

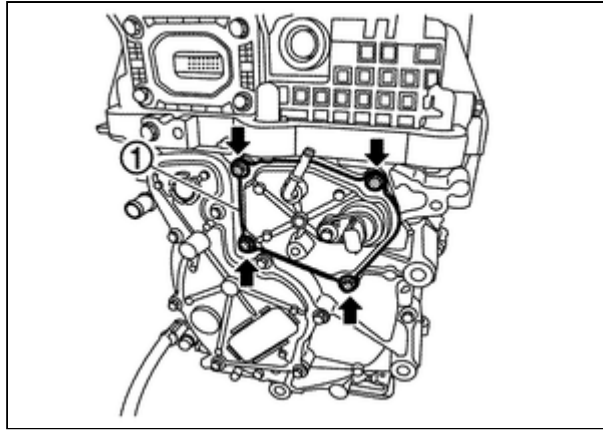
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2013 NISSAN XTerra OEM Service and Repair Workshop Manual

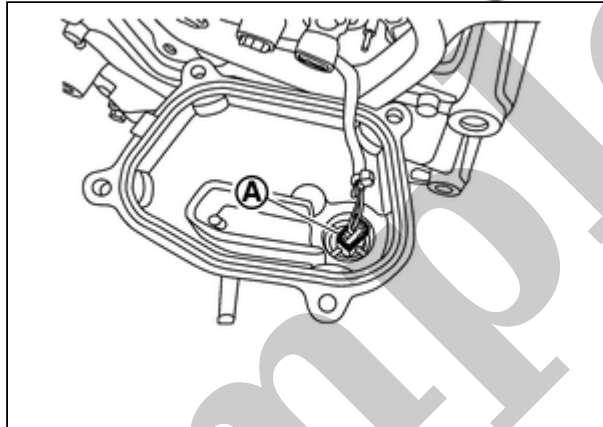
[Go to manual page](#)

- Oil may leak out from the opening. If it does, use cloth or other material to wipe it up.



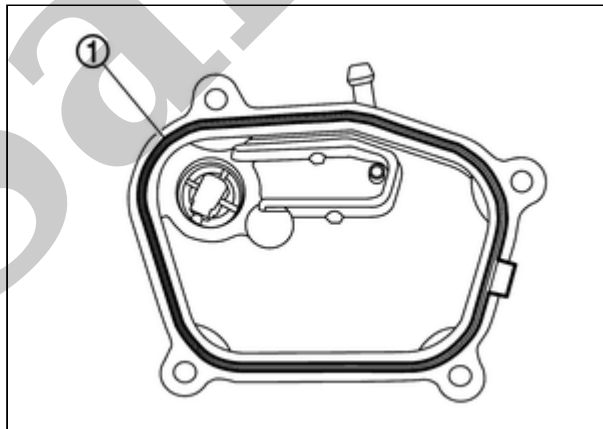
RPR-001931899-30-000359607

20 Disconnect the front traction motor stator temperature sensor harness connector (A).



RPR-001931899-31-000359608

21 Remove the gasket (1).



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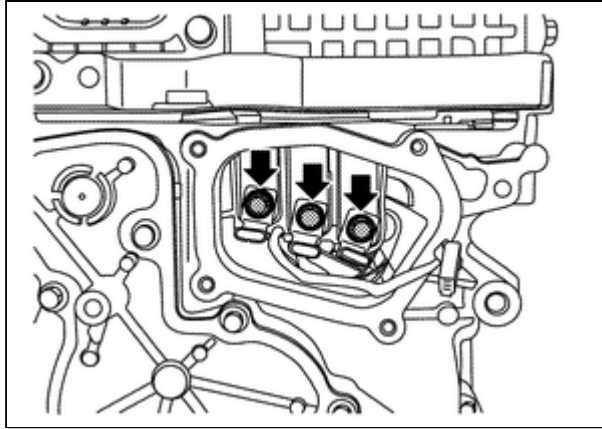
22 Remove three-phase bus bar terminal mounting bolts (←).

