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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.

2024 Nissan Leaf Service and Repair Manual

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DANGER:

Since hybrid vehicles and electric vehicles contain a high voltage battery, there is the risk of electric shock, electric leakage, or similar accidents if the high voltage component and vehicle are 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 disconnect the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.
- The removed service plug must always be carried in a pocket of the responsible worker or placed in the tool box during the procedure to prevent the plug from being connected by mistake.
- Be sure to wear insulating protective equipment consisting of glove, shoes, face shield and glasses before beginning work on the high voltage system.
- Never allow workers other than the responsible person to touch the vehicle containing high voltage parts. To keep others from touching the high voltage parts, these parts must be covered with an insulating sheet except when using them.
- Refer to [Precautions for High Voltage](#).

CAUTION:

- Never bring the vehicle into the READY status with the service plug removed unless otherwise instructed in the Service Manual. A malfunction may occur if this is not observed.
- Perform lubricant return operation before each refrigeration system disassembly. However, if a large amount of refrigerant or lubricant is detected, never perform lubricant return operation. Refer to [Perform Lubricant Return Operation](#).

REMOVAL

1 Follow the instructions below before starting the procedure.

CAUTION:

- **Disconnect high voltage circuit.** Refer to [HOW TO DISCONNECT HIGH VOLTAGE : Precautions](#).
- **Check voltage in high voltage circuit.** Refer to [CHECK VOLTAGE IN HIGH VOLTAGE CIRCUIT : Precautions](#).

2 Use a refrigerant collecting equipment (for HFO-1234yf) to discharge the refrigerant. Refer to [Recycle Refrigerant](#).

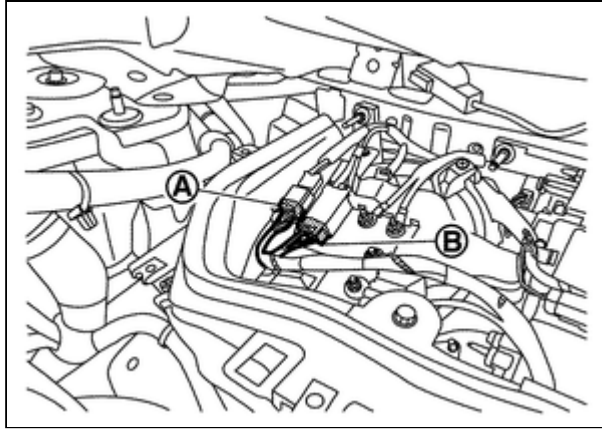
3 Remove low-pressure refrigerator pipe assembly. Refer to [Removal & Installation](#).

4 Remove high-pressure flexible hose. Refer to [Removal & Installation](#).

5 Remove high-pressure cooler pipe assembly. Refer to [Removal & Installation](#).

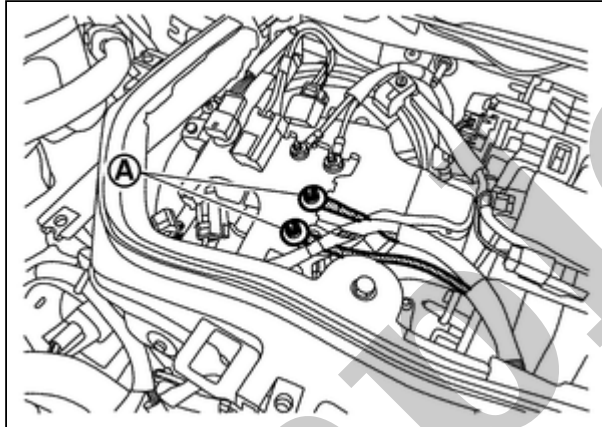
6 Remove A/C unit assembly top cover. Refer to [Removal & Installation](#).

7 Disconnect sub harness connector **(A)** and **(B)**.



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8 Remove mounting nuts (A), and then remove sub harness from sub harness bracket.



