

eDELIVER 3 Emergency Rescue Guide Manual



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Basic Information

Basic Information

Basic Parameters



Vehicle type	EV30 Van	
Outline Dimension	Length (A)(mm)	4500 ~ 5090
	Width (B)(mm)	1780
	Height (C)(mm)	1910
Rated Passenger Capacity: 1-2		
Maximum Permit Weight (kg): 2570		

Basic Information

Information of Vehicle Manufacturer

SAIC Maxus Automobile Co., Ltd.

Emergency Call: 400-081-2011

Address: No.2500 Jungong Road, Yangpu District,
Shanghai;

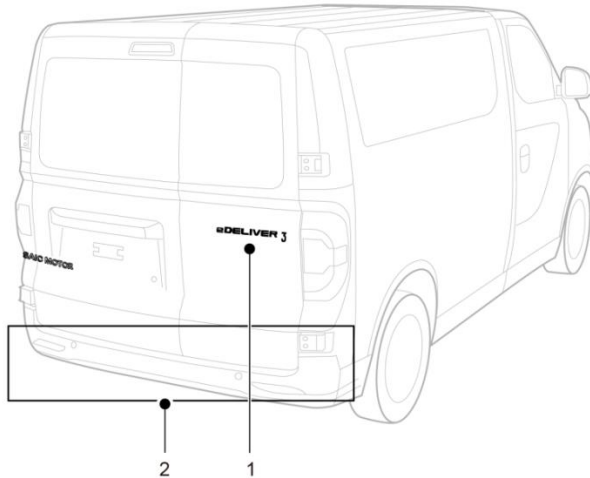
Website: <http://www.saicmaxus.com>

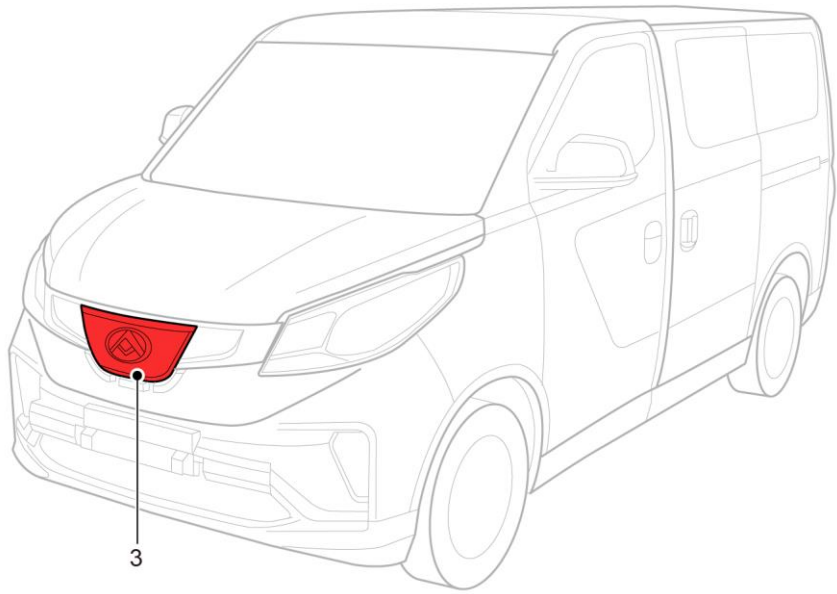
Basic Information

Identification Information

Appearance Identification Information

There are 3 signs identifying the electric vehicles, which are respectively the sign of “EDELIVER 3” at the tailgate (1), indication of the small door of the charging port (2) and no exhaust pipe (3). As shown in the Figure:





3

Basic Information

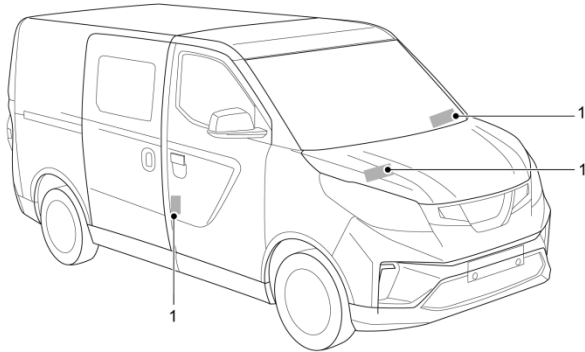
Vehicle Identification Number (VIN) Location

The location of the vehicle identification number is as below: Example VIN: LSH14C**3**C1KEXXXXXX

EV80 is identified by the 7th alphanumeric character:

3




3 = 40 ≤ p < 80, electric vehicle






Basic Information

Information of Warning Lamps and Indicator Lamps

The following warning and indicator lamps are located on the instrument pack.