WARNING:



When performing high voltage system operations, be sure to wear insulated protective gear.

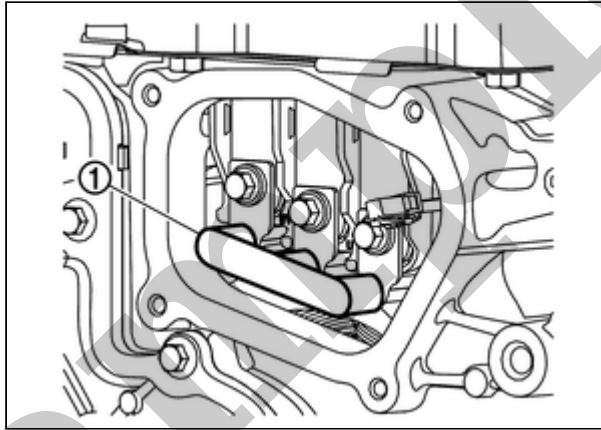




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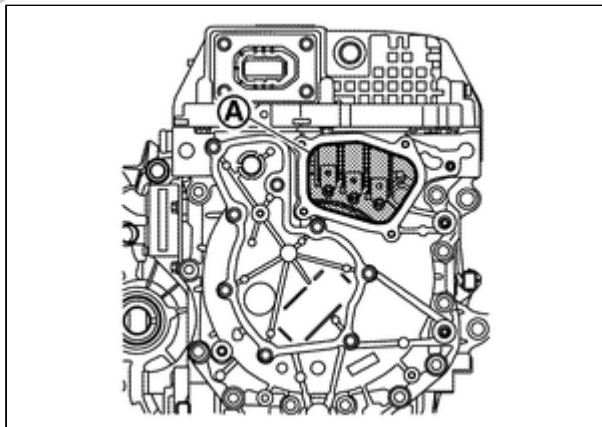
CAUTION:

- Never allow a terminal fixing bolt for the three-phase bus bar to fall into the inverter (front) during the removal operation.
- If the terminals of three-phase harness have insulation tubes (1), do not to drop the insulation tubes inside the front traction motor when removing the fixing bolts.



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- After loosening the terminal fixing bolts on the three-phase bus bar, cover all openings (A) of the inverter (front) with tape or other similar material to prevent contamination from dust, dirt, or other foreign materials. When the vehicle needs to be left as it is for a prolonged period of time, place the three-phase bus bar cover in the original position.



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23 Remove excitation cover mounting bolts (←), and then remove excitation cover (1).

WARNING:

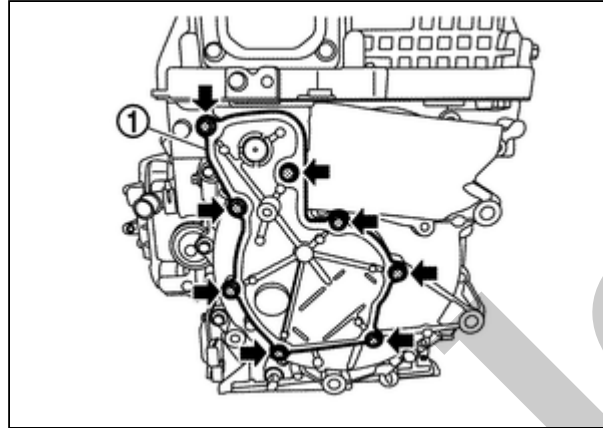


When performing high voltage system operations, be sure to wear insulated protective gear.