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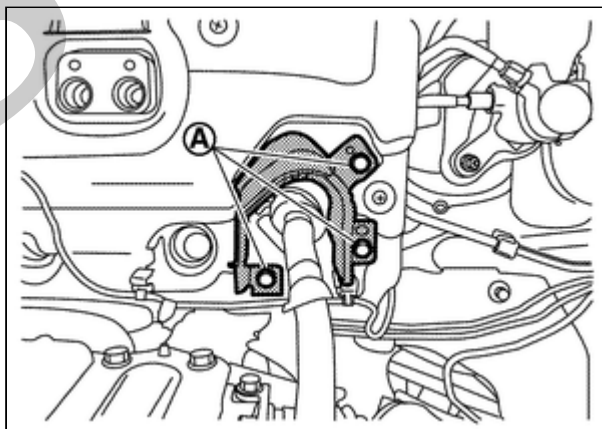
WARNING:



To prevent electric shock hazards, be sure to wear protective gear.



9 Remove mounting bolts (A), and then remove PTC cover.



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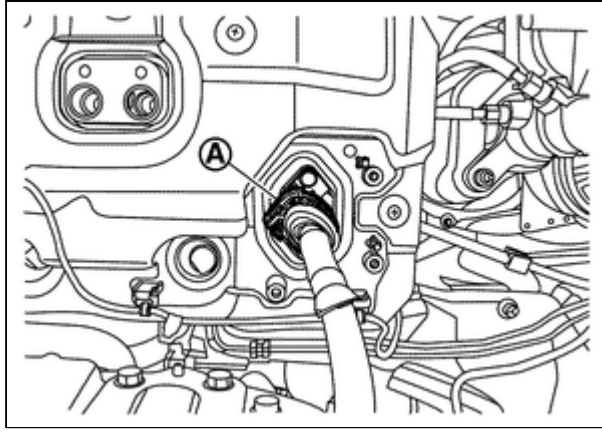
WARNING:



To prevent electric shock hazards, be sure to wear protective gear.



10 Disconnect high voltage harness connector (A).




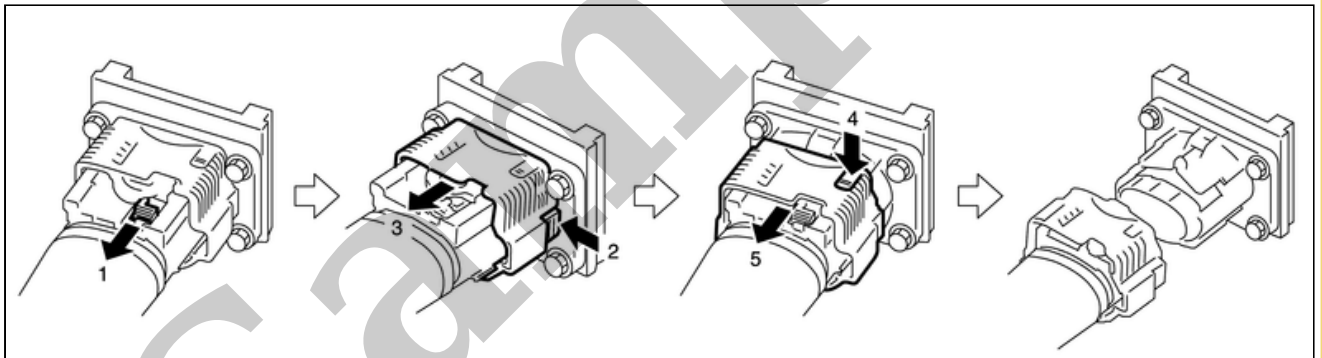
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WARNING:

-  To prevent electric shock hazards, be sure to wear protective gear.

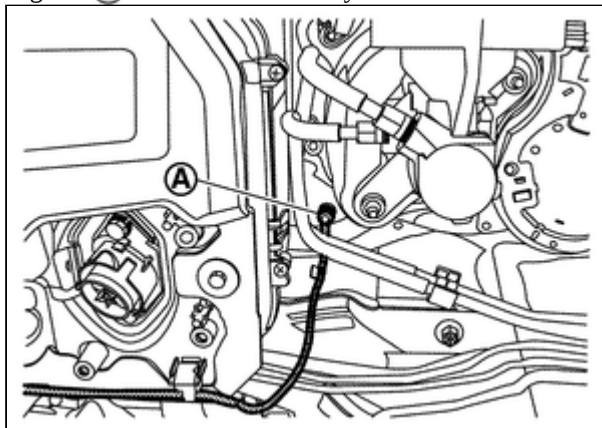


-  To prevent electric shock hazards, immediately wrap insulating tape around disconnected high voltage connector terminals.
- Disconnect high voltage harness connector according to numerical order 1 → 5 indicated by arrows as shown in the figure.



