

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

> **2023 – 24 Honda Accord Hybrid** 4-Door Sedan Hybrid Electric Vehicle







Version 2

This guide has been prepared to assist emergency response professionals in identifying a 2023 – 24 Honda Accord Hybrid 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 <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.



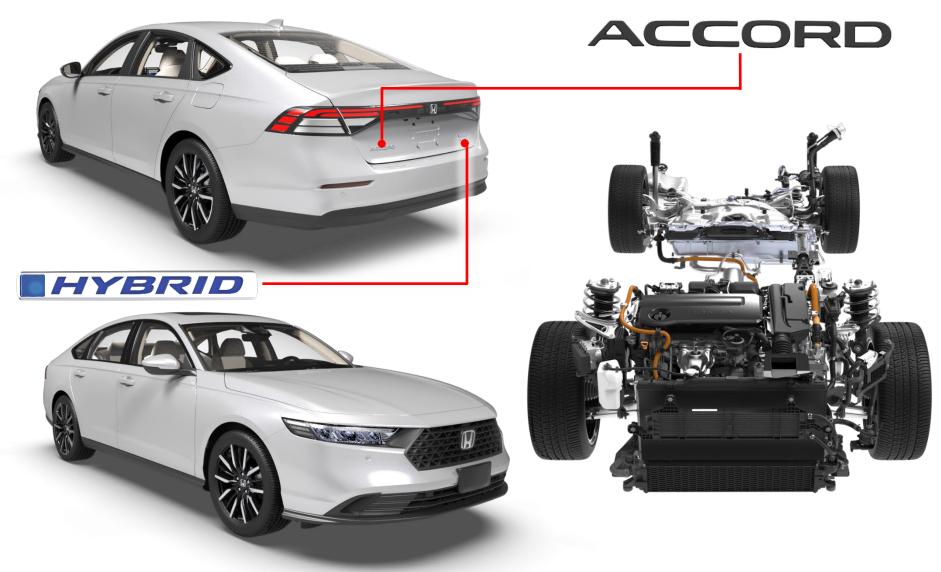


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The Honda Accord Hybrid can be identified by the **ACCORD** emblem mounted on the trunk, and the **HYBRID** emblems mounted on the trunk and the front fenders.

The Accord Hybrid can also be identified by the orange cables throughout the engine compartment and under the vehicle.



### 1. Identification / Recognition



The Honda Accord Hybrid can also be identified by inspecting the VIN at the three locations shown below.

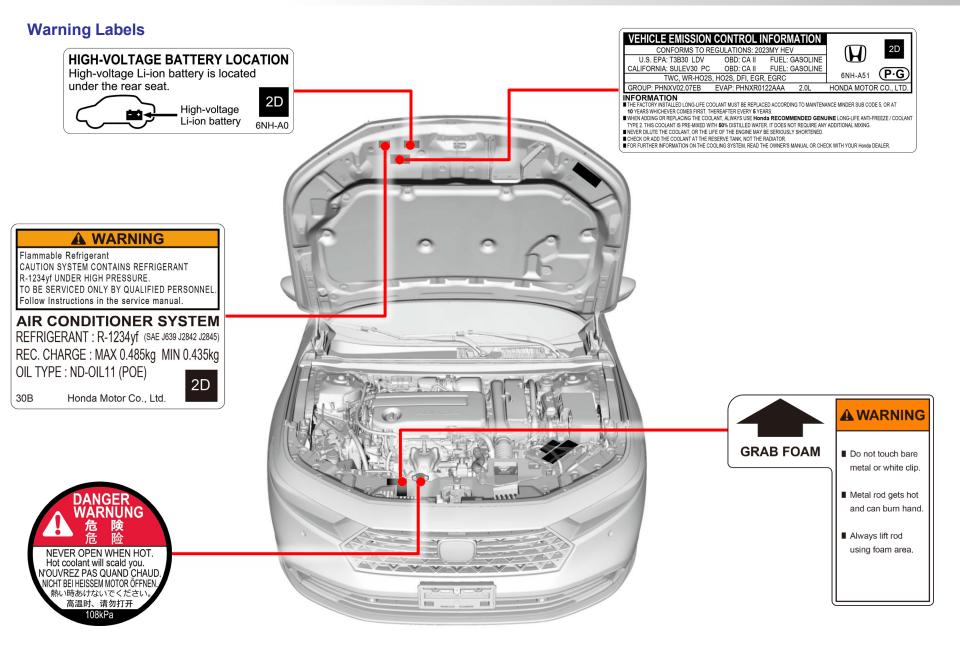
The characters 4 thru 6 of the VIN will show CY2 indicating that it is a Honda Accord Hybrid.

