

Information for First & Second Responders Emergency Response Guide For Vehicle:



2025 CR-V e:FCEV Fuel Cell Electric Vehicle





Version 1

#### Introduction

## 

This guide has been prepared to assist emergency response professionals in identifying a 2025 Honda CR-V e:FCEV (Fuel Cell Electric Vehicle) and safely respond to incidents involving this vehicle.

NOTE: CR-V e:FCEV models are only available for sale in California.

Copies of this guide and other emergency response guides are available for reference or downloading at <u>https://techinfo.honda.com</u>.

For questions, please contact your local Honda dealer or Honda Automobile Customer Service at (800) 999-1009.

Honda wishes to thank emergency response professionals for their concern and efforts in protecting Honda customers and the general public.





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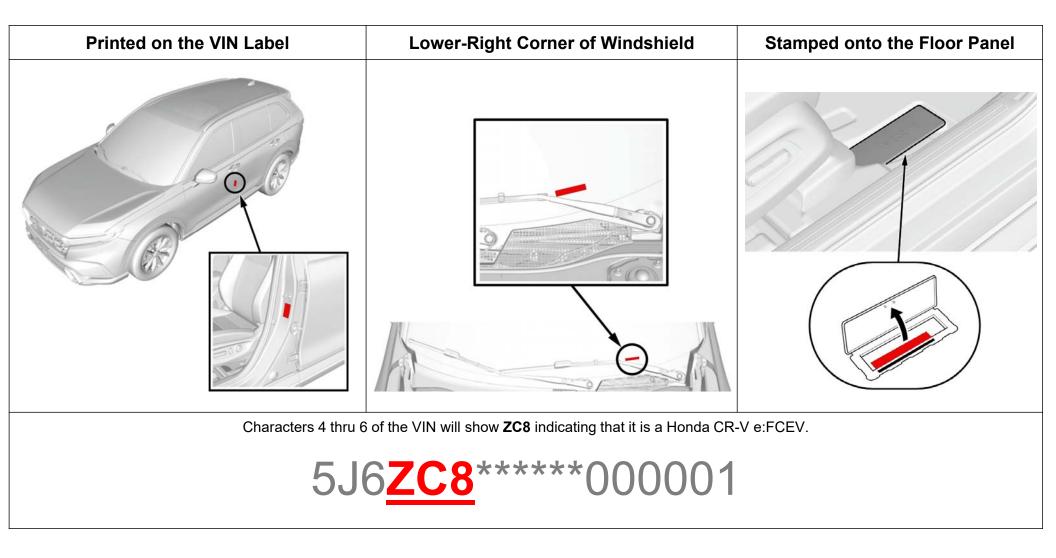
## By Emblem

The CR-V e:FCEV can be identified by the **e:FCEV** emblem mounted on the tailgate.

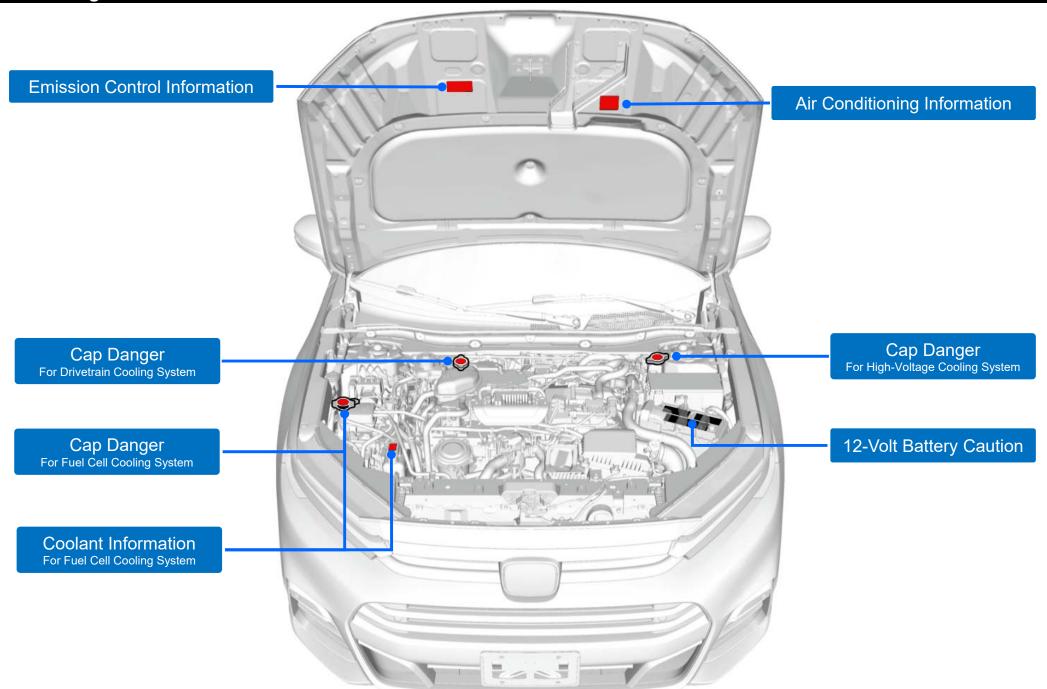


## By Vehicle Identification Number

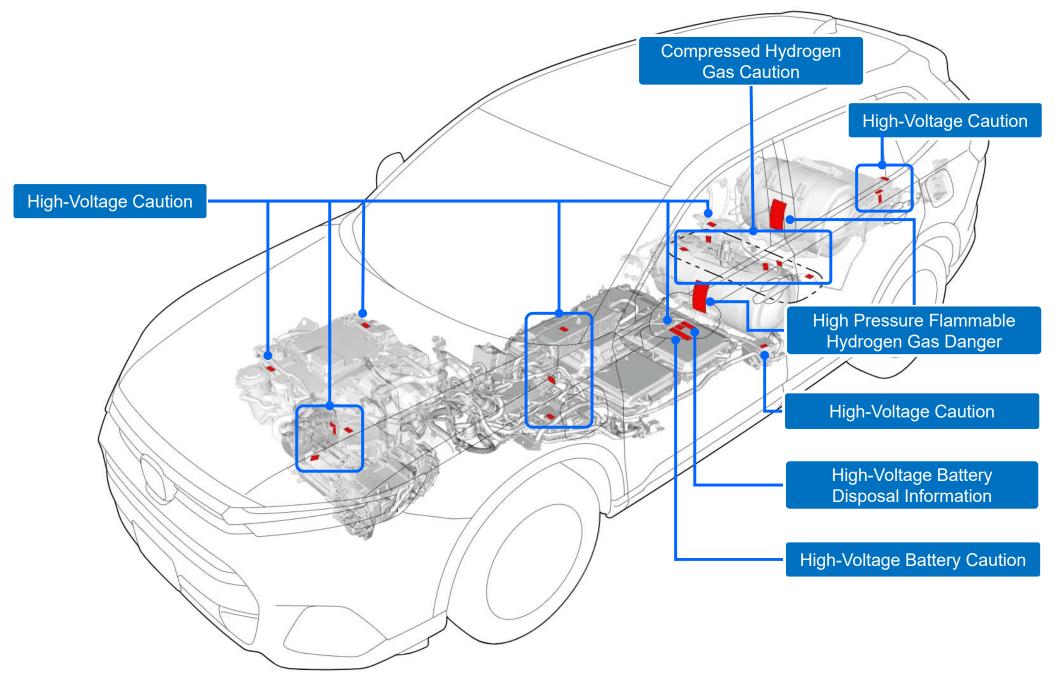
The CR-V e:FCEV can also be identified by inspecting the VIN at the three locations shown below.