Lamp Name	Icon	Description
Vehicle Ready Indicator Lamp (Green)		This lamp turns on when the electric vehicle system is powered on and the vehicle is ready to run.
Power System Malfunction Indicator Lamp (MIL) *1 (Red)		<ul style="list-style-type: none">• The electric vehicle system fails, and/or• Emergency shutdown system is activated. The shutdown system will be activated under the following conditions:<ul style="list-style-type: none">- Airbag is deployed in case of frontal and side impact.- Some rear collisions occur.- Some electric vehicle system faults occur.
Charging Connection Indicator Lamp (Red)		This lamp lights up after the charging handle is connected to the charging port.

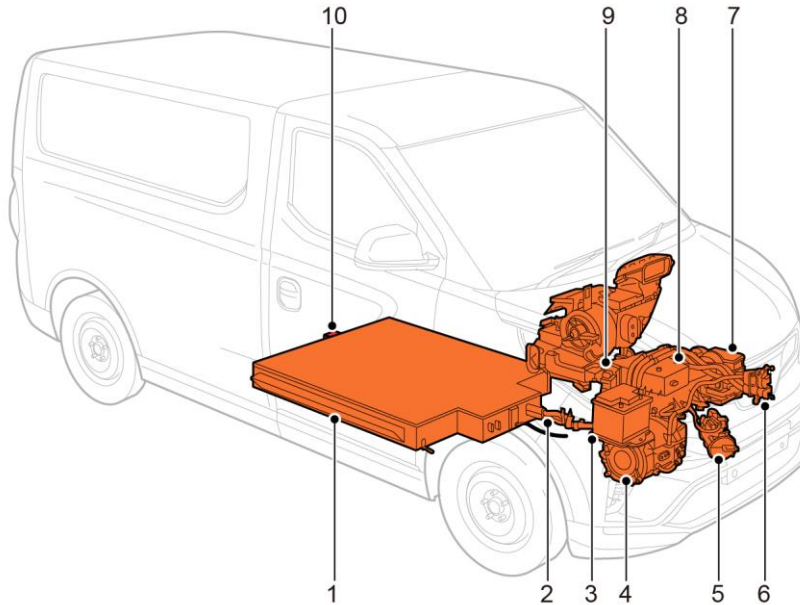
Charging Status Indicator Lamp		When charging the high-voltage battery pack, the “Charge Status Indicator Lamp (Yellow)” on the instrument pack flashes. When charging of the high-voltage battery pack is completed, the indicator lamp turns off.
High-voltage Battery Pack Low Battery Warning Lamp (Red)		When this warning lamp is on, it indicates that the electric quantity of the high-voltage battery pack is too low.
High-voltage Battery Pack Cut-off Warning Lamp (Yellow)		When the “High-voltage Battery Pack Cut-off Warning Lamp (Yellow)” on the instrument pack turns on, it indicates that the high-voltage battery pack has been cut off and the vehicle flames out after started.

*1: In the event of some electric vehicle system faults, the ready indicator lamp will go out.

Basic Information

Basic Information of High Voltage System and 12V System

Location and description of high-voltage and 12V related components



Basic Information

No.	Parts	Location	Description
1	Power battery	Under the chassis	Store and output the DC power required to propel the vehicle (maximum voltage 350.4 (CATL) V).
2	High-voltage cables	Under the bonnet and chassis	High voltage current between various high-voltage components is transmitted via orange high-voltage cables.
3	12V battery	Under the bonnet	Lead-acid batteries supplied power to low-voltage equipment.
4	Electric drive system of electric vehicle	Under the bonnet	The DC power stored in the high-voltage battery is converted into a three-phase AC power that is then converted into a driving force (torque) for propelling the vehicle, and the motor torque (rotation) is controlled by adjusting the motor current.
5	Electric A/C	Under the bonnet	A/C compressor

	compressor		
6	Charging port	At the front grill	Connection port of electric vehicle power supply equipment. There are two ports available: Normal charging and fast charging.
7	Motor controller	Under the bonnet	The motor controller converts DC power of the high-voltage battery to AC power and drives the on-board motor to provide power for the vehicle.
8	Charging/Power Distribution Unit	Under the bonnet	<p>Integrated on-board charger (OBC), DC/DC and high-voltage power distribution functions.</p> <p>OBC: Convert AC power to high-voltage DC power to charge the high-voltage battery</p> <p>DC/DC: Convert DC power of the high-voltage battery to low-voltage DC to power the low-voltage equipment</p> <p>High-voltage power distribution: Protect the high-voltage battery pack, high-voltage fast-charging input and high-voltage DC output</p>


			through the fuse protector and contactor
9	Cabin heater	Internal (the device installed behind the instrument panel)	Store and output the DC power required to propel the vehicle (maximum voltage 350.4 (CATL) V).
10	Manual service Disconnect	Rear end of the high-voltage battery	Isolate the power battery from the rest of the high-voltage electrical system.