1HG<u>CY2</u>\*\*\*\*000001

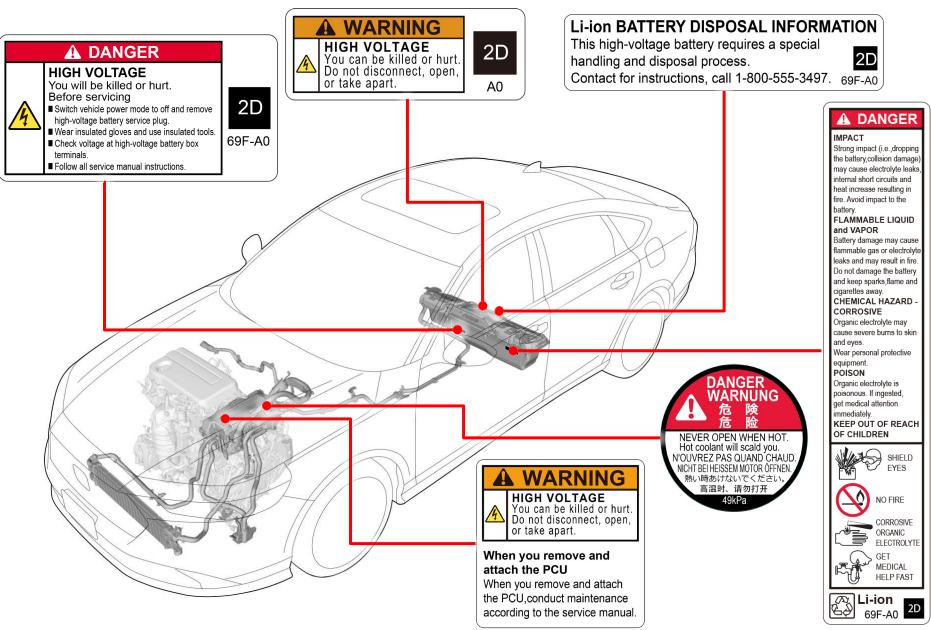
VIN plate located on the lower-right corner of the front windshield

Printed on the VIN label on the driver's side doorjamb

### 1. Identification / Recognition

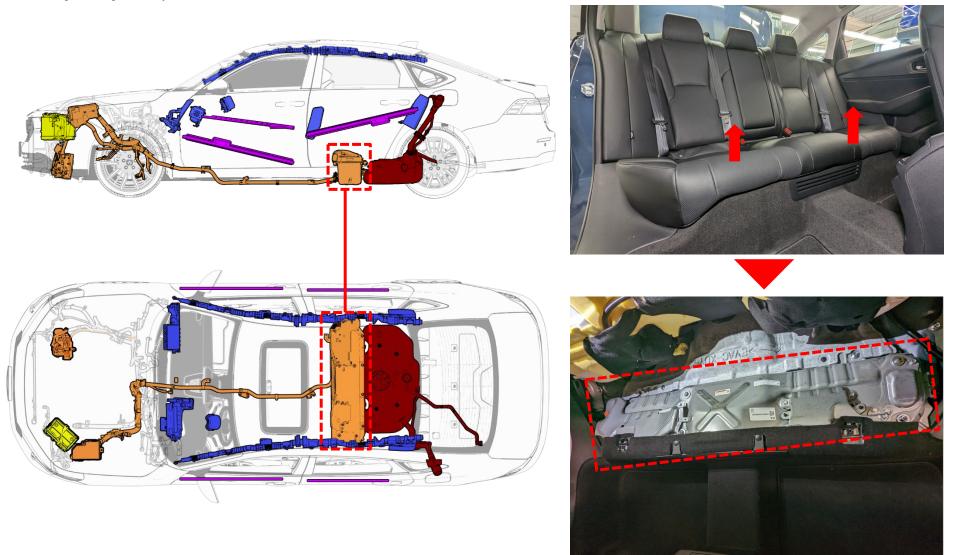


Warning Labels (continued)



### High-Voltage Battery - Location

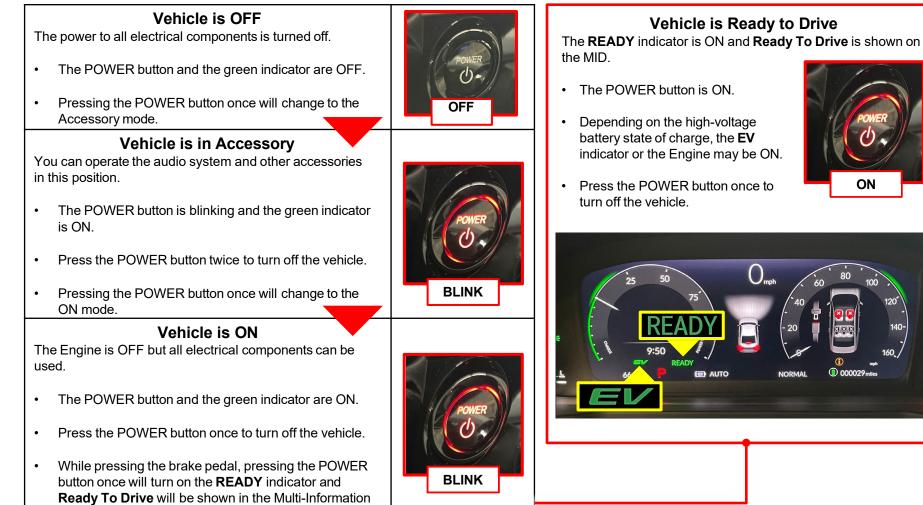
The high-voltage battery is located under the rear seats.



### 2. Immobilization / Stabilization / Lifting

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

Check the POWER button and the gauges for the vehicle status.







Display (MID).

