

EXHAUST SYSTEM REMOVAL/INSTALLATION [SKYACTIV-G 2.0]

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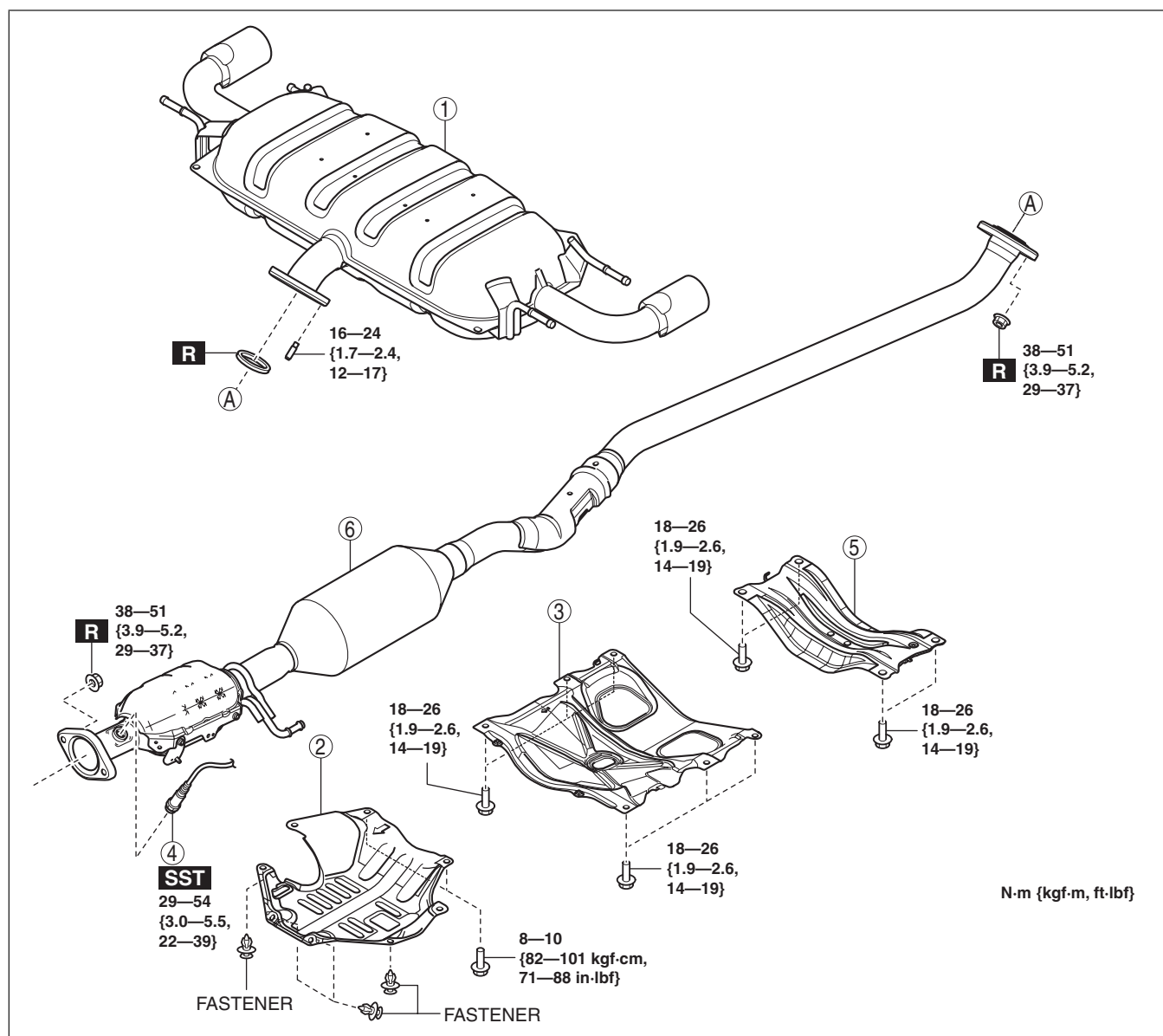
Warning

- A hot engine and exhaust system can cause severe burns. Turn off the engine and wait until they are cool before removing the exhaust system.

2WD

1. Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0 (WITHOUT i-stop)].)
2. Remove in the order indicated in the table.
3. Remove the insulator. (See Exhaust system insulator removal/installation.)
4. Install in the reverse order of removal.

