

# Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

## 2009 NISSAN Quest OEM Service and Repair Workshop Manual

[Go to manual page](#)

**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

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**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).

# LI-ION BATTERY CONTROLLER

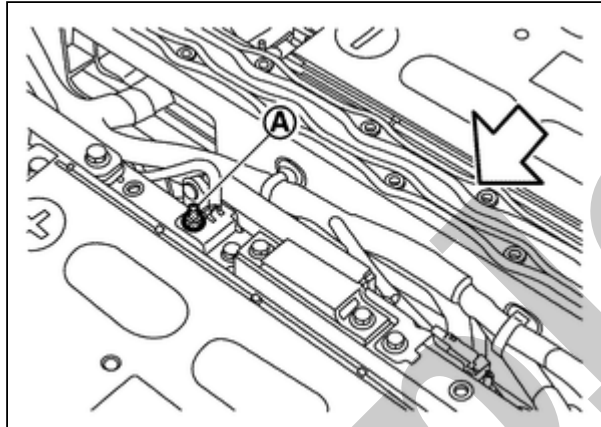
## Disassembly

### CAUTION:

When replace Li-ion battery controller, perform necessary work according to the procedure of "BATTERY PACK UPPER CASE : Removal & Installation". Refer to [Work Item List](#).

1 Remove battery pack upper case front. Refer to [Removal & Installation](#).

2 Remove nut of cable (A).



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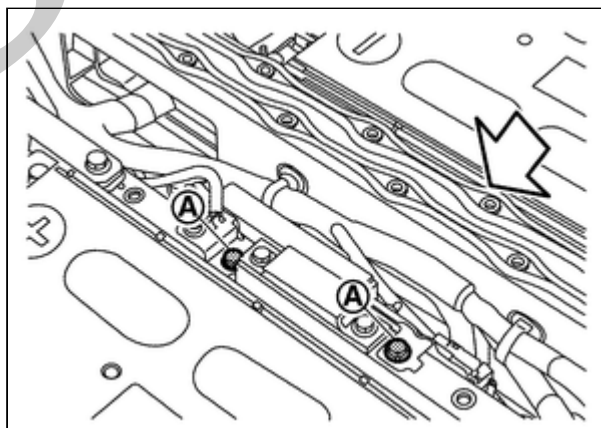
: Battery front

### WARNING:

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



3 Remove the bolt (A) of bracket.



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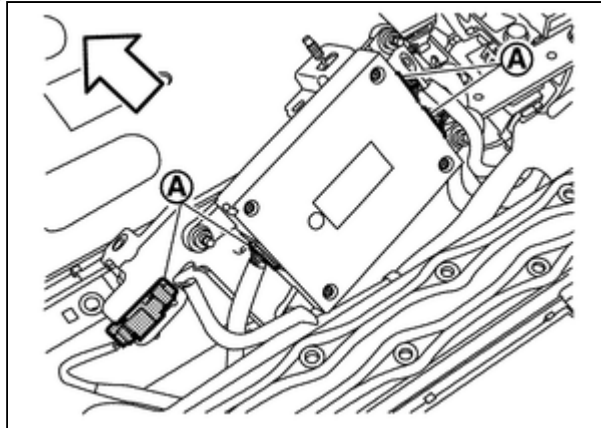
: Battery front

### WARNING:

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



4 Disconnect the harness connector **A**.




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: Battery front

**WARNING:**

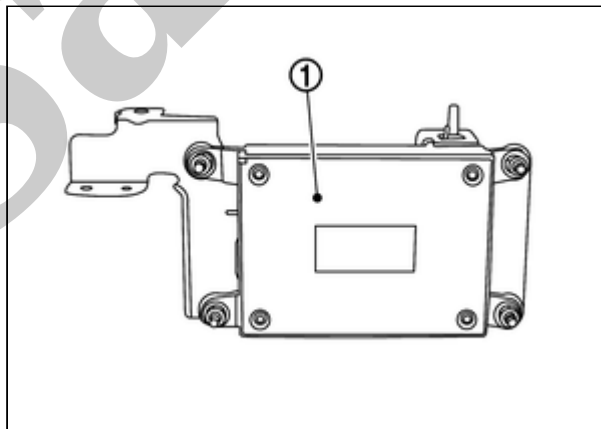
 To prevent electric shock, wear insulated protective gear.



**CAUTION:**

Because there is the danger of electric shock, immediately insulate removed connectors with insulating tape.

5 Remove Li-ion battery controller **1** from bracket.



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## 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.

## CELL CONTROLLER (LEFT SIDE)

### DISASSEMBLY

- 1 Remove battery pack upper case front. Refer to [Removal & Installation](#).
- 2 Remove Li-ion battery controller with bracket.