40-

000029 miles

### **Parking the Vehicle**

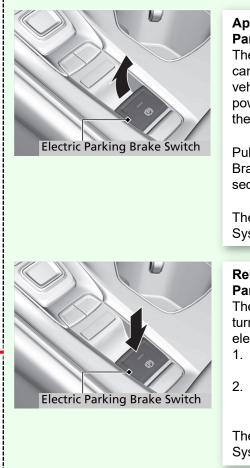
#### NOTE:

- The following features 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.
- 1. Press the POWER button to turn the vehicle ON.
- 2. Shift to the P position on the Gear Selector to shift the transmission to Park, or N to shift the transmission to Neutral.
- 3. Push the POWER button to turn the vehicle OFF.
- 4. If necessary, pull up the Electric Parking Brake switch to apply the parking brake.









#### Applying the Electric Parking Brake

The electric parking brake can be applied any time the vehicle has 12-volt battery power no matter what state the power mode is in.

Pull up the Electric Parking Brake switch gently and securely.

The parking brake and Brake System indicator come on.

#### Releasing the Electric Parking Brake

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

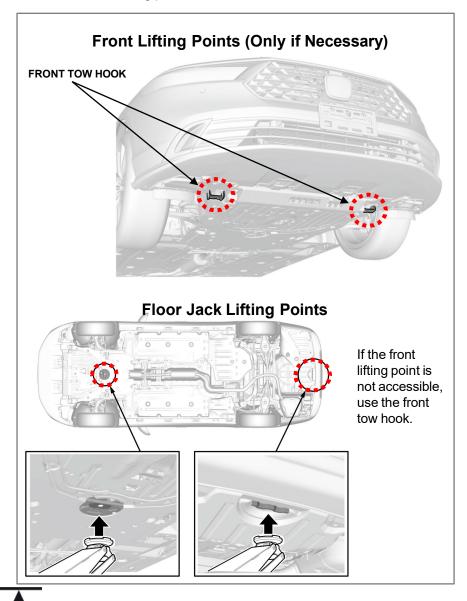
- 1. Press the and hold the brake pedal.
- 2. Press the Electric Parking Brake switch.

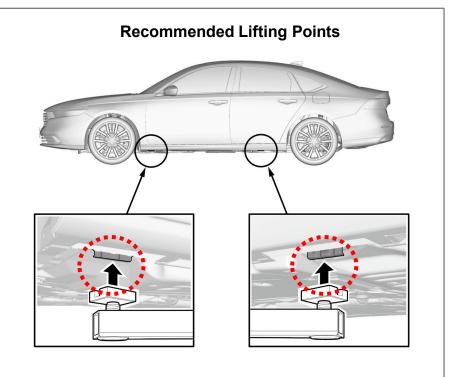
The parking brake and Brake System indicator go off.

### 2. Immobilization / Stabilization / Lifting

### Lifting the Vehicle

Use the indicated lifting points to raise the vehicle.





### 3. Disable Direct Hazards / Safety Regulations

### **Preventing Current Flow Through High-Voltage Cables**

Before attempting to rescue occupants or move a damaged Honda Accord Hybrid, you should reduce the potential for current to flow 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 off the vehicle 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 front 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 **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.







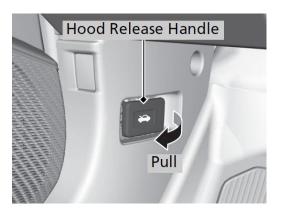
# HIGH-VOLTAGE SHUTDOWN PROCEDURE (PREFERRED)

### 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 engine compartment.

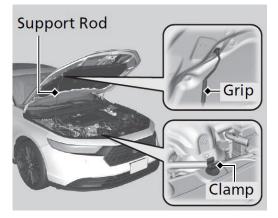
Together, cutting the negative 12-volt battery cable and the PCU cable immediately turns off and shuts down the high-voltage system controllers and the engine, thereby preventing current flow into the high-voltage cables.

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

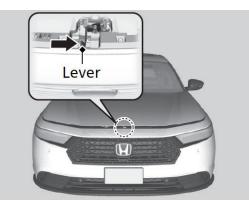


2. Push the hood latch lever (located under the front edge of the hood to the center) to the side, and raise the hood. Once you have raised the hood slightly, you can release the lever.

3. Remove the support rod from the clamp using the grip. Mount the support rod in the hood.



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)

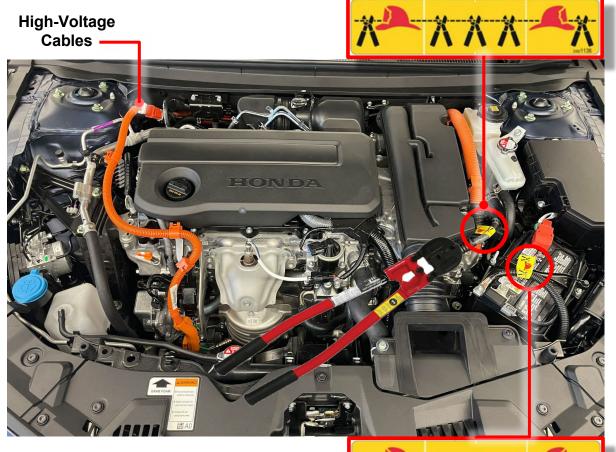
4. Locate the two cut point labels as shown, and cut them.

