

INTAKE (INDUCTION)

IN(H4DO)

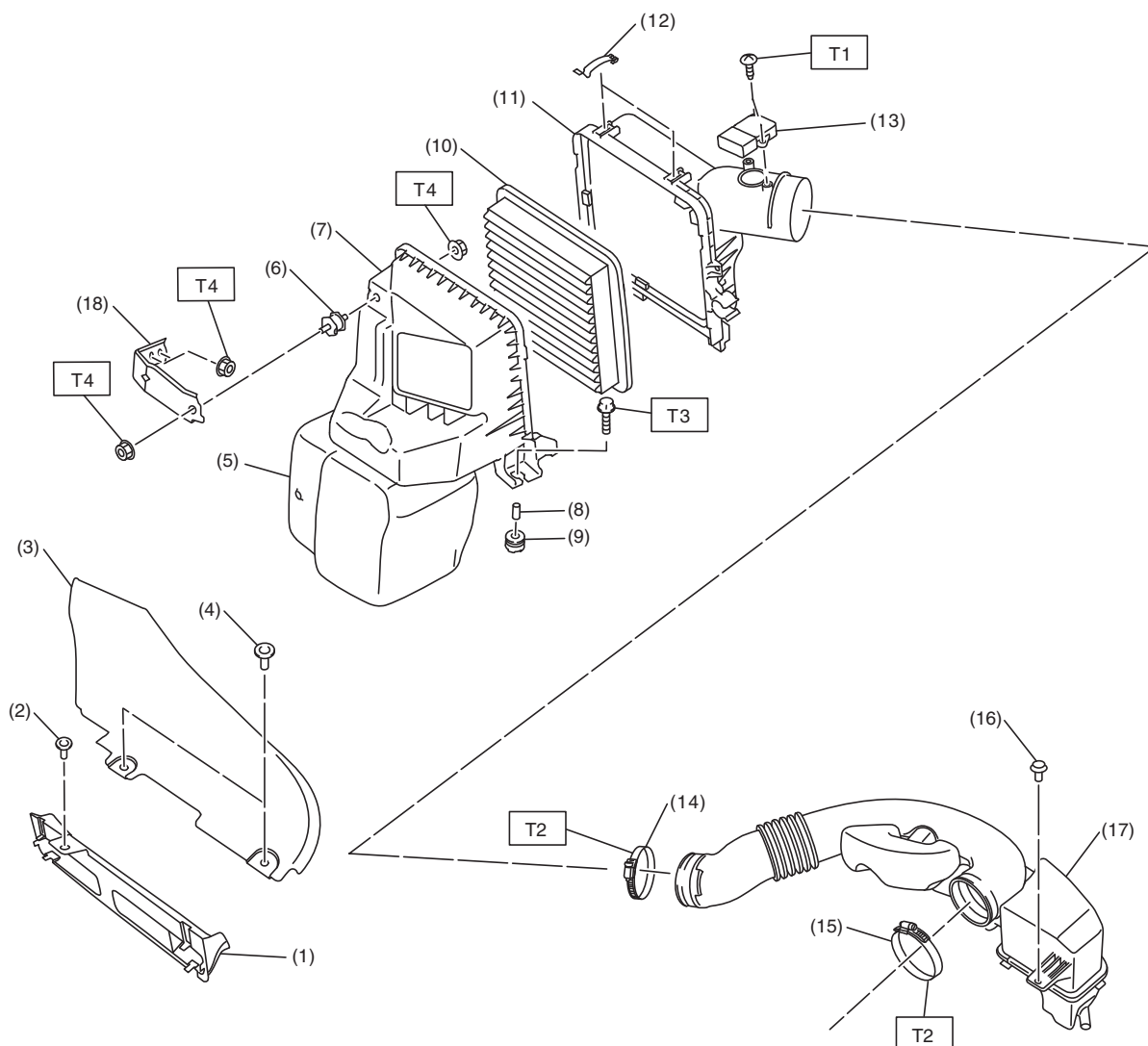
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General Description

INTAKE (INDUCTION)

1. General Description

A: COMPONENT



IN-03408

IN(H4DO)-2

General Description

INTAKE (INDUCTION)

