Discharging the Main Drive Lithium-ion Battery

WARNING;
- Do not use salt water to discharge the Main drive lithium-ion battery. Using water containing salt can generate a large volume of flammable hydrogen and increases the risk of fire or explosion.
- Hydrogen gas is generated during the discharging process, even when fresh water is used and proper discharging procedures are followed. To reduce the risk of fire;
  - The discharging must be done in a well-ventilated area located outside.
  - Keep all windows, doors and the tailgate open to prevent hydrogen from accumulating in the passenger compartment.
- Do not remove the vehicle from the water for 72 hours in order to discharge the battery completely.

1) Soaking the vehicle in water

Marked ★ items are required. The other items should be available and used as necessary.

Step 1. Set up an easy set pool in the size of approximately 450cm X 200cm X 70cm [approximately 180 inch X 80 inch X 30 inch] (length X width X height).

Step 2. Use a forklift or similar equipment to place the vehicle in the center of the pool.

Step 3. ★Open all windows, doors and the tailgate.

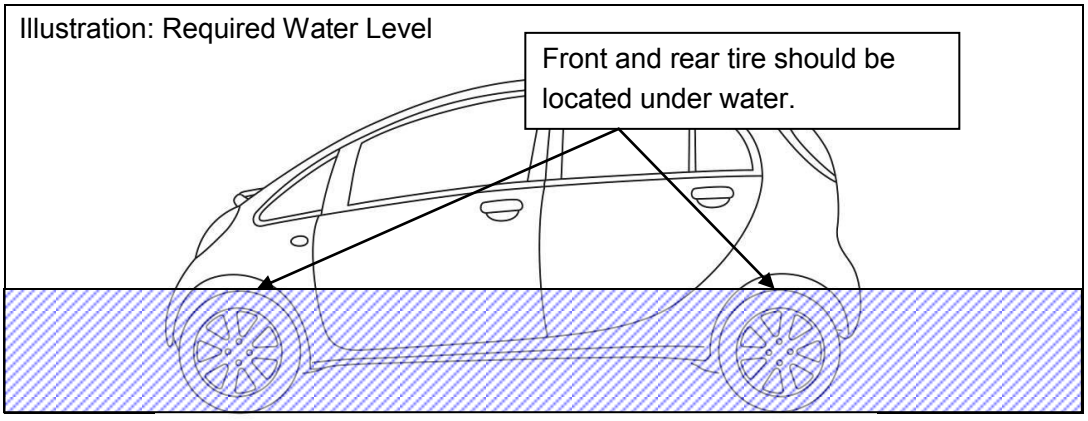
Step 4. ★Make sure to use water that does not contain salt (use tap water, well water or pond water) to prevent an aggressive chemical reaction and the excessive release of flammable hydrogen gas.

★Required water level:

Fill the pool with water until a minimum required depth of 50cm [20 inch] is achieved. Front and Rear tire height is about 50cm [20 inch]. (See illustration below.)
This water level is considered deep enough for the Main drive lithium-ion battery to be completely submerged in water.
If the vehicle body is significantly deformed due to impact from a crash, make sure that the Main drive lithium-ion battery installed under the floor is completely submerged in water. Add additional water if necessary.

★Maintain this water level for at least 72 hours with the Main drive lithium-ion battery soaking in water.

