



For Dismantler

M Hybrid Boost Battery Disposal Manual

Target Model

MAZDA CX-60

MAZDA CX-90

Mazda Motor Corporation
Customer Service Div, Recycle Promotion Gr.

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Information in this manual is subject to change without notice.

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1. Introduction

Some vehicles manufactured by Mazda Motor Corporation is mounted an M hybrid boost battery. This manual describes how to remove the battery from the End-of Life Vehicle(ELV). Read this manual carefully and observe the precautions before handling the battery.

<Warning>

Pressing and shredding the vehicle with M hybrid boost battery attached will generate such as heat, fire, smoke, and rupture from the M hybrid boost battery.

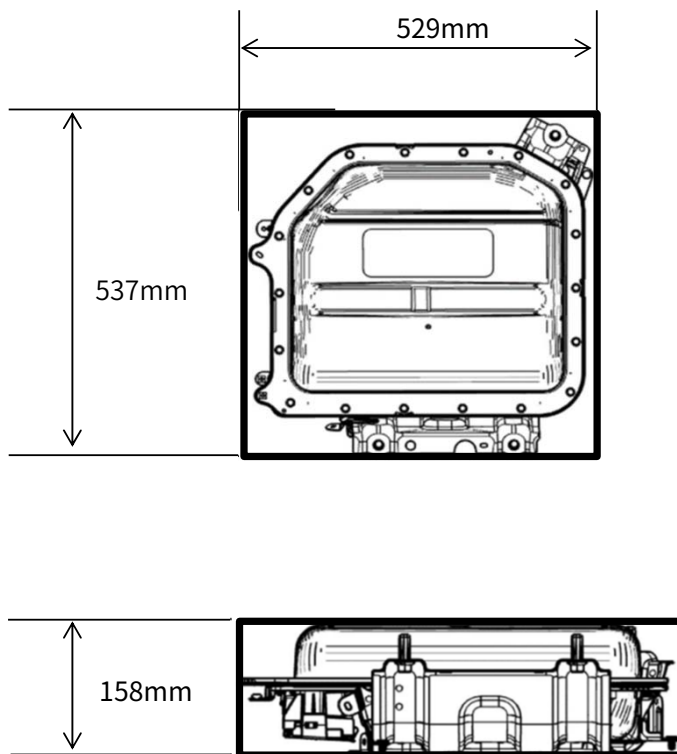
2. Overview for M Hybrid Boost Battery

- Specification

Item	Specification
Pack composition	Direct series, 12 cells
Nominal capacity	7.5 [Ah]
Nominal voltage	44.4 [V]
Mass	15.3[kg]
External dimensions	W 529×D 537×H 158 [mm] (Excluding external circuit and bracket)
Electrolyte volume	440 [ml] or less

- Appearance

*From end to end of the case.



3. Handling for M Hybrid Boost Battery

● Introduction

- If there is no occurrence of deformation, leakage, or heat generation in the M hybrid boost battery, there is no hazard.
- The electrolyte in the M hybrid boost battery is highly acidic. If the electrolyte leaks and the leaked steam is inhaled or electrolyte gets into the eyes or on the skin, perform the following first aid.
 - Electrolyte steam is inhaled.
If steam from electrolyte is inhaled, it could cause nausea and respiratory difficulty. Move the affected person immediately to a location where there is fresh air and if the affected person does not feel well, seek prompt medical attention.
 - Electrolyte gets on the skin
Wash with soap and large quantities of water. If there is itching or inflammation, seek prompt medical attention.
 - Electrolyte gets into the eyes
Flush the eyes with water for a minimum of 15 min and seek prompt medical attention.
 - Electrolyte is ingested
Flush the inside of the mouth with water and seek prompt medical attention.