If touching high-voltage cables and 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 engine and prevent current flow into the high-voltage cables, use extreme care and do not touch damaged cables as they may be electrically charged.



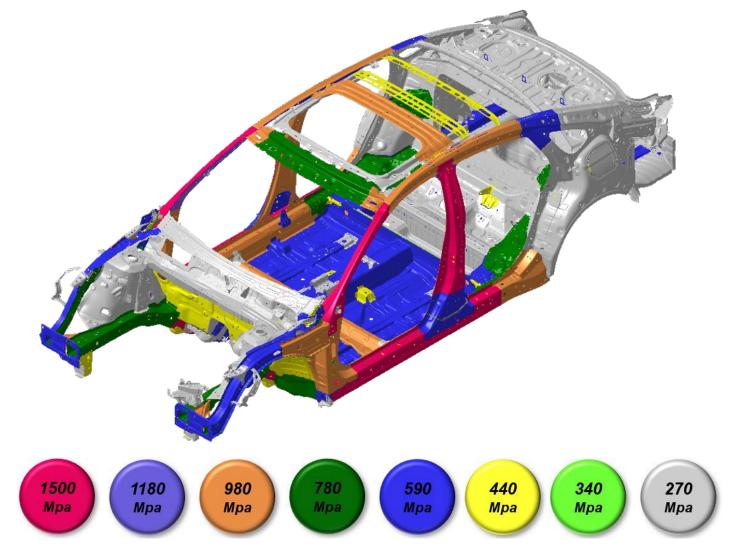




**HIGH-VOLTAGE SHUTDOWN PROCEDURE (ALTERNATIVE)** 

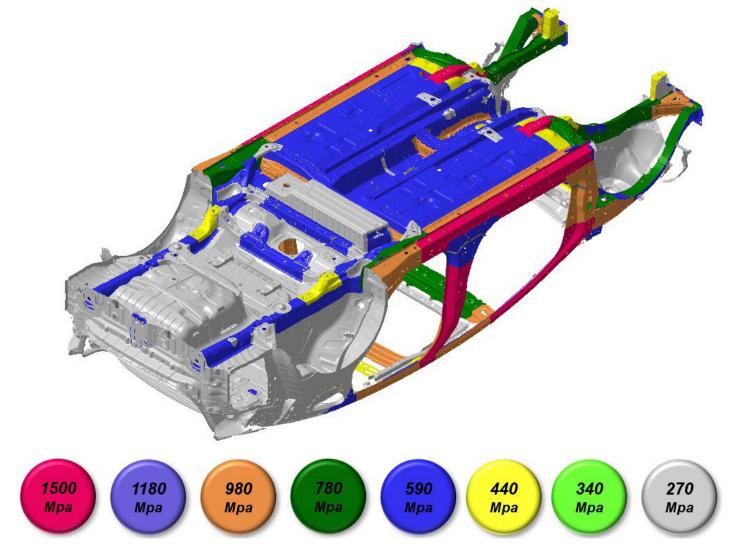
### High-Strength and Ultra-High-Strength Steel

The body of the Honda Accord Hybrid is made of high-strength steel and ultra-high-strength steel indicated in the colored areas.



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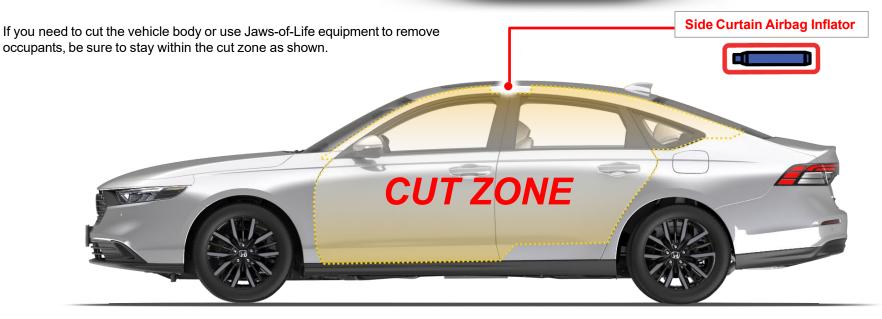


### **Extricating Occupants**

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

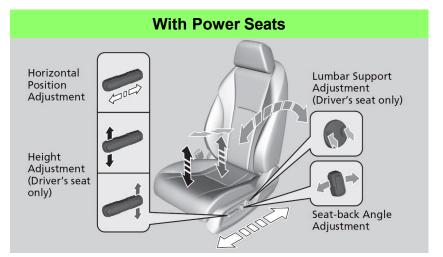
When cutting the vehicle body, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

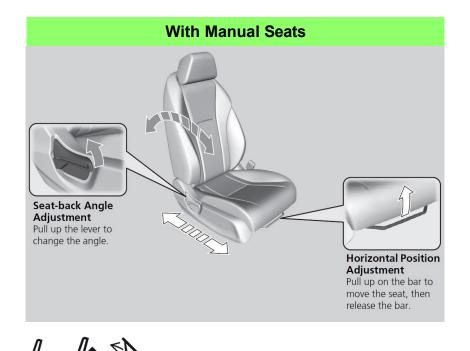




# **EXTRICATING OCCUPANTS**

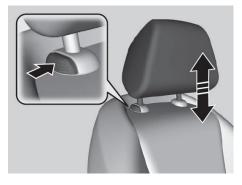
### Moving the Seats, Head Restraints & Steering Wheel





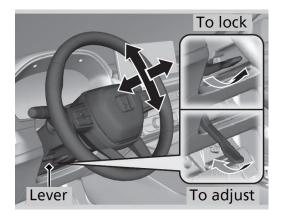
To raise the head restraint: Pull upward.

