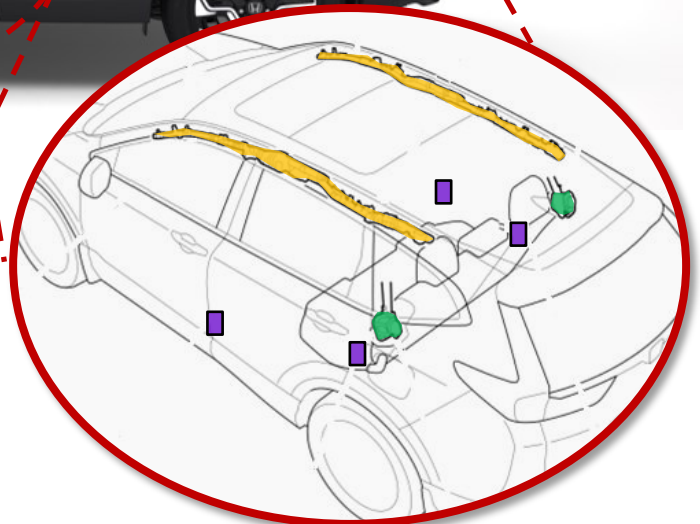
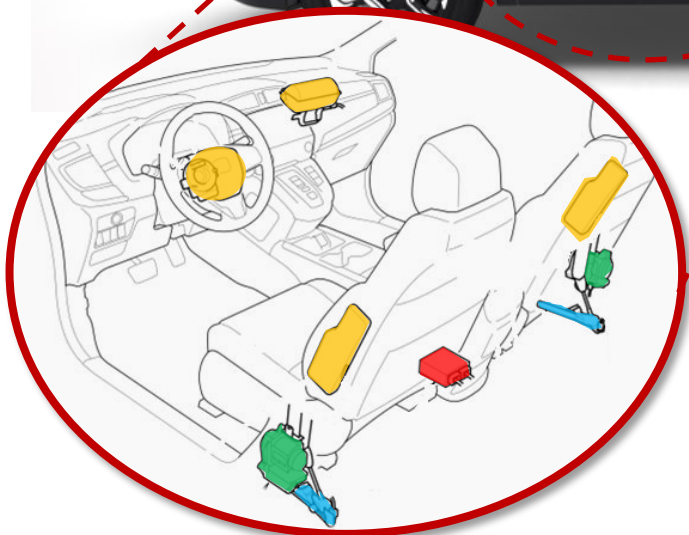
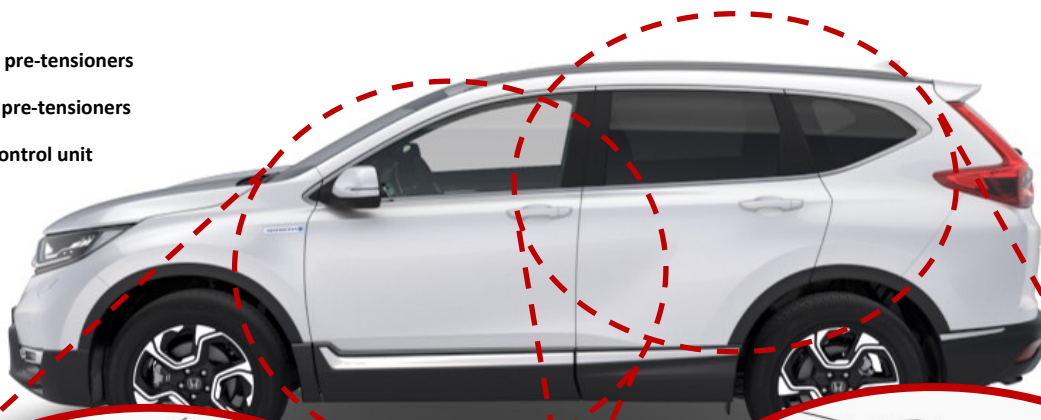
Precautions and Actions to Take When Cutting the Vehicle



• If the orange-coloured high voltage cables, high voltage covers, etc. are damaged to expose the wires, terminals, etc., make absolutely sure to never come into contact with the exposed areas. In addition, do not touch even when it is unknown whether the exposed wires or terminal are high voltage areas or not. If it is touched inadvertently, there is a risk of death or serious injury due to serious burns or electric shock.