Step 1

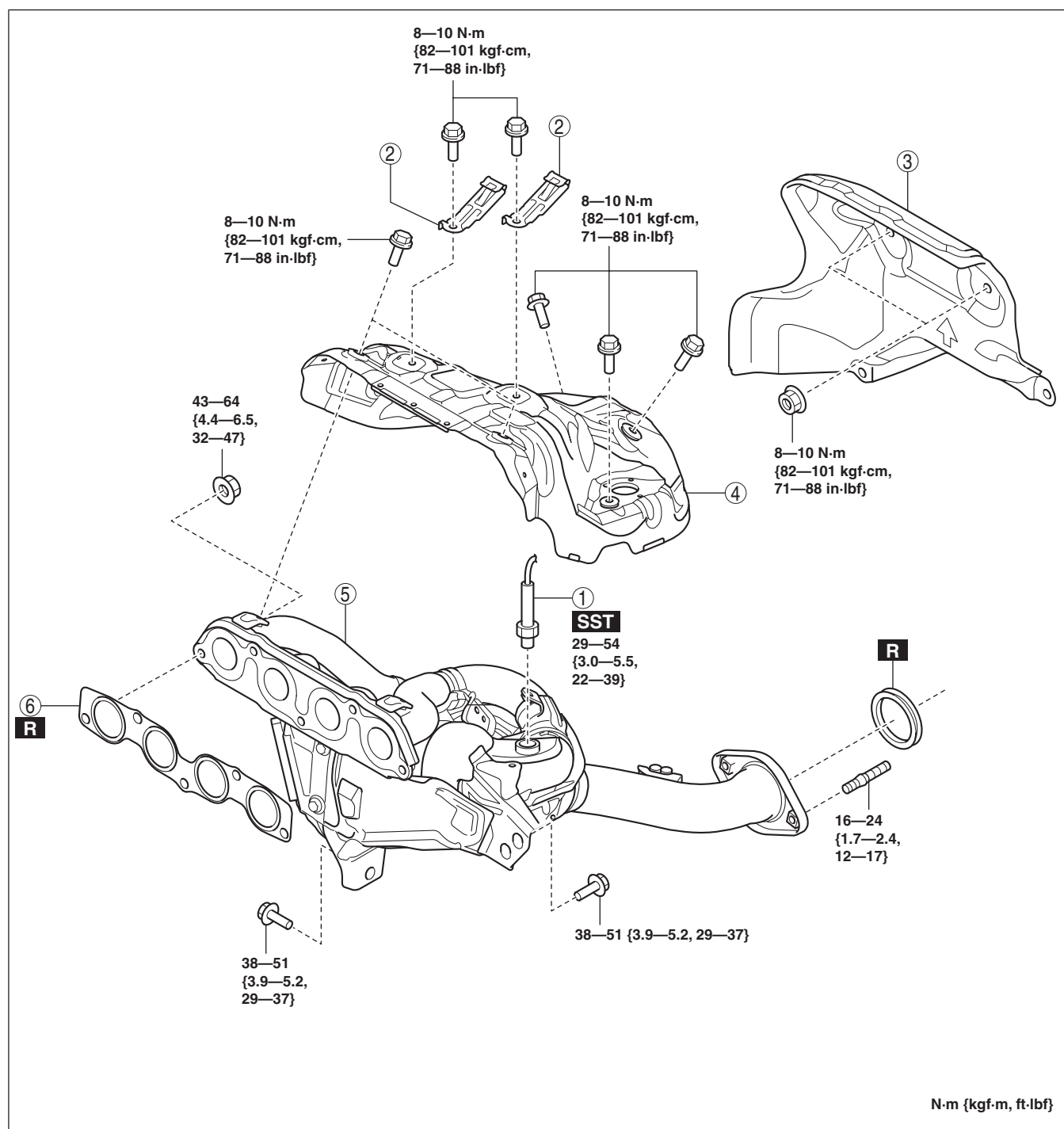


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1	Main silencer
2	Insulator
3	Brace bar (See Brace bar removal note.)
4	HO2S (See HEATED OXYGEN SENSOR (HO2S) REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)

5	Tunnel member
6	TWC

Step 2

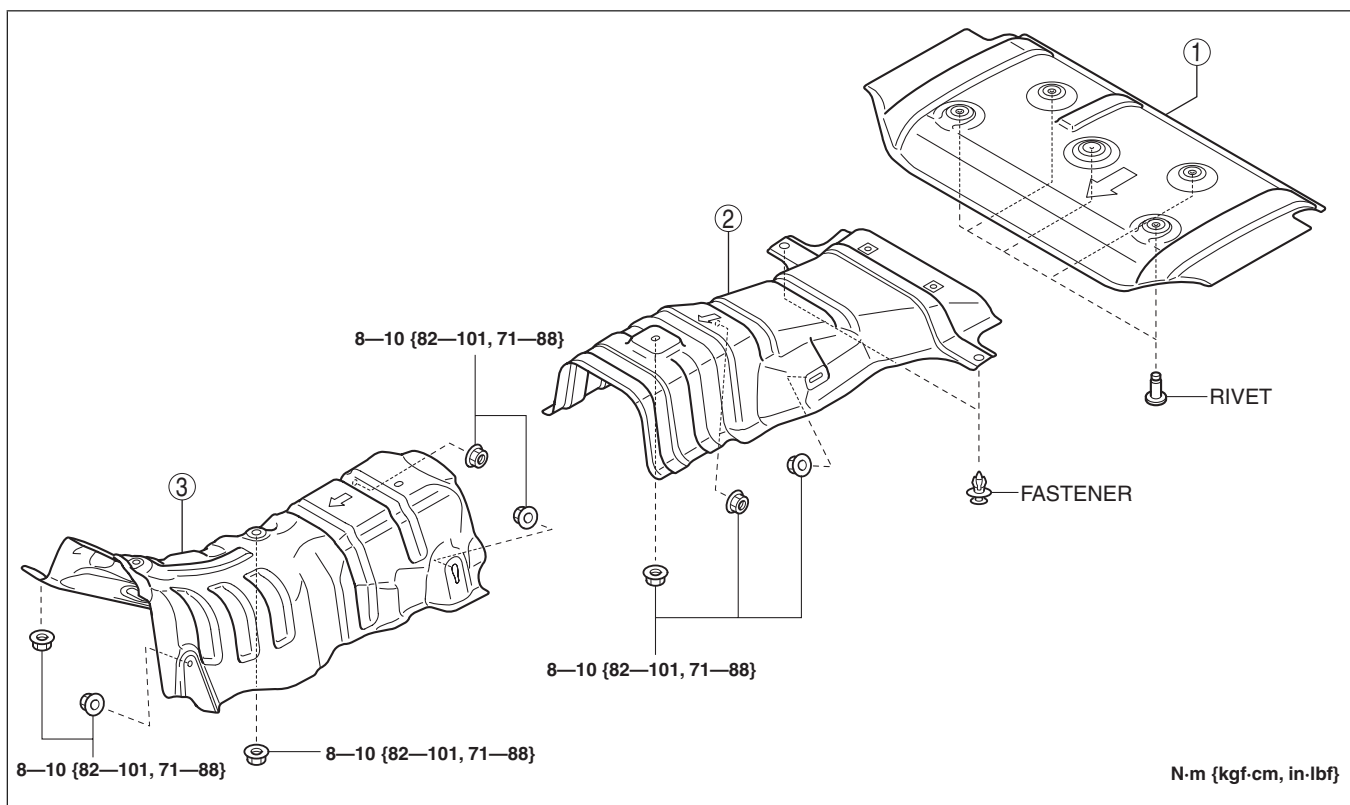


1	A/F sensor (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/ INSTALLATION [SKYACTIV-G 2.0].)
2	Clip
3	Insulator
4	Exhaust manifold insulator (See Exhaust manifold insulator removal note.) (See Exhaust manifold insulator installation note.)