To lower the head restraint: Push down while pressing the release button.



To adjust the steering wheel position:

- 1. Pull the steering wheel adjustment lever down. The steering wheel adjustment lever is under the steering column.
- 2. Move the steering wheel up or down, and in or out.
- 3. Push the steering wheel adjustment lever up to lock the steering wheel in position.



# 5. Stored Energy / Liquids / Gases / Solids

Туре	Capacity	Content	Dangers
12-Volt Battery	12 V — 45 Ah/20 HR (12 V — 36 Ah/5 HR)	<ul> <li>Lead 34%</li> <li>Lead Peroxide 31%</li> <li>Lead Sulfate 1%</li> <li>Sulfuric Acid (35%) 34%</li> </ul>	
Lithium-Ion, High-Voltage Battery	259.2 V 72 cells (36 cells × 2 modules)	<ul> <li>Lithium Metal Oxide 15-25%</li> <li>Aluminum 20-30%</li> <li>Graphite 5-15%</li> <li>Copper 15-25%</li> <li>Organic electrolyte 15-25% (Maximum volume: 50cc)</li> </ul>	
Engine Oil	5.1 US qt (5.4 L )	Distillates, petroleum, hydrotreated heavy parrafinic.	
Gasoline Tank	12.81 US gal (48.5 L)	<ul> <li>Gasoline 88-100%</li> <li>Ethanol Less than 10%</li> <li>Toluene Less than 10%</li> <li>1,2,4-Trimethylbenzene Less than 5%</li> <li>Benzene Less than 5%</li> <li>N-Hexane Less than 3%</li> </ul>	
Engine Coolant	1.49 US gal (5.63 L)	<ul> <li>Ethylene Glycol 43 - 49 %</li> <li>Diethylene Glycol Less than 3%</li> <li>Hydrated increanic coid correction coid colta</li> </ul>	
High-Voltage Battery Coolant	About 0.4 US gal (1.5 L)	<ul> <li>Hydrated inorganic acid, organic acid salts Less than 5%</li> <li>Water 45 - 55 %</li> </ul>	

### 5. Stored Energy / Liquids / Gases / Solids

Туре	Capacity	Content	Dangers
Transmission Fluid	2.6 US qt (2.5 L)	<ul> <li>Lubricating base stocks 80-90%</li> <li>2,6 Di-tert-butyl-p-cresol &lt;0.1 to 1.0%</li> </ul>	Not provided on SDS
Brake Fluid	N/A	<ul> <li>Diethylene Glycol Less than 10%</li> <li>Mixture of glycol ether, glycol derivative, glycol ether borate ester (except diethylene glycol) 89 - 99 % None</li> </ul>	Not provided on SDS
Air Conditioning Refrigerant	HFO-1234yf 15.3 – 17.1 oz (435 – 485 g)	• Tetrafluoroprop-1-ene 100%	
Windshield Washer Fluid	1.6 US qt (1.5 L)	<ul> <li>Concentrate</li> <li>Methyl Alcohol (methanol) more than 99%</li> <li>Tablet</li> <li>Sodium carbonate (2:1) 40 to 55%</li> <li>Citric acid 20 to 40%</li> <li>Ethoxylated fatty alcohols 0.1 to 3%</li> <li>Alkoxylated alcohols 0.1 to 2%</li> </ul>	

### **Fire Extinguishing Methods**

In case of vehicle high-voltage battery fire, the fire should be extinguished using the following procedure where possible.

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 fire using a large volume of water such as from a fire hydrant, well water, or pond water. If water is not available, an ABC powder fire extinguisher may be used as an alternative
- 2. If it is safe to do so, open the passenger's side rear door and direct water from the right side into the high-voltage battery vent under the rear seat cushion.
- 3. Continue extinguishing until a complete suppression of fire and smoke is observed from the battery.
- 4. Once signs of active fire have completely subsided (e.g. no visible smoking), a thermal camera should be used to evaluate and monitor the temperature of the battery unit.

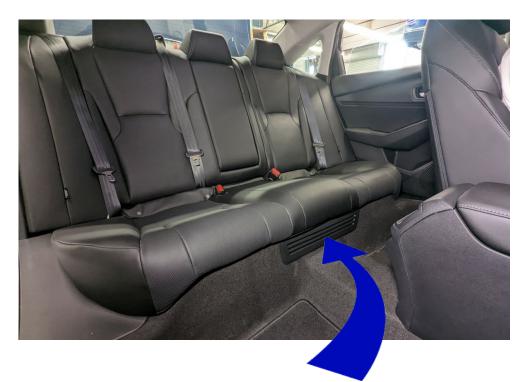
NOTE: The battery temperature should continue to be monitored. If the battery temperature begins to increase, a possibility for reignition exists and additional water or a fire extinguisher should be used to mitigate reignition.