Power System Information

Battery cell	Type	Ternary (nickel cobalt manganese) battery
	Rated voltage (V)	3.65V
	Rated capacity (Ah)	100 (35kwh)/150 (52.5kwh)
Power battery system	Rated voltage (V)	350.4
	Rated capacity (Ah)	100Ah
	Number of power battery packs (pcs)	16 (35kwh)/24 (52.5kwh)
	Battery pack weight (kg)	237 (35kwh)/335 (52.5kwh)

Basic Information

Safety Signs

S/N	Name of Safety Sign	Safety Sign	Description
1	Fan label		Keep your hands away from the fan to prevent any possible injury.

2	Identification that is prohibited to flush electrical components in the cabin with water.		It is prohibited to flush the electrical components in the cabin with water for the sake of safety.
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3

High voltage
warning sign



内部高压，危险！
High voltage inside
非专业人员，请勿操作！
Professionals only!



There is high voltage
inside the safety
product.

Basic Information

High Voltage Safety Measures

The high voltage can be cut off by the following methods:

Manual service disconnect	It is located behind the high-voltage battery and will cut off the output high voltage when it is removed manually.
System main relay (located in high-voltage distribution box)	The relay controlled by the power switch (under the control of 12V system) cuts off the high voltage of the high-voltage battery.
Emergency cut-off system	In case of collision (frontal collision and side collision during airbag deployment) or some system faults, the system is designed to cut off the high voltage of the high-voltage battery.
Charging connector	Some high-voltage components are activated during charging. Remove the charging connector to stop activating these components.

Basic Information

Electric Shock Prevention

1. When it is required to touch any high-voltage wire harness or component, appropriate personal protective equipment (*Emergency Rescue and Disposal Procedures – Items to Be Prepared*) must be always worn and the high-voltage system should be shut down according to the *Emergency Rescue and Disposal Procedures – High-voltage System Shutdown Procedures*.
2. In order to avoid the risk of electric shock, do not touch the inside of the high-voltage battery unless appropriate personal protective equipment is worn after turning off the high-voltage system. Even if the high-voltage system is turned off, the high-voltage battery can remain charging state.
3. Cover any damaged high-voltage component with insulating tape.

Emergency Rescue and Disposal Procedures

Emergency Rescue and Disposal Procedures



- If the high-voltage electrical system is not properly shut down before the emergency rescue and disposal procedures are implemented, electric shock may be caused, resulting in serious injury or death of a person. In order to avoid serious injury or death, appropriate personal protective equipment must be always worn before touching the high-voltage wire harnesses or components.
- When it is required to touch any high-voltage wire harness or component, appropriate personal protective equipment must always be worn to avoid electric shock. Switch off the high-voltage system according to the steps outlined in the





Vehicle High Voltage Cut-off. After the high-voltage system is shut down, wait at least 10 minutes for the high-voltage capacitor to fully discharge.



- Ever and never think that the high-pressure system is off just because the vehicle is static.
- If the ready indicator lamp “READY” turns on, the high-voltage system is activated.
- If possible, be sure to verify that the READY indicator lamp on the instrument panel is off and the high-voltage system is stopped.
- Some parts under the hood become hot, which may lead to serious burns. Be careful when handling these parts or surrounding parts.

Emergency Rescue and Disposal Procedures

Items to Be Prepared

Items to Be Prepared		Specifications	Application
Personal protective equipment:		Up to 1,000V	Used to prevent high-voltage electric shock.
Insulating gloves			
Insulating shoes			
Safety baffle			
Leather gloves		Must be able to tie tightly to the wrist (worn outside insulated gloves).	Used to protect the insulated gloves.
Wrench		Size: 10mm	Used to remove the terminal bolt of the 12V battery.
Solvent resistant protective		–	Used in case of electrolyte

gloves Solvent resistant protective shoes	–	leakage of high-voltage battery.
Absorbent pad	The same pad for absorbing internal combustion engine fluid may be used.	Used to absorb any leaked high-voltage battery electrolyte.
Standard fire-fighting equipment	Standard fire-fighting equipment Use standard fire-fighting equipment (water or fire extinguisher) according to the fire type (vehicle or battery).	Used for fire extinction.
Insulating tape	Insulation	Used to cover any damaged wire harness to prevent electric shock. Tape should cover all exposed or damaged wires.

Emergency Rescue and Disposal Procedures

Protective Wear Control of Personal Protective Equipment

Check personal protective equipment before starting work. Do not use any damaged personal protective equipment.

Daily Inspection

Inspection shall be conducted before and after use. Those who will use these items shall inspect them for signs of deterioration or damage.

- Check insulated rubber gloves for signs of scratches, holes and tears. (Visual inspection and leak test)
- For insulated safety boots, check the soles for holes, damage, nails, metal sheets, wear or other problems. (Visual Inspection)
- Check insulated rubber sheet for signs of tearing. (Visual Inspection)

Insulated Tools

When working at locations where high voltage is applied (e.g. terminals), use insulated tools conforming to 1000V/300A specification.

