

Warning

- **A hot engine and intake air system can cause severe burns. Turn off the engine and wait until they are cool before removing the intake air system.**
- **Fuel vapor is hazardous. It can easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.**
- **Fuel line spills and leakage are dangerous. Fuel can ignite and cause serious injuries or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the “Fuel Line Safety Procedure”. (See BEFORE SERVICE PRECAUTION [L3 Turbo].)**

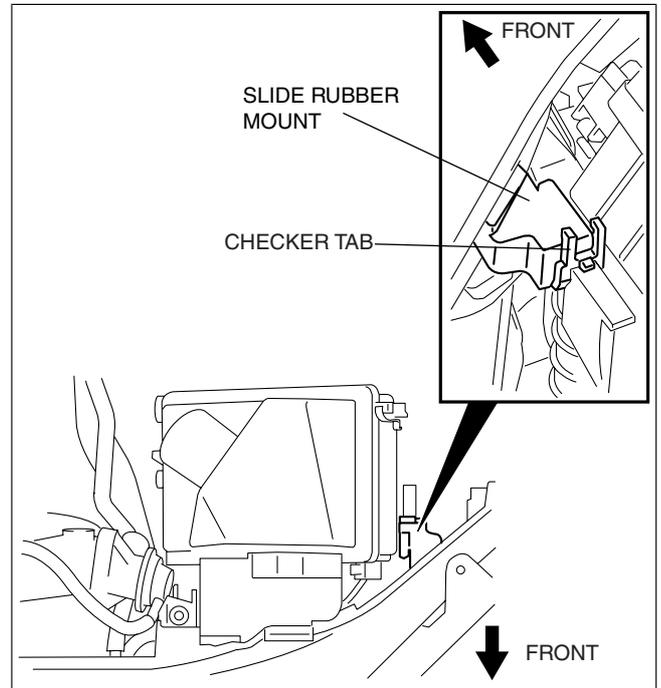
1. Remove the battery and battery tray. (See BATTERY REMOVAL/INSTALLATION [L3 Turbo].)
2. Remove the under cover and splash shield.
3. Remove in the order indicated in the table.
4. Install in the reverse order of removal.
5. Complete the “AFTER REPAIR PROCEDURE”. (See AFTER SERVICE PRECAUTION [L3 Turbo].)

3	Air cleaner cover (See Air Cleaner Removal Note.)
4	Air cleaner element
5	Air cleaner case (See Air Cleaner Removal Note.)
6	Strap (See Air Cleaner Removal Note.) (See Strap Installation Note.)
7	Fresh-air duct
8	Charge air cooler cover
9	Charge air cooler (See Charge Air Cooler Removal Note.)
10	Air bypass valve
11	Air hose (See Air Hose Removal Note.)
12	Air duct (See Air Duct Removal Note)

13	Throttle body (See Throttle Body Removal Note.) (See Throttle Body Installation Note.)
14	Vacuum chamber
15	Variable swirl solenoid valve
16	Intake manifold (See Intake Manifold Removal Note.)
17	Wastegate control solenoid valve (See Wastegate Control Solenoid Valve Installation Note.)
18	Turbocharger (See Turbocharger Removal Note.) (See Turbocharger Installation Note.)