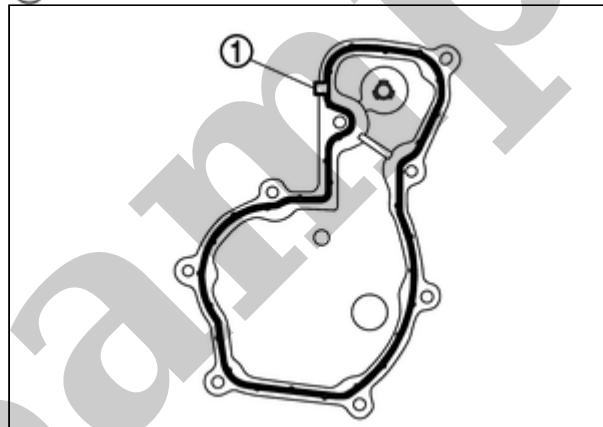
CAUTION:

- Do not remove the breather from the excitation cover.
- Never reuse breather.



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24 Remove the excitation cover gasket ①.



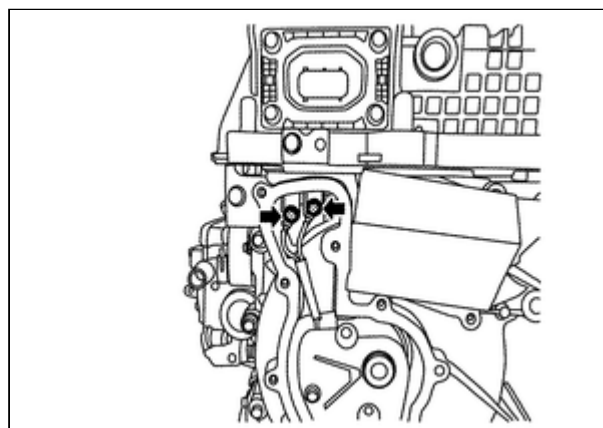
RPR-001931899-22-000359613

25 Remove excitation-phase bus bar terminal mounting bolts (←).

WARNING:

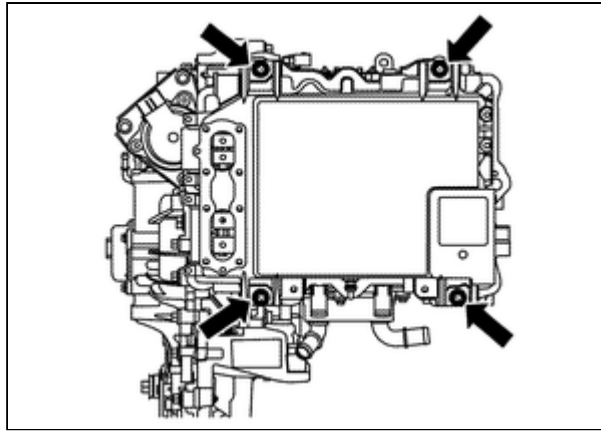


When performing high voltage system operations, be sure to wear insulated protective gear.



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26 Remove mounting bolts (←) of inverter (front).

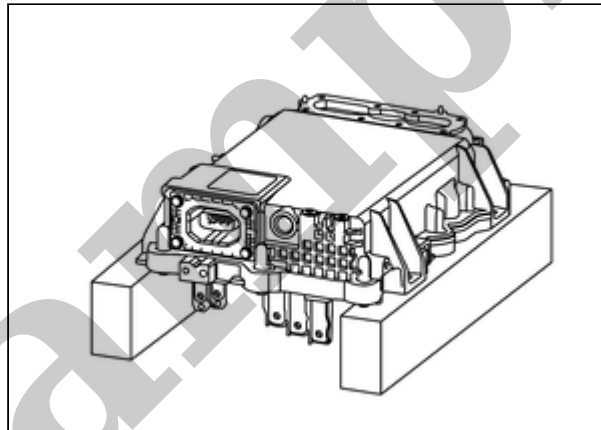


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27 Remove the inverter (front).

