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2009 NISSAN NV200 OEM Service and Repair Workshop Manual

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RPR-001999671

DANGER:

Because hybrid vehicles and electric vehicles contain a high voltage battery, there is a risk of electric shock, electric leakage, or similar accidents if the vehicle is handled incorrectly. Be sure to follow the correct work procedures when performing inspection and maintenance.

WARNING:

- **Be sure to remove the service plug in order to shut off the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.**
- **Be sure to put the removed service plug in pocket and carry it or store it in a tool box or other container so that another person does not accidentally connect it while work is in progress.**
- **Be sure to put on insulating protective gear before beginning work on the high voltage system.**
- **Clearly identify the persons responsible for high voltage work and ensure that other persons do not touch the vehicle. When not working, cover high voltage components with an anti-static cover sheet or similar item to prevent contact with other persons.**
- **Refer to PRECAUTIONS FOR HIGH VOLTAGE : Precautions.**
- **If the battery pack is to be disassembled, be sure to remove the Li-ion battery controller for preventing electric shock, fire, and damage to parts.**

CAUTION:

There is the possibility of a malfunction occurring if the vehicle is changed to READY status while the service plug is removed. Therefore do not change the vehicle to READY status unless instructed to do so in the Service Manual.

ENVIRONMENT FOR LI-ION BATTERY DISASSEMBLY WORK

1 Must be an indoor environment.

- The environment must utilize a shutter or other means to shut out the outside environment and prevent rain, snow, dust, or other substances from entering.
- The environment must not cause the intrusion of sweat during work, or cause condensation to occur due to high temperature or humidity.

2 Metal powder, grease, and other foreign substances must not enter.

- The indoor environment must also prevent metal powder, grease, and other foreign substances from entering due to maintenance performed on other vehicles and other sources during disassembly work.
- If there is a risk of the above substances entering, take appropriate countermeasures, such as use of a vinyl curtain or an equivalent to shut out the outside environment.

3 The floor must be dry.

- The floor must not be wet as a result of factors such as vehicle entry during rain or snow.

4 Work space

- The work space must be approximately the size of one entire vehicle.
- Take appropriate countermeasures so that persons other than the operator do not enter the work space, such as by placing signs indicating that disassembly work is in progress.

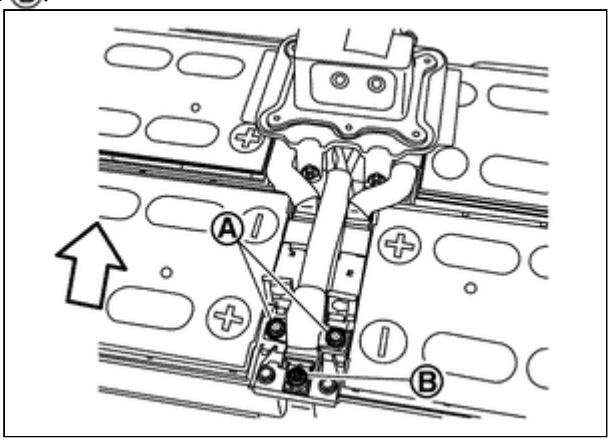
5 Standard fire fighting equipment

- Always place a standard fire fighting equipment in the disassembly work area.
- Depending on type of fire (vehicle or battery) use standard fire fighting equipment (water or extinguisher).

Disassembly

1 Remove battery pack upper rear. Refer to Removal & Installation.

2 Remove the bolt of busbar 12Ⓐ and Ⓑ.



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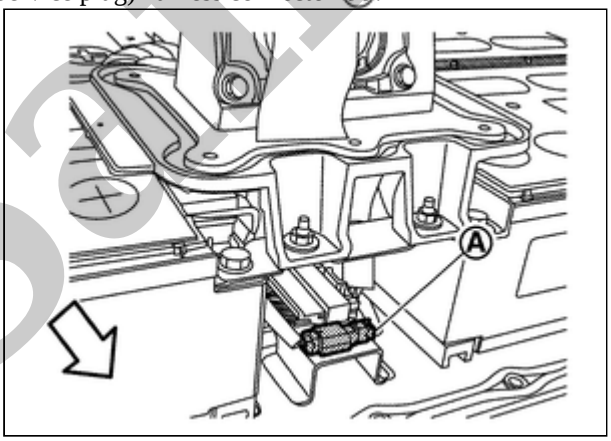
⇦	: Battery front

WARNING:

To prevent electric shock, wear insulated protective gear and use insulated tools.