#### WARNING:

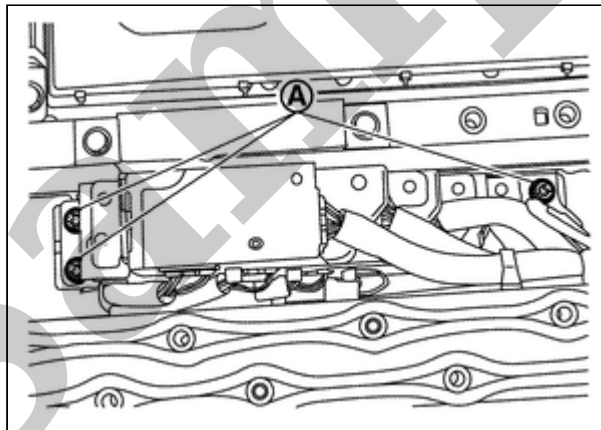
 To prevent electric shock, wear insulated protective gear and use insulated tools.



#### CAUTION:

Because there is the danger of electric shock, immediately insulate removed connectors with insulating tape.

- 3 Remove nut **(A)** on the bracket.



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#### WARNING:

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



- 4 Disconnect the harness connector from cell controller.

#### WARNING:

 To prevent electric shock, wear insulated protective gear.



#### CAUTION:

Because there is the danger of electric shock, immediately insulate removed connectors with insulating tape.

5 Disconnect the cell controller from bracket.

## 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.



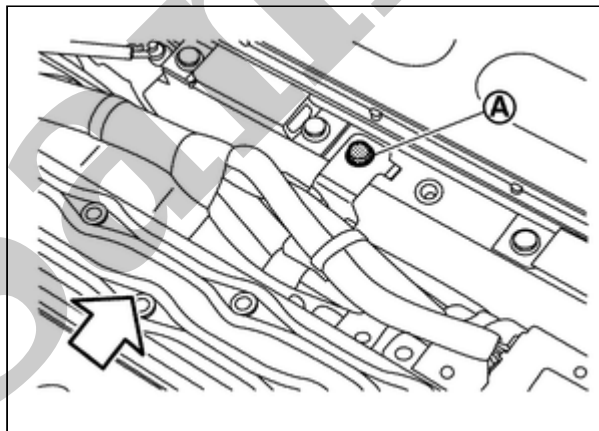
- There two types of cell controller harnesses for high voltage and low voltage. When inserting high voltage harness connector to low voltage system, it may cause fire or damage parts. Carefully avoid mistake when inserting connectors.

## CELL CONTROLLER (RIGHT SIDE)

### DISASSEMBLY

1 Remove battery pack upper case front. Refer to [Removal & Installation](#).

2 Remove bolt (A) on the bracket.



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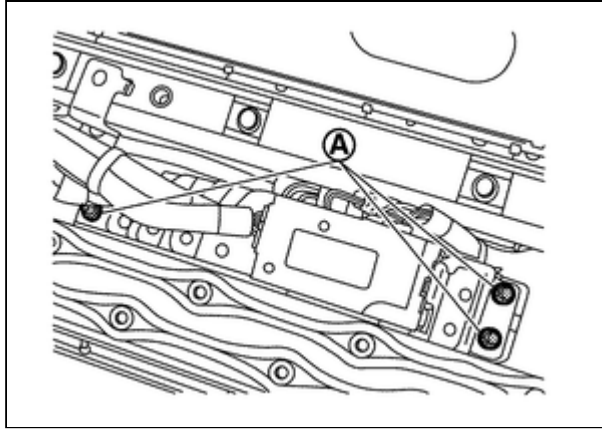
### WARNING:

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



: Battery front

3 Remove nut (A) on the bracket.



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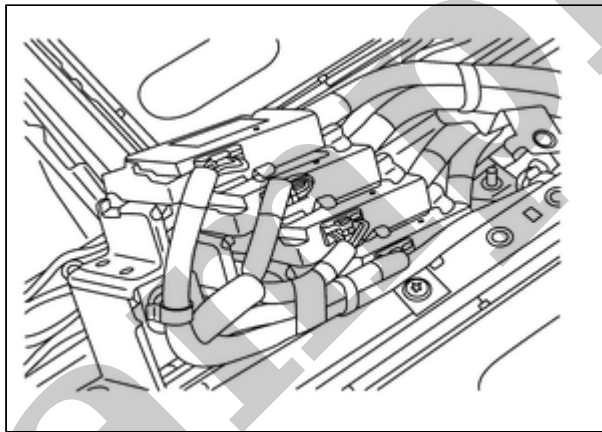
**WARNING:**



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



4 Disconnect the harness connector from cell controller.



RPR-001999647-09-000402168

**WARNING:**



To prevent electric shock, wear insulated protective gear.