## Warning Labels

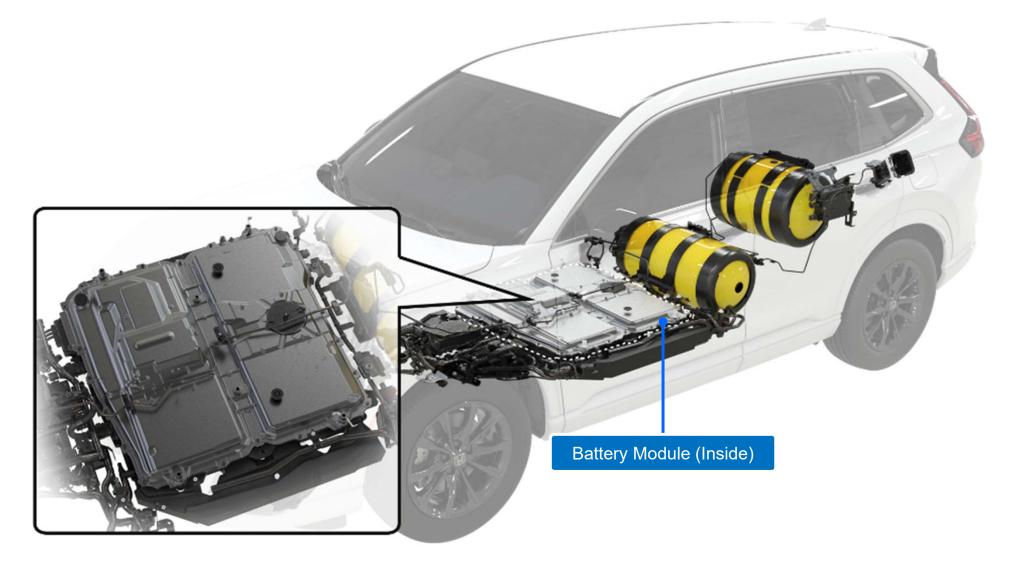


## Warning Labels (continued)



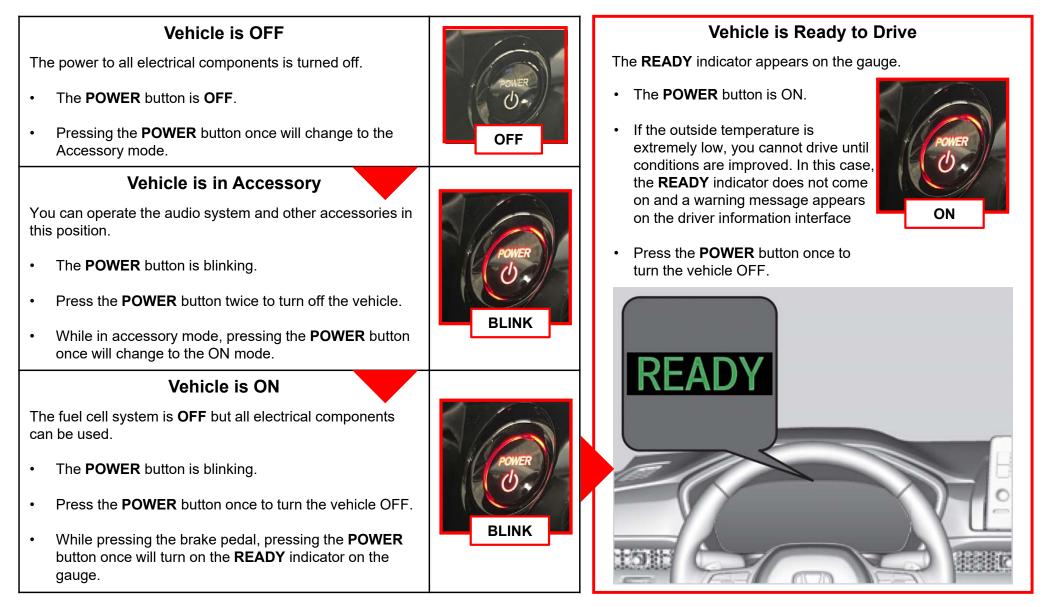
## **High-Voltage Battery Location**

The high-voltage battery is a 96 cell (8 modules), Li-ion battery that is mounted under the vehicle frame with an output of 347.5-volts.



## How to Determine if Vehicle is in ON / OFF / READY Mode

Check the **POWER** button and the gauge for the vehicle status.





## Parking the Vehicle

#### Applying the Parking Brake

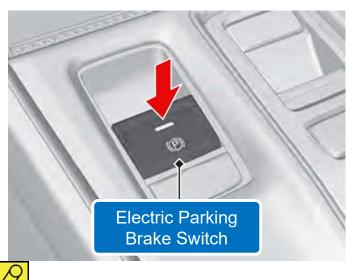
- Block the wheels if the 12-volt battery power is **NOT** available.
- The parking brake cannot be applied or released if the 12-volt battery is not available.



#### To Apply

The electric parking brake can be applied any time the vehicle has battery, no matter which position the power mode is in.

- 1. Pull the electric parking brake switch up gently and securely.
  - ► The indicator in the switch comes on.
  - ► The parking brake and brake system indicator (red) comes on.



#### To Release

The power mode must be in ON in order to release the electric parking brake.

- 1. Press and hold the brake pedal.
- 2. Press the electric parking brake switch.
  - ► The indicator in the switch goes off.
  - ► The parking brake and brake system indicator (red) goes off.

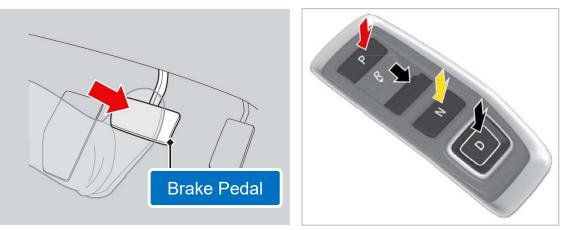
## Parking the Vehicle

#### Shifting the Vehicle into Park or Neutral

1. Press the **POWER** button twice to turn the vehicle **ON**. **NOTE**: This action will not turn the fuel cell system on.