● Items prohibited from being held or worn

- Remove the following metallic objects before servicing. Otherwise, sparks or fire could occur, and a part could be damaged due to a short circuit in the M hybrid boost battery-related parts.
 - Metallic rulers, mechanical pencils
 - Accessories (Necklaces, rings, piercings, earrings)

● Handling of M hybrid boost battery

- The M Hybrid boost battery is normally in a charged condition. Heed the following cautions when handling the M Hybrid boost battery. Otherwise, sparks, ignition, and electrolyte leakage could occur.
 - Do not allow the battery to get hit.
 - Do not disassemble.
 - Do not charge/discharge using an external power supply.
 - Apply insulation tape to the terminals for insulation. If there are terminal covers, secure them with insulation tape so that they do not come off, and store.

● FIRE FIGHTING MEASURE

- If battery pack generates heat or ignites, use extinguisher such as lots of water*, carbon dioxide extinguisher**, or powder extinguisher for initial fire extinguishing. Do not use Loaded stream fire extinguishers ***.

* Tap water or well water which does not contain salt. Do not use sea water as it may occur toxic salt.

** Using carbon dioxide extinguisher in an insufficient ventilated area may cause suffocation.

***Loaded stream fire extinguisher may extend the damage in some cases because it reduces the insulation property.

- In case of fire spread such as battery pack to battery pack, discharge lots of continuous water to extinguish.
- Perform extinguishing work from windward not to inhale gas that occurs from battery pack. Wear compressed air open-circuit self-contained breathing apparatus in case that risk is predicted as corrosive gas may occur in fire-fighting.
(Electrolyte generates HF and PF5 due to burning or high temperature)
- Remove environmental flammable material including batteries on fires as much as possible.
- On fire in surrounding area, move batteries to a safe place as much as possible.

● ACCIDENTAL RELEASE MEASURES

- In case of electrolyte leakage, take measures as follows.
 - Wear gas mask for organic gas, rubber gloves (oil proof, isolated), protective shoes, and protective glasses when handling.
 - Ventilate from Perform from windward ventilating.
 - Wipe it off with dry cloth or paper towel with careful attention to electric shock.
 - Do not put it close to fire (including static).

4. Recommendation for safe collection of M Hybrid Boost Battery

- In an accident car, submersible car, etc, there is a possibility that the battery pack for may be deformed , cracked, short circuit, leaked, etc, and a short circuit may cause accidents such as smoking, ignition, or electric shock.
- Always disconnect the lead battery before removing M hybrid boost battery.
 - If you work without disconnecting the lead battery, short circuit may cause smoke, fire, electric shock, etc.
- Do not leave/discard/divert/modify/disassemble/resell /transfer M hybrid boost battery.
 - Touching of the battery that has been Improperly left or discarded, or diverting, remodeling, or disassembling it for purposes other than its intended use may cause accidents such as electric shock, emitting smoke, firing, heat generation, explosion, or electrolyte leakage.

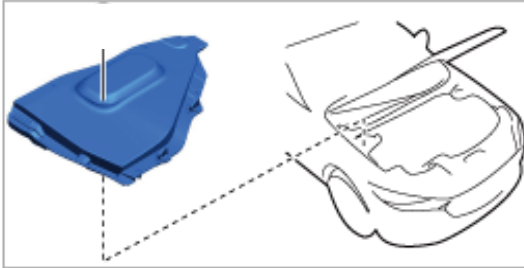
Mazda cannot be held liable for any accidents / damages caused by diversion / modification / disassembly of them hybrid batteries, or any accidents / damages caused after neglect / discard / resale / transfer. The responsibilities of the business operator who performed these actions may be held.

5. Removed M Hybrid Boost Battery

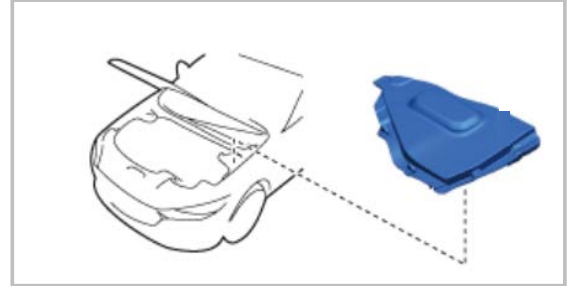
1) Switch the main power OFF.

2) Remove cover assembly.

- Left steering : right side



- Right steering : left side



- Remove the cover assembly as shown in the figure.