(1) Air intake duct (front)	(9) Cushion	(17) Air intake boot
(2) Clip	(10) Air cleaner element	(18) Air cleaner case bracket
(3) Air intake duct (rear)	(11) Air cleaner case (rear)	
(4) Clip	(12) Clip	
(5) Resonator chamber	(13) Mass air flow and intake air temperature sensor	
(6) Cushion	(14) Clamp	
(7) Air cleaner case (front)	(15) Clamp	
(8) Spacer	(16) Clip	

Tightening torque: N·m (kgf-m, ft-lb)

T1: 1 (0.1, 0.7)

T2: 3 (0.3, 2.2)

T3: 6 (0.6, 4.4)

T4: 7.5 (0.8, 5.5)

B: CAUTION

- Prior to starting work, pay special attention to the following:
 1. Always wear work clothes, a safety cap, protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
 2. Protect the vehicle using a seat cover, fender cover, etc.
 3. Prepare the service tools, clean cloth, containers to catch grease and oil, etc.
- Vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.
- When performing a repair, identify the cause of trouble and avoid unnecessary removal, disassembly and replacement.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery.
- Always use the jack-up point when the shop jacks or rigid racks are used to support the vehicle.
- Remove contamination including dirt and corrosion before removal, installation, disassembly or assembly.
- Keep the removed parts in order and protect them from dust and dirt.
- All removed parts, if to be reused, should be reinstalled in the original positions with attention to the correct directions, etc.
- Bolts, nuts and washers should be replaced with new parts as required.
- Be sure to tighten the fasteners including bolts and nuts to the specified torque.



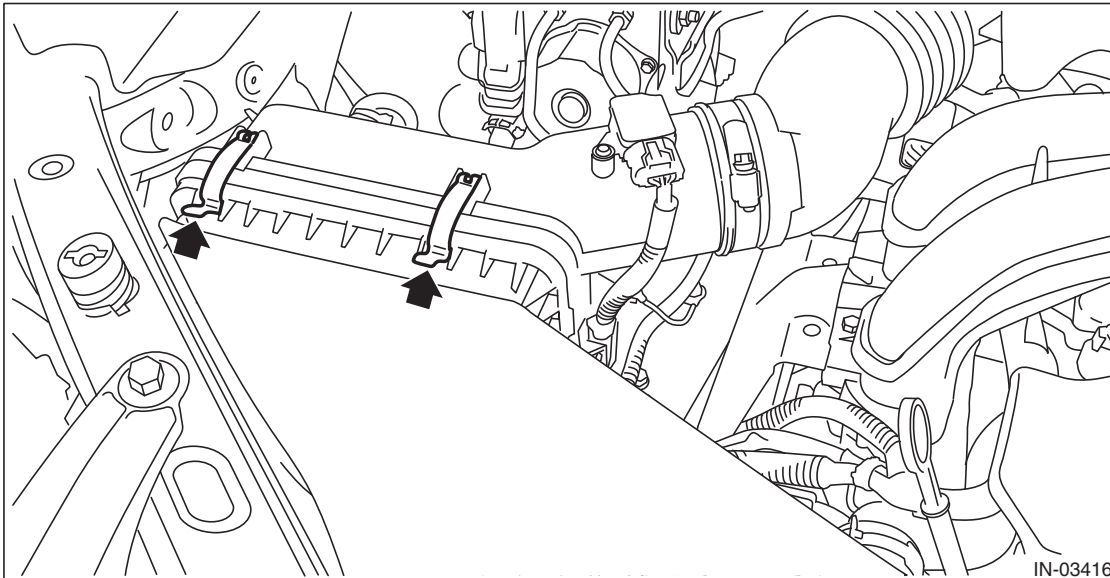
Air Cleaner Element

INTAKE (INDUCTION)