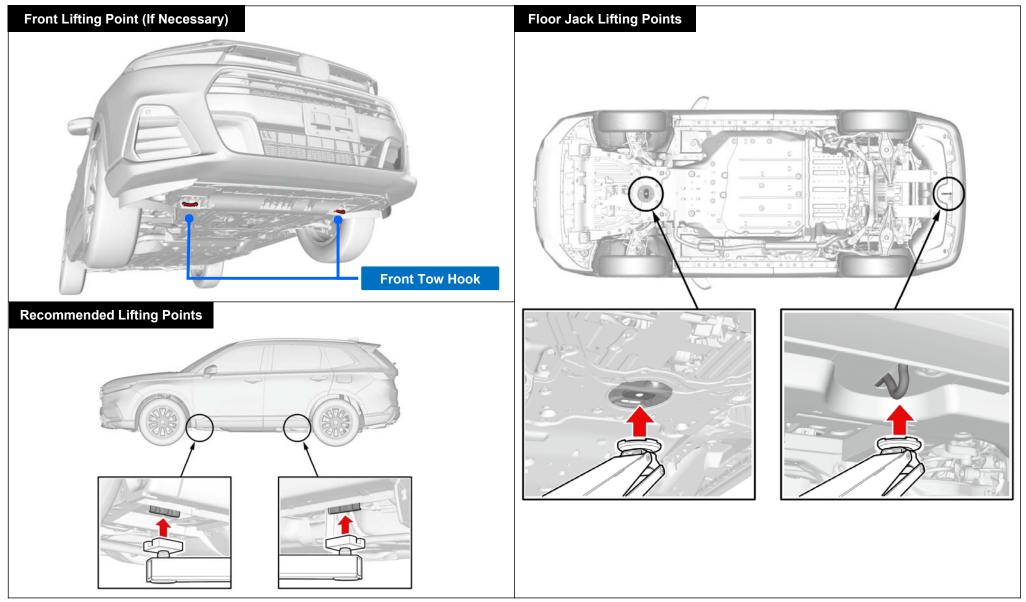
2. Press and hold the brake pedal, press the release button, then shift to the **P** position on the Gear Selector to shift the transmission to Park, or **N** to shift the transmission to Neutral.





## Lifting the Vehicle

Use the indicted lifting points to raise the vehicle.





## Preventing Current Flow Through the High-Voltage Cables

Before attempting to rescue occupants or move a damaged CR-V e:FCEV, you should reduce the potential of current flowing from the electric motor or the high-voltage battery through the high-voltage cables.

There are two recommended methods for preventing current flow. These are discussed in the following pages:

#### PREFFERED METHOD for High-Voltage Shutdown Push and hold the POWER button for 3 seconds.

This simple action turns the vehicle **OFF** and immediately shuts down the highvoltage system controllers, preventing current flow into the cables.

#### NOTE:

- Power to the airbags and seat belt tensioners have up to a **3-minute** deactivation time.
- The driver information interface may show a message that the fuel cell system is shutting down. After the system is shut down, it may take additional 5-minutes for the capacitors to discharge.

To prevent accidental restarting, you must remove the keyless remote from the vehicle and move it at least **20 feet** away.

If you cannot locate the keyless remote, disconnect the negative terminal from the 12-volt battery to prevent electrical fires and accidental restarting of the vehicle.







## **HIGH-VOLTAGE SHUTDOWN PROCEDURE (PREFERRED)**

## ALTERNATIVE BEST METHOD for High-Voltage Shutdown

#### Locate and cut the negative 12-volt battery cable and the Power Control Unit (PCU) cable in the motor compartment.

Cutting both the negative 12-volt battery cable and PCU cable immediately turns off and shuts down the high-voltage system controllers and fuel cell system, preventing current flow into the high-voltage cables.

1. Pull the hood release handle under the driver's side lower corner of the dashboard. The hood will open slightly.



2. Push the hood latch lever (located under the front edge of the hood to the center) to the side and raise the hood. Once you have raised the hood slightly, you can release the lever.

3. Raise the hood.

**NOTE**: The hood is support by two dampers to keep the hood in the open position.



Continued on the next page.



If you need to cut the hood to open it, be sure to stay within the cut zone as shown





HIGH-VOLTAGE SHUTDOWN PROCEDURE (ALTERNATIVE)

## ALTERNATIVE BEST METHOD for High-Voltage Shutdown (continued)

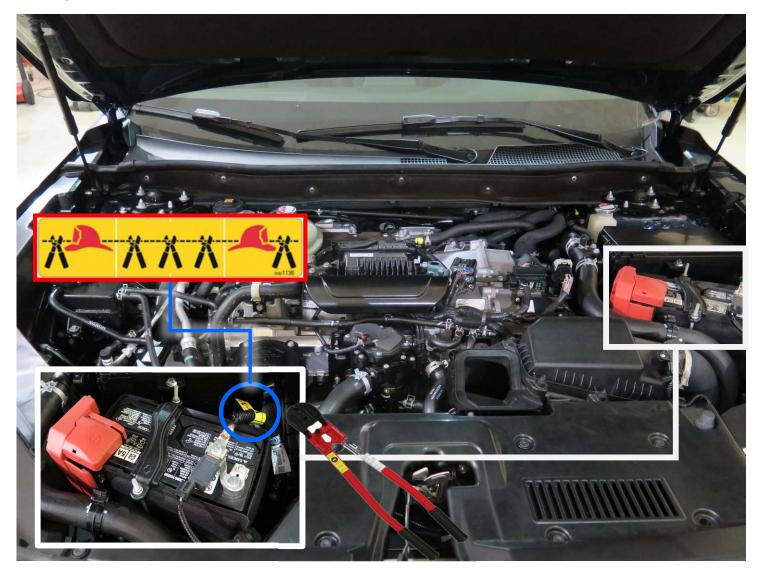
4. Locate the two cut point labels as shown, and cut them.

If touching high-voltage cables and/or other high-voltage components is unavoidable, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

This also cuts power to the airbags and the front seat belt tensioners, but remember these pyrotechnic devices have up to a **3-minute** deactivation time.

NOTE: When cutting the cables, do not allow the cutting tool to contact any surrounding metal parts; electrical arcing could occur, igniting any flammable vapors.

If you cannot do either method to stop the fuel cell system and prevent current flow into the high-voltage cables, use extreme care and do not touch damaged cables as they may be electrically charged.