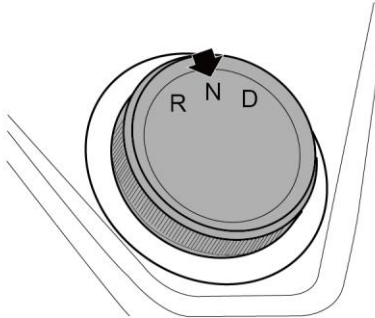
Emergency Rescue and Disposal Procedures

Parking & Holding Operations

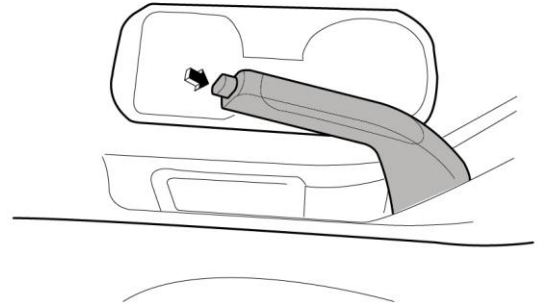
If possible, lock the vehicle by turning off the 12V system and secure the vehicle with wheel brake pads.

Secure the vehicle with cog timbering and deflate the tire, or rescue with lifting airbag equipment.

1. Depress the brake pedal to stop the vehicle smoothly and switch the gear to N;

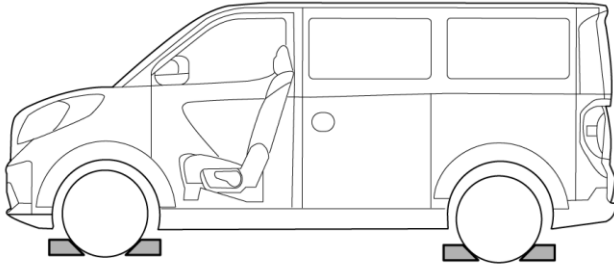


2. Turn the ignition switch from the "ON" to "OFF" to stop the motor;
3. Pull up the parking brake switch to activate the parking brake system.



4. Secure the vehicle with the cog timbering.

Emergency Rescue and Disposal Procedures



- Do not secure the vehicle under the high-voltage battery with the cog timbering.
- In order to avoid electric shock, do not place rescue the lifting airbag equipment and wheel brake pads under high-voltage components and wire

harnesses.

Emergency Rescue and Disposal Procedures

Vehicle High Voltage Cut-off

Use the following procedure to shut down the high-voltage system. The first response operation can only be started after the high-voltage system is shut down. If the vehicle is seriously damaged, e.g. the high-voltage battery is deformed, damaged or cracked, appropriate personal protective equipment must always be worn and the high-voltage battery and high-voltage components must not be touched.



- **If the high-voltage system is not properly shut down before the emergency rescue and disposal procedures are implemented, electric shock may be caused, resulting in serious injury or death of a person. In order to avoid serious injury or death, appropriate personal protective equipment must be**

always worn before touching the any high-voltage wire harness or component. Personal protective equipment must always be worn when contacting or operating high-voltage components.

- **When high-voltage components or high-voltage wire harnesses must be contacted, or when there is a risk of such contact, appropriate personal protective equipment must always be worn. Personal protective equipment must always be worn when contacting or operating high-voltage components.**
- **If the charging connector is connected to the vehicle, remove it.**
- **Be sure to verify the “READY” indicator**

lamp is off, and the high-voltage system has stopped.

- **After shutting down the high-voltage system and removing the negative (-) terminal of the 12V battery, wait at least three (3) minutes for the airbag capacitor to discharge. Even if the negative (-) of the 12V battery is disconnected, the SRS airbag can maintain the voltage for at least three (3) minutes. During this period, due to short circuit of or damage to the wire harness, the**

airbag may suddenly expand, thus causing serious injury of a person.

- **When the high-voltage system is activated, the high-voltage system must be shut down before disconnecting the 12V battery. Failure to do so may result in electric shock, causing serious injury or death of a person.**
- **When the high-voltage system is activated, the 12V system will remain activated even if the negative (-) terminal of the 12V battery is removed. The high-voltage system is active under any of the following conditions:**

Emergency Rescue and Disposal Procedures

- The charging indicator lamp is on
- The Ready indicator lamp is on

For the location of these two indicator lamps, please refer to the Location of Internal Components. This is because the DC/DC converter will not be turned off and the power supply will continue to be provided to the 12V system and the high-voltage system.

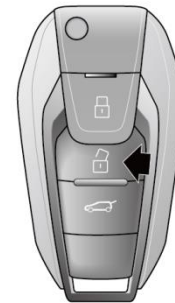
Cutting off High-voltage: After the power is cut off, cut off the low-voltage power and then disconnect the service switch.