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11 Remove left harness terminal mounting nut (A) of A/C unit assembly cover.



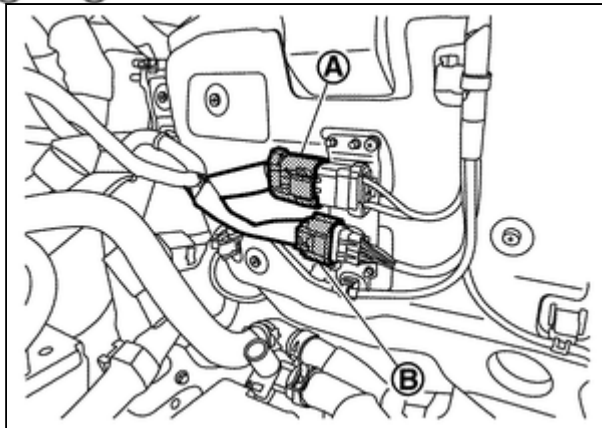
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WARNING:

-  To prevent electric shock hazards, be sure to wear protective gear.

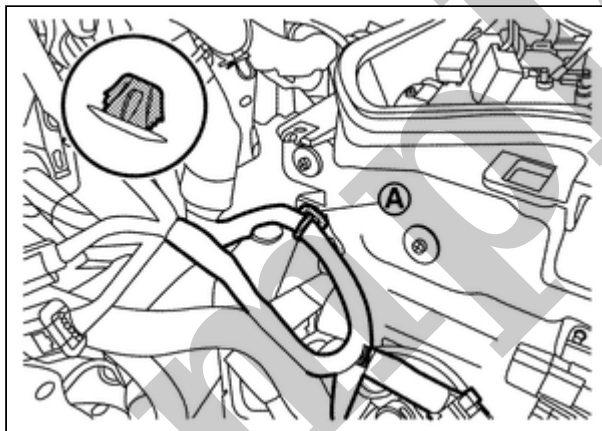


12 Disconnect sub harness connector (A) and (B).



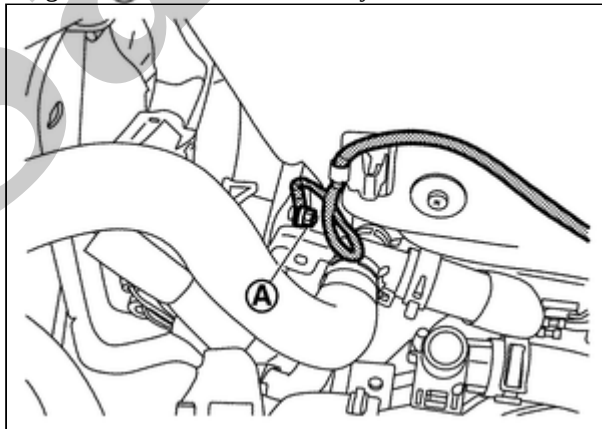
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13 Disengage harness fixing clip (A).



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14 Remove right harness terminal mounting nut (A) of A/C unit assembly cover.

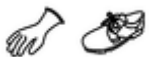


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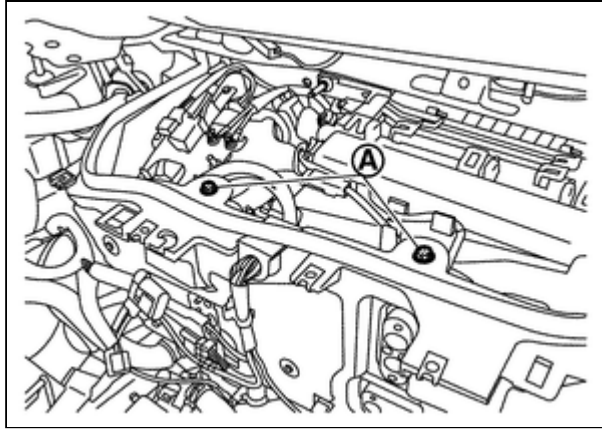
WARNING:



To prevent electric shock hazards, be sure to wear protective gear.