#### WARNING:

- Do NOT attempt to open the battery cover at this time.
- Never use seawater or any water containing salt.
- Always assume the high voltage battery contains stranded energy and a possibility for reignition exists.

See Section 8 (Towing/Transportation/Storage) for additional procedures including discharging the high voltage battery.





#### Submerged Vehicle

If a Honda Accord Hybrid 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 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.

See Section 8 (Towing/Transportation/Storage) for additional procedures including discharging the high voltage battery.

### Shifting the Vehicle into Neutral

#### NOTE:

- The following features 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.
- 1. Press the POWER button to turn the vehicle ON.
- 2. Press and hold the brake pedal.
- 3. Shift to N on the gear selector to shift the transmission to Neutral.
- 4. If necessary, press the Electronic Parking Brake button to release the parking brake.
- 5. Release the brake pedal and push the POWER button to turn the vehicle to ACCESSORY.

NOTE: Manually shifting to park cancels ACCESSORY mode.

The P indicator comes on, and the power mode changes to OFF. Always shift the transmission to park when neutral hold is no longer necessary.



### **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 lift 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 Honda Accord Hybrid 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 and for enhanced safety, 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 Battery Discharging in this section.

# **WARNING**

If the orange high-voltage cables or high-voltage covers have been damaged, exposing wiring, terminals, 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 other high-voltage components is unavoidable, personal insulating protective equipment (insulating gloves, protective goggles, and insulating boots) should always be worn.

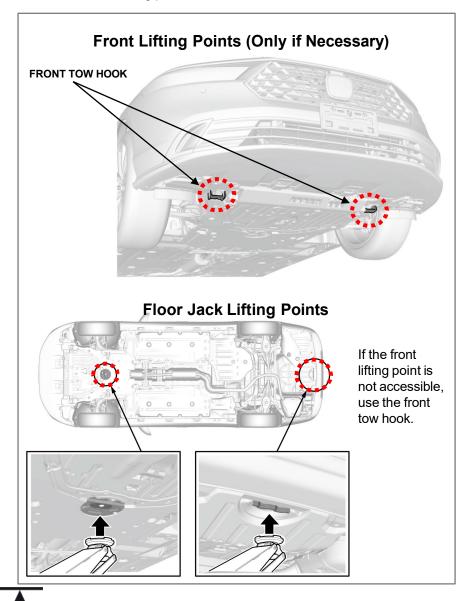
#### Acoustic Vehicle Alerting System

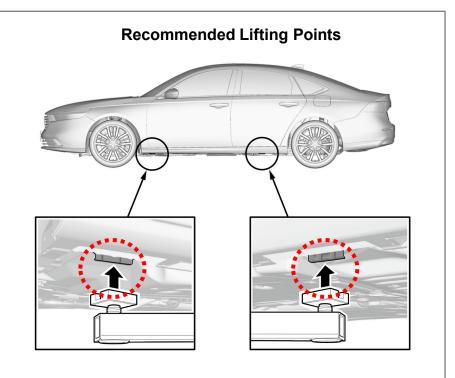


The Honda Accord Hybrid is equipped with an acoustic vehicle alerting system that alerts pedestrians with an audible sound that it is approaching when the speed is about **14 mph** or less. When pushing the Honda Accord Hybrid with the ignition turned to you will hear this sound as the vehicle is being moved.

### Lifting the Vehicle

Use the indicated lifting points to raise the vehicle.