5	Exhaust manifold (WU-TWC) (See Exhaust manifold removal note.) (See Exhaust manifold installation note.)
6	Exhaust manifold gasket

Exhaust system insulator removal/installation

1. Remove the exhaust system insulator in the order shown in the figure.
2. Install in the reverse order of removal.



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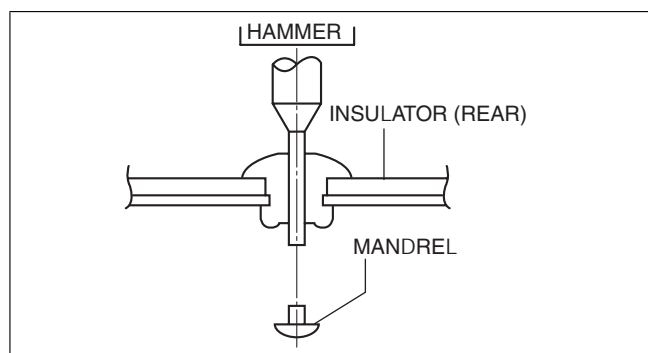
1	Insulator (rear) (See Insulator (rear) removal note.)
2	Insulator (middle)
3	Insulator (front)

Insulator (rear) removal note

Note

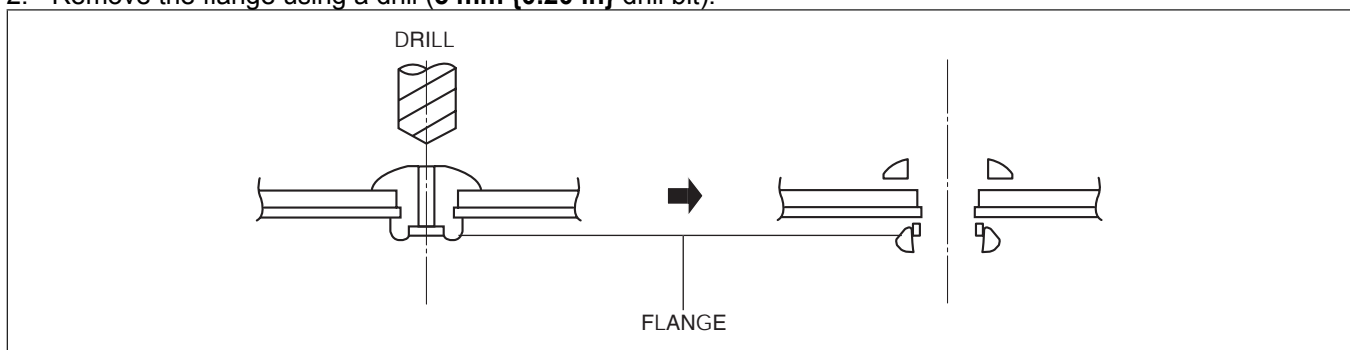
- The insulator (rear) are installed using rivets.

- Push out the mandrel using a hammer and punch (2—2.8 mm {0.08—0.11 in} diameter).



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- Remove the flange using a drill (5 mm {0.20 in} drill bit).



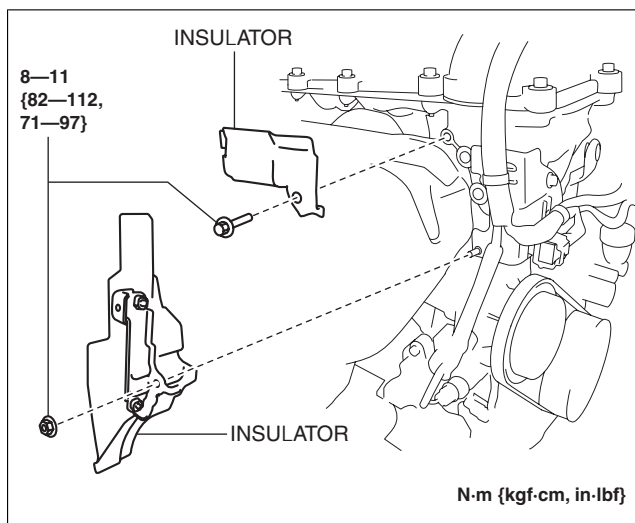
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Brace bar removal note

1. Remove the floor under cover. (See FLOOR UNDER COVER REMOVAL/INSTALLATION.)
2. Remove the brace bar.

Exhaust manifold insulator removal note

1. Remove the insulator as shown in the figure.
2. Remove the No.1 engine mount rubber. (See ENGINE REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
3. Move the engine.
4. Remove the exhaust manifold insulator.