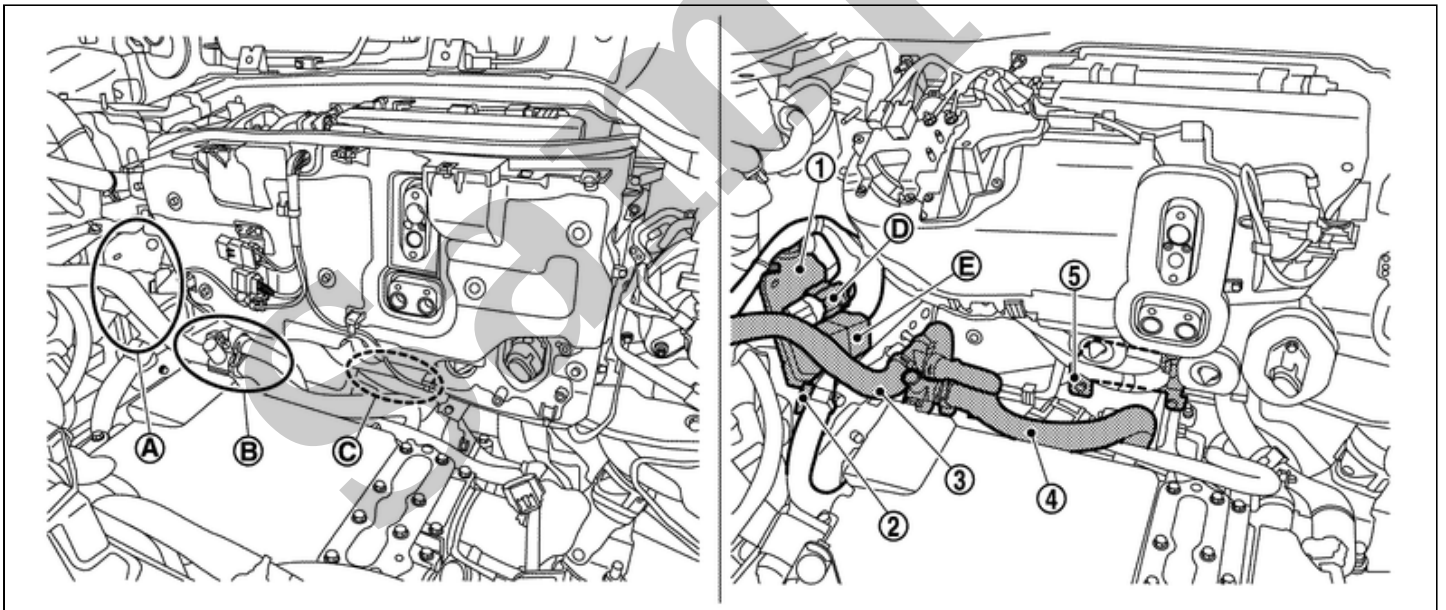
15 Remove upper mounting bolts (A) of A/C unit assembly cover.



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16 Since it interferes surrounding (A), (B) and (C) part when removing A/C unit assembly cover, move or remove following parts to secure the work space.

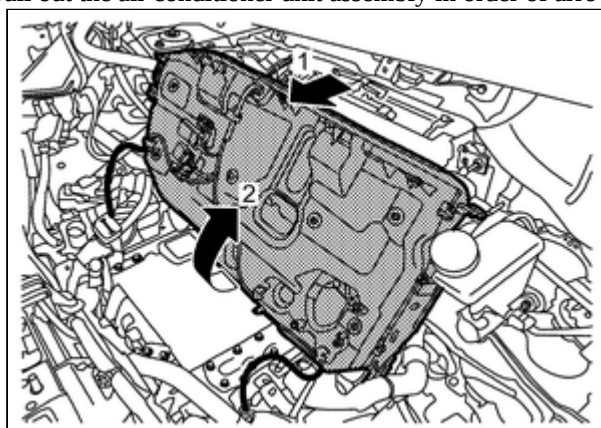
- Disconnect harness connectors (D) and (E).
- Move harness bracket (1).
- Remove harness fix part (2) from harness bracket.
- Move water hoses (3).
- Move water hose (4).
- Remove bracket (5) of charge port high voltage harness. Refer to [CHARGE PORT : Removal & Installation](#).



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17 Remove mounting nuts of A/C unit assembly cover.

18 Rotate the bottom to remove after pull out the air conditioner unit assembly in order of arrow 1→2 in the figure.



INSTALLATION

Note the following items, and then install in the reverse order of removal.