The high-voltage system can be shut down through any of the following procedures:

- Turn off the power switch and disconnect the MSDs of 12V battery and high voltage battery.
- Remove the fuses of the high-voltage

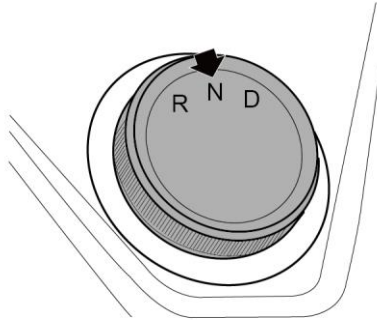
control system and disconnect the MSDs of 12V battery and high voltage battery.

- 1、 If the vehicle is locked, use the remote key to unlock as much as possible.



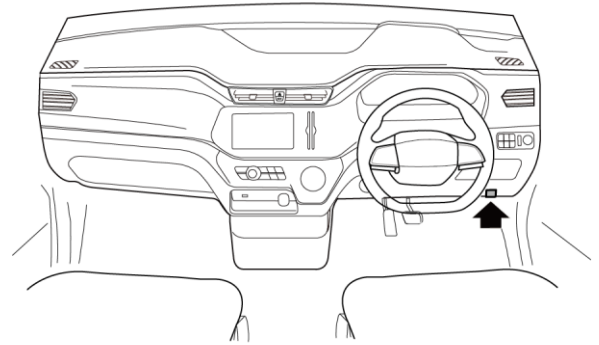
- 2、 Check the status of the “READY” indicator lamp in the instrument pack. If the “READY” indicator lamp turns on, the high-voltage

system is activated



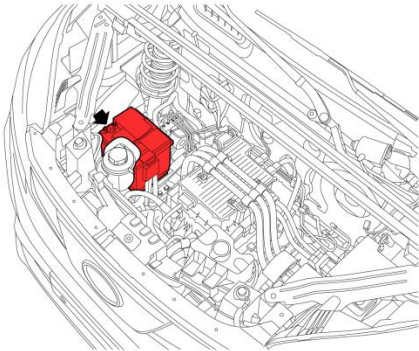
- 3、 Put the shift lever in neutral (N)..
- 4、 Place the ignition switch in the "LOCK" position by press to turn off the high-voltage system. Then verify if the "READY" indicator lamp is off, and continue the following steps to open the engine hood so as to access to the 12V battery negative cable. If the "READY" indicator lamp does not turn off, please refer to the alternate procedure to remove the fuse.

5、 Open the bonnet.



- 6、 Disconnect the 12V battery negative (-) cable. Insulate the battery negative (-) cable terminal with insulating tapes.

Emergency Rescue and Disposal Procedures



7. Use the following procedure to pull out the safety plug and disable the high-voltage battery.

Reminder: The manual service disconnect is in the position 1 shown in the above Figure.

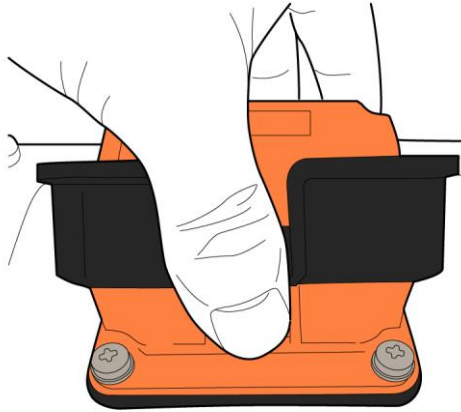
- a) Locking state (with clearance as indicated by the arrow)



b) Press the button in the position 1 (till hearing a “click”).



c) Rotate the handle upward to 45r (till it won't move).



d) Press the button in the position 2 (till hearing a “click”).

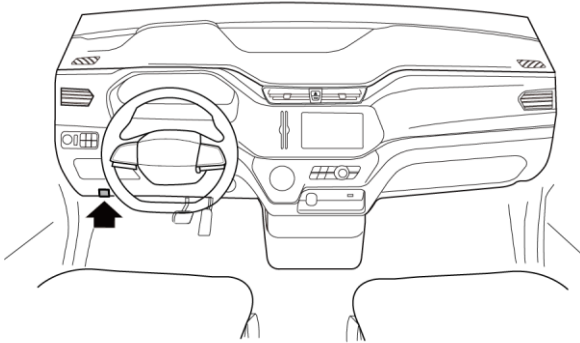


e) Continue to rotate the handle to 90° and open the plug

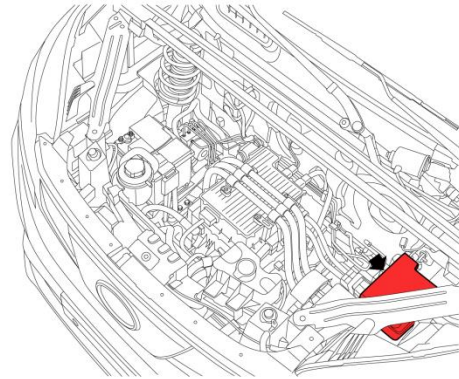
Emergency Rescue and Disposal Procedures