**CAUTION:**

Because there is the danger of electric shock, immediately insulate removed connectors with insulating tape.

5 Remove cell controller from the bracket.

## 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.



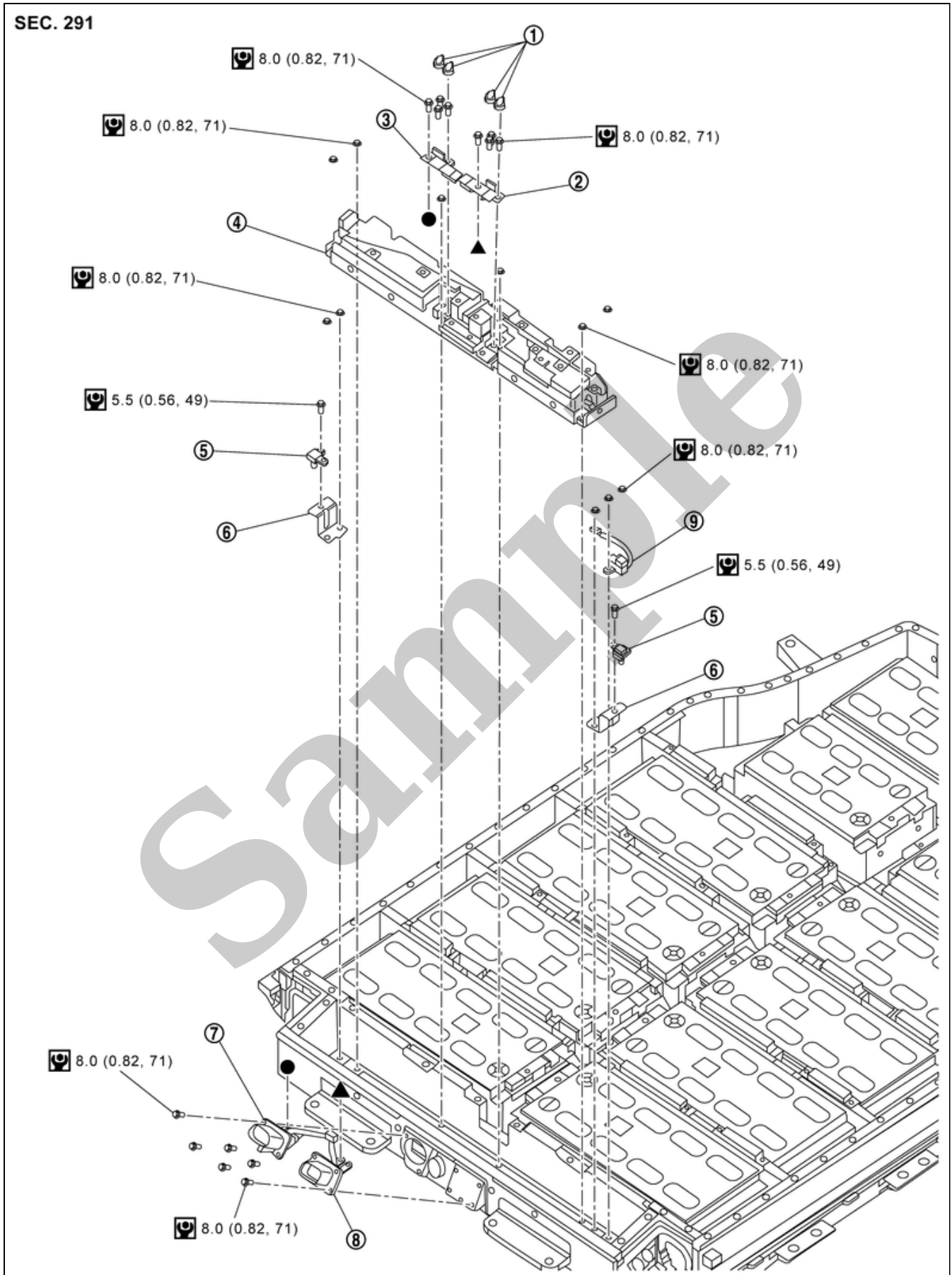
- There two types of cell controller harnesses for high voltage and low voltage. When inserting high voltage harness connector to low voltage system, it may cause fire or damage parts. Carefully avoid mistake when inserting connectors.