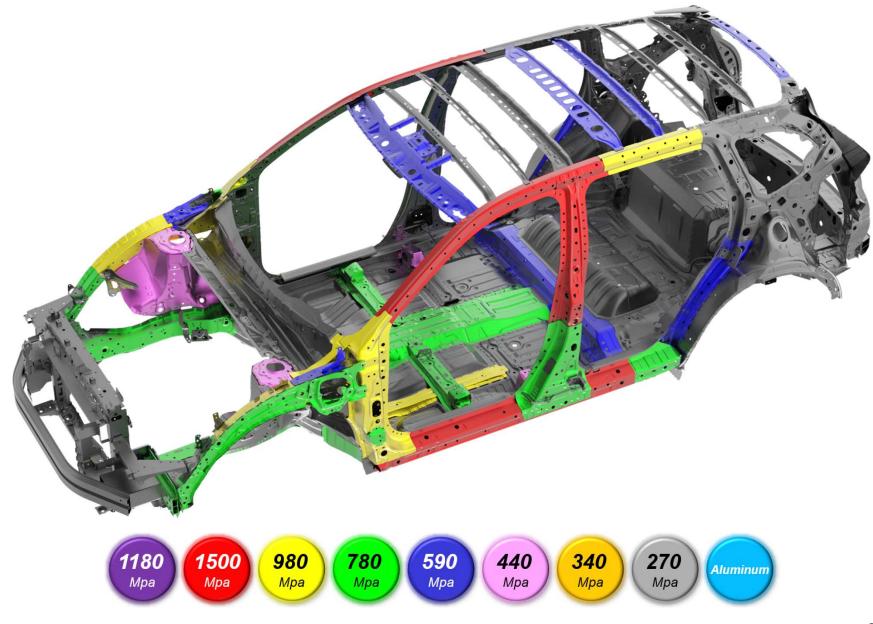




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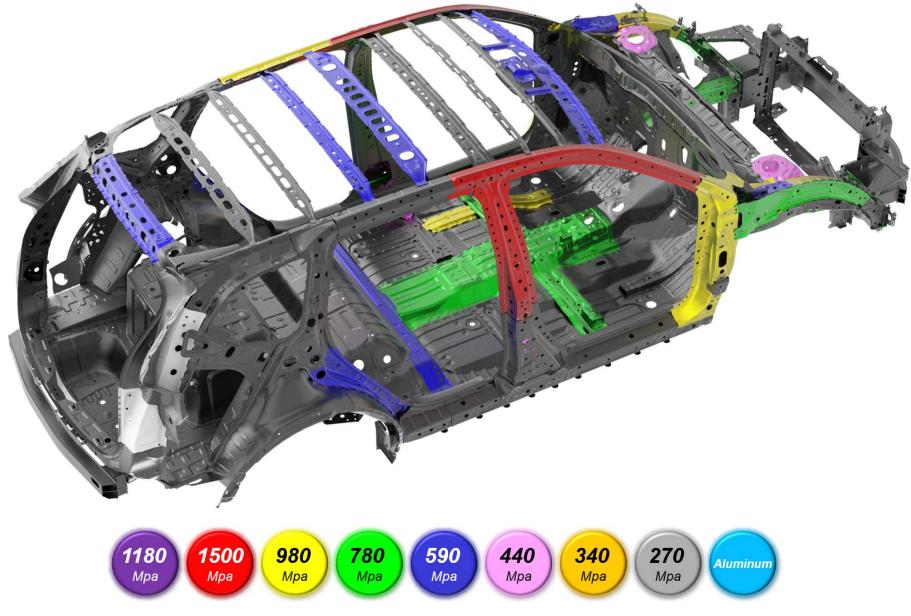
## High-Strength and Ultra-High-Strength Steel

The body of the CR-V e:FCEV is made of high-strength steel and ultra-high-strength steel indicated in the colored areas.



## High-Strength and Ultra-High-Strength Steel

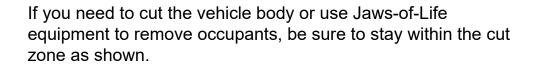
The body of the CR-V e:FCEV is made of high-strength steel and ultra-high-strength steel indicated in the colored areas.

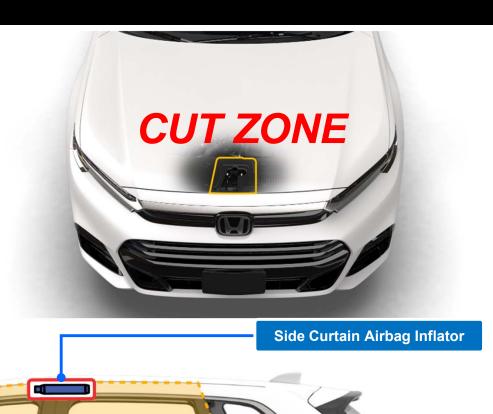


#### **Extricating Occupants**

If you need to cut the hood to open it, be sure to stay within the cut zone as shown.

When cutting the vehicle body, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