3 Remove interlock detecting switch (Service plug) harness connector Ⓐ.



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⇦	: Battery front

WARNING:

To prevent electric shock, wear insulated protective gear.

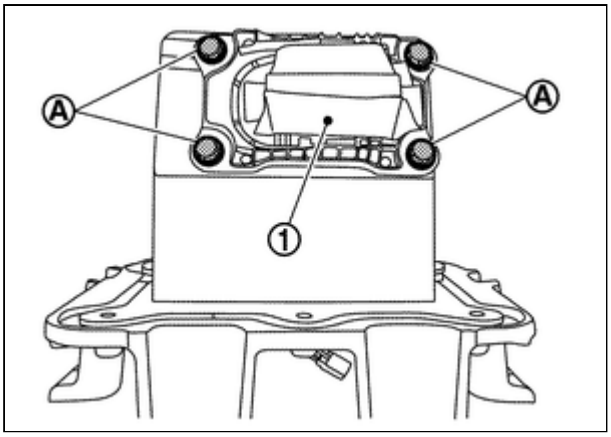
4 Remove nuts of service plug bracket.

5 Remove service plug bracket.

6 Remove seal from service plug bracket.

7 Remove bolts and remove busbar 12 from busbar 13 and busbar 14.

8 Remove bolts Ⓐ.



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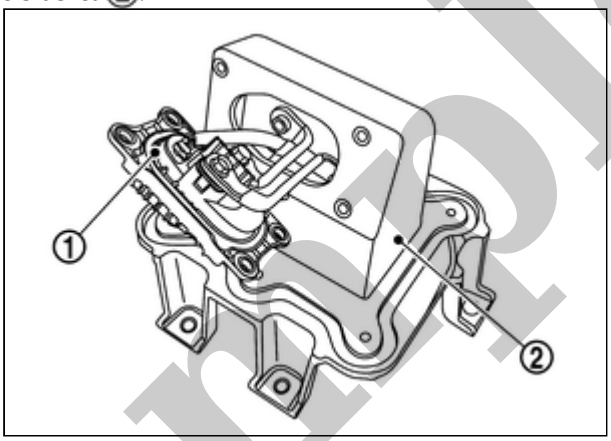
①	: Service plug

9 Remove service plug ① from service bracket ②.



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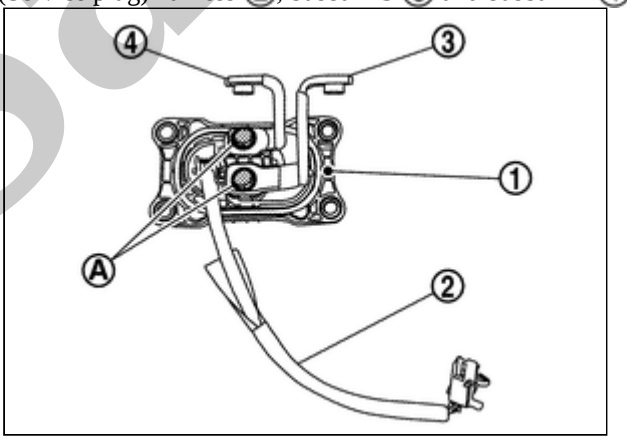
10 Remove interlock detecting switch (Service plug) harness ②, busbar 13 ③ and busbar 14 ④ from service plug ①.



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Ⓐ	: Bolts

Assembly

Note the following items, and assemble in the reverse order of disassembly.