- If there is no other option available but to touch the exposed portion of high voltage cables and high voltage parts, always make sure to wear protective gear [insulated gloves, protective glasses, insulated shoes]
- Do not cut high voltage parts. Even after high voltage is cut off, if high voltage parts are exposed due to cutting, there is a risk that this could lead to death or serious injury due to serious burns or electric shock.
- Do not cut airbags that have not deployed or seatbelt pre-tensioners that did not actuate. there is risk that cutting such parts could lead to death or serious damage due to high pressure gas generating devices being equipped on the airbag and belt pre-tensioner.
- Do not cut airbags or sensors. If the airbag deploys inadvertently due to shock, a shorting of wires, etc. due to the cutting, there is a risk that this could be bring about secondary damage during the rescue operations. However, this would not be a problem if all of the airbags have already been deployed.
- The airbag system will have system functionality for about 3 minutes even after the battery is disconnected or the power switch is turned OFF therefore, always make sure to check that more than 3 minutes have gone by then perform the cutting operations. However, this would not be a problem if all of the airbags have already been deployed.
- Please cut using equipment that does not emit sparks such as a hydraulic cutter, etc. because there is a risk of generating serious injuries due to the sparks, etc.

- Airbags
- Seatbelt pre-tensioners
- Lap belt pre-tensioners
- Airbag control unit
- Sensors

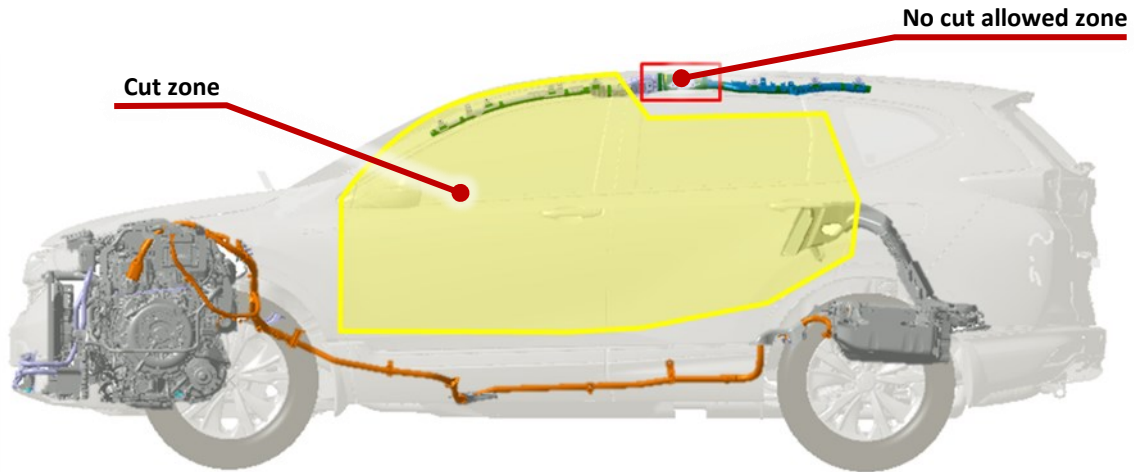


Cut zone (Areas where cutting is allowed)

If there is a need to use a hydraulic cutter or cut the vehicle to rescue an occupant, etc., please perform the cutting within the cut zones in the figure below.



Do not cut nearby the curtain airbag high pressure gas generating device part area (no cut allowed zone) on the vehicle body side face. If this area is cut there is a risk of leading to death or serious injury. However, this would not be a problem if the side curtain airbags have already been deployed.