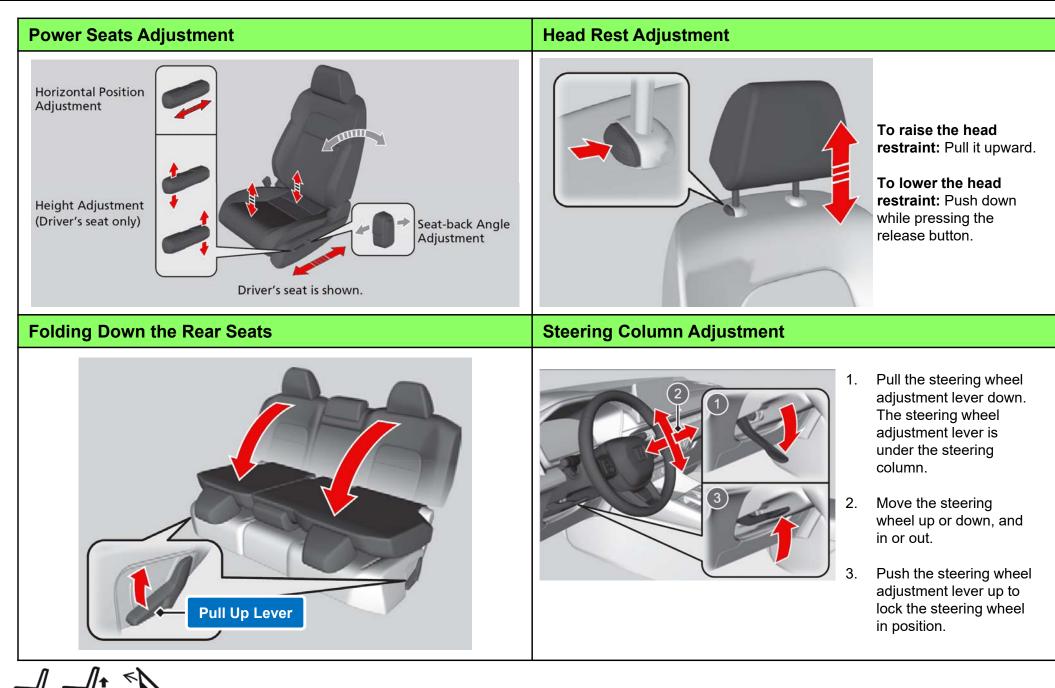




## **EXTRICATING OCCUPANTS**

CUT ZONE

#### Moving the Seats, Head Restraints & Steering Wheel



5. Stored Energy / Liquids / Gases / Solids

Тиро	Consolity	Content		Densrovo
Туре	Capacity	Material or Ingredient	% / wt.	- Dangers
12-Volt Battery		<ul> <li>Lead</li> </ul>	34 %	
	12 V−45 Ah/20 HR (12 V−36 Ah/5 HR)	<ul> <li>Lead Peroxide</li> </ul>	31 %	
<mark>000</mark> 000		<ul> <li>Lead Sulfate</li> </ul>	1 %	
		<ul> <li>Sulfuric Acid</li> </ul>	35 %	
		Graphite	7-25	
		Cobalt Lithium Manganese Nickel Oxide	5-40	
		<ul> <li>1,1-Difluoretylen-Hexafluorpropenpolymer</li> </ul>	3-15	
	347.5 V	<ul> <li>Acetylene Black (Carbon Black)</li> </ul>	0-2	
Lithium-lon,		Copper	10-12	
High-Voltage Battery		Aluminum	3-5	
		<ul> <li>Lithium Hexafluorophosphate (Electrolyte)</li> </ul>	0-5	
		<ul> <li>Dimethyl Carbonate (Electrolyte)</li> </ul>	0-15	
		<ul> <li>Ethylene Carbonate (Electrolyte)</li> </ul>	0-15	
		<ul> <li>Diethyl Carbonate (Electrolyte)</li> </ul>	0-15	
		<ul> <li>Ethyl methyl Carbonate (Electrolyte)</li> </ul>	0-15	
Hydrogen Gas Tank	29.83 US gal (112.9 L) @ 70 Mpa (10,152 psi)	<ul> <li>Hydrogen 100%</li> </ul>	100 %	
Fuel Cell System Coolant	3.94 US gal (14.9 L)	Water	45-55 %	$\wedge \wedge$
		Ethylene Glycol	45-55 %	
		Diethylene Glycol	Less than 1%	

5. Stored Energy / Liquids / Gases / Solids

Turne	Consolity	Content	Dana		
Туре	Capacity	Material or Ingredient	% / wt.	Dangers	
		Water	45-55 %		
		<ul> <li>Ethylene Glycol</li> </ul>	43-49 %		
High-Voltage System Coolant	2.01 US gal (7.6 L)	Diethylene Glycol	Less than 3%		
		<ul> <li>Hydrated inorganic acid, organic acid salts</li> </ul>	Less than 5 %	· ·	
Transmission	1.03 US qt (0.97 L)	<ul> <li>Lubricating base stocks</li> </ul>	80-90 %		
Fluid		<ul> <li>Tricresyl Phosphate</li> </ul>	<1.0		
	Not Available	Diethylene Glycol	1-10 %		
Brake Fluid		<ul> <li>Tris[2-[2-(2- methoxyethoxy)ethoxy]ethyl]orthoborate</li> </ul>	1-10 %	<u>^</u>	
		<ul> <li>Di-n-butylamine</li> </ul>	Less than 1 %		
		<ul> <li>Mixture of glycol, glycol ether and additives</li> </ul>	80-90 %		
Air Conditioning Refrigerant	HFO-1234yf 17.81-19.58 oz (505-555 g)	<ul> <li>Tetrafluoroprop-1-ene</li> </ul>	100 %		
Windshield	1.6 US qt (1.5 L)	<ul> <li>Methyl Alcohol (Methanol) (Concentrate)</li> </ul>	More than 99%		
		<ul> <li>Sodium Carbonate (Tablet)</li> </ul>	40-50		
Windshield Washer Fluid		Citric Acid (Tablet)	20-40	$\Lambda$	
		<ul> <li>Ethoxylated Fatty Alcohols (Tablet)</li> </ul>	0.1-3		
		<ul> <li>Alkoxylated Alcohols (Tablet)</li> </ul>	0.1-2		

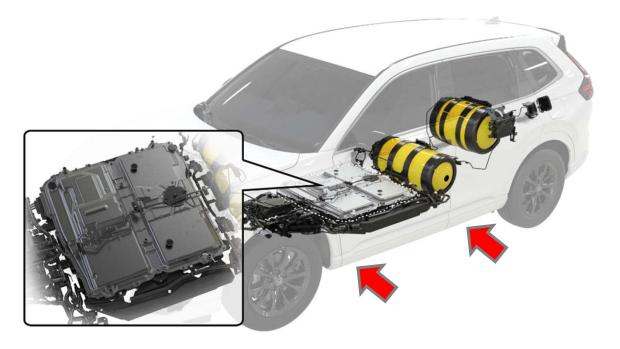
### Fire Extinguishing Methods

If a CR-V e:FCEV is involved in a high-voltage battery fire, the fire should be extinguished using the following procedure where possible but with this reminder:

Keep away from the rear of the vehicle until the fire is completely out. Each hydrogen tank is equipped with a thermally-activated pressure relief device (TPRD). After sufficient exposure of the TPRD to temperatures above approximately **230°F (110°C)**, the hydrogen gas in the tanks will be released in the towards the bottom direction. You may hear a hissing or roaring as the hydrogen escapes, and it can take up to **5 minutes** for a full tank to empty. Although pure hydrogen flames are invisible, you will see colored flames if other parts of the vehicle are burning.

## If touching high-voltage cables and other high-voltage components is unavoidable, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

- 1. Extinguish the remaining fire using a large volume of water such as from a fire hydrant, well water, or pond water. If water is not available, ABC powder fire extinguisher may be used as an alternative.
- 2. Apply water aiming underneath the vehicle floor from the front tire to the rear tire position where the battery unit is located.



#### Submerged Vehicle

If a CR-V e:FCEV is submerged or partly submerged in water, first pull the vehicle out of the water, then shut down the high-voltage system. **See Section 3 (Disable Direct Hazards / Safety Regulations for the high-voltage shutdown procedures.** 

If touching high-voltage cables and/or other high-voltage components is unavoidable, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

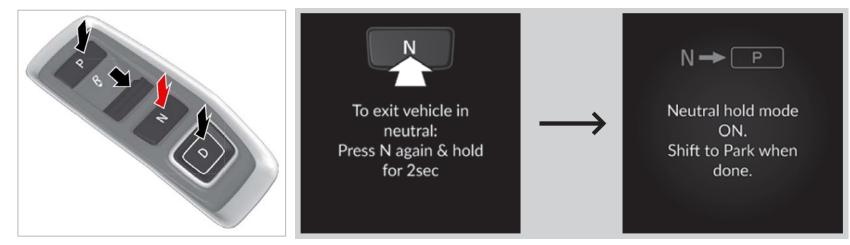


Aside from severe damage to the vehicle, there is no risk of an electric shock from touching the vehicle's body or framework - in or out of the water. If the high-voltage battery was submerged, you may hear noises from the battery as the cells are being discharged from shorting.