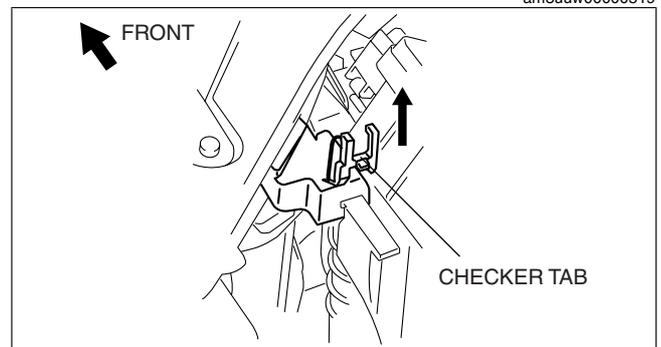
Air Cleaner Removal Note

1. Remove the slide rubber mount shown in the figure in the following procedure:



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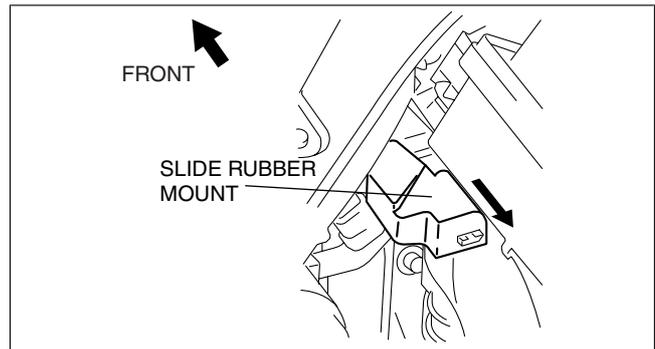
- (1) Pull out the checker tab shown in the figure.



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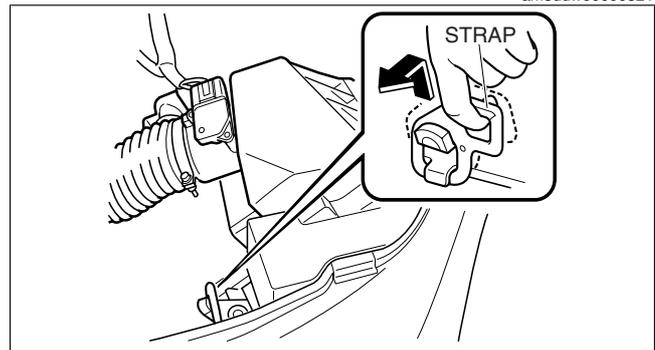
- (2) Slide the slide rubber mount in the direction shown by the arrow while pulling up the rubber.

2. Remove the air cleaner.



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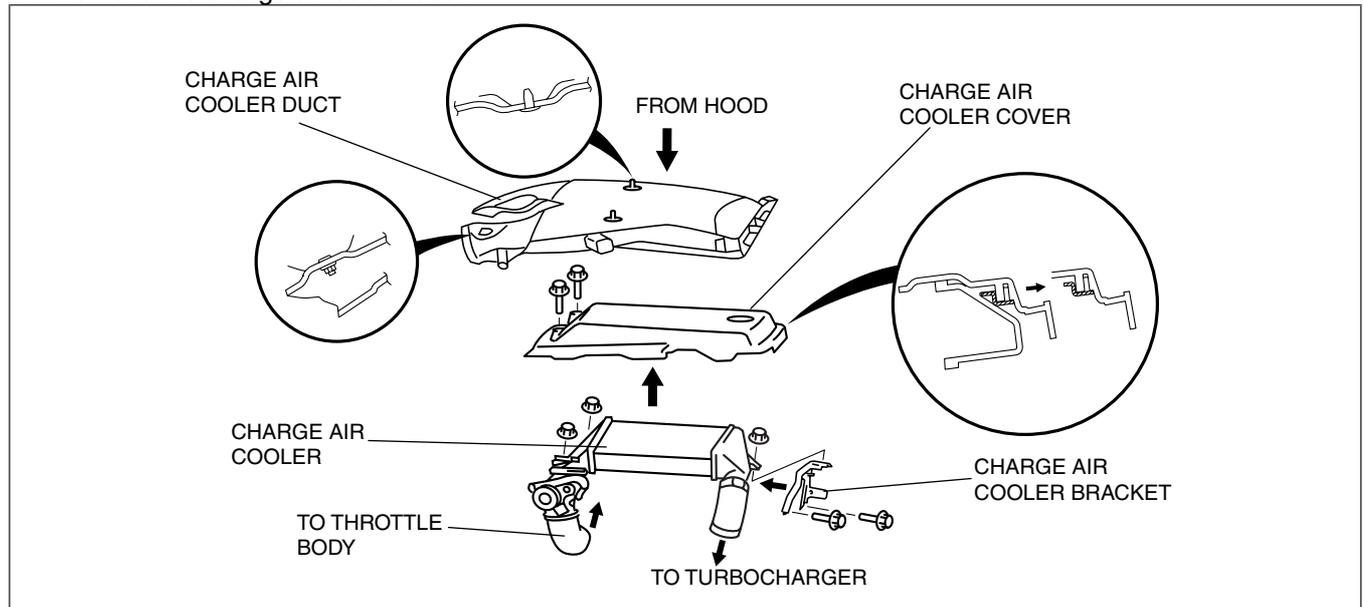
3. Remove the strap shown in the figure.