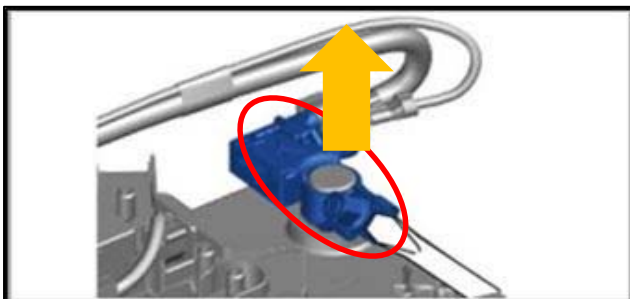


3) Drain refrigerant.

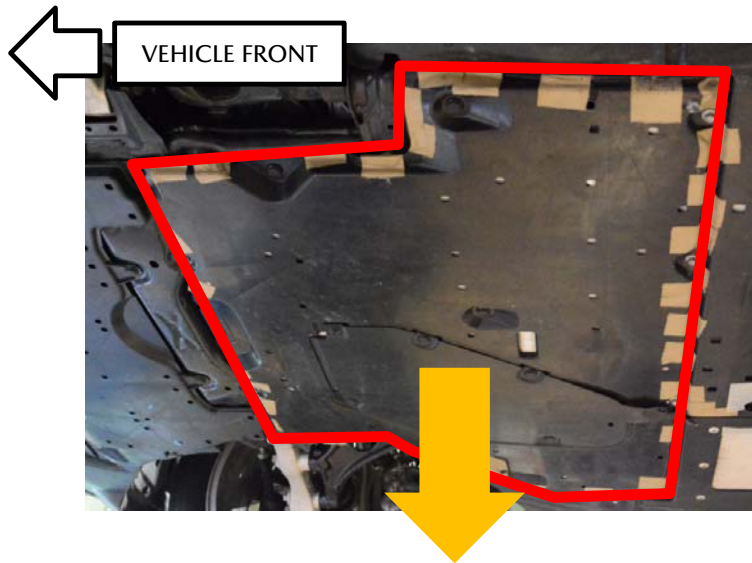
- Correctly collect the refrigerant following the instructions for the chlorofluorocarbon (CFC) recovery device being used.

4) Disconnect the negative battery terminal.

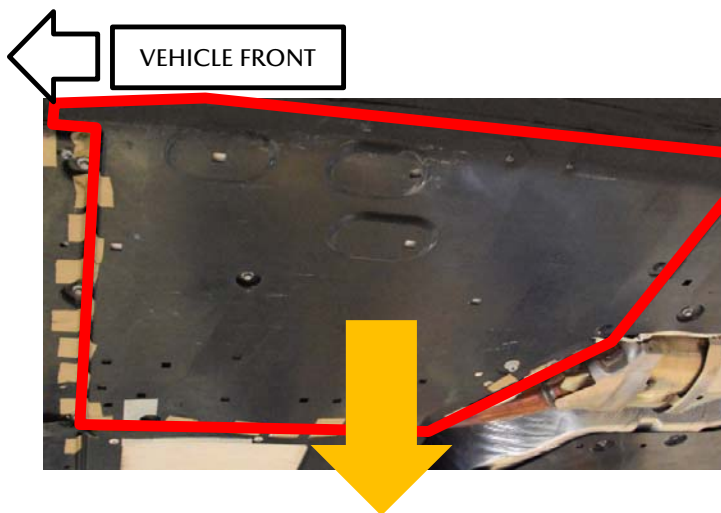
- When disconnecting the plastically deformed negative battery terminal, expand the gap of the negative battery terminal using a flathead screwdriver to remove it.