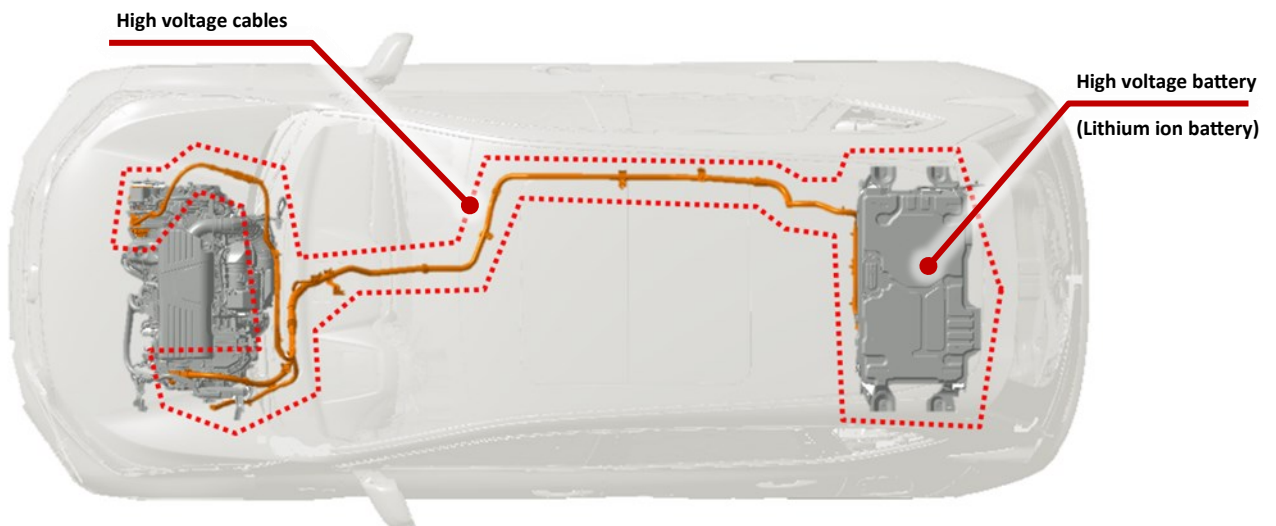


Position of high voltage parts

If there is a need to use a hydraulic cutter or cut the vehicle to rescue an occupant, etc., please avoid the area nearby the lithium ion battery and high voltage cables at the bottom surface of the body frame.



Do not cut high voltage parts. Even after high voltage is cut off, especially for lithium ion batteries, if high voltage parts are exposed due to cutting, there is a risk that this could lead to death or serious injury due to serious burns or electric shock.



Towing procedures

Please adhere to the following points to perform towing:

Flat bed equipment (All models of CR-V HYBRID)

The vehicle is loaded on the back of a truck and the parking brake should be applied.

This is the best way to transport the vehicle.

Wheel lift equipment (Only 2WD models of CR-V HYBRID)

The tow truck uses two pivoting arms that go under the front tyres and lift them off the ground.

The rear tyres remain on the ground.



Do not use the bumper to lift the vehicle

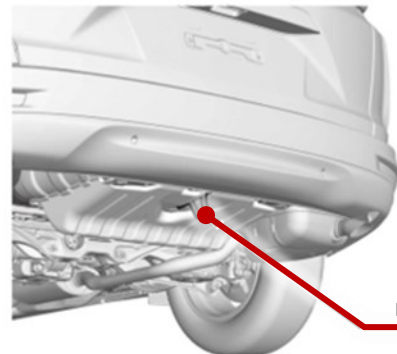
Do not perform towing that will damage the vehicle

Only perform towing in accordance with local road traffic laws

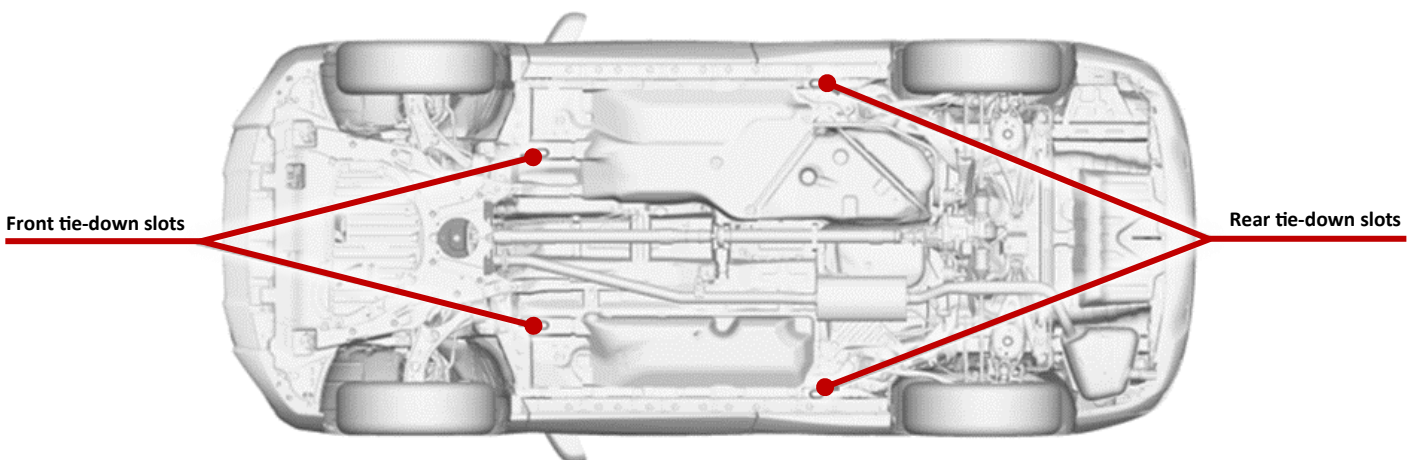
Position of towing hooks and tie-down points



Front towing hook



Rear towing hook



Front tie-down slots

Rear tie-down slots