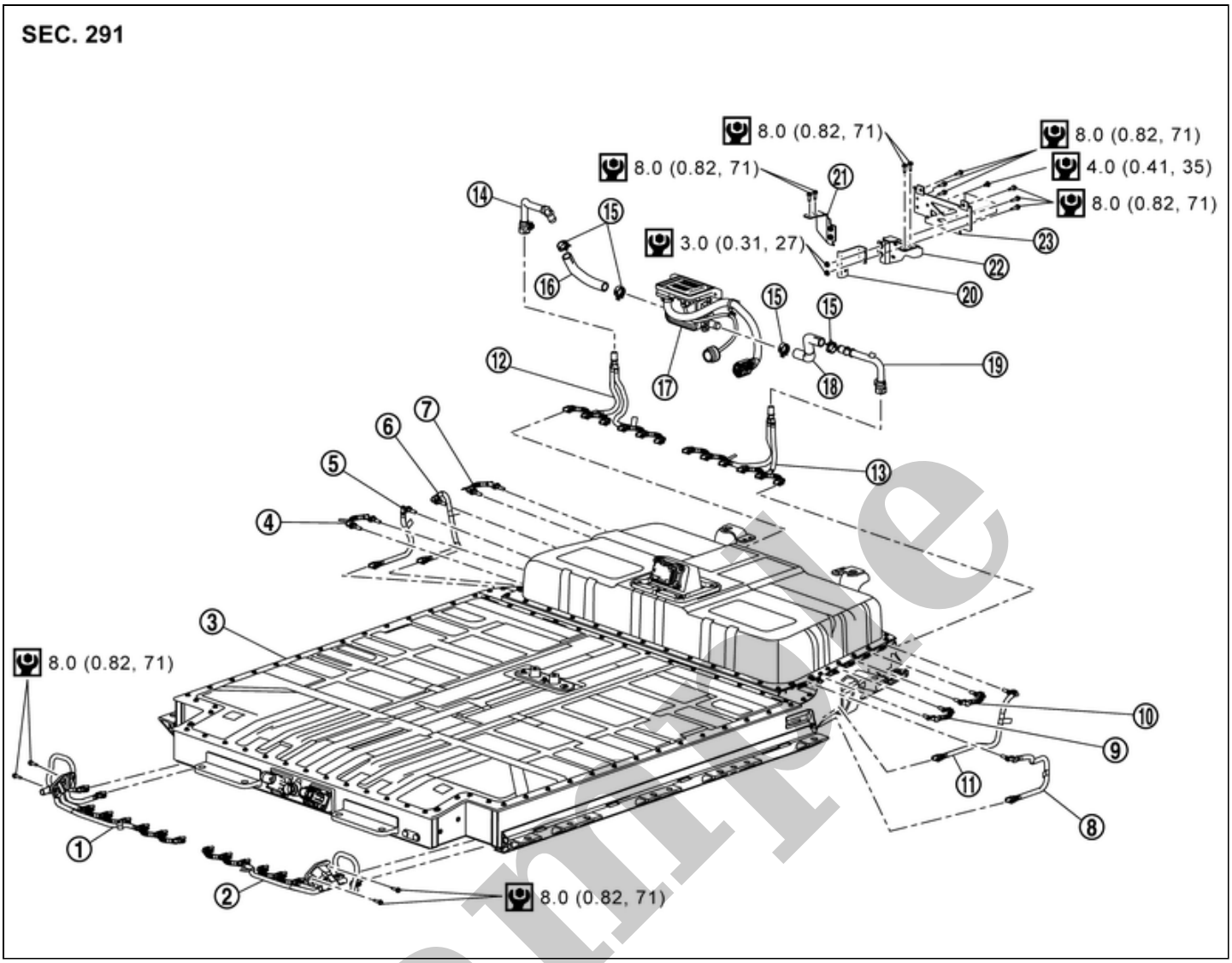
DANGER:

- **There is the danger of electric shock caused by contact with the terminals. Be sure to wear insulated protective gear and use insulated tools.**

-  **Because there is a danger of electric shock and fire, never allow bus bar to contact a wrong terminal.**
    - **If bus bar contacts a wrong terminal, the circuit becomes energized and a short may occur.**
    - **Always keep the bus bar cover closed until immediately before the installation of bus bar.**