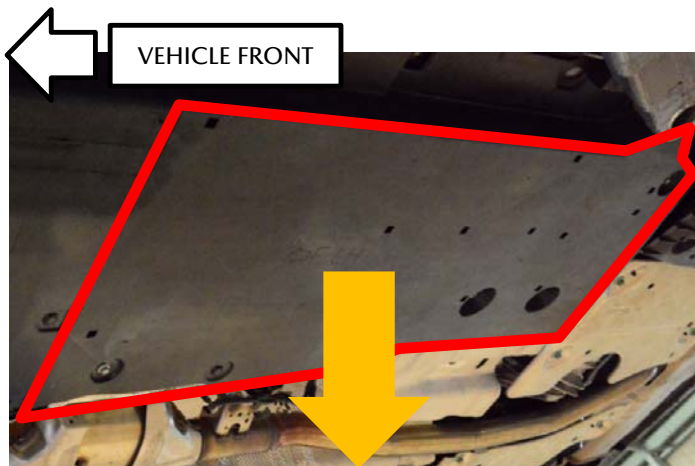
5) Remove front under cover.



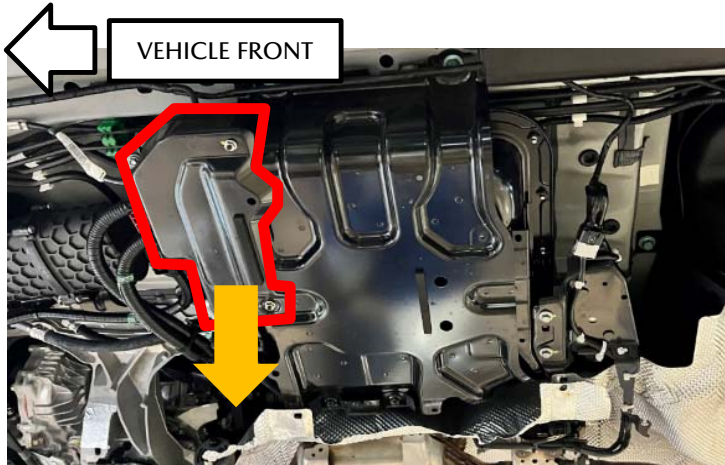
6) Remove floor under cover (left side).



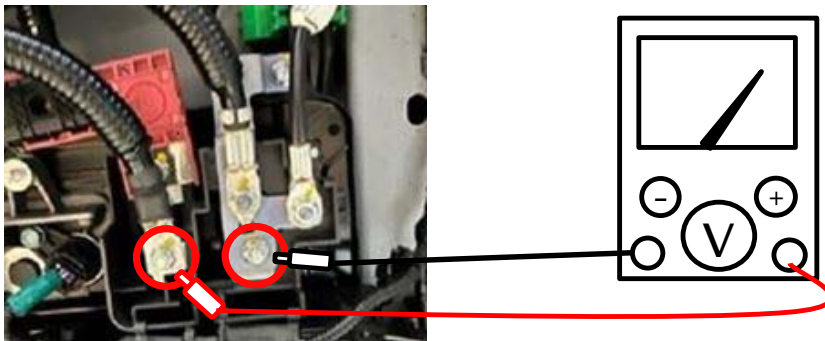
7) Remove rear under cover (left Side).



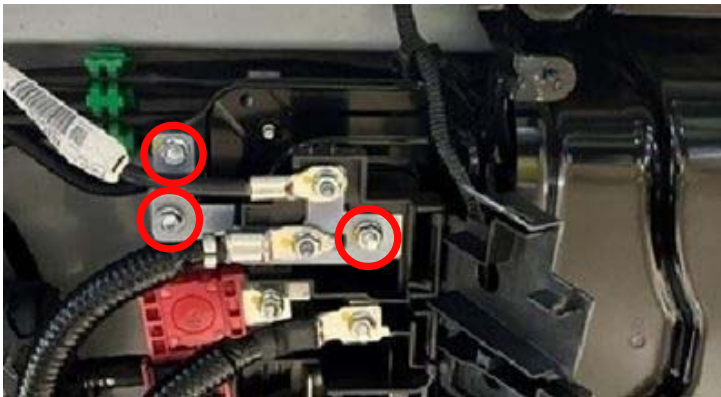
8) Wear insulating gloves and remove ground plate terminal cover with a insulating tool.



9) Verify that voltage is not applied by using a tester, as shown in the figure.



