



# Rescue handling of hybrid vehicles

**PCX**  
**HYBRID**



# INTRODUCTION

This document describes the items to pay attention to during rescue work for the hybrid vehicle "PCX HYBRID".

In order to perform the tasks safely, read this document thoroughly and adhere to the warning information.

The PCX HYBRID is equipped with a motor and gasoline engine, using both as a power source. The motor is driven using power supplied from a 50V battery, and the 50V battery is charged by a generator.

Honda Motor Co., Ltd.

## Symbols relating to safety

Items with the following symbols are important items relating to safety. Please read before use.

 <b>DANGER</b>	Failure to follow this instruction will lead to death or serious injury.
 <b>WARNING</b>	Failure to follow this instruction may lead to death or serious injury.
 <b>CAUTION</b>	Failure to follow this instruction may result in injury.



※ The hybrid-system specific voltage section of the vehicle and the battery for hybrid-system has a voltage warning mark like that on the left attached.

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## 1. How to distinguish the PCX HYBRID

The exterior and features of the PCX HYBRID are introduced below. If a vehicle involved in an accident is an applicable model, adhere to the warning items in this document while carrying out rescue work.

### Exterior

There is an emblem on the side.



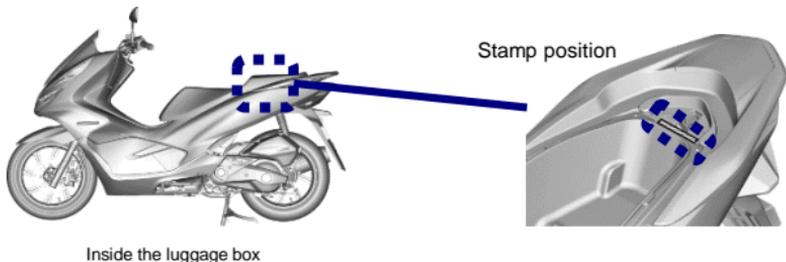
### Identification by model

You can check the model and frame number inside the luggage box. The first 8 digits of the frame number are the model number.

Example: PMKKF31D0JB0\*\*\*\* (for Malaysia)



The "D" alphabet indicate the vehicle is a PCX HYBRID.



Inside the luggage box

**The frame number/VIN are to be addressed by the local subsidiary**

## 2. About hybrid vehicles

The PCX HYBRID system uses a total voltage of 50V or higher.

Therefore, caution and support are necessary when performing rescue work.

### ▲WARNING

- If the hybrid-specific voltage cables (violet or orange) are damaged and the wiring or terminals are exposed, do not touch the exposed parts under any circumstances. Moreover, do not touch exposed wiring or terminals if unsure whether it is a hybrid-specific voltage section. Careless contact with the wiring or terminals may result in severe injury or death from serious burns or electrocution.
- If contact with an exposed section of hybrid-specific voltage cable or voltage parts is unavoidable, or if there is risk of contact, always use insulated protective equipment (insulated gloves, protective glasses, insulated shoes) which can endure the hybrid-specific voltage.
- When a concerned person is separated from the vehicle such as when it is put into storage after an accident, place the sign "Work in progress. Do not touch!" on the vehicle, so that other persons do not inadvertently touch the vehicle. (Copy and use the hybrid vehicle warning sign at the end of this document)

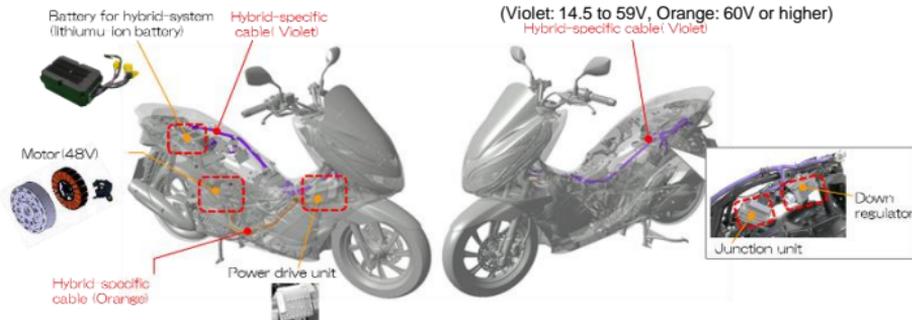
[Items to prepare] Prepare the following items before carrying out rescue work on the PCX HYBRID.