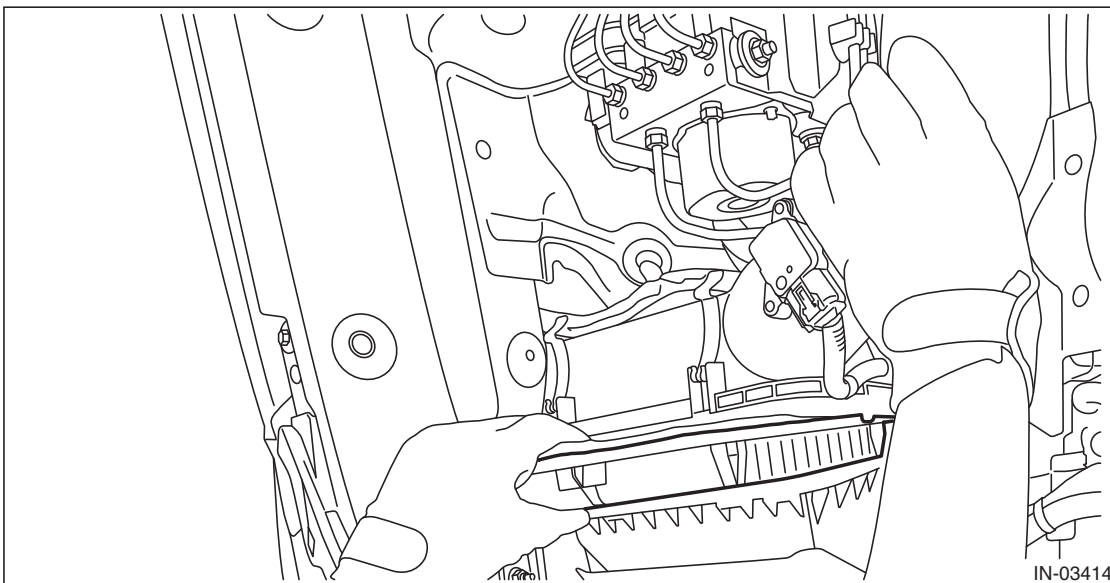
2. Air Cleaner Element

A: REMOVAL

1) Remove the clips from air cleaner case (front).



2) Open the air cleaner case, and remove the air cleaner element.



Air Cleaner Element

INTAKE (INDUCTION)

B: INSTALLATION

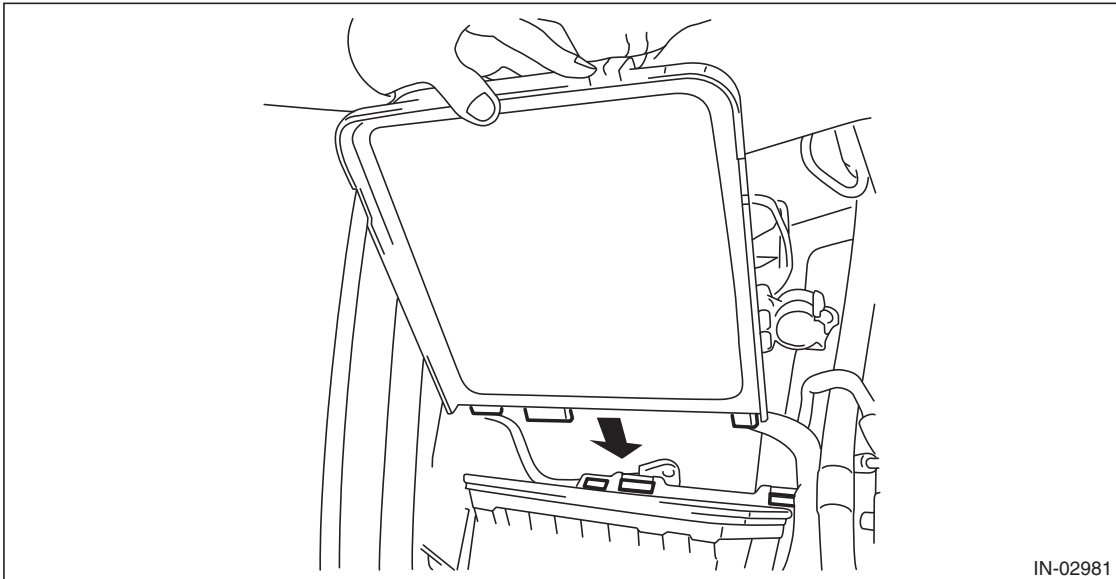
Install in the reverse order of removal.