Illustration: Required Water Level

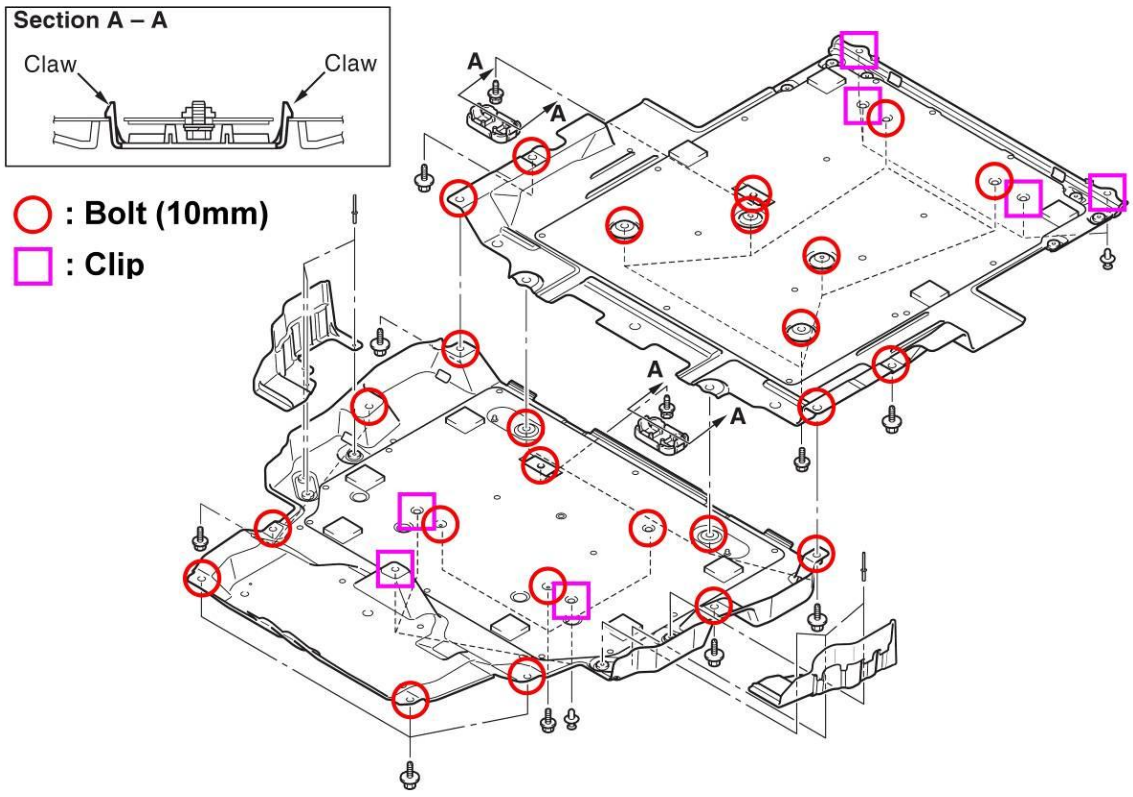


2) Draining the Main drive lithium-ion battery

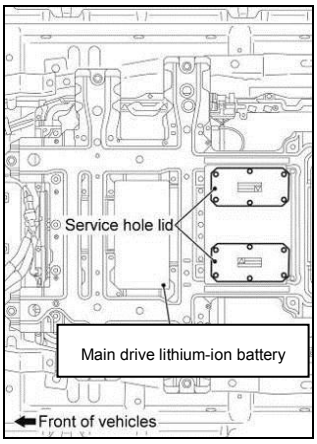
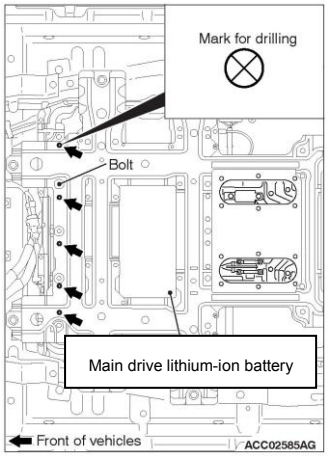
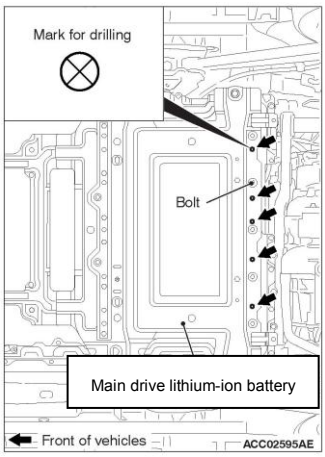
Step 1. After 72 hours have elapsed, remove the vehicle from the water.
Step 2. Remove the Under cover (2 pieces) from bottom of vehicle. (see illustration below.)
- Use Socket wrench (size 10mm) for removing the fixing bolts.
- Use Flat head screwdriver for removing of the fixing clips.
Step 3. Drill drain holes in the marked locations on the bottom of the Main drive lithium-ion battery (see “Drain hole locations on Main drive lithium-ion battery” on next page). Then, drain water from the Main drive lithium-ion battery.
ained water shall be properly disposed of as an industrial waste according to state nd/or local regulations.