- ① Insulated protective equipment (insulated gloves, protective glasses, protective shoes)
- ② ABC fire extinguisher
- ③ Protective equipment that is resistant to solvents (gas mask (for organic gases), rubber gloves (chemical-resistant),
- ④ wipes, old towel

### ■ Hybrid-specific voltage part

The hybrid-specific voltage part is as shown below.

- The hybrid-specific voltage sections are indicated by the dotted lines in the figure below.
- The parts in red text indicate the hybrid-specific cables, and these can be identified by color.



### ▲WARNING

- If the violet or orange voltage cables have been damaged or cut, careless contact with the wiring may result in severe injury or death from serious burns or electrocution.

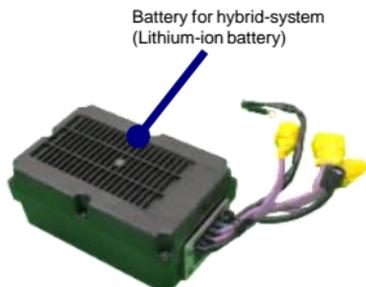
## ■ About the battery for hybrid-system (Lithium-ion battery)

In addition to the 12V battery, the PCX HYBRID is equipped with a lithium-ion battery (drive battery) that supports hybrid-specific voltages. This battery has a total voltage of 50V or higher.

The battery for hybrid-system is stored in a case under the seat, therefore the battery is normally not visible. Also, since the electrolyte is sealed inside the battery, replacement/replenishment is not necessary.

Even in the event of the battery for hybrid-system being damaged, there is no risk of the electrolyte leaking in large quantities.

Read the following page for the measures in case of liquid leakage.



### **⚠ DANGER**

- Do not touch the components or conductors of the wiring inside the hybrid-specific voltage section if exposed such as in the event of damage to the vehicle. Careless contact with the hybrid-specific voltage parts may result in severe injury or death from serious burns or electrocution.
- If contact with an exposed section of hybrid-specific voltage cable or voltage parts is unavoidable, or if there is risk of contact, always use insulated protective equipment (insulated gloves, protective glasses, insulated shoes).

## 3. Cautions when performing rescue work

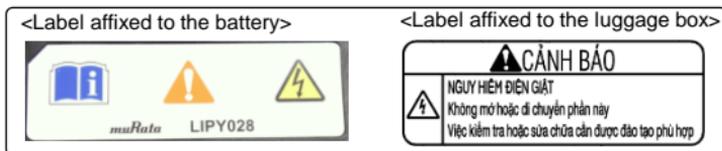
### ■ Overview of measures

The PCX HYBRID is also equipped with a gasoline engine. The same cautions as those for a vehicle with a standard gasoline engine apply, and it is also necessary to apply cautions and measures for hybrid-specific voltage. Read the following items carefully, and address according to the situation when performing the actual work.

### ■ Interception of the hybrid-specific voltage

The PCX HYBRID uses, the hybrid-specific voltage.

- Minus(-) of The hybrid-specific circuit shares frame earth and minus(-) of 12V.
- Warning labels are affixed to the hybrid-specific voltage sections.



The PCX HYBRID is equipped with a system that can interrupt the hybrid-specific voltage.

- Interruption of the hybrid-specific voltage circuit is linked to the ignition switch. When the ignition switch is turned off, the hybrid-specific voltage circuit is interrupted.
- In the event of a short circuit or overcurrent due to collision or submersion, the hybrid-specific voltage is interrupted by the battery management unit. The hybrid-specific voltage is also interrupted when a fuse melts.

### ■ Measures in case of lithium-ion battery leakage

A volatile organic compound is used for the electrolyte of the lithium-ion battery on the PCX HYBRID. Also, the electrolyte is colorless and transparent so it cannot be identified simply by sight. If leakage has occurred in the vicinity of the lithium-ion battery and it is suspected to be electrolyte, wear solvent-resistant protective equipment (gas mask (for organic gas), rubber gloves (chemical-resistant)), and wipe away the leaked liquid with a dry cloth.

Store used cloths in a sealable bag or container, and dispose of them appropriately as industrial waste.

#### ▲WARNING

- The electrolyte in the lithium-ion battery is harmful to humans, so it may cause loss of eyesight or injury if it comes into contact with the eyes or skin. In the event electrolyte comes into contact with the eyes or skin, apply plenty of water to the affected area and seek medical treatment immediately.

#### ■ Cautions and measures in case of fire

If the vehicle catches fire, extinguish the fire with a large amount of water and cool the battery. If unable to get access to a large amount of water, use an ABC fire extinguisher (suitable for oil and electric fires).