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Charge Air Cooler Removal Note

1. Remove the charge air cooler duct.



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2. Remove the charge air cooler cover.
3. Remove the charge air cooler.
4. Remove the charge air cooler bracket.

Air Hose Removal Note

1. Disconnect the variable swirl shutter valve switch connector.
2. Disconnect the fuel injector harness connector.
3. Disconnect the ventilation hose connected to the air hose.
4. Remove the air hose.

Air Duct Removal Note

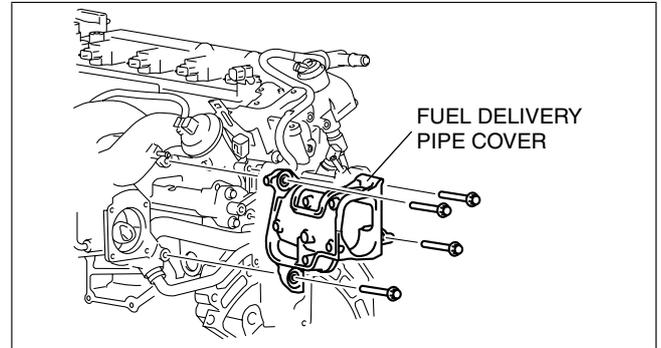
1. Disconnect the wastegate control solenoid valve connector.
2. Disconnect the purge solenoid valve connector.
3. Disconnect the EGR valve connector.
4. Remove the air duct.

Throttle Body Removal Note

1. Disconnect the throttle body connector.
2. Drain the engine coolant before removing the water hose. (See ENGINE COOLANT REPLACEMENT [L3 Turbo].)
3. Remove the throttle body.

Intake Manifold Removal Note

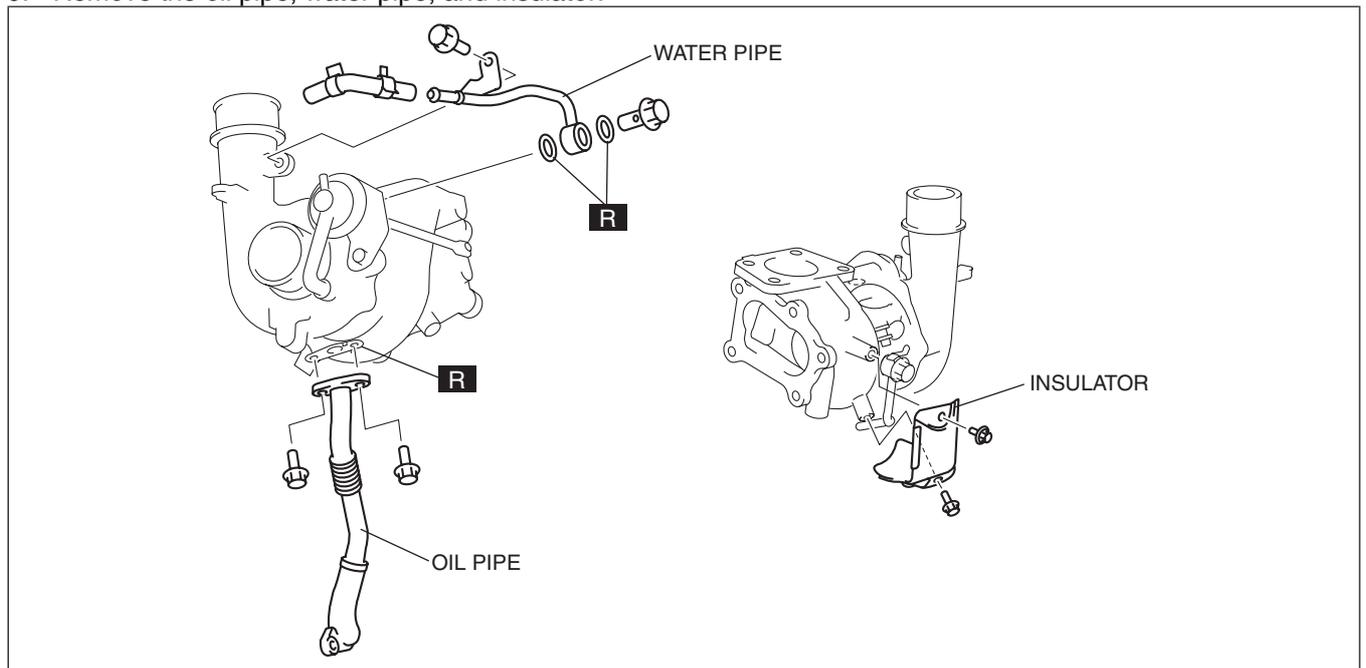
1. Remove the fuel delivery pipe cover.
2. Disconnect the quick connector connected to the intake manifold.
3. Remove the EGR pipe.
4. Disconnect the variable swirl solenoid valve connector.
5. Remove the oil level gauge pipe. (See OIL PAN REMOVAL/INSTALLATION [L3 Turbo].)
6. Remove the drive belt. (See DRIVE BELT REMOVAL/INSTALLATION [L3 Turbo].)
7. Set the power steering oil pump out of the way.
8. Disconnect the fuel pressure sensor connector.
9. Disconnect the brake vacuum hose.
10. Disconnect the MAP sensor connector.
11. Remove the intake manifold installation bolts.
12. Disconnect the evaporative hose connected between the intake manifold and the PCV valve from the intake manifold.
13. Remove the intake manifold.