Alternate procedure: Remove the fuse

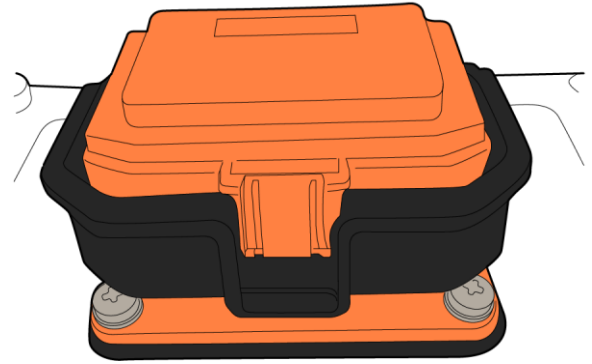
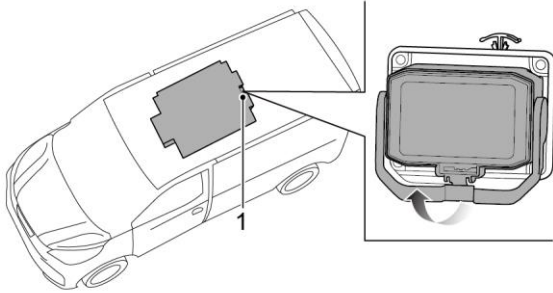
- 1 Open the bonnet.



- 2 Press and unfold the claws on the side of the fuse box, and remove the fuse box from its housing.



- 3 Remove the #UF26 Fuse (F26 F/VCU 10A).



Reminder: The manual service disconnect is in the position 1 shown in the above Figure.

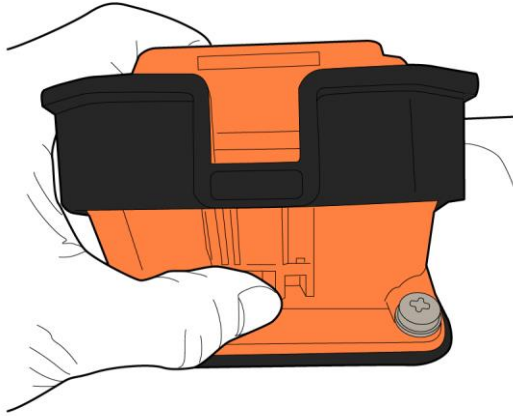
- a. Locking state (with clearance as indicated by the arrow).
- b. Press the button in the position 1 (till hearing a “click”).



c. Rotate the handle upward to 45° (till it won't move).



d. Press the button in the position 2 (till hearing a "click").



- e. Continue to rotate the handle to 90° till hearing a arr.

Emergency Rescue and Disposal Procedures

Vehicle Wading



- The extent of damage to submerged vehicle may be not intuitive. Without wearing proper personal protective equipment, operating a submerged vehicle will lead to electric shock, resulting in serious injury or death of a person.
- If possible, the power switch of the submerged vehicle must be turned off first. Then, the vehicle must be pulled out of the water completely and drained water to avoid electric shock.
- When working on the vehicle after suffering from fire or submerging, be sure to wear appropriate personal protective equipment and remove/drain water before removing the charging plug to avoid electric shock.
- If the vehicle is in water, do not touch high-voltage components, wire harnesses or charging plugs to avoid electric shock. Personal protective equipment must always be worn when contacting or operating high-voltage components.
- When the vehicle is completely or partially submerged in water, close the vehicle and leave in time. The manual service disconnect should be turned off before hauling the salvaged vehicle. If there is no bubble or sizzle during salvage, the salvage operation can be carried out. If bubbles or sizzles are found, wait until there are no bubbles or sizzles for salvage operation.

Emergency Rescue and Disposal Procedures

Vehicle Fire



- During fire-fighting operations, be sure to use a full set of personal protective equipment and self-contained breathing apparatus. Smoke generated by vehicle fires is similar to that generated by traditional vehicle fires.
 - In the case of extinguishing fire with water, a large amount of water from fire hydrants should be used (if possible) to extinguish the fire. Do not try to extinguish the fire with a small amount of water.
 - Leave the vehicle immediately and extinguish the fire with ammonium carbonate fire extinguisher, or extinguish the fire with large amount of water. During vehicle rescue, personnel are strictly prohibited from contacting or entering the burning vehicle. After the open fire is extinguished, continuous observation is required to ensure that there is no abnormal sound or smoke in the power battery. The vehicle shall be dragged to an open area by professionals and the professionals shall confirm the battery condition prior to moving the vehicle.
- Standard fire-fighting practices shall be followed for the fire fighting.
 - If you must leave the vehicle, please inform the appropriate responders or rescue personnel that the vehicle is an electric vehicle containing a high-voltage system, and warn everyone else.
 - During the maintenance operation (later fire

extinguishing process and residual heat source check), ensure that the battery is completely cooled to avoid another fire. If the battery is placed near a fire source, it may be reignited. In order to avoid possible electric shock and serious personal injury, do not damage the high-voltage battery box.