CAUTION:

Be sure to use SUBARU genuine air cleaner element depending on the engine type when replacing the air cleaner elements. Using other air cleaner element may affect the engine performance.

NOTE:

- Check that there are no foreign objects in the air cleaner case.
- When installing the air cleaner case (rear), align the protrusion of the air cleaner case (rear) to the hole on the air cleaner case (front) to install.



C: INSPECTION

- 1) Check that the air cleaner element has no deformation, cracks or other damages.
- 2) Check the air cleaner element for excessive dirt.
- 3) Replace the air cleaner case (rear) if the HC absorption filter is damaged.

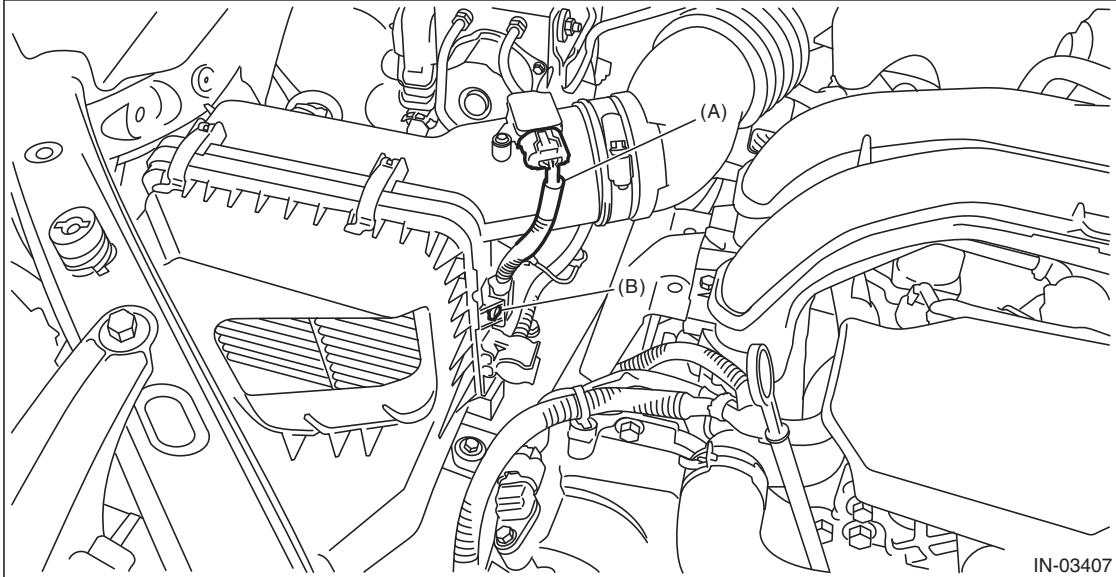
Air Cleaner Case

INTAKE (INDUCTION)