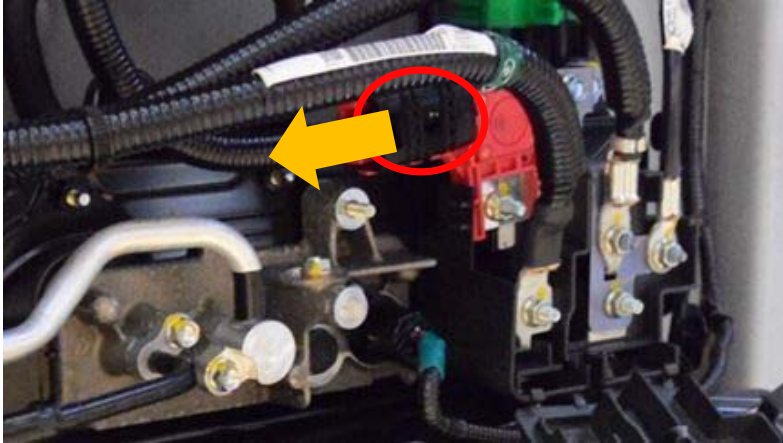
10) Wear insulating gloves and remove ground plate with a insulating tool.



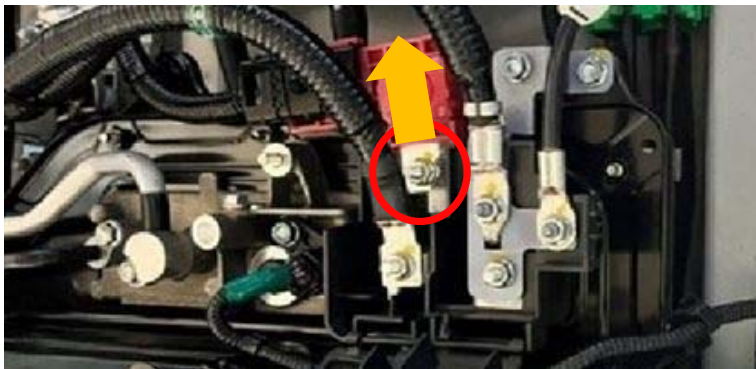
11) Wear insulating gloves and remove positive terminal with a insulating tool.



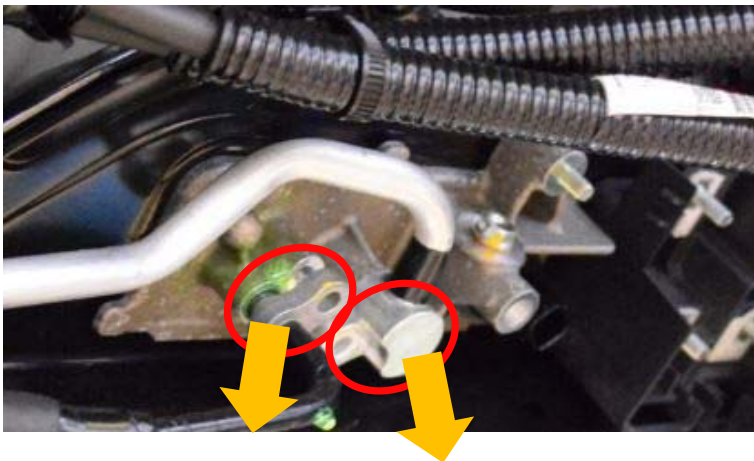
12) Wear insulating gloves and remove front connector and attached wiring harness clip.



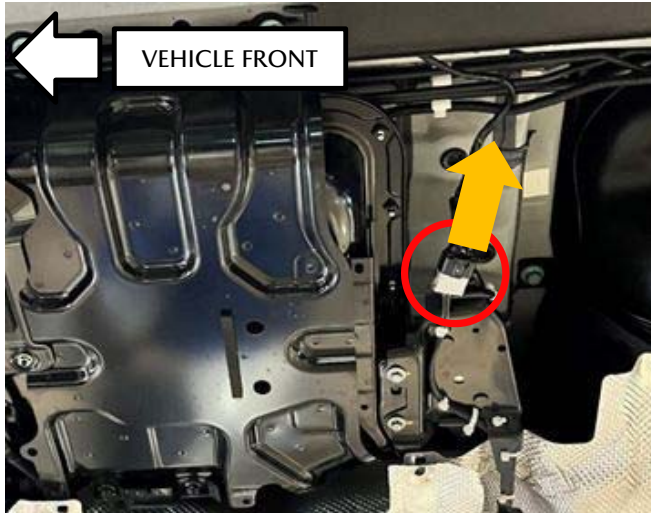
(13) Wear insulating gloves and remove fuse and attached wiring harness clip with a insulating tool.