Emergency Rescue and Disposal Procedures

High-voltage Battery Damage and Liquid Leakage

The high-voltage battery assembly is enclosed in a solid metal casing, which is firmly mounted to the structural member of the vehicle. The structure helps prevent damage to the high-voltage battery assembly even in the event of serious collisions. This section provides emergency response personnel with information on how to reduce the severity of damage to the high-voltage battery assembly or electrolyte leakage, but these are unlikely to occur.

- Stop all smoke, sparks and flame related activities around the vehicle.
- Electrolyte solution is irritating to skin.
- Do not touch or trample spilled electrolyte.
- If the electrolyte leaks, wear appropriate solvent-resistant personal protective equipment (PPE) and use oil, sand or dry cloth to remove

the leaked electrolyte. The area must be ventilated adequately.

- Electrolyte solution is irritating to eyes; if contact with eyes, rinse with plenty of water for 15 minutes.
- Electrolyte solution is irritating to skin. Therefore, if contacts with skin, wash skin with soap.
- Electrolyte liquid or smoke contacting with water vapor in the air will produce oxidizing substances which may be irritating to skin and eyes. In these cases, a large amount of clean water should be used for flushing skin and eyes; and then seek further medical treatment immediately.
- Electrolyte smoke (when inhaled) can cause respiratory tract irritation and acute poisoning. In this case, the sufferer should be moved to fresh air with good ventilation and rinse his/her mouth with water. Seek further medical treatment immediately.



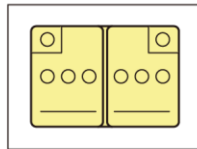
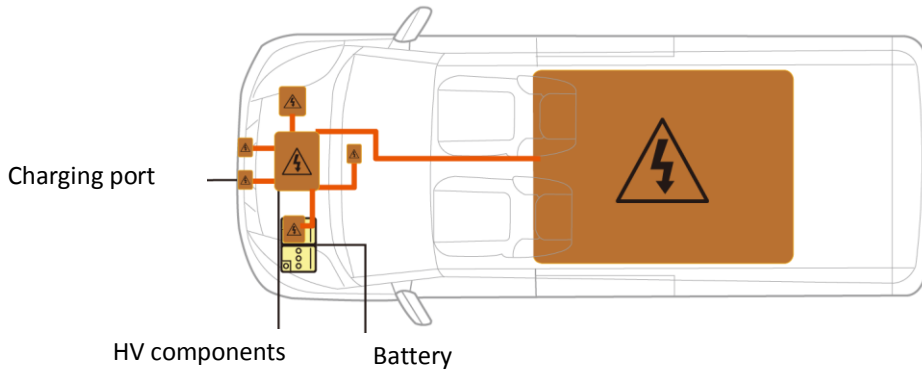
- The contents of high-voltage battery are irritants and sensitizers.
- In order to avoid exposure to these irritants and sensitizers, positive-pressure self-contained breathing apparatus and other personal protective equipment (PPE) should be worn, which are specially designed to deal with such risks.
- Failure to wear proper positive-pressure

self-contained breathing apparatus and personal protective equipment may result in serious injury or death of a person.

Emergency Rescue and Disposal Procedures

Cutting Locations

Location of high-voltage components and high-voltage wire harnesses.