WARNING:

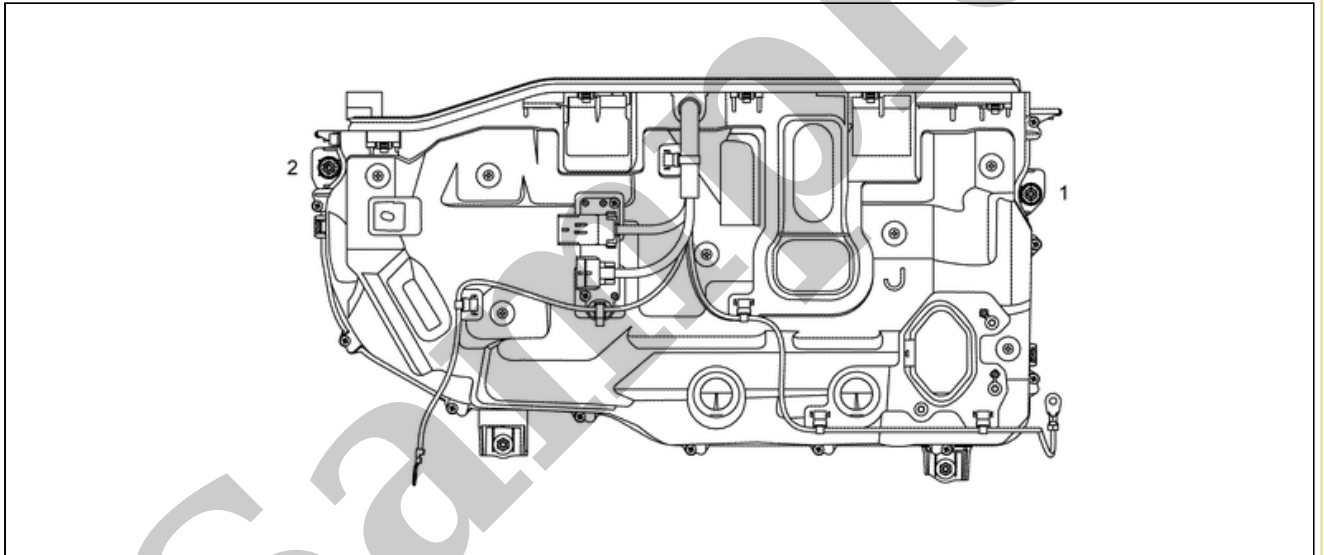


To prevent electric shock hazards, be sure to wear protective gear.



CAUTION:

- Be sure to reinstall high voltage harness clip in their original position. If a clip is damaged, replace it with a new clip before installing.
- For the A/C unit assembly cover mounting nuts, tighten the nuts in the order of 1 → 2 in the figure, and then tighten the other nuts.



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- Use a refrigerant collecting equipment (for HFO-1234yf) to charge the refrigerant. Refer to [Charge Refrigerant](#).

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WARNING:

- Be sure to remove the service plug in order to disconnect the high voltage circuits before performing inspection or maintenance of high voltage system harnesses and parts.
- The removed service plug must always be carried in a pocket of the responsible worker or placed in the tool box during the procedure to prevent the plug from being connected by mistake.
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- Refer to [Precautions for High Voltage](#).

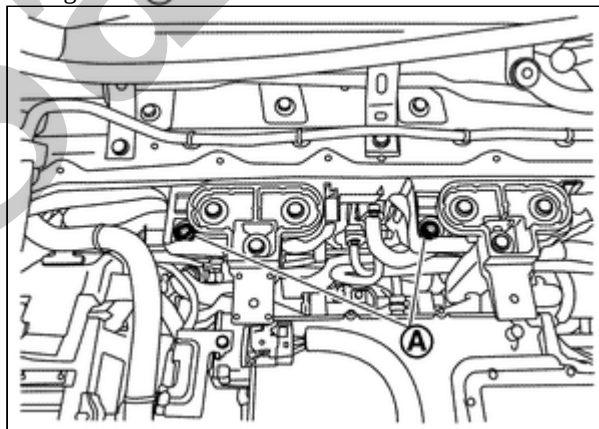
CAUTION:

Never bring the vehicle into the READY status with the service plug removed unless otherwise instructed in the Service Manual. A malfunction may occur if this is not observed.