Exploded View

RDE-001999643



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①	Li-ion battery cooler tube (front right)	②	Li-ion battery cooler tube (front left)	③	Li-ion battery
④	Li-ion battery cooler tube 1 (right)	⑤	Li-ion battery cooler tube 2 (right)	⑥	Li-ion battery cooler tube 3 (right)
⑦	Li-ion battery cooler tube 4 (right)	⑧	Li-ion battery cooler tube 5 (left)	⑨	Li-ion battery cooler tube 6 (left)
⑩	Li-ion battery cooler tube 7 (left)	⑪	Li-ion battery cooler tube 8 (left)	⑫	Li-ion battery cooler tube (rear right)
⑬	Li-ion battery cooler tube (rear left)	⑭	Li-ion battery cooler tube (rear right) upper	⑮	Clamp
⑯	Li-ion battery cooler hose (right)	⑰	Battery heater	⑱	Li-ion battery cooler hose (left)
⑲	Li-ion battery cooler tube (rear left) upper	⑳	Battery heater bracket 1	㉑	Battery heater bracket 3
㉒	Battery heater bracket 2	㉓	Battery heater bracket 4		
	: N·m (kg-m, in-lb)				
	: N·m (kg-m, ft-lb)				

RPR-001999667

DANGER:

Because hybrid vehicles and electric vehicles contain a high voltage battery, there is a risk of electric shock, electric leakage, or similar accidents if the vehicle is handled incorrectly. Be sure to follow the correct work procedures when performing inspection and maintenance.

WARNING:

- **Be sure to remove the service plug in order to shut off the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.**
- **Be sure to put the removed service plug in pocket and carry it or store it in a tool box or other container so that another person does not accidentally connect it while work is in progress.**
- **Be sure to put on insulating protective gear before beginning work on the high voltage system.**
- **Clearly identify the persons responsible for high voltage work and ensure that other persons do not touch the vehicle. When not working, cover high voltage components with an anti-static cover sheet or similar item to prevent contact with other persons.**
- **Refer to PRECAUTIONS FOR HIGH VOLTAGE : Precautions.**

CAUTION:

There is the possibility of a malfunction occurring if the vehicle is changed to READY status while the service plug is removed. Therefore do not change the vehicle to READY status unless instructed to do so in the Service Manual.

WARNING:

Prepare for work on the high-voltage system. Refer to HOW TO DISCONNECT HIGH VOLTAGE : Precautions.

DISASSEMBLY

LI-ION BATTERY COOLER TUBE (FRONT)

CAUTION:

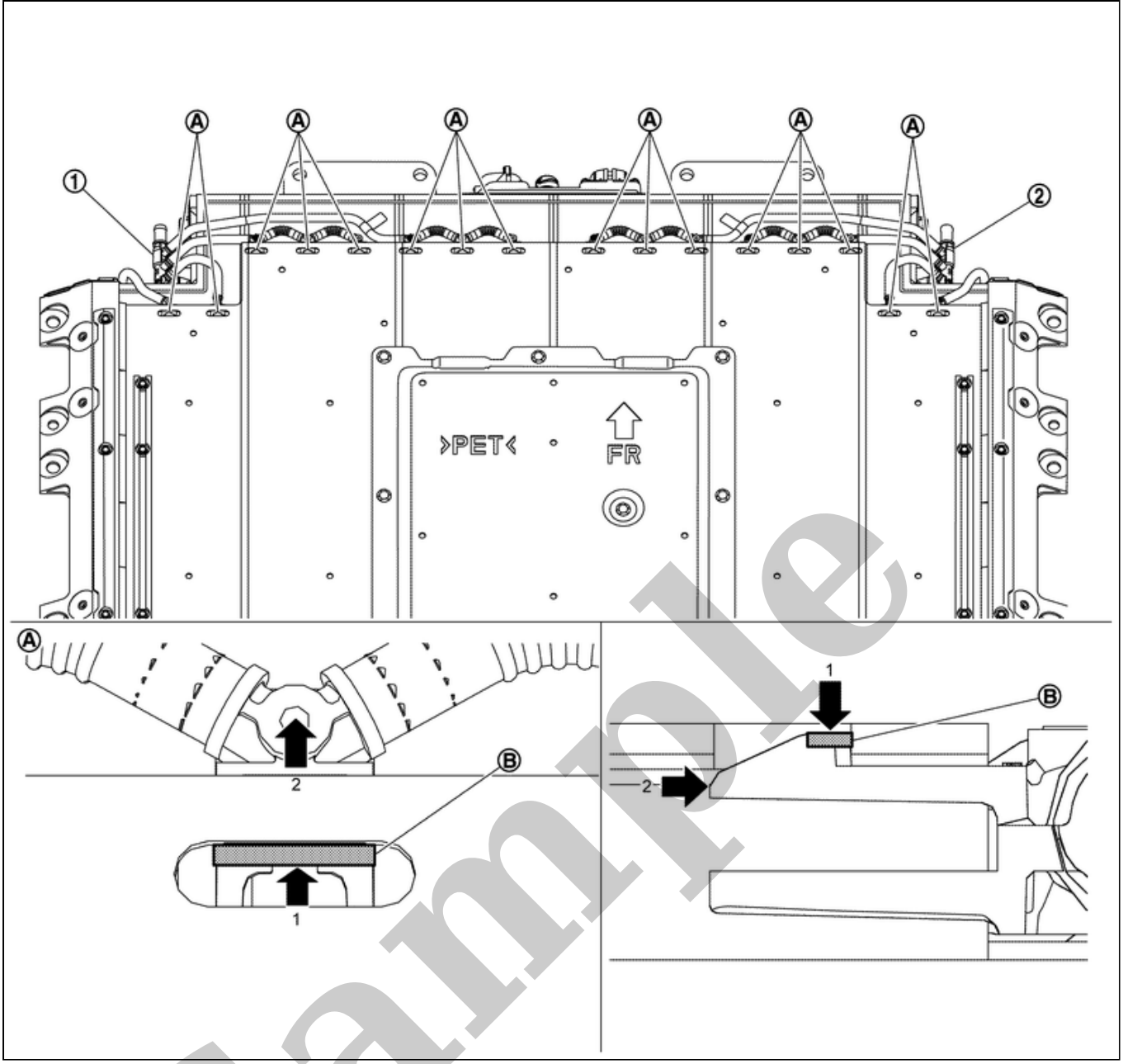
If LI-ion battery cooler tube (front) is removed from Li-ion battery, since Li-ion battery cooler tube (front) cannot be reused, replacement is required.