Sample




BATTERY JUNCTION BOX



SEC. 291



RDE-001999646-04-000360421

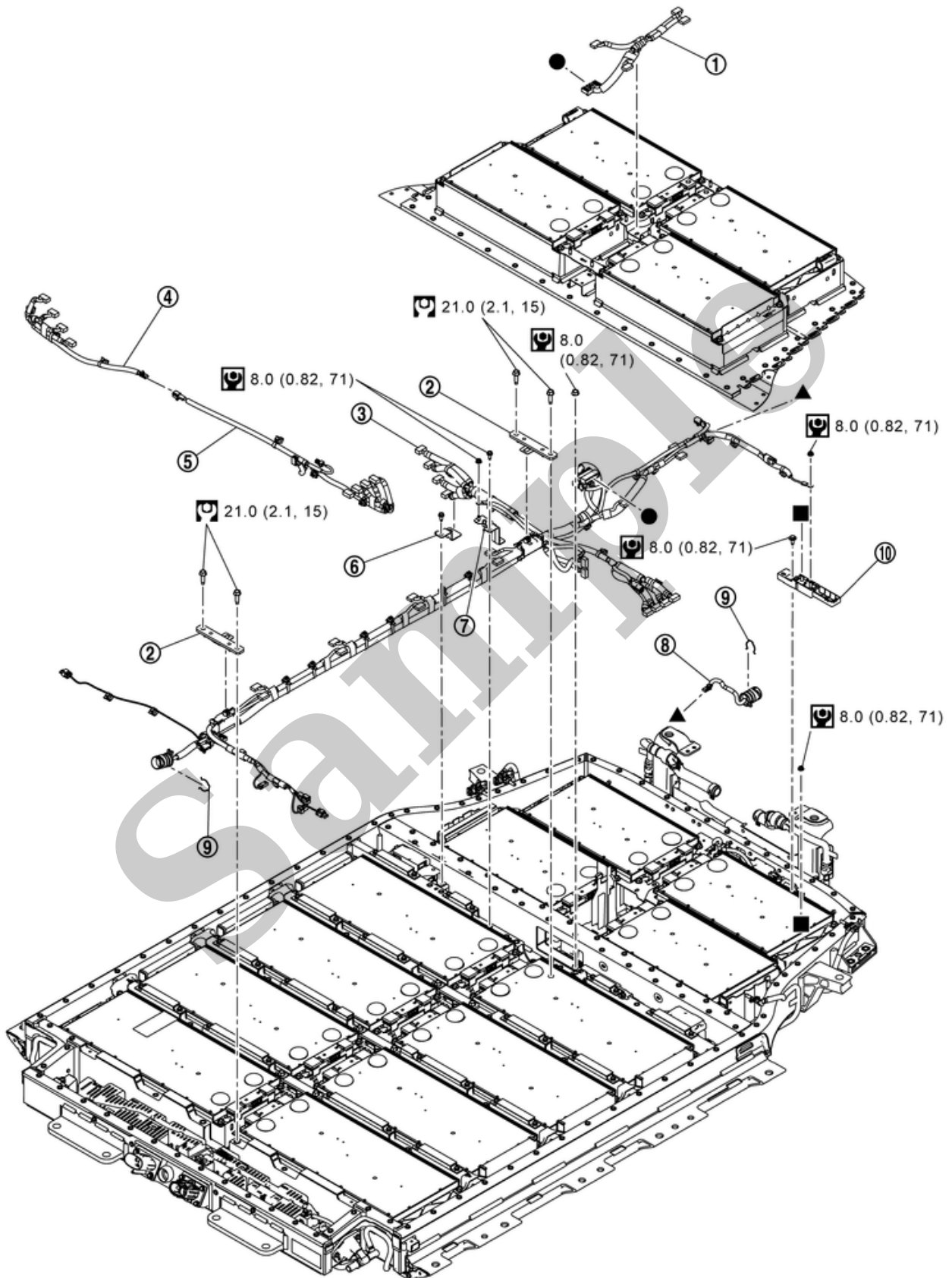
①	Nut cap	②	Busbar 1	③	Busbar 20
④	Battery junction box	⑤	Battery pack pressure sensor	⑥	Bracket
⑦	High-voltage harness connector	⑧	High-voltage harness connector	⑨	Battery pack water temperature sensor

 : N·m (kg-m, in-lb)

  : Indicates that the part is connected at points with same symbol in actual vehicle.

### BATTERY HARNESS

SEC. 291



RDE-001999646-03-000402143

①	Vehicle communication harness	②	Bracket	③	Vehicle communication harness
④	Cell voltage detection harness	⑤	Cell voltage detection harness	⑥	Bracket
⑦	Bracket	⑧	Vehicle communication harness (battery PTC)	⑨	Clip