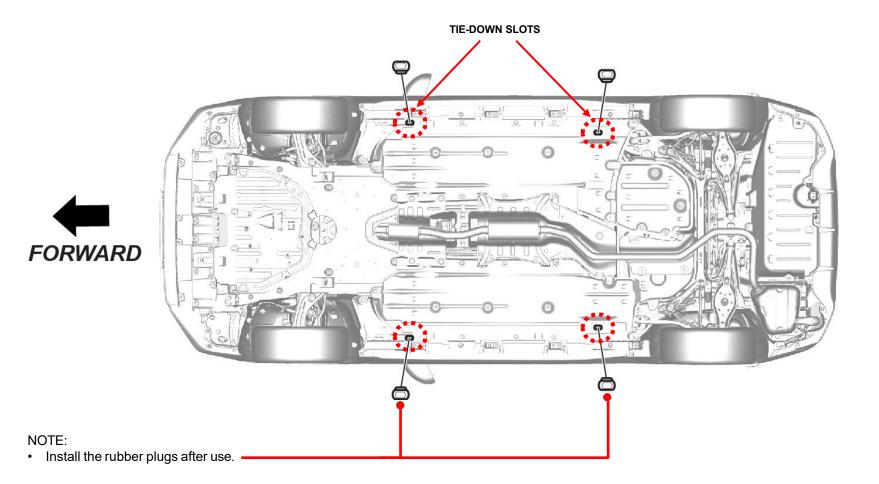


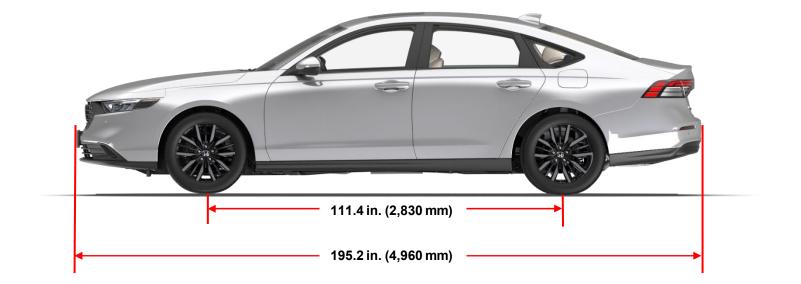


### Securing the Vehicle

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

• Four tie-down slots (covered by rubber plugs) - Two behind the front wheels and two in front of the rear wheels







Curb Weight Rating 3,538 lb (1,605 kg)

### **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.

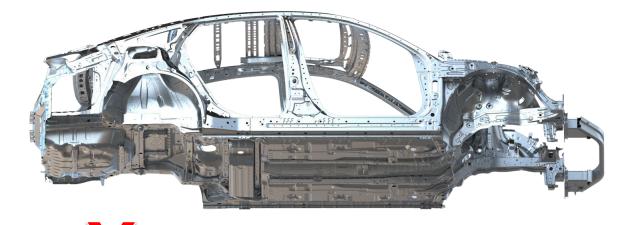
### **High-Voltage Battery Access**

See Section 8 (Battery Discharging) for procedures including removing the rear seat and turning off the high-voltage service plug.

NOTE: In the event of an emergency, remove the seat cushion with extrication equipment as necessary.









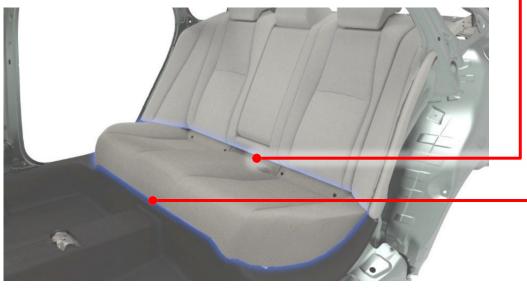
### **Battery Discharging**

If the high-voltage battery is severely damaged or burned, or the vehicle has been submerged, and water has entered and accumulated on the floor of passenger compartment, 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 a damaged or short circuit.

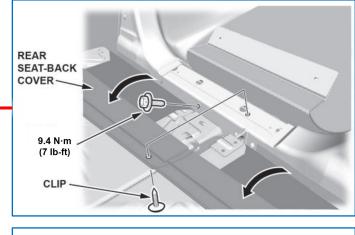
See Section 3 (Disable Direct Hazards / Safety Regulations) for procedures including disconnecting the 12-volt battery.

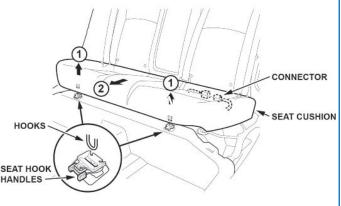
If touching high-voltage cables and other high-voltage components is unavoidable, personal protective equipment (insulating gloves, goggles, and boots) should always be worn.

- 1. Disconnect the 12-volt battery.
- 2. Fold down the rear seat-backs and remove the rear seat-back cover clip.
- 3. Remove the rear seat cushion bolt, then fold up the rear seat-backs.
- 4. While pushing down on the rear seat cushion, pull the seat hook handles to release the hooks. Disconnect the rear seat heater connectors (if equipped).



Continued on the next page.

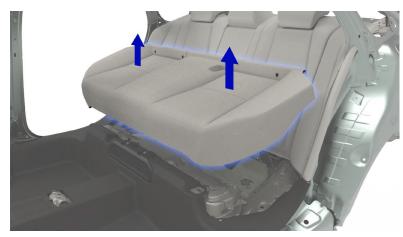




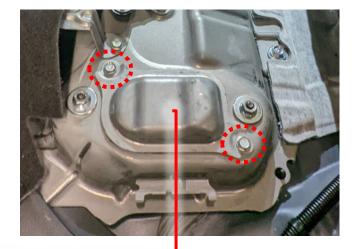
### 8. Towing / Transportation / Storage

### **Battery Discharging (continued)**

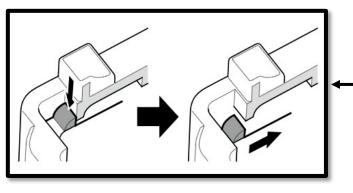
5. Remove the rear seat cushion.

