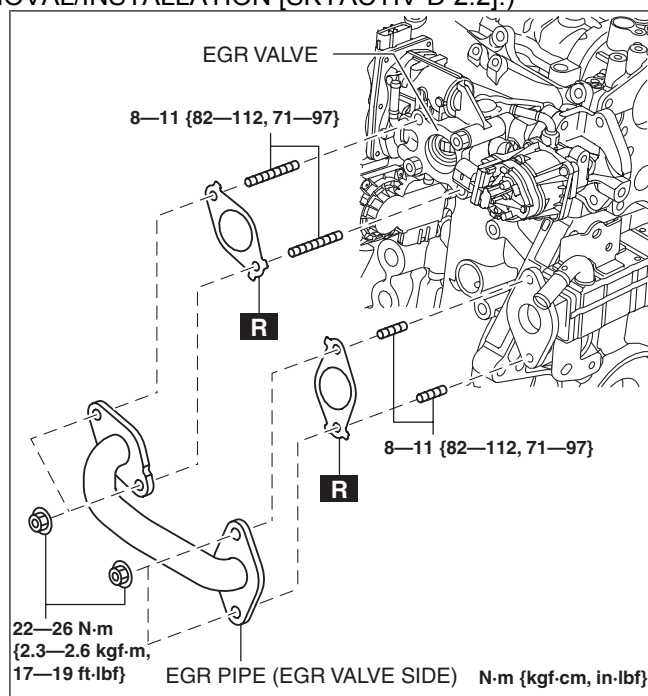


## EGR PIPE REMOVAL/INSTALLATION [SKYACTIV-D 2.2]

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### EGR valve side

1. Remove the engine cover. (See ENGINE COVER REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
2. Remove the EGR pipe.
3. Install in the reverse order of removal.

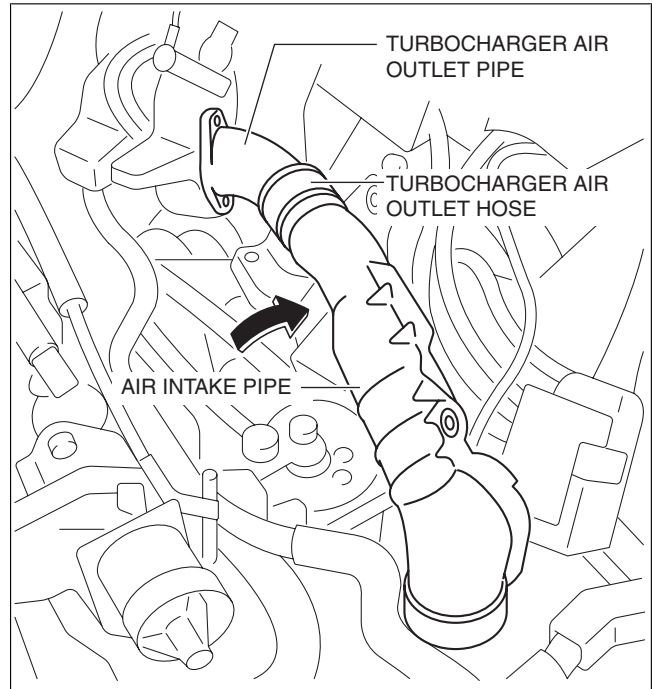


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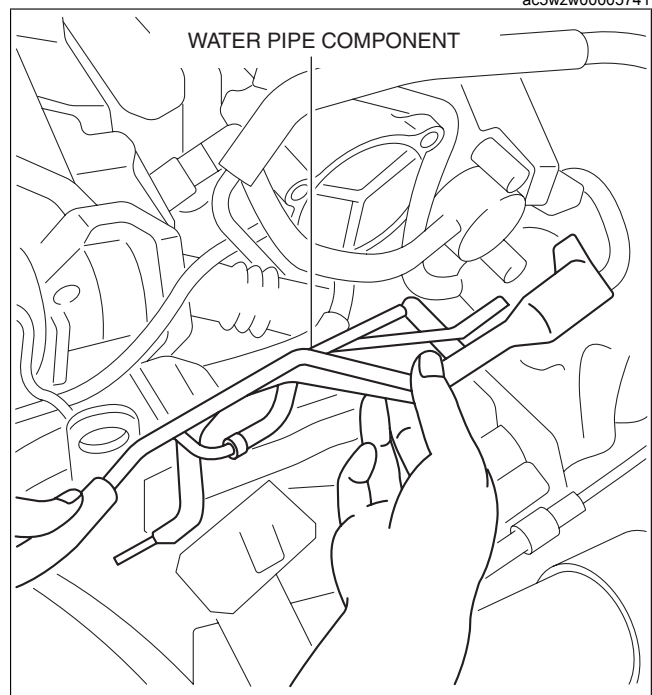
### EGR cooler bypass valve side

1. Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].)
2. Remove the engine cover. (See ENGINE COVER REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
3. Remove the air cleaner. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
4. Remove the battery and the battery tray. (See BATTERY REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
5. Remove the following parts as a single unit: (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
  - Air hose
  - Air inlet pipe
  - Breather hose
  - Turbocharger air inlet hose
  - Blow-by heater

6. Set the turbocharger air outlet pipe, turbocharger air outlet hose, and air intake pipe aside as a single unit as shown in the figure. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
7. Drain the engine coolant. (See ENGINE COOLANT REPLACEMENT [SKYACTIV-D 2.2].)