1 If necessary, remove Li-ion battery cooler tubes (front right and front left).

1. Push claws Ⓑ of connector on Li-ion battery cooler tubes (front right and front left) Ⓐ and remove from the Li-ion battery until all connectors are half-locked.

CAUTION:

Li-ion battery cooler tubes (front right and front left) can be removed individually one by one and does not need to be removed together.



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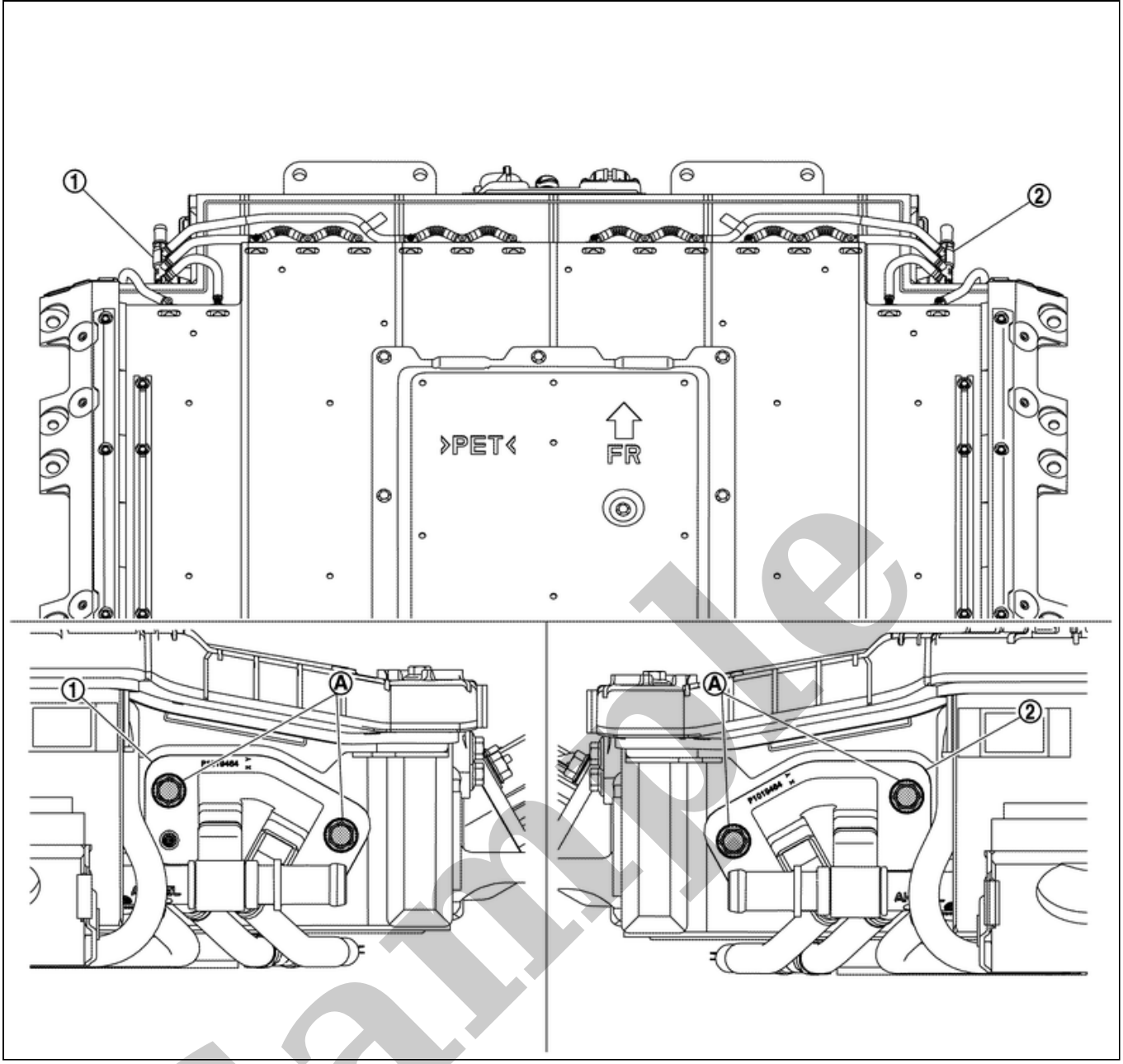
2. Remove mounting bolts of Li-ion battery cooler tubes (front right ① and front left ②).