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Exhaust manifold removal note

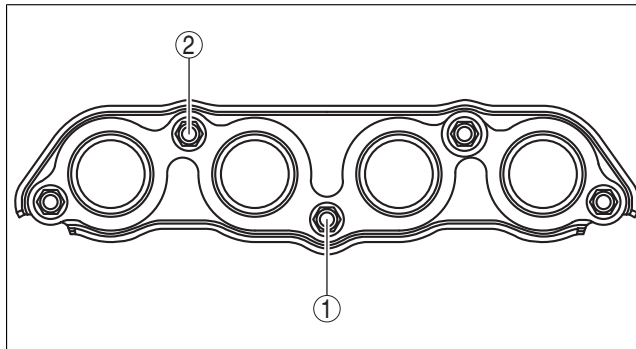
Note

- When removing the exhaust manifold, the bracket installed under the exhaust manifold does not have to be removed. Remove the exhaust manifold with the bracket installed.

1. Remove the front crossmember. (See FRONT CROSSMEMBER REMOVAL/INSTALLATION.)
2. Remove the exhaust manifold.

Exhaust manifold installation note

1. Temporarily tighten the exhaust manifold installation nuts (1) and (2) shown in the figure by hand.
2. Tighten the exhaust manifold installation nuts (1) and (2) shown in the figure to **33—53 N·m {3.4—5.4 kgf·m, 25—39 ft·lbf}**.



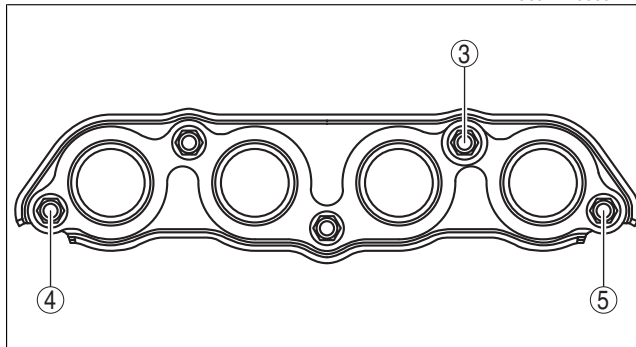
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3. Temporarily tighten the exhaust manifold installation nuts (3) to (5) shown in the figure by hand.
4. Tighten the exhaust manifold installation nuts (3) to (5) shown in the figure.

Exhaust manifold installation nut tightening torque

43—64 N·m {4.4—6.5 kgf·m, 32—47 ft·lbf}

5. Tighten the exhaust manifold installation nuts (1) and (2) shown in the figure.



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Exhaust manifold installation nut tightening torque

43—64 N·m {4.4—6.5 kgf·m, 32—47 ft·lbf}

6. Temporarily tighten the bolts (6) and (7) shown in the figure.
7. Tighten the bolt (6) shown in the figure.

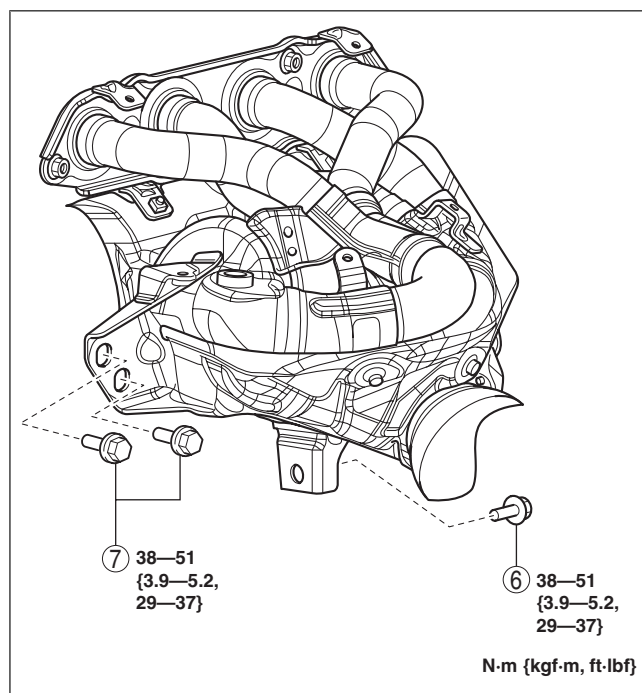
Exhaust manifold installation bolt tightening torque

38—51 N·m {3.9—5.2 kgf·m, 29—37 ft·lbf}

8. Tighten the bolt (7) shown in the figure.

Exhaust manifold installation bolt tightening torque

38—51 N·m {3.9—5.2 kgf·m, 29—37 ft·lbf}



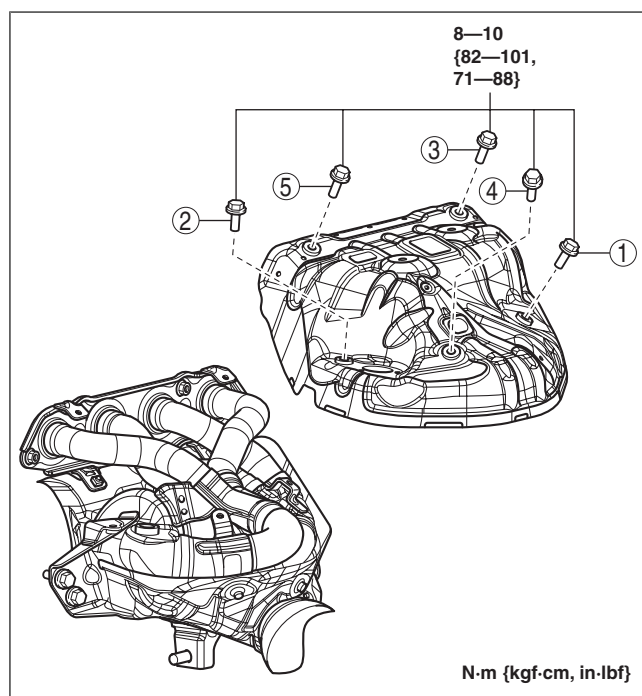
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Exhaust manifold insulator installation note

1. Temporarily tighten the exhaust manifold insulator.
2. Tighten the exhaust manifold insulator in the order shown in the figure.