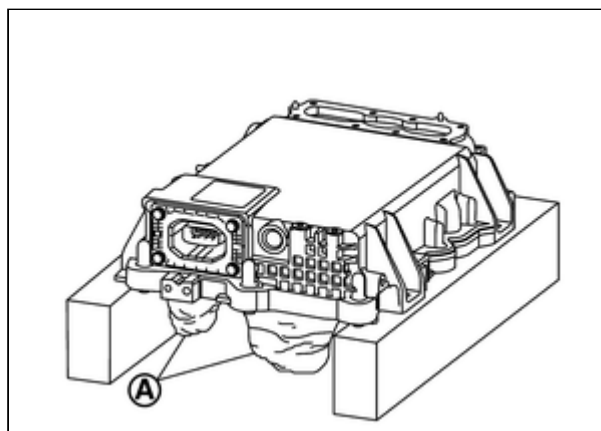
CAUTION:

- **Keep the inverter (front) in the horizontal position when removing it.**
- **Never bend or hit the three-phase bus bar.**
- **When leaving the inverter (front), use wooden blocks to prevent three-phase bus bar interference.**



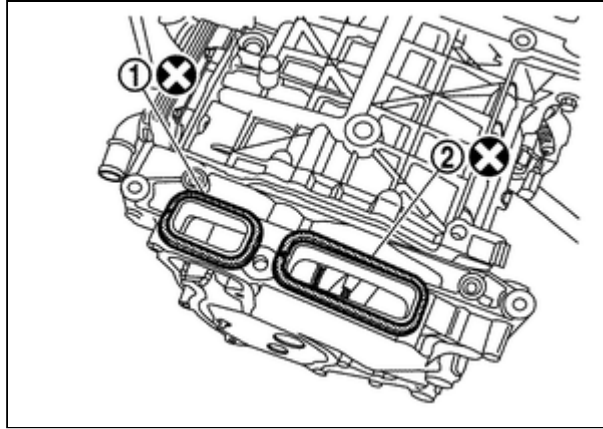
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- **Cover the three-phase bus bar with shop cloth (A).**



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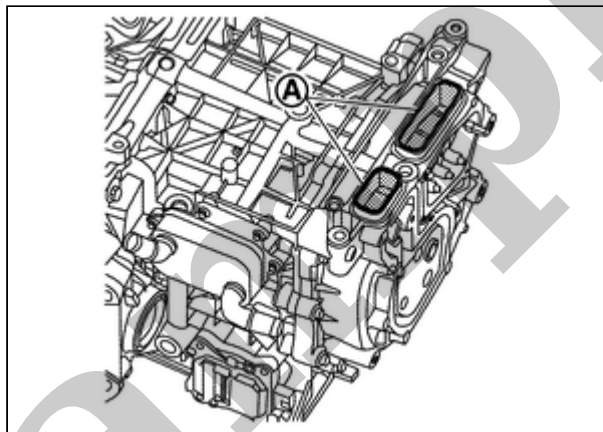
28 Remove the seal (1) on the excitation bus bar opening on the front traction motor side, and remove the seal (2) on the three-phase bus bar opening.



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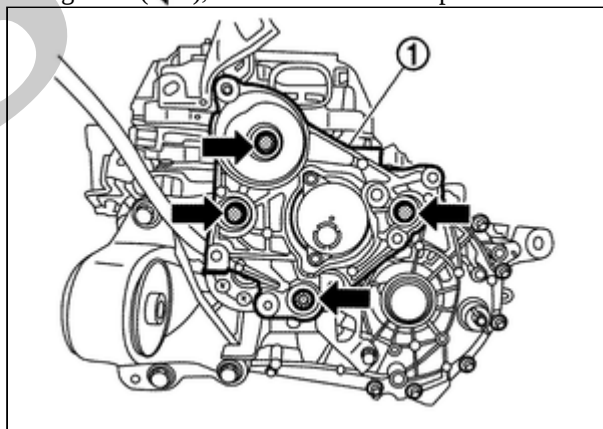
CAUTION:

- After removing inverter (front), cover the opening (A) with tape to prevent dust, dirt, foreign material, etc. from entering them.
- Never reuse the seal (1) of excitation bus bar opening of the front traction motor side and the seal (2) of three-phase bus bar opening after removal.