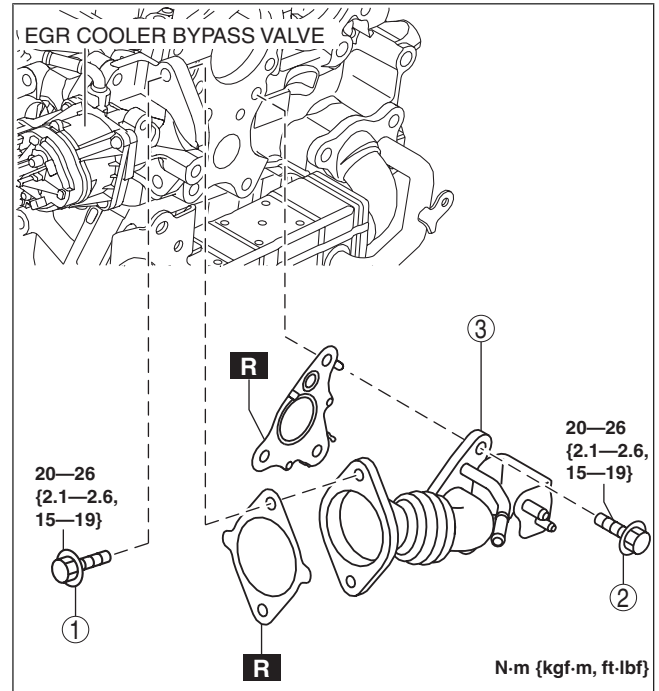
8. Set the water pipe component aside as shown in the figure.
9. Remove the EGR pipe (EGR valve side). (See EGR valve side.)
10. Remove the EGR cooler insulator. (See EGR COOLER REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
11. Set the EGR cooler out of the way. (See EGR COOLER REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)



12. Remove in the order shown in the figure.

1	EGR pipe (EGR cooler bypass valve side) installation bolt No.1 (See EGR pipe (EGR cooler bypass valve side) installation bolt removal note.) (See EGR pipe (EGR cooler bypass valve side) installation bolt installation note.)
2	EGR pipe (EGR cooler bypass valve side) installation bolt No.2 (See EGR pipe (EGR cooler bypass valve side) installation bolt installation note.)
3	EGR pipe (EGR cooler bypass valve side)

13. Install in the reverse order of removal.



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#### EGR pipe (EGR cooler bypass valve side) installation bolt removal note

1. Remove the harness bracket.
2. Remove the EGR pipe (EGR cooler bypass valve side) installation bolt No.1.

#### EGR pipe (EGR cooler bypass valve side) installation bolt installation note

1. Temporarily tighten the bolt until the flanged of the retaining bolt No.1 and No.2 of the EGR pipe (of the EGR cooler bypass valve) are completely seated.
2. Tighten the EGR pipe (EGR cooler bypass valve side) installation bolt No.2.

#### Tightening torque

20—26 N·m {2.1—2.6 kgf·m, 15—19 ft·lbf}

3. Tighten the EGR pipe (EGR cooler bypass valve side) installation bolt No.1.

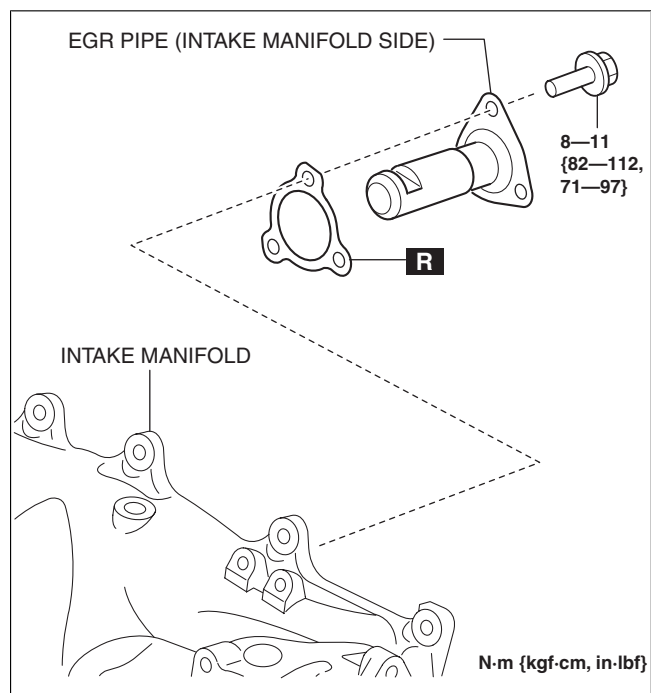
#### Tightening torque

20—26 N·m {2.1—2.6 kgf·m, 15—19 ft·lbf}

#### Intake manifold side

1. Remove the intake manifold. (See INTAKE-AIR SYSTEM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)

2. Remove the EGR pipe (intake manifold side).
3. Install in the reverse order of removal.



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