⚠ WARNING;
Always wear eye protection (safety glasses) to protect your eyes from flying debris and draining water.

➢ Illustration : Fixing point of Under cover



- Drain hole locations on Main drive lithium-ion battery

Service hole lid: Remove the service hole lids on the bottom of the Main drive lithium-ion battery and drain the Main drive lithium-ion battery.	
Front end of Main drive lithium-ion battery: Use a drill (diameter size 6mm or less) to drill drain holes in the five marked locations on the front bottom of the Main drive lithium-ion battery. Then drain the Main drive lithium-ion battery.	
Rear end of Main drive lithium-ion battery: Use a drill (diameter size 6mm or less) to drill drain holes in the five marked locations on the rear bottom of the Main drive lithium-ion battery. Then drain the Main drive lithium-ion battery.	

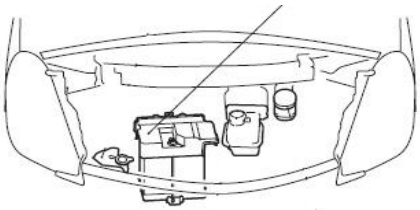
3) Disconnect 12V battery under the front hood.

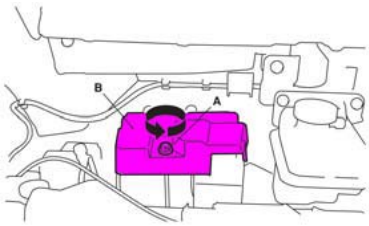
⚠ WARNING;
Disconnect 12V battery to avoid inadvertent airbag deployment during the dismantling process, since the 12V battery may not have discharged while the vehicle was soaking for 72 hours in water.

Since the 12V battery will not discharge while the vehicle is soaking in water;

The hood release is under the instrument panel beside the **front passenger's** door.

① Remove the cover of the 12V battery under the hood. Turn the plastic nut (A) counter clockwise, and then remove the battery upper cover (B).





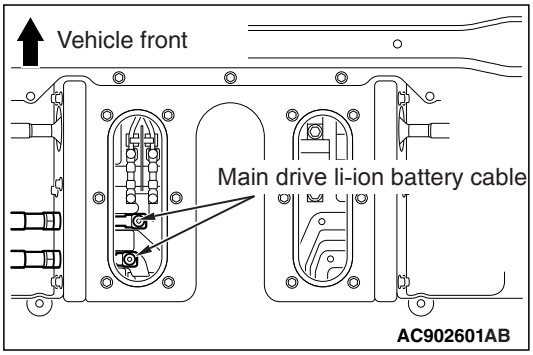
② Disconnect the negative terminal from the 12V battery.

⚠ **WARNING;**
After disconnecting the 12V battery negative terminal, to avoid the risk of inadvertent air bag deployment, wait at least 1 minute before proceeding to the next step.

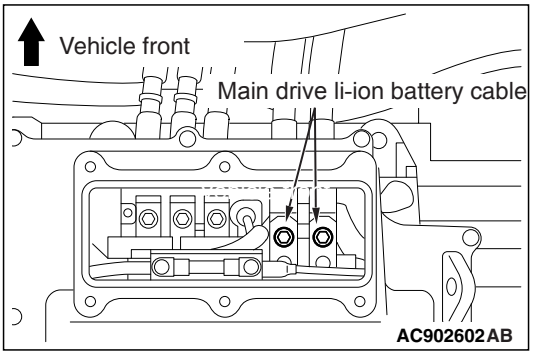
Removing the Main Drive Lithium-ion Battery From the Vehicle

⚠ WARNING;

- Before removing the Main drive lithium-ion battery, be sure that the procedure for shutting off the high voltage or discharging the Main drive lithium-ion battery has been completed.
- Only use procedures described in this guide to remove the Main drive lithium-ion battery. Using different procedures increase the risk of injury and may cause damage to the battery.
- Always wear appropriate personal protection equipment during this work. High voltage may remain inside of the Main drive lithium-ion battery, even after completion of the high voltage shut down or discharge of the Main drive lithium-ion battery.
- If it is necessary to cut the body in order to remove the Main drive lithium-ion battery due to body deformation, never cut the Main drive lithium-ion battery, high voltage wiring, or other high voltage components.
- The Main drive lithium-ion battery is heavy, appproximately 507 lbs. To remove and move the battery, use only equipment with sufficient weight capacity.