#### Shifting the Vehicle into Neutral

#### Shifting the Vehicle into Park or Neutral

- 1. Press the **POWER** button twice to turn the vehicle **ON**.
- 2. Press and hold the brake pedal and press **N**. Within six seconds, press and hold **N** for two seconds.



NOTE:

- If you want to neutral, select a position other than N.
- The procedure will only operate if the vehicle's 12-volt battery power is available.
- If the 12-volt power **IS NOT** available, use available wheel chocks or dollies.
- See Section 2 (Immobilization/Stabilization/Lifting) for additional procedures including parking the vehicle.

#### **Emergency Towing**

The preferred method for emergency towing is to use a flat-bed tow truck. If wheel lift equipment must be used, be sure to suspend the front wheels and release the parking brake. **DO NOT** use cable-type tow equipment.

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

Flat-Bed	Front Wheel Type	Cable-type
<ol> <li>Secure the vehicle on the flat-bed tow truck.</li> <li>Apply the parking brake.</li> </ol>	<ol> <li>Lift the front wheels.</li> <li>Release the parking brake.</li> </ol>	Never tow this vehicle with cable-type equipment.

Be aware that when rolling a CR-V e:FCEV with the front (drive) wheels on the ground, the electric motor can produce electricity and remains a potential source of electric shock even when the high-voltage system is turned off.

Carry a fire extinguisher during transportation for enhanced safety, and have the flat-bed tow truck with the damaged vehicle followed by another support vehicle for monitoring. After transportation, discharge the battery if necessary. See the Battery Discharging information on this section.

## **A**WARNING

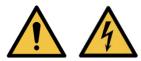
If the orange high-voltage cables or high-voltage covers have been damaged exposing wiring, terminals, and/or other components, the exposed parts should never be touched. Doing so could result in serious injury or death due to severe burns or electric shock.

If it is not clear whether the exposed wires and terminals are high-voltage components or not, do not touch them.

If touching high-voltage cables and/or other high-voltage components is unavoidable, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

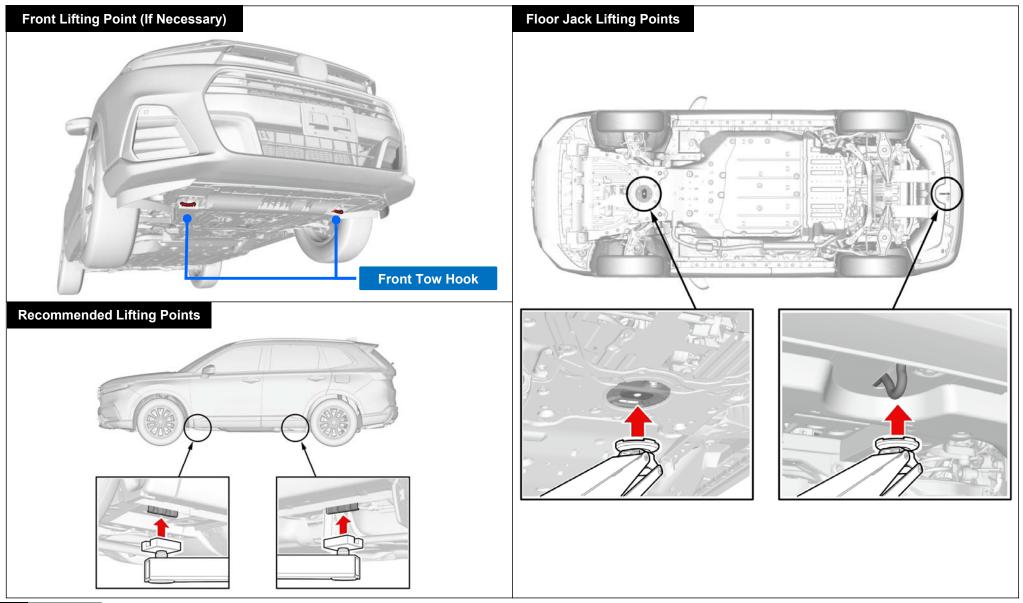
#### Acoustic Vehicle Alerting System

The CR-V e:FCEV is equipped with an acoustic vehicle alerting system that alerts pedestrians with an audible sound that it is approaching when the speed is about **14 mph** or less. When pushing the vehicle with the ignition turned to ON, you will hear this sound as the vehicle is being moved.



## Lifting the Vehicle

Use the indicted lifting points to raise the vehicle.

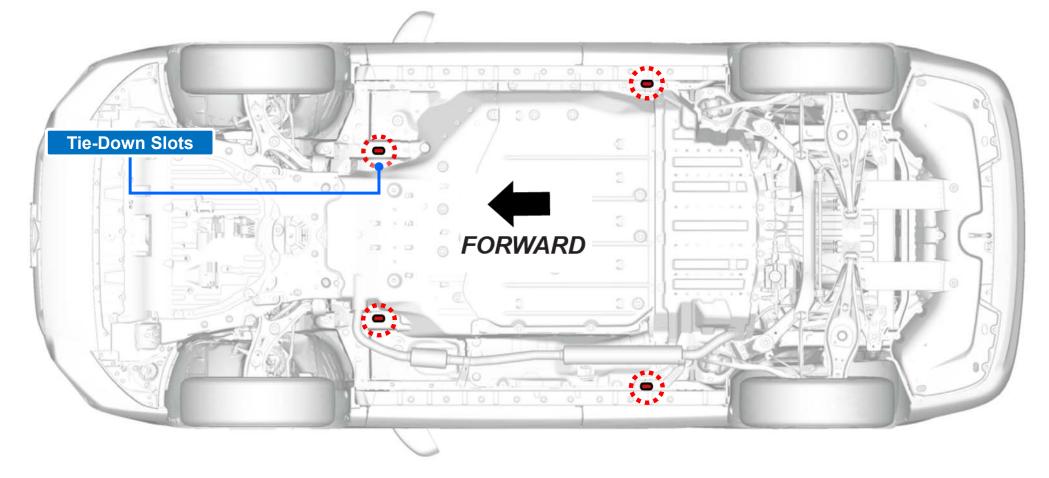




## Securing the Vehicle

The recommended tie-down locations for securing the vehicle are indicated below.