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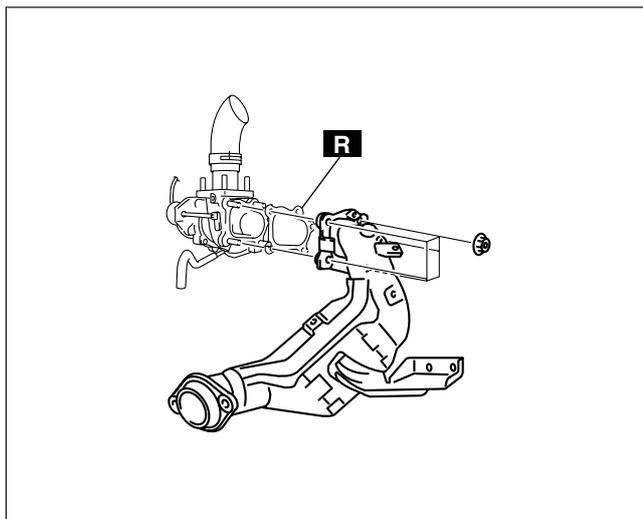
Turbocharger Removal Note

1. Remove the TWC. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
2. Disconnect the HO2S
3. Remove the insulator (Exhaust manifold upper side). (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
4. Set the generator duct out of the way. (See GENERATOR REMOVAL/INSTALLATION [L3 Turbo].)
5. Remove the insulator (Exhaust manifold lower side). (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
6. Remove the insulator (WU-TWC top side). (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
7. Remove the A/F sensor. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
8. Remove the WU-TWC. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
9. Remove the oil pipe, water pipe, and insulator.



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10. Remove the turbocharger.



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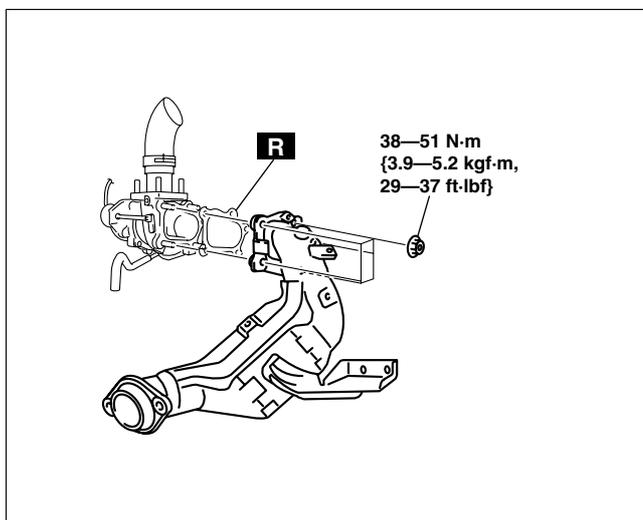
Turbocharger Installation Note