Exhaust manifold insulator (upper) tightening torque

8—10 N·m {82—101 kgf·cm, 71—88 in·lbf}

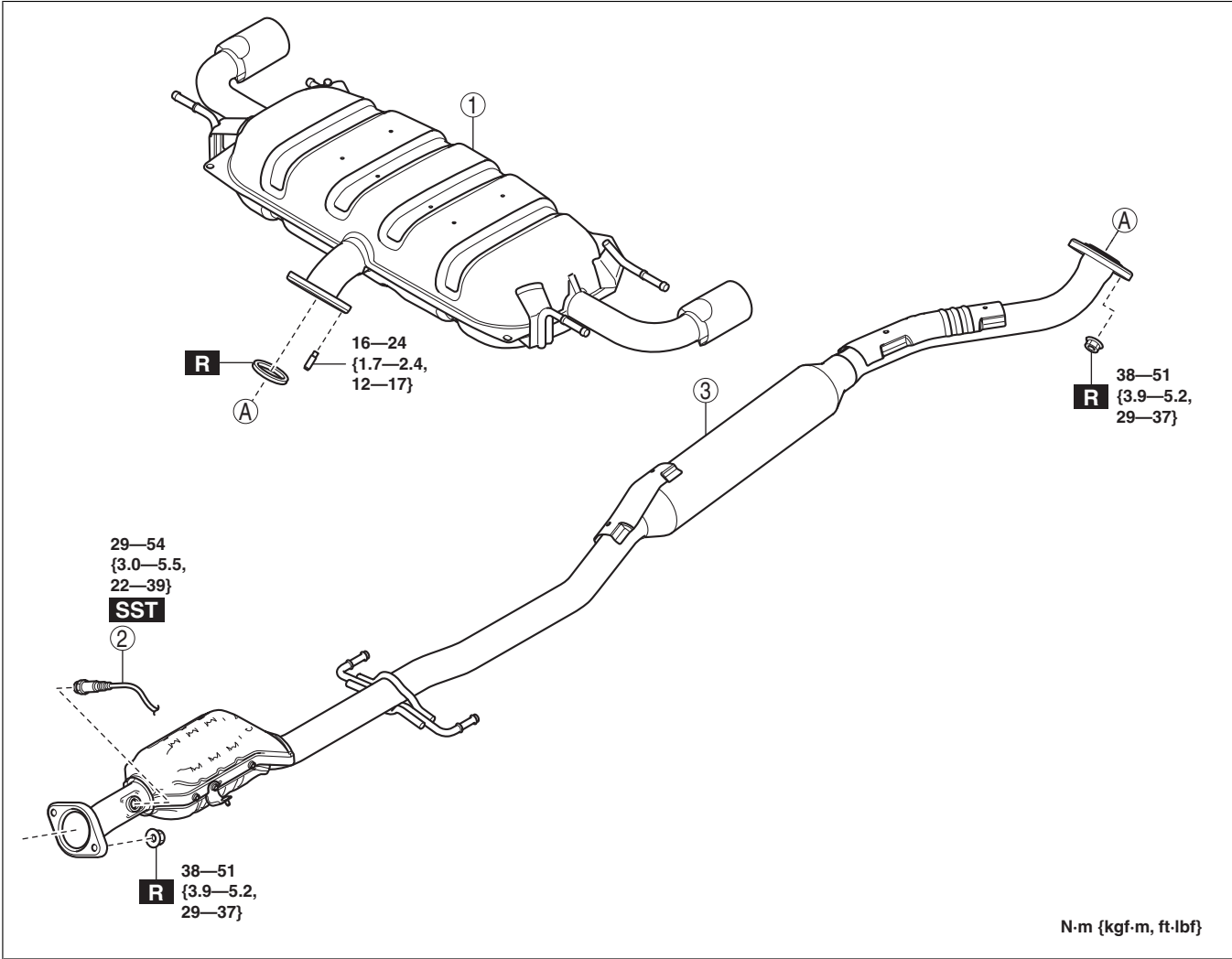


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4WD

1. Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0 (WITHOUT i-stop)].)
2. Remove in the order indicated in the table.
3. Remove the insulator. (See Exhaust system insulator removal/installation.)
4. Install in the reverse order of removal.