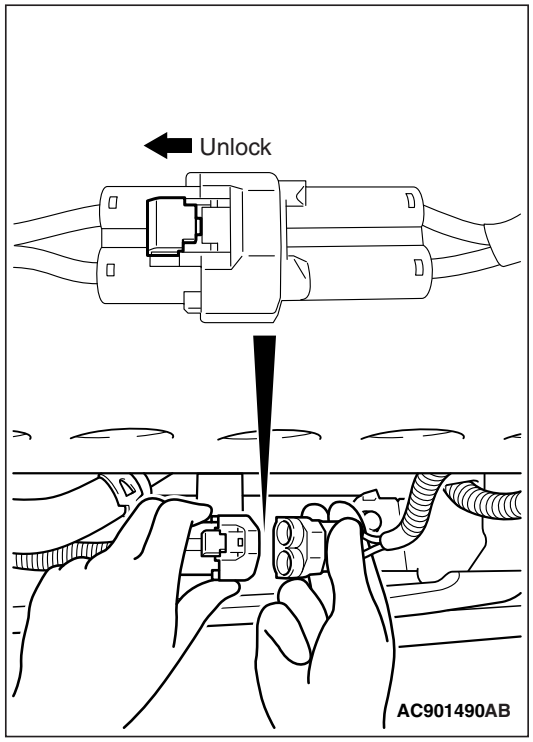


1. Remove the work hole lid at the bottom of the Main drive lithium-ion battery, and then remove the Main drive lithium-ion battery cable.



2. When the work No. 1 is difficult or when the maintenance work of the electric motor unit room must be necessarily performed, remove the Main drive lithium-ion battery cable of the inverter.

⚠ **CAUTION;**
Be sure to release the lock on the connector with your hands, using a tool may damage the connector.

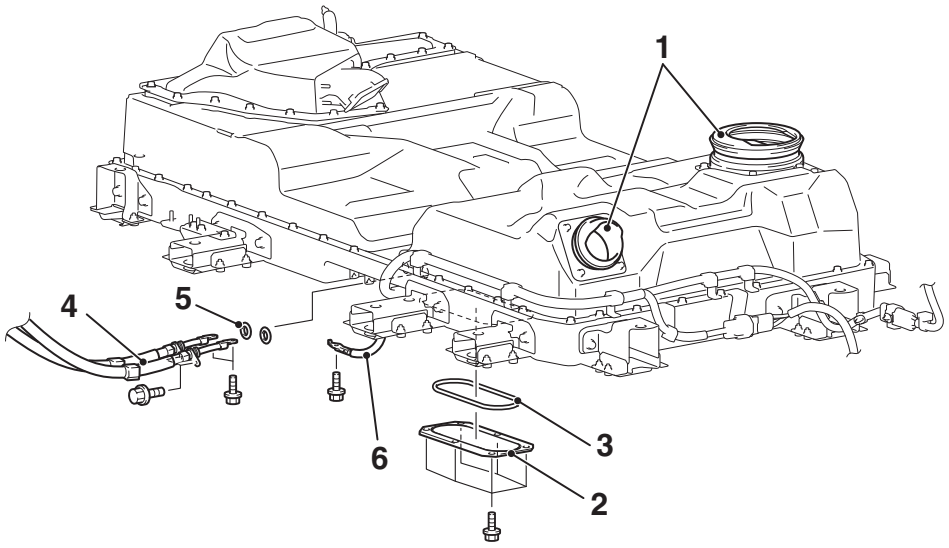


3. Unlock the connector by sliding the lock, and then disconnect it.

***Pre-removal operation**

- Removal of Under cover A, B (Refer to Pg.12 illustration)
- Floor duct removal if applicable (Refer to GROUP 55 – Duct)