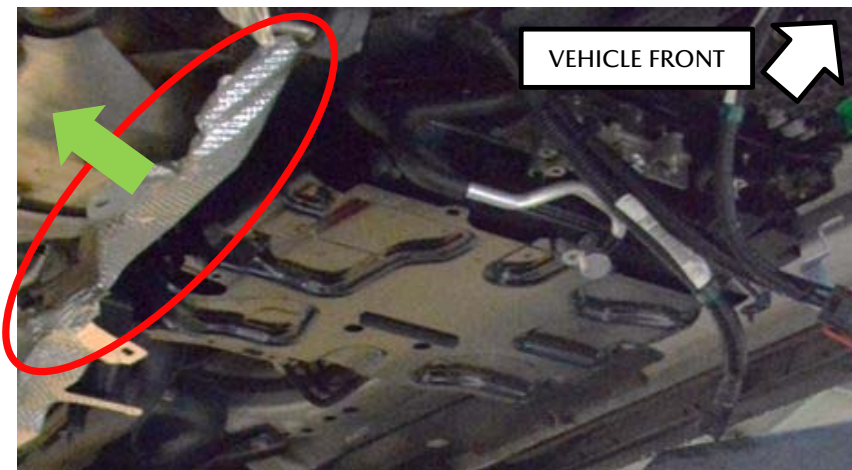
(14) Remove cooler pipes and attached wiring harness clip.



(15) Wear insulating gloves and remove rear connector and attached wiring harness clip.



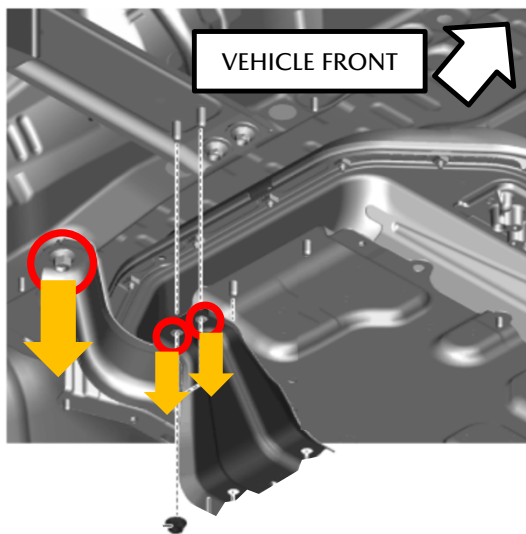
(16) Suspend the insulator and connector cable as shown in the figure.



(17) Wear insulating gloves and remove M hybrid boost battery with a insulating tool.

- Prepare a lifter before removal.

※ When removing, be careful attention to the weight of M Hybrid boost battery.



6. Storage for removed M Hybrid Boost Battery

- The removed M hybrid boost battery should be stored with the following conditions in mind. Safety may be impaired, causing accidents due to electric shock, emitting smoke, firing, heat generation, malfunction or failure of equipment.

In addition to the following, verify the laws and regulations of each country.

It is necessary to store the batteries in accordance with the laws and regulations.

- Store in cool and well-ventilated area.
Do not expose to high temperature (60 degrees -C or higher).
- It is recommended to store this product at 30 degrees -C or lower because of its larger deterioration at high temperature.
- Do not wet with water.
- Do not store disorder environment such that short-circuit may occur due to conducting substance such as metallic plate, metal rod and/or material covered with metal.
- It is recommended not to connect equipment and device continuously to maintain performance.
- Subject to related laws and regulations when storing batteries.