During a fire, a short circuit occurs due to the insulation coating of the electrical wiring burning, and the hybrid-specific voltage is interrupted. A short circuit also occurs when a large amount of water is applied, causing the hybrid-specific voltage to be interrupted. Depending on the location of the fire, the hybrid-specific voltage may not be interrupted, so after a fire occurs, refer to "How to interrupt the hybrid-specific voltage system" on page 7 for details on how to interrupt the hybrid-specific voltage. [Reference] No explosive materials are used in the hybrid-specific voltage system of the PCX HYBRID.

#### ■ Cautions and measures in case of submersion

During submersion of the vehicle, a short circuit occurs due to the penetration of water, causing the hybrid-specific voltage to be interrupted. In cases where the water is shallow or water penetrates parts that do not cause a short circuit to occur, the hybrid-specific voltage may not be interrupted, so where possible, interrupt the hybrid-specific voltage by referring to "How to interrupt the hybrid-specific system" on page 7.

#### ■ Cautions and measures in case of damage to the lithium-ion battery

If the lithium-ion battery is damaged due to a collision or other event, adhere to the following warnings.

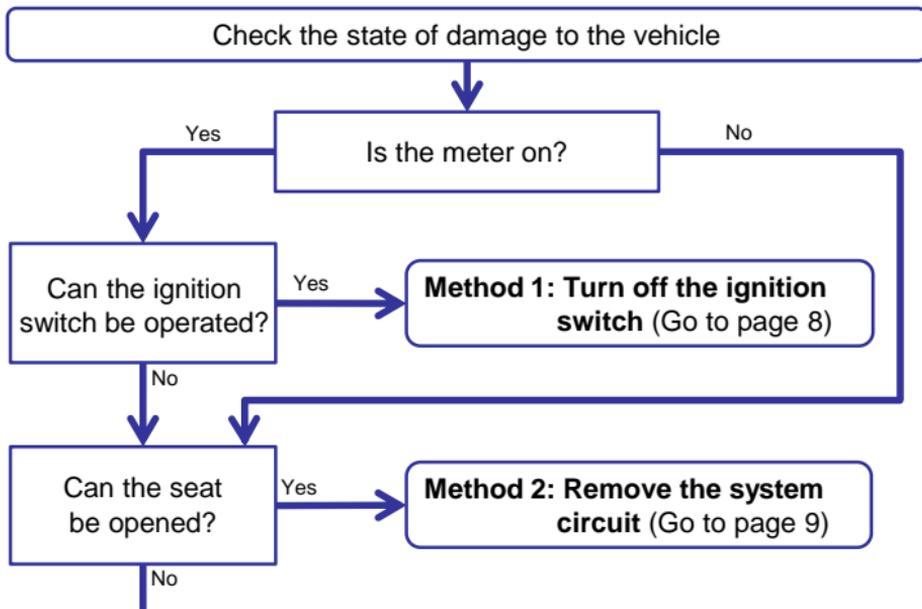
If a leakage is suspected, refer to "Measures in case of lithium-ion battery leakage" on page 5 for details.

#### **▲WARNING**

- If the violet or orange voltage cables are damaged and the wiring or terminals are exposed, do not touch the exposed parts under any circumstances.  
Moreover, do not touch exposed wiring or terminals if unsure whether it is a hybrid-specific voltage section. Careless contact with the wiring or terminals may result in severe injury or death from serious burns or electrocution.
- If contact with an exposed section of hybrid-specific voltage cable or voltage parts is unavoidable, or if there is risk of contact, always use insulated protective equipment (insulated gloves, protective glasses, insulated shoes).

## ■ How to interrupt the hybrid-specific voltage system

Depending on the state of damage to the vehicle, it may be necessary to interrupt the hybrid-specific voltage manually. Any of the methods below can be used to interrupt the hybrid-specific voltage. Normal rescue work is possible after interrupting the hybrid-specific voltage. Select the easiest method according to the flow below.



The hybrid-specific voltage cannot be reliably interrupted. If the hybrid-specific voltage section is damaged and the wiring or terminals are exposed, carry out rescue work with extreme caution so as not to touch exposed parts, nor for exposed parts to come into contact with the vehicle or body.

### **▲WARNING**

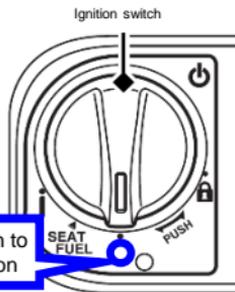
- If the violet or orange voltage cables are damaged and the wiring or terminals are exposed, do not touch the exposed parts under any circumstances. Moreover, do not touch exposed wiring or terminals if unsure whether it is a hybrid-specific voltage section. Careless contact with the wiring or terminals may result in severe injury or death from serious burns or electrocution.
- If contact with an exposed section of hybrid-specific voltage cable or voltage parts is unavoidable, or if there is risk of contact, always use insulated protective equipment (insulated gloves, protective glasses, insulated shoes).