Step 1

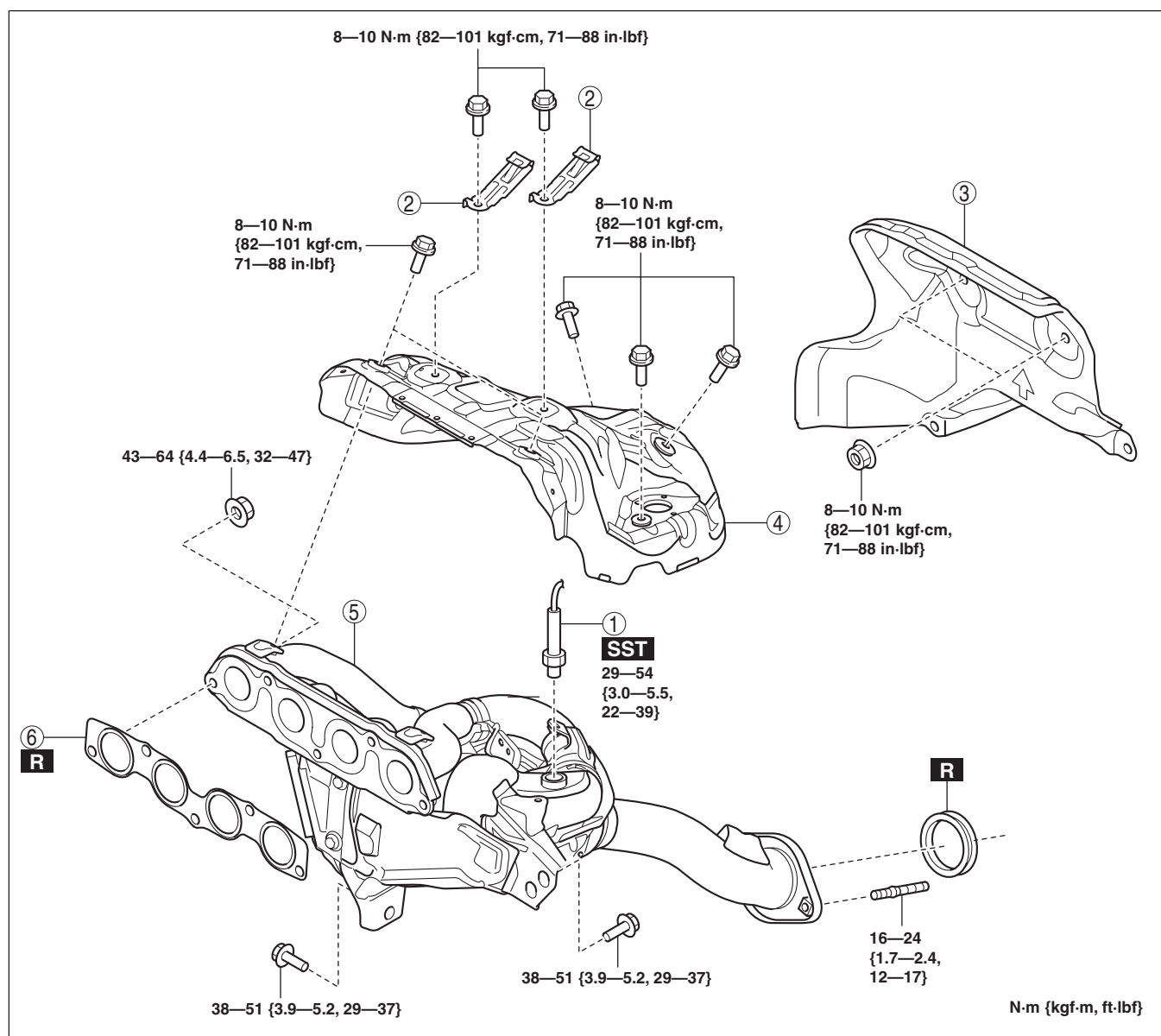


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1	Main silencer
2	HO2S (See HEATED OXYGEN SENSOR (HO2S) REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)

3	TWC
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Step 2



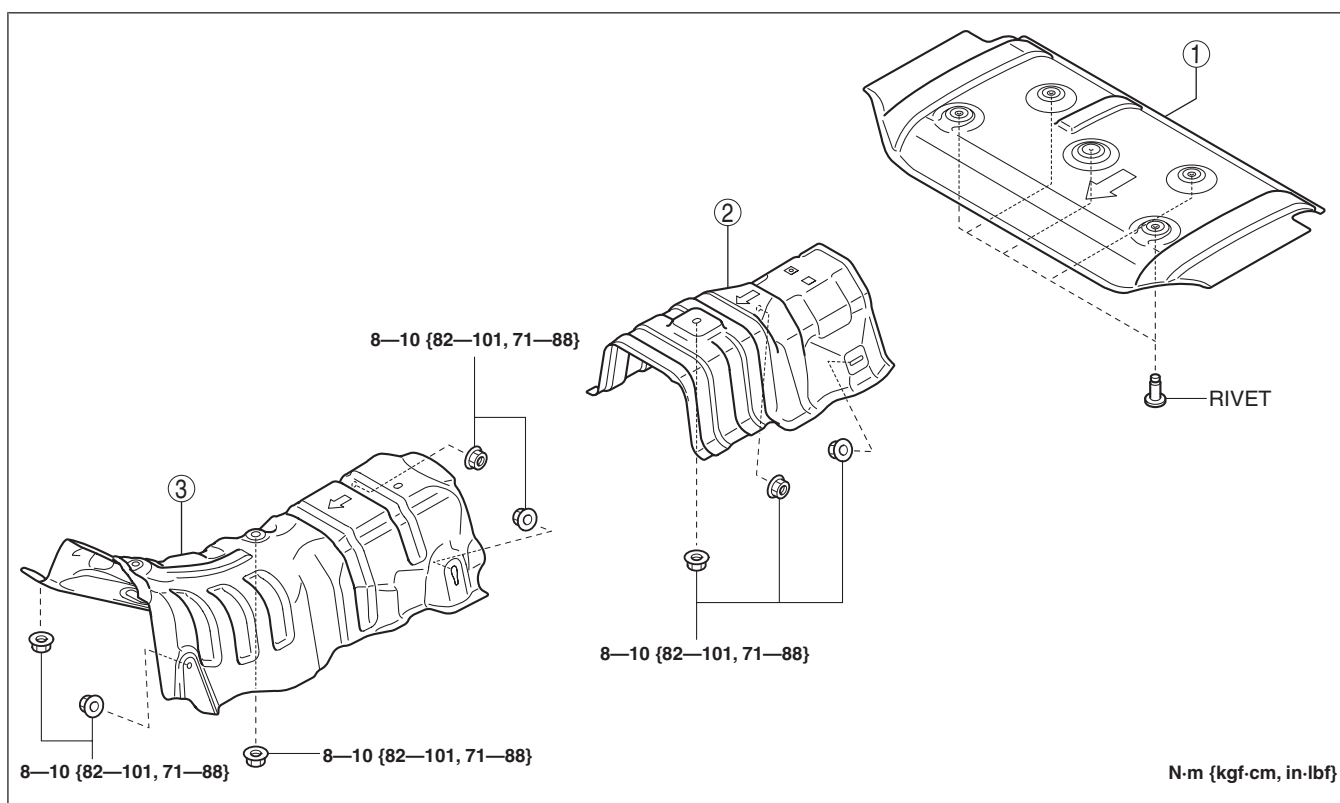
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1	A/F sensor (See AIR FUEL RATIO (A/F) SENSOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0].)
2	Clip
3	Insulator
4	Exhaust manifold insulator (See Exhaust manifold insulator removal note.) (See Exhaust manifold insulator installation note.)