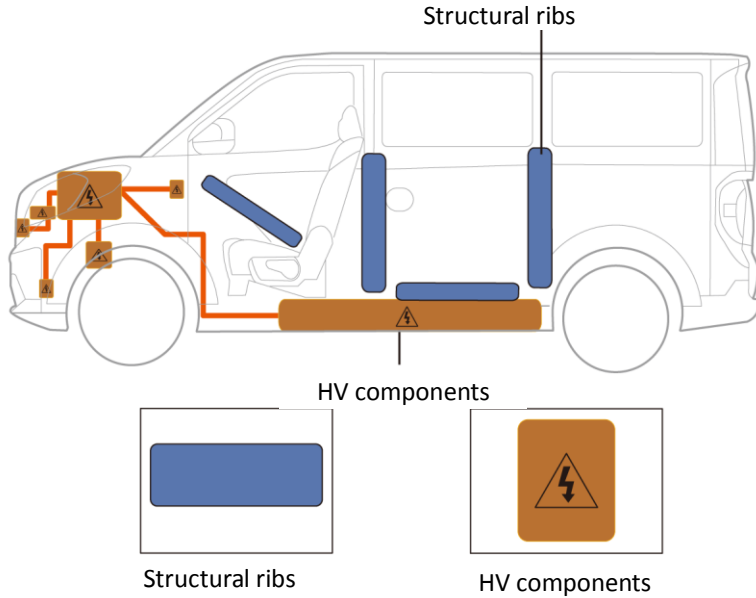
Battery



HV components

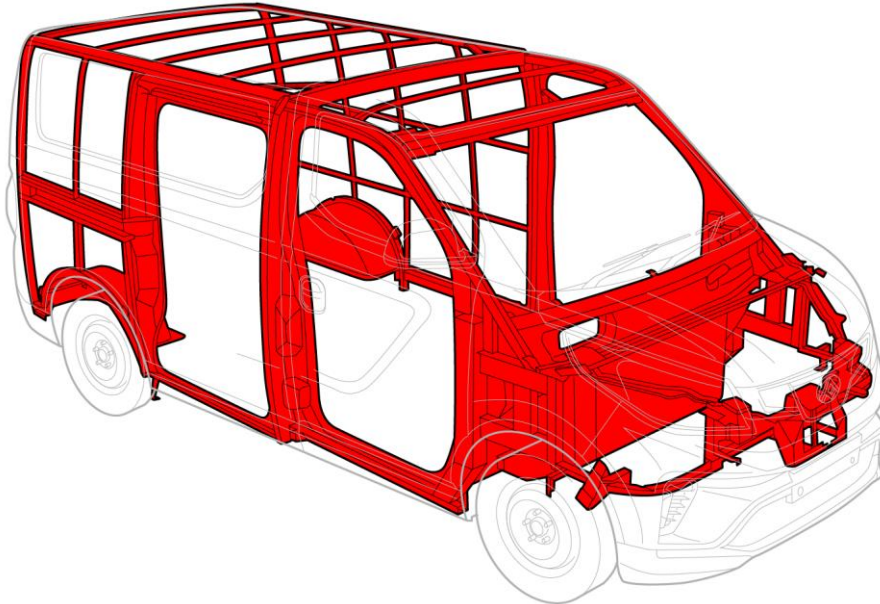
Emergency Rescue and Disposal Procedures

Location of Structural Ribs



Emergency Rescue and Disposal Procedures

Aluminum frame layout

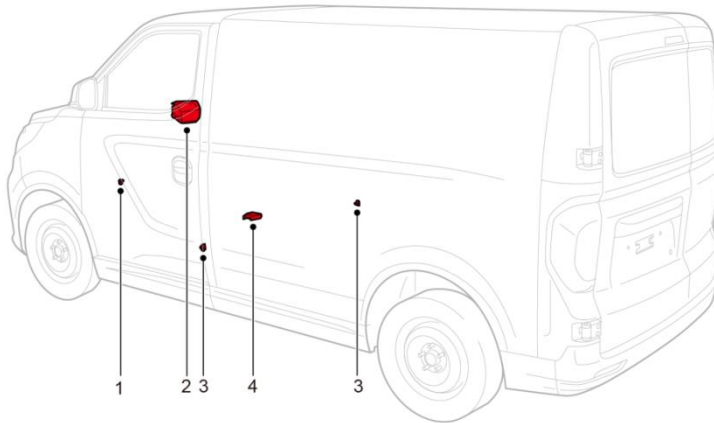


Emergency Rescue and Disposal Procedures

Location of Supplemental Restraint System (SRS) Airbag Components

Avoid cutting SRS airbag parts. However, the vehicle can be cut off under the following conditions:

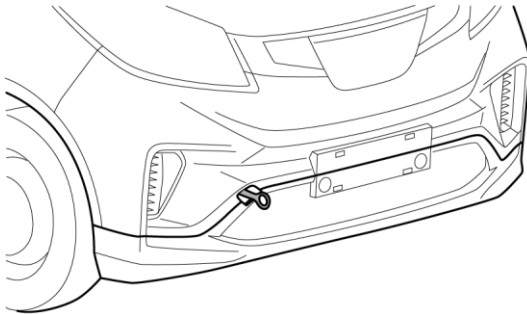
- The airbags of the driver side and passenger side have been deployed.
- At least three (3) minutes have passed after disconnecting the negative (-) cable of the 12V battery and shutting down the high-voltage system.



Emergency Rescue and Disposal Procedures

Vehicle Evacuation After Accidents

After an accident occurs, the measure to evacuate from the site of accident is to tow the vehicle if it cannot be started normally, please ensure to comply with the relevant national regulations on towing vehicles. Screw the towing eye to the left side of the front bumper. This towing eye is placed in the on-board tool kit.



Before Towing

Before towing, inform the rescuer that the vehicle to be towed is an electric vehicle. Please read the rescue information card with the vehicle. Please pull out the key switch before towing, and disconnect the manual service switch on the high-voltage battery pack during the whole towing process.

During Towing

During towing process, release the parking brake of the vehicle and switch the transmission to N gear, and the front axle of the vehicle must be pulled off the ground, or use a flatbed trailer for direct shipping.

CAUTION

The driving distance for vehicle towing shall not exceed 50 km and the towing speed shall not exceed 20 km/h, otherwise the electric drive system and battery system may be damaged. Reverse towing

shall be prohibited, otherwise the internal gear mechanism of the electric drive system will be damaged. The front axle of the vehicle must be pulled off the ground, or use a flatbed trailer for direct shipping.