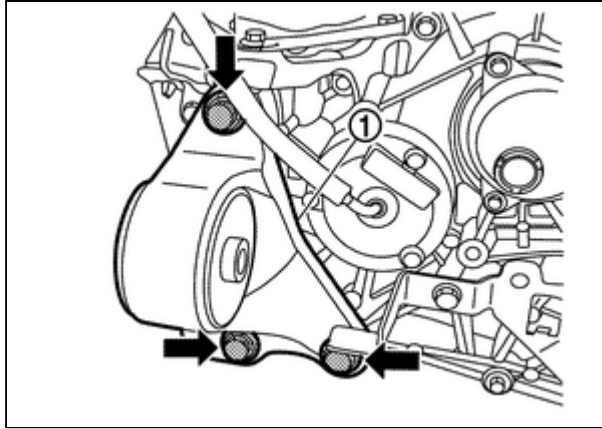
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29 Remove the compressor bracket mounting bolts (←), then remove the compressor bracket (1).



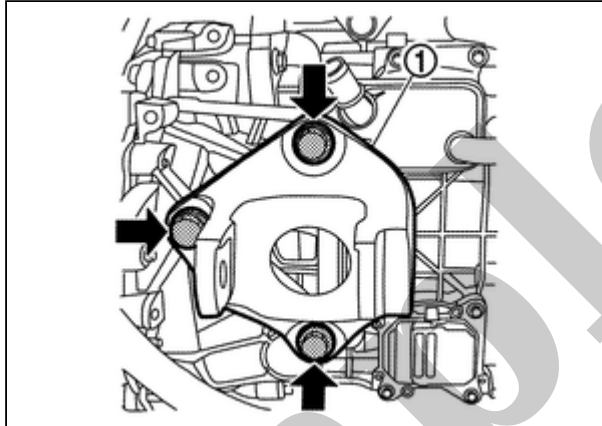
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30 Remove the mounting bolts (←) of the motor mounting bracket LH, then remove the motor mounting LH (1).



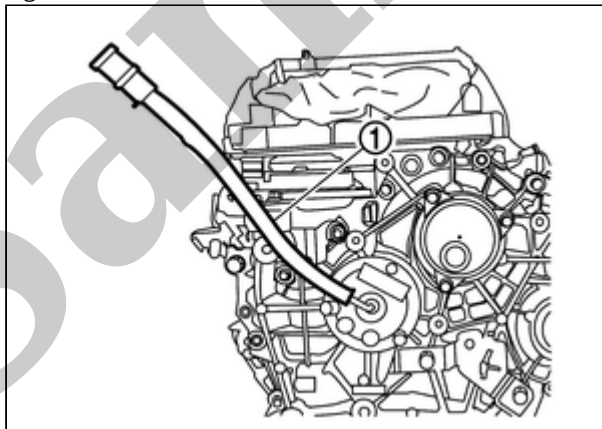
RPR-001931899-07-000359602

31 Remove the mounting bolts (←) of the motor mounting bracket rear, then remove the motor mounting bracket rear ①.



RPR-001931899-08-000359603

32 Remove air breather ① of reduction gear.



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33 Remove the fastening bolts for the front traction motor and reduction gear. Refer to [REDUCTION GEAR : Unit Removal & Installation](#).

34 Remove the reduction gear from the front traction motor.

INSTALLATION

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

WARNING:

To prevent electric shock hazards, be sure to put on insulating protective gear before beginning work on the high voltage system.



CAUTION:

When the inverter (front) is replaced, write the resolver compensation value and rotor resistance value. Refer to [Work Procedure](#).