REMOVAL

1 Remove cowl top cover. Refer to [Removal & Installation](#).

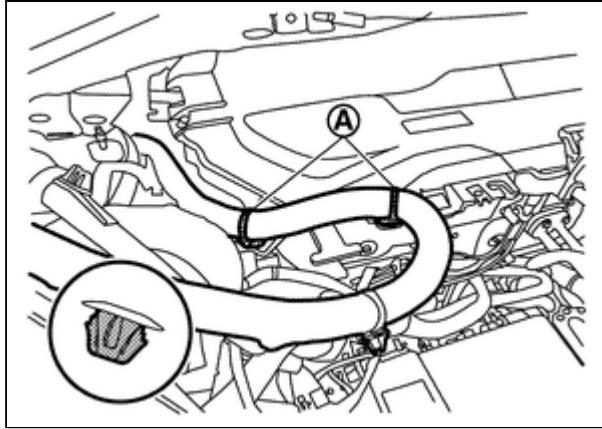
2 Remove A/C unit assembly cover mounting bolts (A).



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3 Remove cowl top extension. Refer to [Removal & Installation](#).

4 Disengage high voltage harness fixing clips (A),



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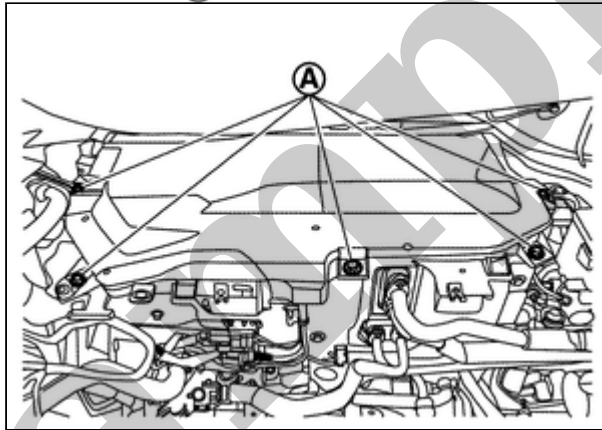
WARNING:



To prevent electric shock hazards, be sure to wear protective gear.

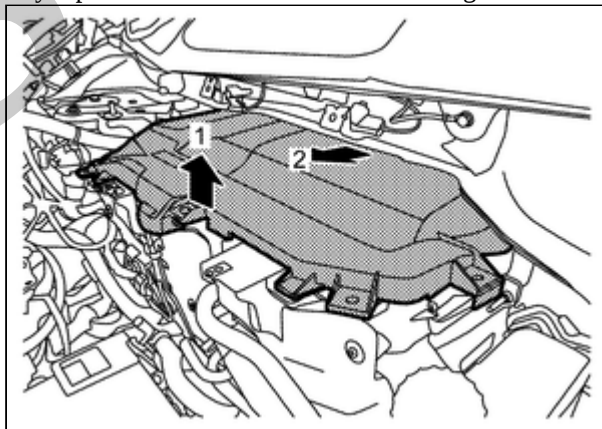


5 Remove A/C unit assembly top cover mounting bolts (A).



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6 Pull out the air conditioner unit assembly top cover in the order of 1 → 2 in the figure and remove it upward.



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INSTALLATION

Note the following items, and then install in the reverse order of removal.

WARNING:

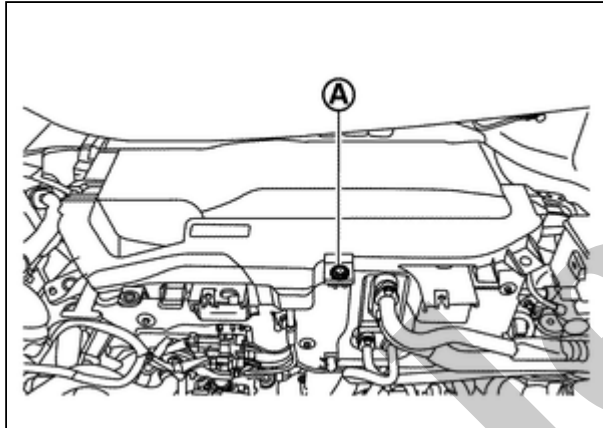


To prevent electric shock hazards, be sure to wear protective gear.



CAUTION:

- When installing, install so that the seal part of A/C unit assembly top cover does not deform.
- For the A/C unit assembly top cover mounting bolt, tighten the bolt (A) in the figure and then tighten the other bolts.



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Sample