1. Install the turbocharger.

Tightening torque

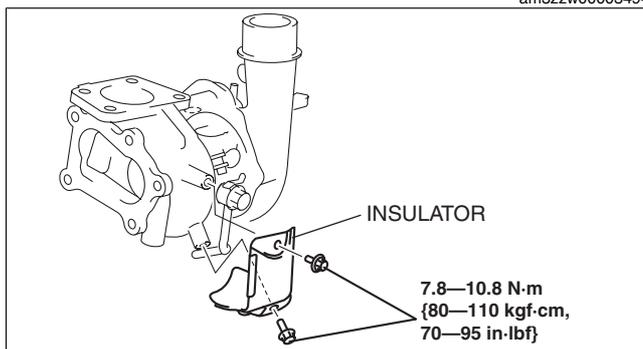
38—51 N·m {3.9—5.2 kgf·m, 29—37 ft·lbf}

2. Install the WU-TWC. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)
3. Install the A/F sensor. (See EXHAUST SYSTEM REMOVAL/INSTALLATION [L3 Turbo].)



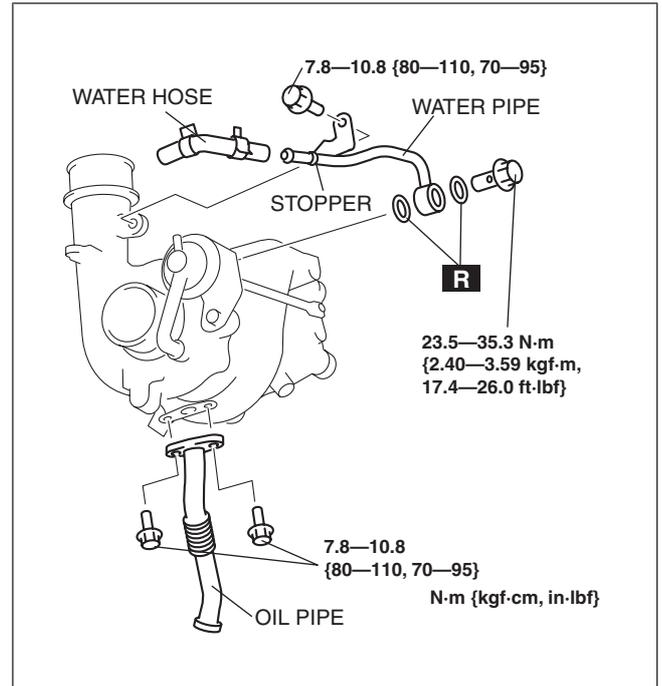
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4. Install the insulator.



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5. Install the water pipe and oil pipe, then insert the water hose until it reaches the stopper.