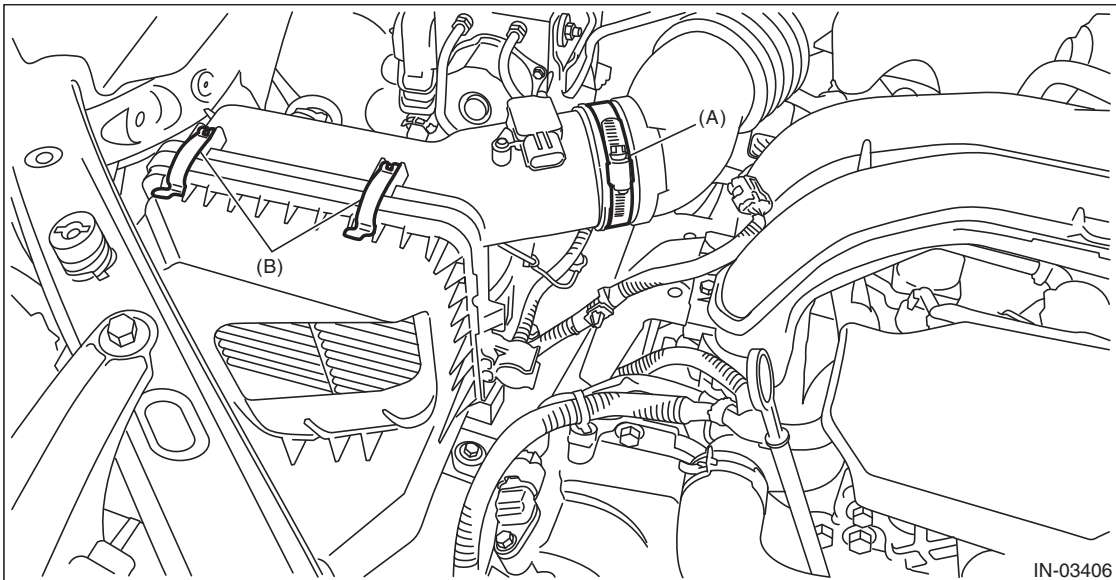
3. Air Cleaner Case

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the air intake duct (rear). <Ref. to IN(H4DO)-12, REMOVAL, Air Intake Duct.>
- 3) Disconnect the connector (A) from the mass air flow and intake air temperature sensor, and remove the clip (B).



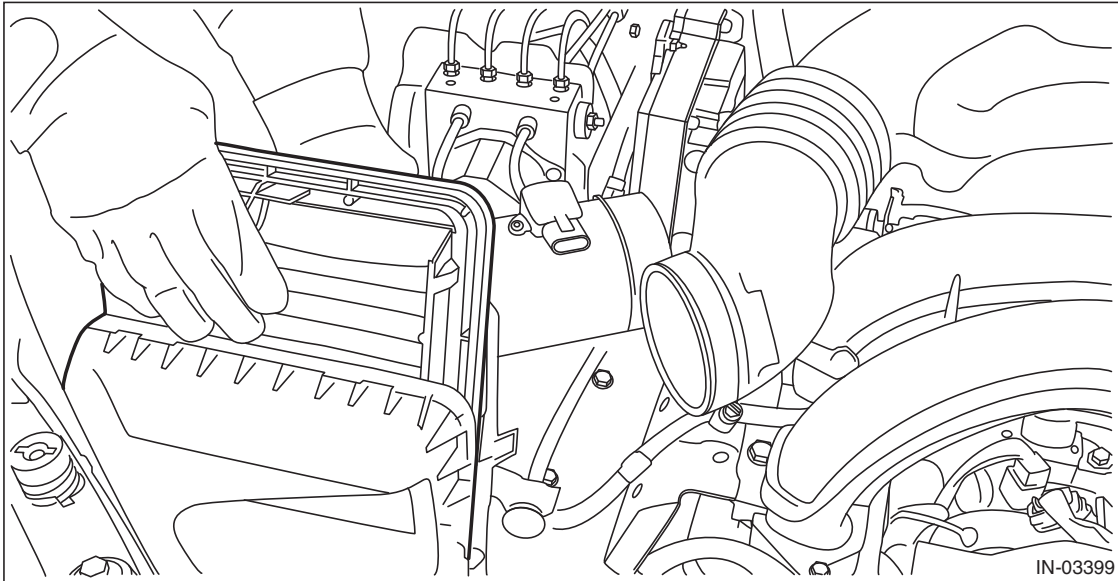
- 4) Loosen the clamp (A) which secures the air intake boot to the air cleaner case (rear), and then remove the clip (B) from the air cleaner case (front).