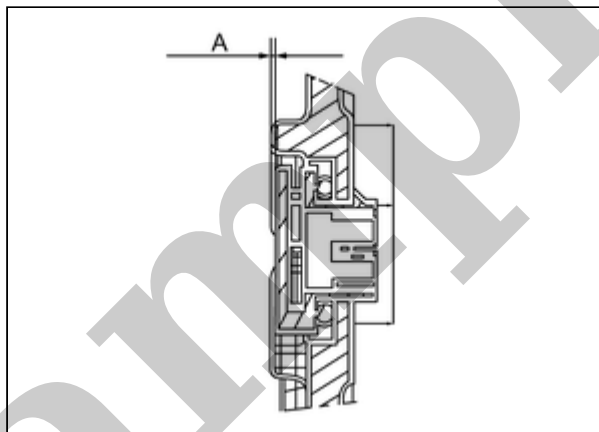
- When the inverter (front) is installed, never bend three phase bus bar and excitation bus bar or give impact.
- When installing the reduction gear onto the front traction motor, Refer to [REDUCTION GEAR : Unit Removal & Installation](#).

CAUTION:

- The O-ring on the front traction motor shaft is a non-reusable part. Do not reuse it.
- Apply lithium-based grease including molybdenum disulphide to the O-ring.

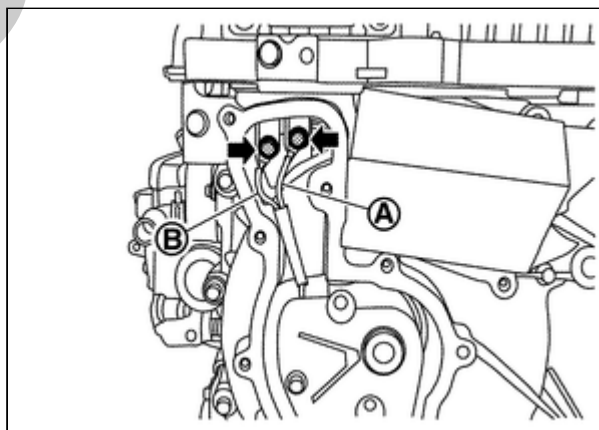
- If the breather was removed from the excitation cover or replaced:
 - Check that the O-ring is securely installed before installing the breather.
 - After installing the breather, insert straight so that the distance the breather installation dimension from the edge of the case is A.

Step from edge of excitation cover to breather edge (A) : 0.55 mm (0.0217 in)



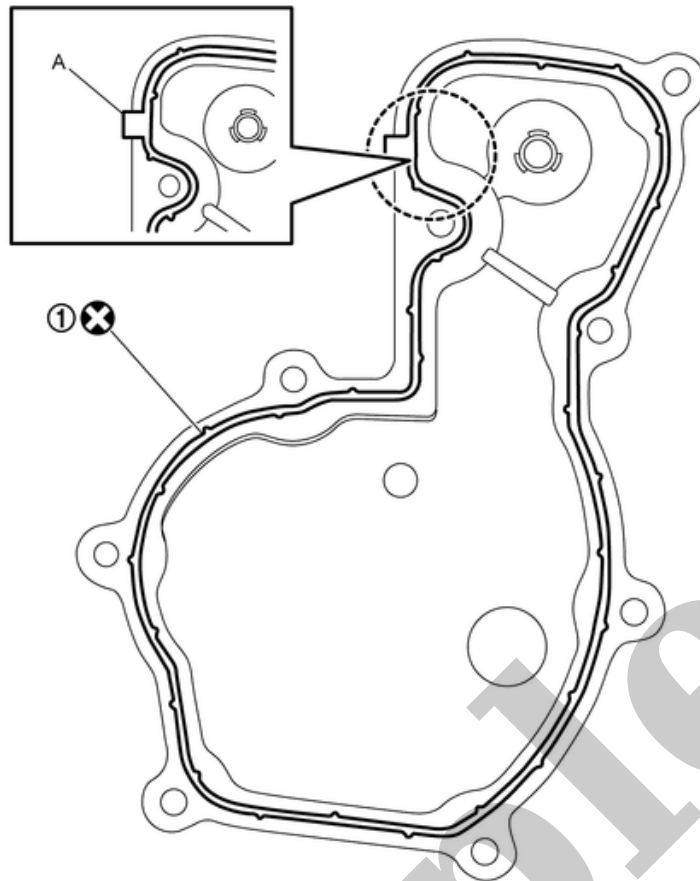
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- When installing the excitation wiring harness onto the excitation bus bar, install the red harness terminal (Ex+) (A) onto the right side excitation bus bar, and the blue harness terminal (Ex-) (B) onto the left excitation bus bar.