• Four tie-down slots - Two behind the front wheels and two in front of the rear wheels



## Dimensions & Weight

Dimensions		
Wheelbase (in.) 106.3		
Length (in.)	187.6	
Height (in.)	66.6	
Width (in.)	73.4	
Weight (lbs.)	4,431	

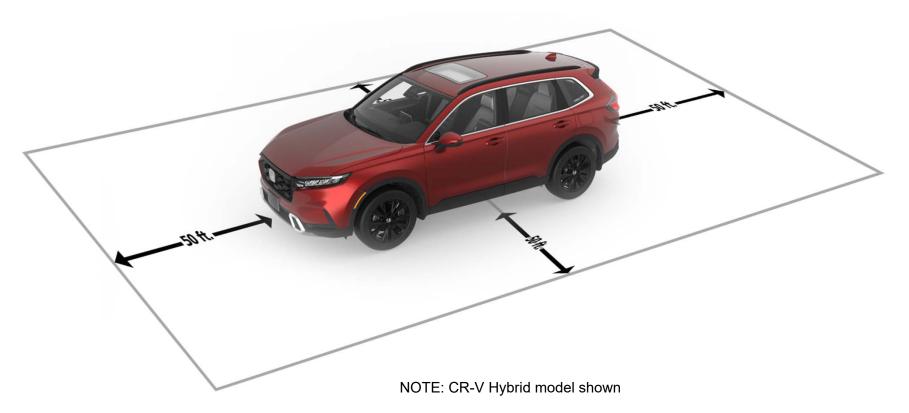


## Storing the Vehicle

The damaged vehicle can be stored in either Open Perimeter Isolation or Barrier Isolation.

#### **Open Perimeter Isolation**

Store the vehicle in an outdoor area separated from all combustibles and structures by a minimum distance of **50 feet (15.2 m)** from all sides.



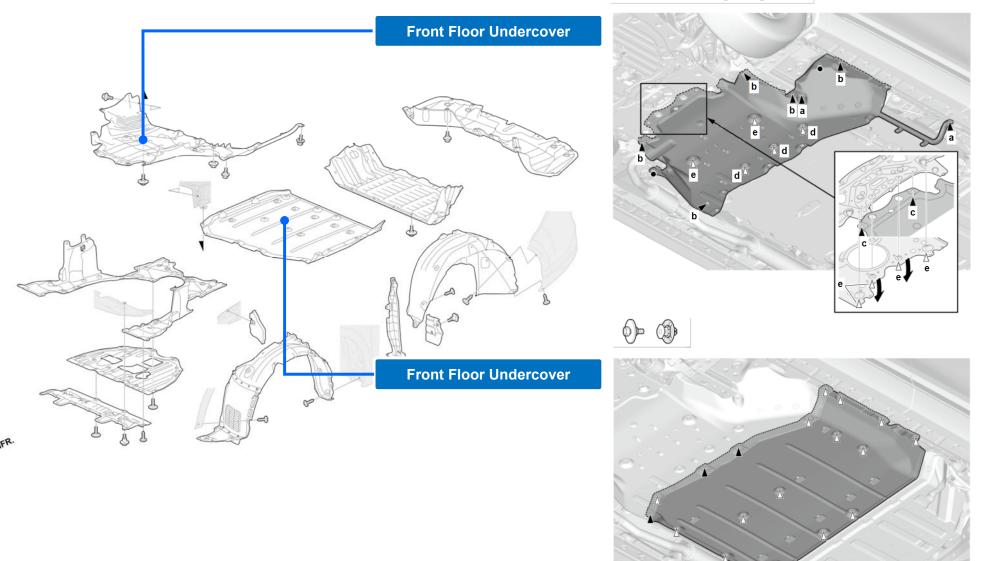
#### **Barrier Isolation**

- Store the vehicle 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 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 must 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 Battery Access

To expose the high-voltage battery, remove the front and rear floor undercovers as shown.

• a ► b ► c ► d ▷ e ▷ () 0) 0) 0) 0) 0) 0)





## Battery Discharging

If the high-voltage battery is severely damaged or burned, or the vehicle has been submerged, the battery must be discharged. Failure to discharge stored or stranded energy remaining in the battery may result in a fire or re-ignition due to damage or short circuit.

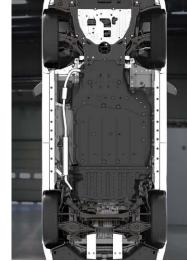
See Section 3 (Disable Direct Hazards / Safety Regulations) for procedures to disconnect the 12-volt battery.

If touching high-voltage cables and/or other high-voltage components is unavoidable, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

- 1. Disconnect the 12-volt battery.
- 2. Lift the vehicle up using to access underneath the vehicle.
- 3. Remove the front and rear floor undercovers. See previous page
- 4. Disconnect all orange cables that are connected to the high-voltage battery and wrap them with insulating tape.

#### Continued on the next page.







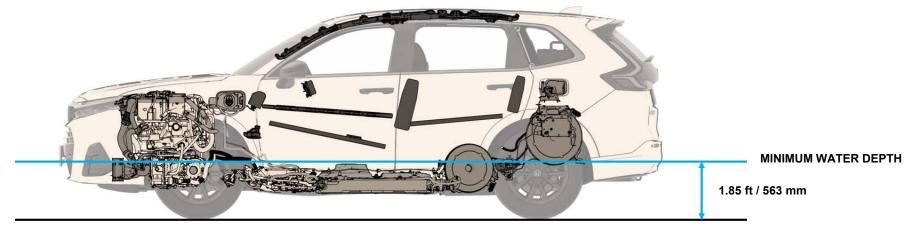
## Battery Discharging (Continued)

5. Fill the pool with water from a fire hydrant, well water, or pond water until the high voltage battery is completely submerged. If there is a risk of water leakage from the pool, place a thick plastic sheet under the pool.

Never use seawater or any water containing salt.



5. Continue filling the pool to a minimum depth of **2.41 feet (734 mm)** until the high voltage battery is completely submerged.



6. Maintain this water level for at least **3.5 days**. If the water level drops below the minimum specified level, add fresh water.

Since the water used for discharging the battery is converted to an aqueous solution containing metals such as Phosphorus (P) and Lithium (Li), dispose of it properly as an industrial waste according to local regulations.



#### 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. 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.

In order to minimize the possibility of collateral fire damage, responders should always ensure that a CR-V e:FCEV with a damaged battery is kept outdoors and far away from other flammable objects.

# \*

#### Lithium-Ion Battery Fluid

Avoid contact with the high-voltage battery fluid. The high-voltage battery contains a flammable electrolyte that could leak as a result of a severe crash. Avoid any skin or eye contact with the electrolyte as it is corrosive. If you accidentally touch it, flush your eyes or skin with a large quantity of water for at least **5 minutes** and seek medical attention immediately.

#### **Electric Shock**

Unprotected contact with any electrically charged high-voltage component can cause serious injury or death. Receiving an electric shock from a CR-V e:FCEV, 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.

#### Disposal

The lithium-ion battery, the high-voltage battery fluid, and the water used to discharge the battery must be properly disposed of as industrial waste according to local regulations.