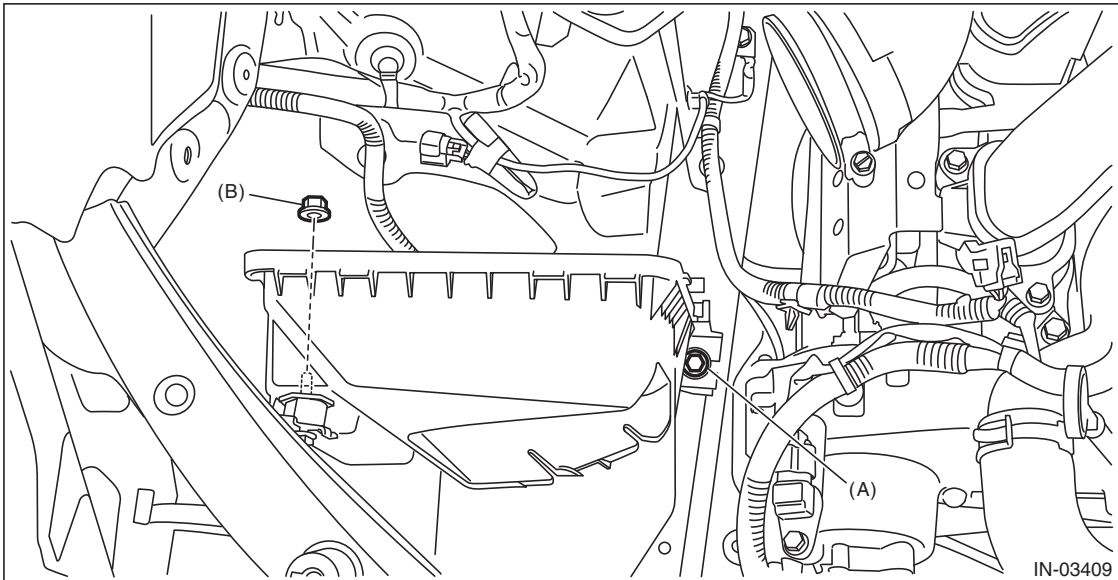
Air Cleaner Case

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- 5) Remove the air cleaner case (rear) and air cleaner element.



- 6) Remove the bolt (A) and nut (B) which secure the air cleaner case (front) to the vehicle and to the air cleaner case bracket.

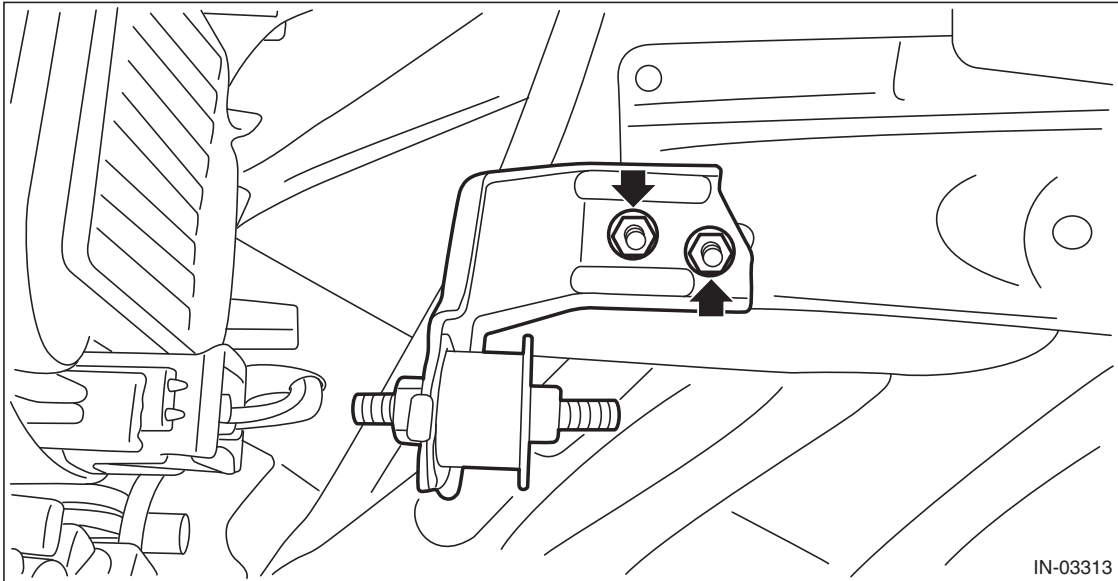


- 7) Remove the air cleaner case (front).

Air Cleaner Case

INTAKE (INDUCTION)

8) Remove the air cleaner case bracket from the vehicle.