*For additional assistance, visit http://www.mitsubishitechinfo.com



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Removal steps

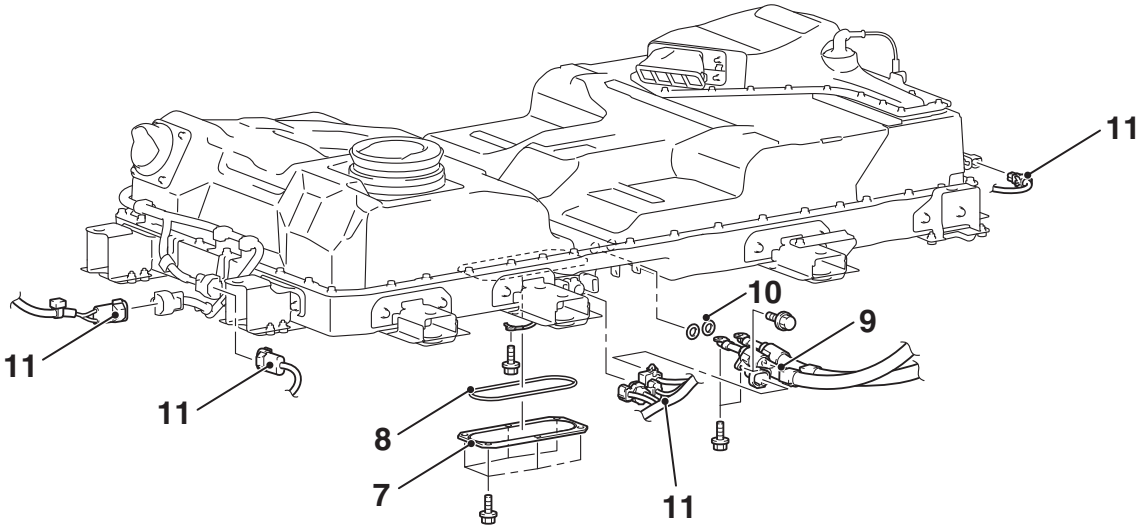
<<**A**>>

1. Rubber boot connection
2. Service hole lid
3. O-ring

<<**B**>>

Removal steps (Continued)

4. Main drive lithium-ion battery cable connection
5. O-ring
6. Ground cable connection



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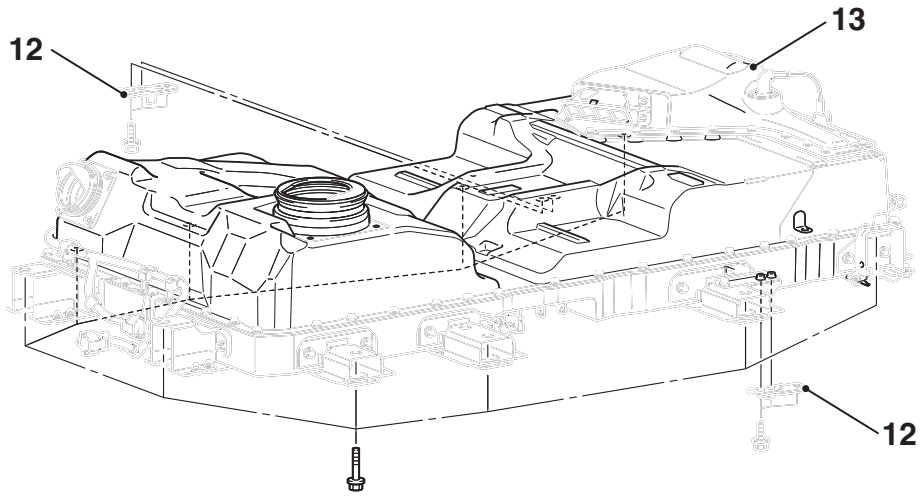
Removal steps

<<**C**>>

7. Service hole lid
8. O-ring
9. Quick charging cable connection (if applicable)

Removal steps (Continued)

10. O-ring
11. Connector connection



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Removal steps

12. Floor frame plate

<<**D**>> 13. Main drive lithium-ion battery assembly