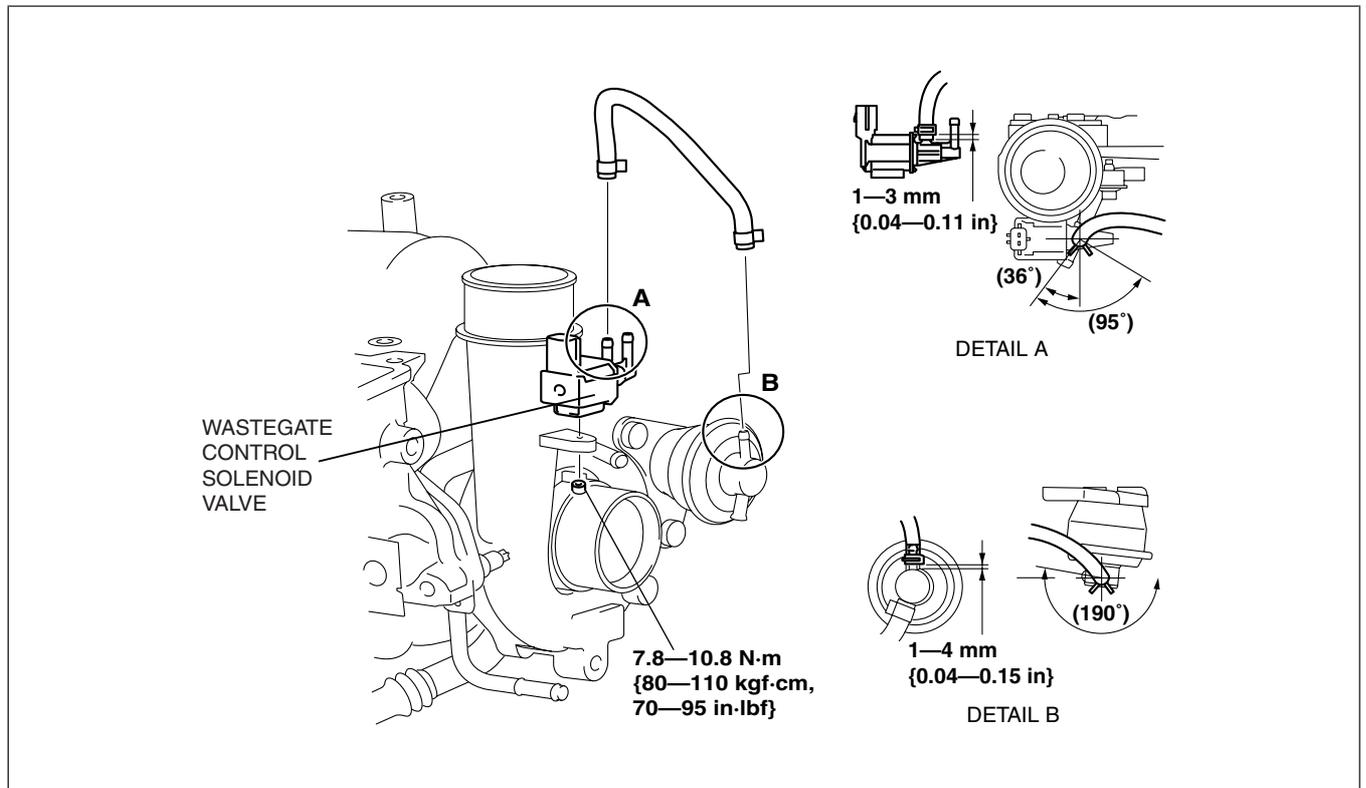
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Wastegate Control Solenoid Valve Installation Note

1. Install the wastegate control solenoid valve.

Tightening torque

7.8—10.8 N·m {80—110 kgf·cm, 70—95 in·lbf}



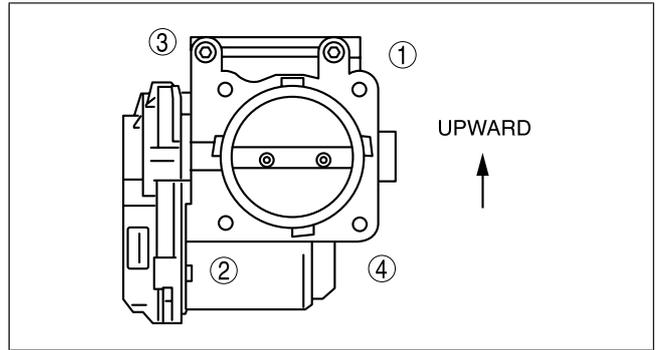
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2. Install the hose as shown in the figure.

Throttle Body Installation Note

1. Tighten the throttle body installation bolts in the order shown in the figure.

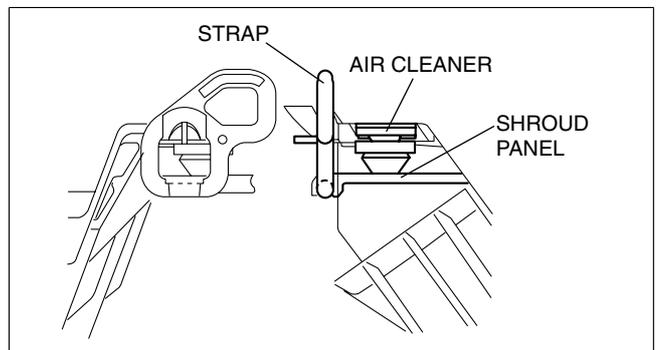
Tightening torque
8—11.5 N·m {82—117 kgf·cm, 71—101 in·lbf}



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Strap Installation Note

1. Using the strap, secure the shroud panel and the air cleaner case as shown in the figure.



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