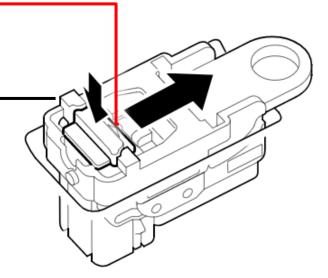


6. Remove the service plug cover 10 mm bolts, then remove the service plug cover.



7. Push and slide the tab on the service plug until you hear a click.





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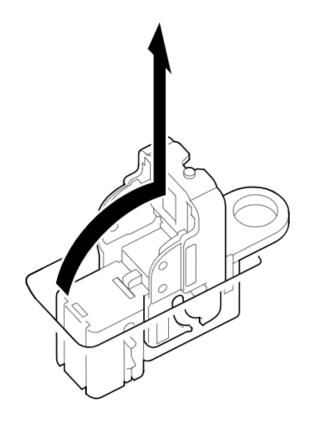




### 8. Towing / Transportation / Storage

### **Battery Discharging (continued)**

8. Raise the lever and remove the service plug.



- 9. Set up a pool approximately 18 feet long x 9 feet wide x 3 feet high in a well-ventilated outdoor area.
- 10. Use a forklift or similar equipment to place the vehicle in the center of the pool.

Continued on the next page.



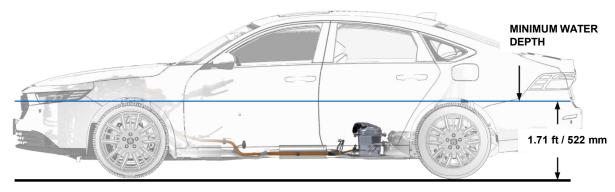
### **Battery Discharging (continued)**

11. Fill the easy set 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 easy set pool, place a thick plastic sheet under the pool.

Never use seawater or any water containing salt.



12. Continue filling the easy set pool to a minimum depth of **1.71 ft (522 mm)** until the high voltage battery is completely submerged.



13. 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 Honda Accord Hybrid 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 Honda Accord 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.

#### **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.





### 9. Important Additional Information

### Seat Belts and Airbags

The Honda Accord Hybrid 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 Honda Accord Hybrid is equipped with the following airbags:

- Front Airbags Driver/Front Passenger
- Side Airbags Driver/Front Passenger/Rear Passenger
- 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 Honda Accord Hybrid 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 high-voltage system is powered on, and take the appropriate action described in this guide to power off the system.





#### Vehicle Collision

In the event of a crash, the supplemental restraint system (SRS) 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 electronic control unit (ECU). 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 Accord Hybrid, 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.





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

A damaged Honda Accord Hybrid should be taken to an authorized Honda dealer for a thorough inspection and repairs. For questions or to locate an authorized Honda dealer, please contact your local Honda dealer or Honda Automobile Customer Service at (800) 999-1009.



#### **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.





### 9. Important Additional Information

This guide has been prepared to assist emergency response professionals in identifying a 2023 – 24 Honda Accord Hybrid 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 <u>https://techinfo.honda.com</u>.

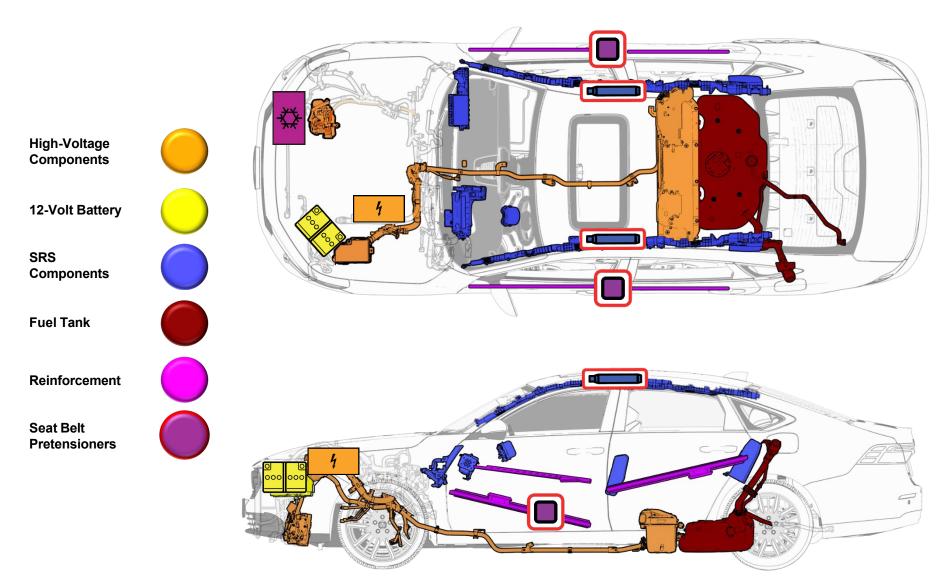
For questions, please contact your local Honda dealer or Honda Automobile Customer Service at (800) 999-1009.

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





#### Components



Pictogram	Name	Pictogram	Name
	Hood release/opener control		High-voltage battery pack
	Tailgate/cargo area opener control	4	High-voltage component
2	Power switch	2	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
0.	High-voltage service plug	4	Electricity or dangerous voltage
Ŕ	Steering wheel height adjustment control		Use a thermal infrared camera
	Seat height adjustment control	<ul> <li>Image: A start of the start of</li></ul>	Use water to extinguish the fire
	Forward or backward seat adjustment control		Use ABC powder to extinguish the fire
	Lifting point	<b>(10)</b>	Flammable
	Airbag	$\diamond$	Gases under pressure
	Airbag inflator	A DECEMBER OF	Corrosive
	Seat belt pretensioner		Hazardous to human health
	12-volt battery	₹ <u>₹</u>	Environmental hazard
	SRS control unit		

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