CAUTION:
Li-ion battery cooler tubes (front right and front left) can be removed individually one by one and does not need to be removed together.



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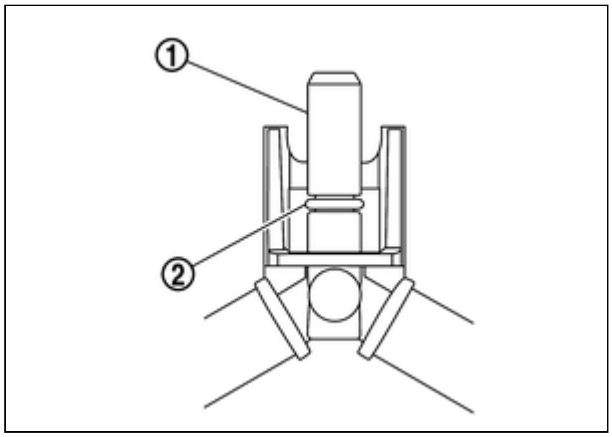
3. Remove Li-ion battery cooler tubes (front right and front left) from Li-ion battery.

CAUTION:

- **Li-ion battery cooler tubes (front right and front left) can be removed individually one by one and does not need to be removed together.**
- **If the collar ① and O-ring ② at the end of connector remain in the Li-ion battery while removing Li-ion battery cooler tubes (front right and front left) from Li-ion battery, take them out.**



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LI-ION BATTERY COOLER TUBE (REAR)

CAUTION:
If LI-ion battery cooler tube (rear) is removed from Li-ion battery, since Li-ion battery cooler tube (rear) cannot be reused, replacement is required.

1 Remove Li-ion battery. Refer to Removal & Installation.

2 If necessary, remove Li-ion battery cooler tubes (rear right and rear left).

1. Remove Li-ion battery cooler tubes (rear right and rear left) from Li-ion battery cooler tube (rear right and rear left) uppers, respectively.

CAUTION:
Li-ion battery cooler tubes (rear right and rear left) can be removed individually one by one and does not need to be removed together.

2. Push claws Ⓑ of connector on Li-ion battery cooler tubes (rear right and rear left) Ⓐ and remove from Li-ion battery until all connectors are half-locked.

CAUTION:
Li-ion battery cooler tubes (rear right and rear left) can be removed individually one by one and does not need to be removed together.