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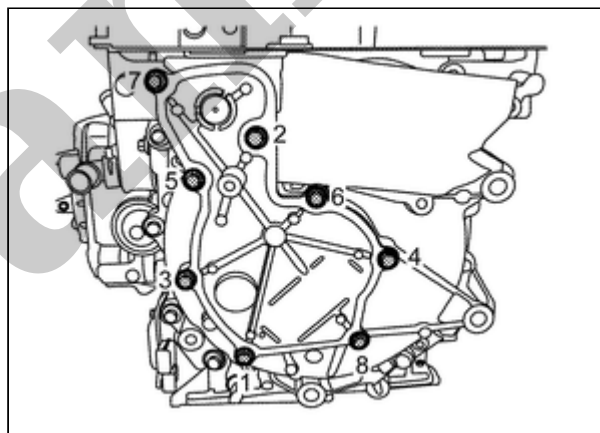
- When installing the excitation cover gasket (1), check that the tab (A) is securely installed. The gasket is non-reusable part. Do not reuse it.



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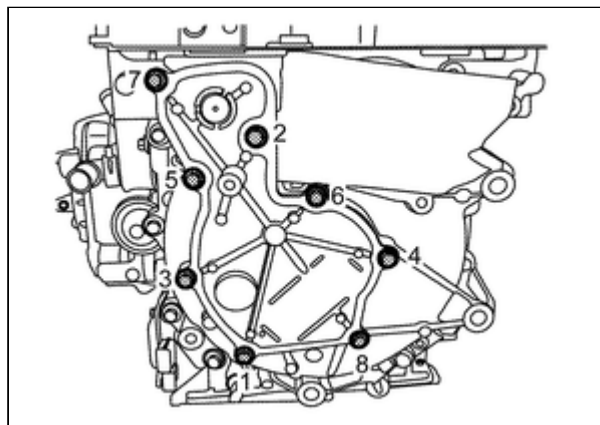
- Follow the procedure below to install the excitation cover.