5	Exhaust manifold (WU-TWC) (See Exhaust manifold removal note.) (See Exhaust manifold installation note.)
6	Exhaust manifold gasket

Exhaust system insulator removal/installation

1. Remove the propeller shaft. (See PROPELLER SHAFT REMOVAL/INSTALLATION.)
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.



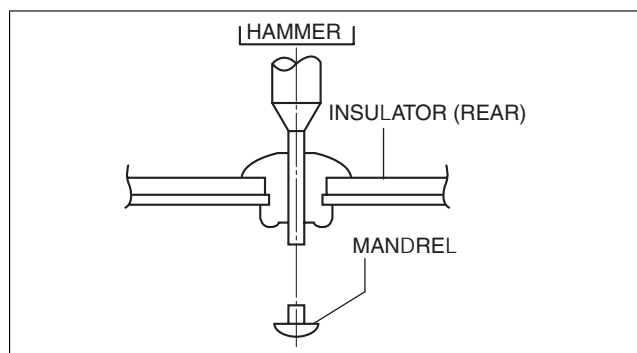
1	Insulator (rear) (See Insulator (rear) removal note.)
2	Insulator (middle)
3	Insulator (front)

Insulator (rear) removal note

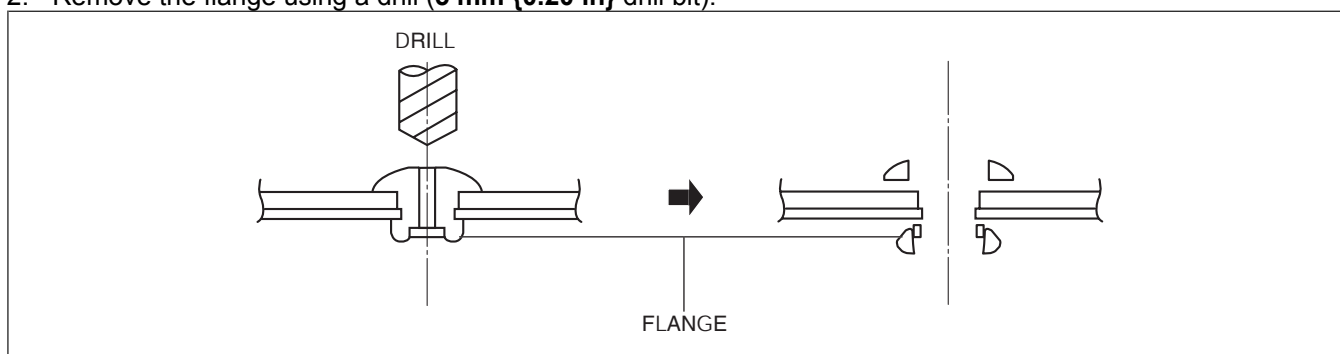
Note

- The insulator (rear) are installed using rivets.

1. Push out the mandrel using a hammer and punch (2—2.8 mm {0.08—0.11 in} diameter).

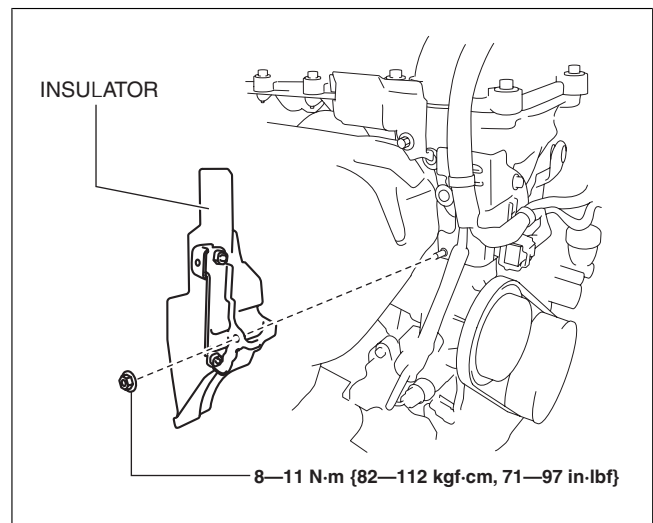


2. Remove the flange using a drill (**5 mm {0.20 in}** drill bit).



Exhaust manifold insulator removal note

1. Remove the insulator as shown in the figure.
2. Remove the exhaust manifold insulator.



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Exhaust manifold removal note

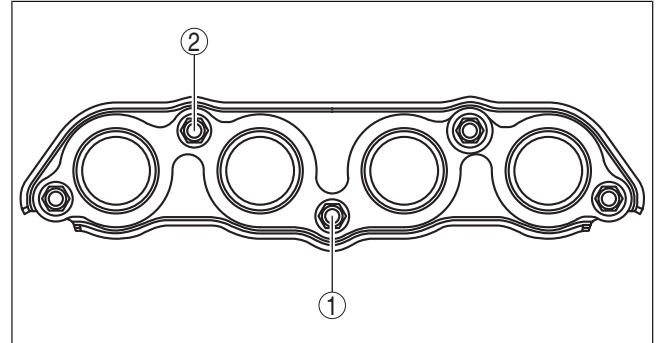
Note

- When removing the exhaust manifold, the bracket installed under the exhaust manifold does not have to be removed. Remove the exhaust manifold with the bracket installed.