## Seat Belts and Airbags

The CR-V e:FCEV is equipped with lap/shoulder belts in all seating positions. The front seat belts are equipped with pyrotechnically activated tensioners that help tighten the seat belt in a sufficient crash.

In addition, the CR-V e:FCEV is equipped with the following airbags:

- Front Airbags Driver/Front Passenger
- Knee Airbags Driver/Front Passenger
- Side Airbags Front/Rear
- Side Curtain Airbags Driver's Side/Passenger's Side

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 described in this guide.

In a collision severe enough to deploy one or more of the airbags, the CR-V e:FCEV electrical system is designed to automatically open the high-voltage electrical contactors. This disconnects the high-voltage battery from the other high-voltage components and stops the flow of electricity in the high-voltage cables.

However, responders should always assume that the highvoltage system is powered on and take the appropriate action described in this guide to power off the system.



NOTE: CR-V Hybrid model shown



## Vehicle Collisions

When the SRS unit detects a collision signal, it sends a collision detection signal (CDS) to the H2 Pyro Switch. The H2 pyro switch then stops the power supply to the high-voltage circuit and the hydrogen injector power supply circuit.

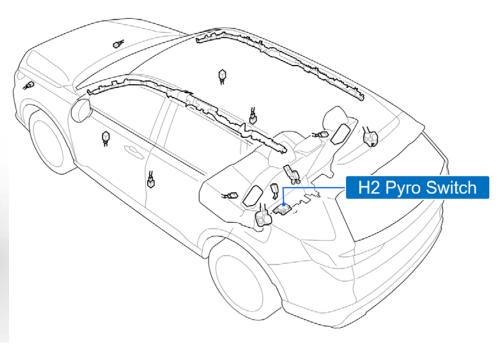
Once the signal is received from the SRS unit, the Battery Energy Control Module will open the high-voltage contactor relays, placing the vehicle in a high-voltage lockout state and disabling.

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.

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

Honda recommends that responders follow the procedures in this guide to avoid potentially lethal shock from high voltage.





NOTE: CR-V Hybrid model shown

#### **Dealer Inspection and Repair**

A damaged CR-V e:FCEV should be taken to an authorized Honda dealer for a thorough inspection and repairs. For questions, please contact your local Honda dealer or Honda Automobile Customer Service at **(800) 999-1009**.

CR-V e:FCEV models are only available for sale in California and will only be sold and serviced at selected dealers below.

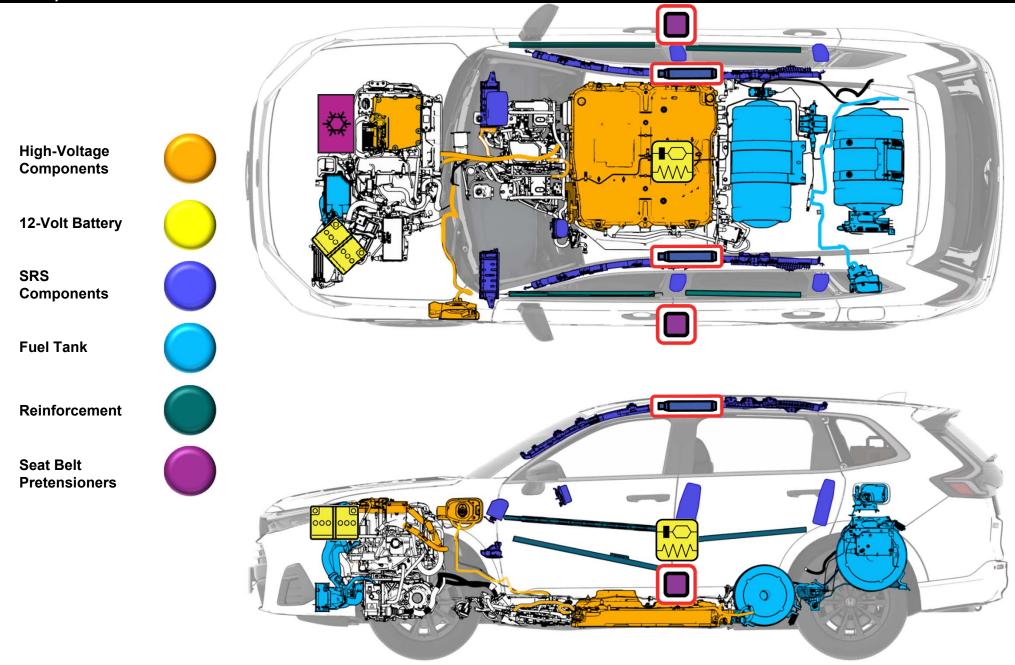
Northern California		
City	Dealer Name	
Colma	Honda of Serramonte	
Dublin	Dublin Honda	
Oakland	Honda of Oakland	
Palo Alto	Anderson Honda	
Roseville	Autonation Honda Roseville	
San Jose	Honda of Stevens Creek	

Southern California			
City Dealer Name			
Cerritos	Norm Reeves Honda Superstore		
Culver City	Culver City Honda		
Irvine	Norm Reeves Honda Superstore Irvine		
Pasadena	Honda of Pasadena		
Torrance	Scott Robinson Honda		
Woodland Hills	Woodland Hills Honda		

#### High-Voltage Battery Recycling

The high-voltage lithium-ion battery requires special handling and disposal. If disposal is necessary, please contact your local Honda dealer or American Honda's Hybrid Battery Consolidation Center at **(800) 555-3497**.

## Components



Pictogram	Name	Pictogram	Name
$\langle \rangle$	Hood release/opener control		High-voltage battery pack
	Tailgate/cargo area opener control	4	High-voltage component
l.	Power switch	ľ	High-voltage power cable
	Keyless operation key distance		Fuel tank (gasoline)
	Fuse box disabling high-voltage	**	Air-conditioning component
*****	Cable to cut to disconnect high-voltage		General warning
00	High-voltage service plug *	A	Electricity or dangerous voltage
Ŕ	Steering wheel height adjustment control		Use a thermal infrared camera
	Seat height adjustment control	Ś	Use water to extinguish the fire
4	Forward or backward seat adjustment control		Use ABC powder to extinguish the fire
	Lifting point		Flammable
	Airbag	$\diamond$	Gases under pressure
	Airbag inflator		Corrosive
	Seat belt pretensioner		Hazardous to human health
	12-volt battery	×.	Environmental hazard
	SRS control unit		

\*Not applicable to the CR-V e:FCEV

This guide has been prepared to assist emergency response professionals in identifying a 2025 Honda CR-v e:FCEV vehicle and safely respond to incidents involving this vehicle.

Copies of this guide and other emergency response guides are available for reference or downloading at <a href="https://techinfo.honda.com">https://techinfo.honda.com</a>.

For questions, please contact your local Honda dealer or Honda Automobile Customer Service at (800) 999-1009.

Honda wishes to thank emergency response professionals for their concern and efforts in protecting Honda customers and the general public.



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