1. Tighten excitation cover mounting bolts to the temporarily tighten them in numerical order shown in the figure.



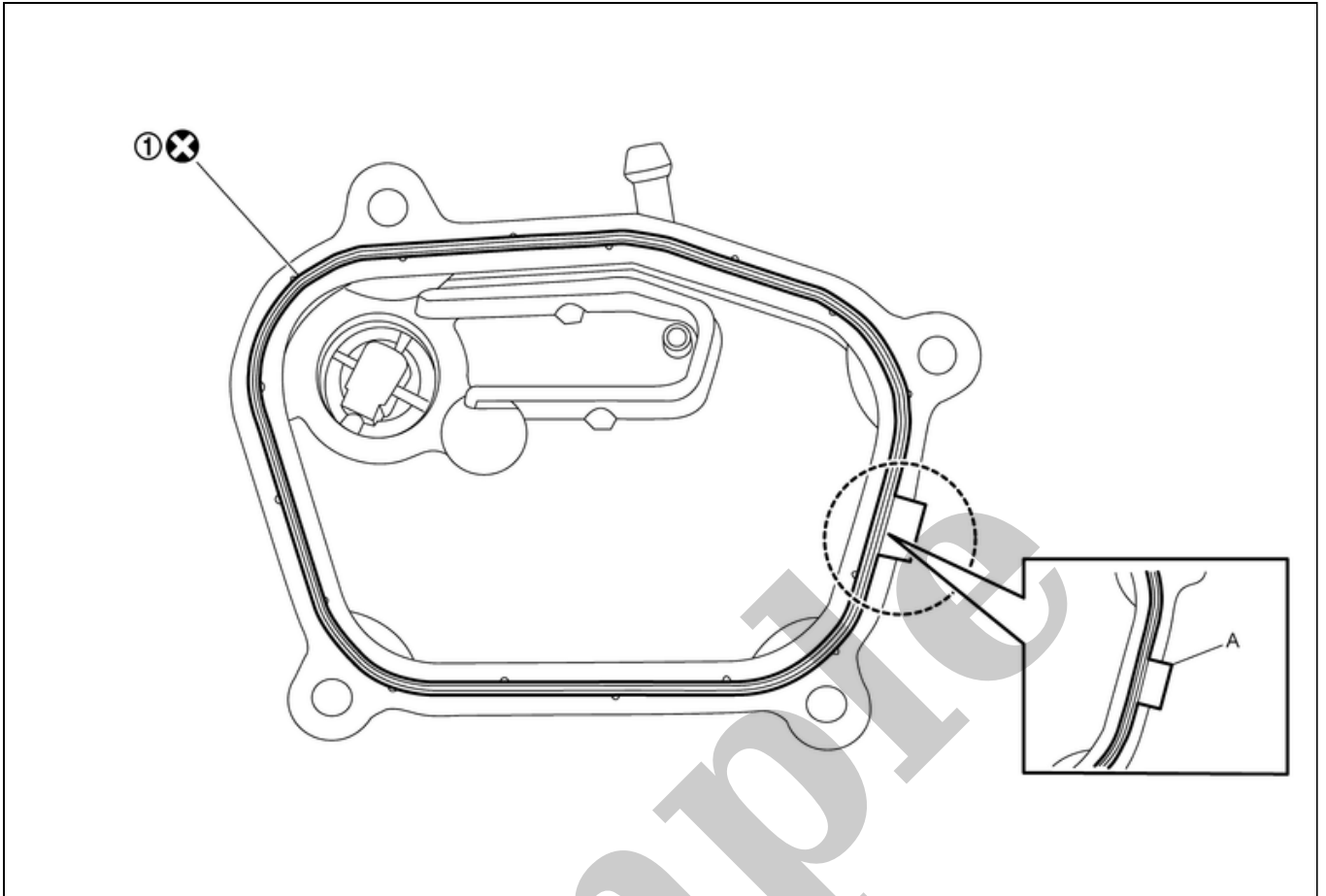
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2. Tighten excitation cover mounting bolts to the specified torque in numerical order shown in the figure.



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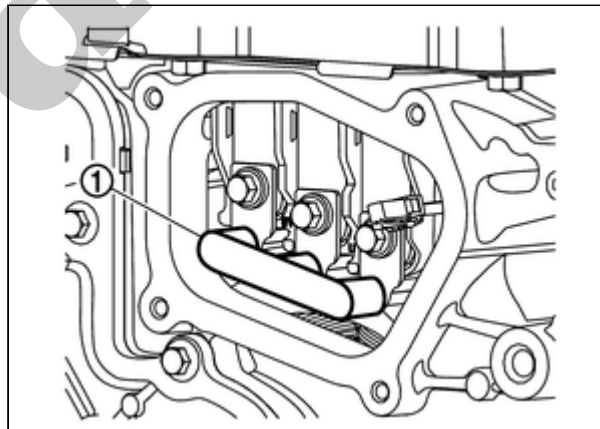
- When installing the three-phase bus bar cover gasket ①, check that the tab (A) is securely installed. The gasket is non-reusable part. Do not reuse it.



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- Follow the procedure below to install the three-phase bus bar cover.

1. If the terminals of three-phase harness have insulation tubes ①, restore the insulation tubes to the original position when installing the three-phase bus bar cover.



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2. Partially tighten the three-phase bus bar cover mounting bolts in the order of 1 → 4 shown in the figure.