## Method 1: Turn off the ignition switch

- ◆ If the ignition switch can be operated even when the vehicle is damaged

Turn off the ignition switch

Turn off the ignition switch



### ▲CAUTION

The system may start when the ignition switch is operated with the meter display off.

Check that the meter display is completely off

Check that the meter display is completely off.

- ※ To avoid accidentally restarting the system, ensure the smart key is at least 6 meters away from the vehicle.

<Meter is off>



### ▲CAUTION

Even after the ignition switch is turned off, it takes about 5 minutes for the charge stored in the capacitors, etc., to be completely discharged. After the low voltage is interrupted, carry out work with sufficient care to avoid a short circuit, etc.

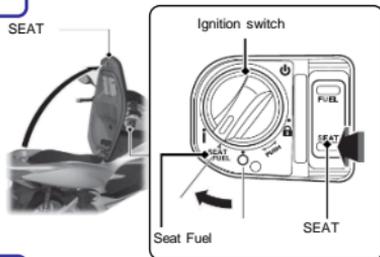
Start the rescue work

## Method 2: Remove the system circuit

◆ If the ignition switch cannot be operated but the seat can be opened

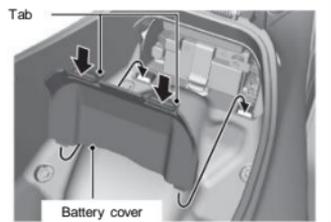
Open the seat

- ① Turn the ignition switch to the "SEAT·FUEL" position
- ② Press the "SEAT" button to release the seat lock, and lift the seat
  - ※ If the above step is not possible, use a pole or other equipment to pry open the seat from the rear side



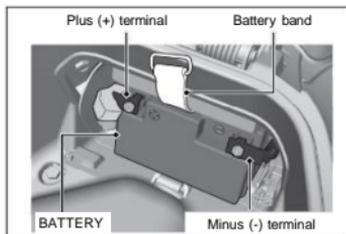
Remove the battery cover

- ① Press the tab, to remove the battery cover



Disconnect the lead battery (12V)

- ① Remove the cable for the minus (-) terminal from the lead battery
- ② Remove the red cover from the plus (+) terminal, and remove (or disconnect) the plus (+) terminal



### ▲CAUTION

Even after disconnecting and removing the 12V battery, it takes about 2 minutes for the charge stored in the capacitors, etc., to be fully discharged. After the low voltage is interrupted, carry out work with sufficient care to avoid a short circuit, etc.

Start the rescue work

## 4. Accident vehicle transportation procedure

### ▲WARNING

- If the violet or orange voltage cables are damaged and the wiring or terminals are exposed, do not touch the exposed parts under any circumstances. Moreover, do not touch exposed wiring or terminals if unsure whether it is a hybrid-specific voltage section. Careless contact with the wiring or terminals may result in severe injury or death from serious burns or electrocution.
- If contact with an exposed section of hybrid-specific voltage cable or voltage parts is unavoidable, or if there is risk of contact, always use insulated protective equipment (insulated gloves, protective glasses, insulated shoes).

### ■ Vehicle data

Item Model	Overall length (mm)	Overall width (mm)	Ground clearance (mm)	Wheel base (mm)	Curb weight (kg)
PCX HYBRID	1923	745	137	1313	134

### ■ Vehicle transportation procedure

When transporting the vehicle, adhere to the following.

- When loading on to a four-wheeled vehicle, take care not to scratch or damage the vehicle.
- Do not use hybrid-specific wiring or cables to secure the vehicle for transportation.
- Refer to "3. Cautions when performing rescue work" for details on interrupting the hybrid-specific voltage circuit.

### ■ Malaysian Emergency Response Service (MERS)

#### Emergency Services Number

999

To call an ambulance anywhere in Malaysia dial 999.  
The same number applies also to the police and fire station.

Hybrid-specific voltage warning sign

<hr/>	
<b>Do not touch!</b>	
<b>Work in progress.</b>	
<b>Hybrid vehicle</b>	
	<b>Hybrid vehicle</b>
	<b>Work in progress.</b>
	<b>Do not touch!</b>
	<u>Worker name</u>
<hr/>	

Take a copy of this sign, fold it and display it on the vehicle while work is in progress.