1. Remove the front crossmember. (See FRONT CROSSMEMBER REMOVAL/INSTALLATION.)
2. Remove the exhaust manifold.

Exhaust manifold installation note

1. Temporarily tighten the exhaust manifold installation nuts (1) and (2) shown in the figure by hand.
2. Tighten the exhaust manifold installation nuts (1) and (2) shown in the figure to **33—53 N·m {3.4—5.4 kgf·m, 25—39 ft·lbf}**.



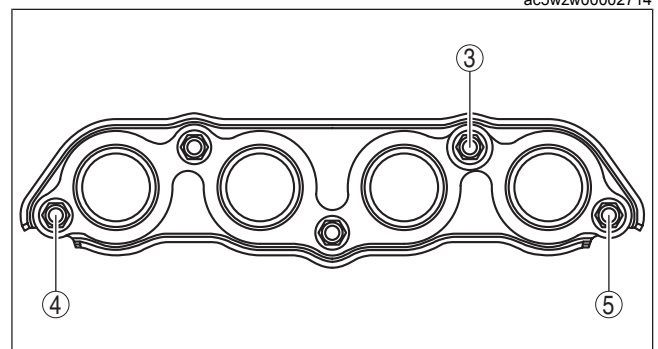
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3. Temporarily tighten the exhaust manifold installation nuts (3) to (5) shown in the figure by hand.
4. Tighten the exhaust manifold installation nuts (3) to (5) shown in the figure.

Exhaust manifold installation nut tightening torque

43—64 N·m {4.4—6.5 kgf·m, 32—47 ft·lbf}

5. Tighten the exhaust manifold installation nuts (1) and (2) shown in the figure.



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Exhaust manifold installation nut tightening torque

43—64 N·m {4.4—6.5 kgf·m, 32—47 ft·lbf}

6. Temporarily tighten the bolts (6) and (7) shown in the figure.
7. Tighten the bolt (6) shown in the figure.

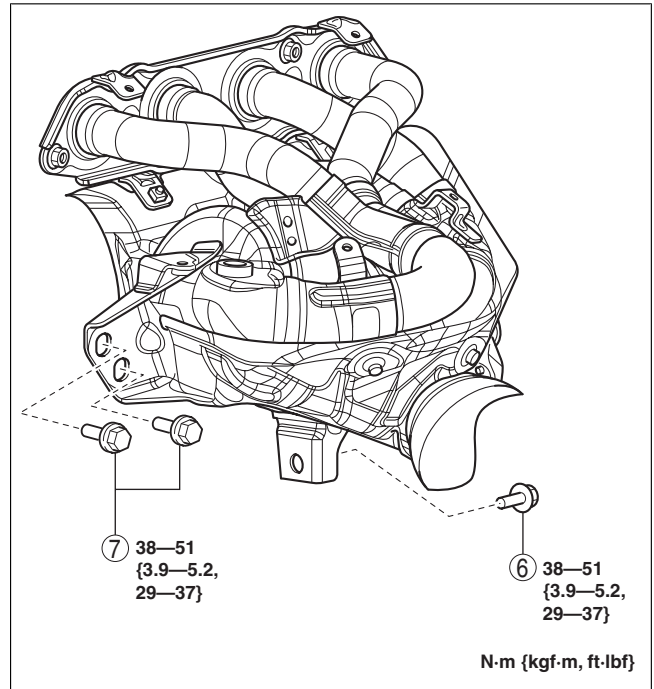
Exhaust manifold installation bolt tightening torque

38—51 N·m {3.9—5.2 kgf·m, 29—37 ft·lbf}

8. Tighten the bolt (7) shown in the figure.

Exhaust manifold installation bolt tightening torque

38—51 N·m {3.9—5.2 kgf·m, 29—37 ft·lbf}



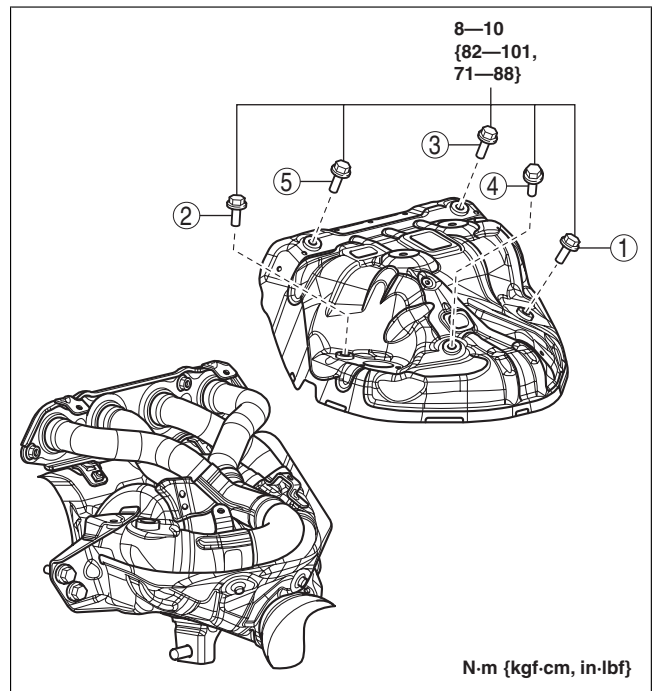
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Exhaust manifold insulator installation note

1. Temporarily tighten the exhaust manifold insulator.
2. Tighten the exhaust manifold insulator in the order shown in the figure.

Exhaust manifold insulator (upper) tightening torque

8—10 N·m {82—101 kgf·cm, 71—88 in·lbf}



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