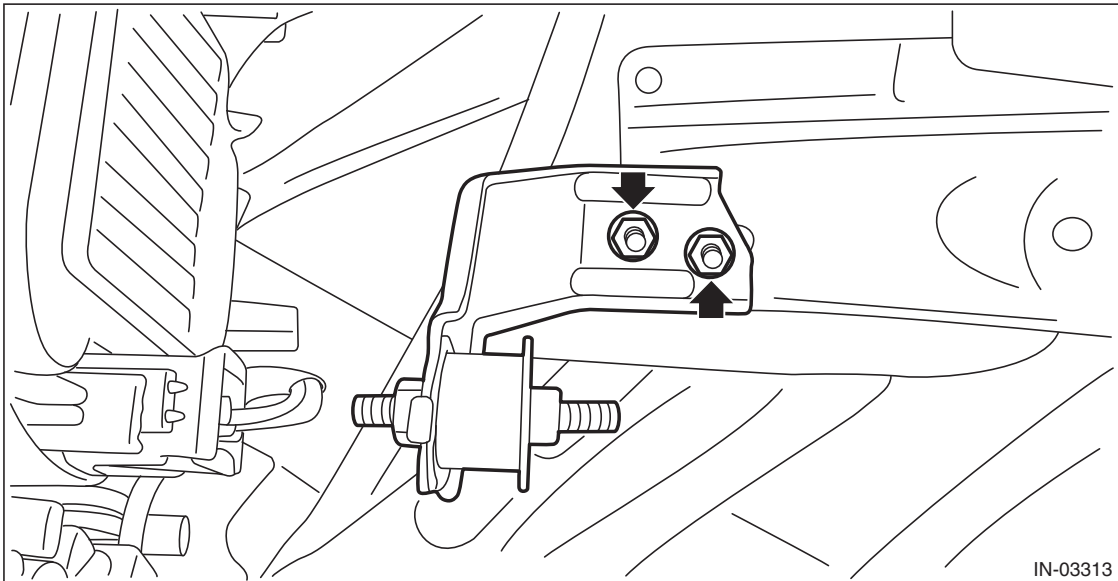


B: INSTALLATION

1) Install the air cleaner case bracket to the vehicle.

Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)



Air Cleaner Case

INTAKE (INDUCTION)

2) Install the bolt (A) and nut (B) which secure the air cleaner case (front) to the vehicle and to the air cleaner case bracket.

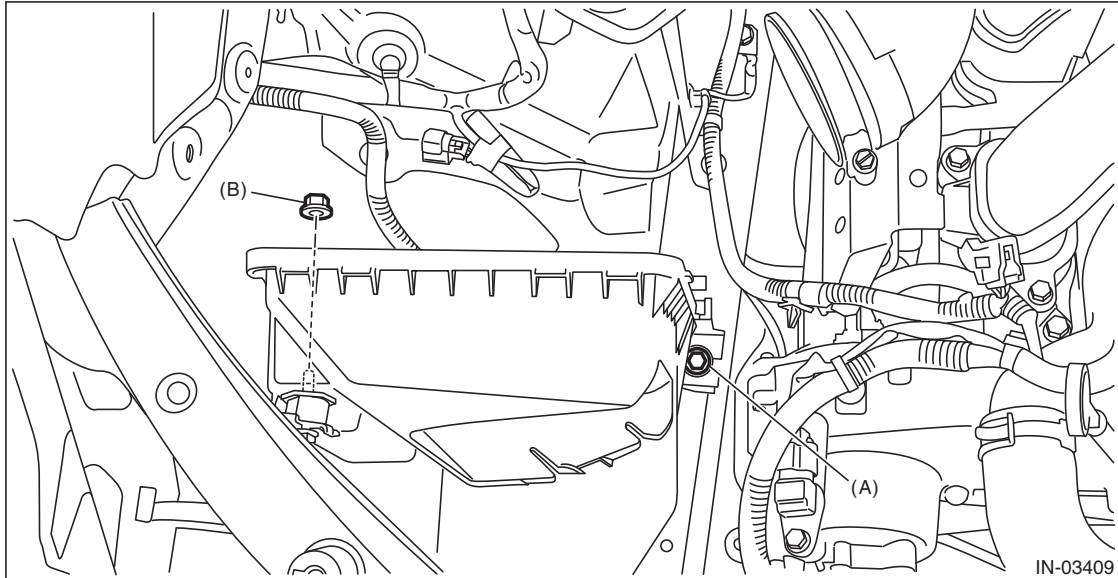
Tightening torque:

Bolt (A)

6 N·m (0.6 kgf-m, 4.4 ft-lb)

Nut (B)

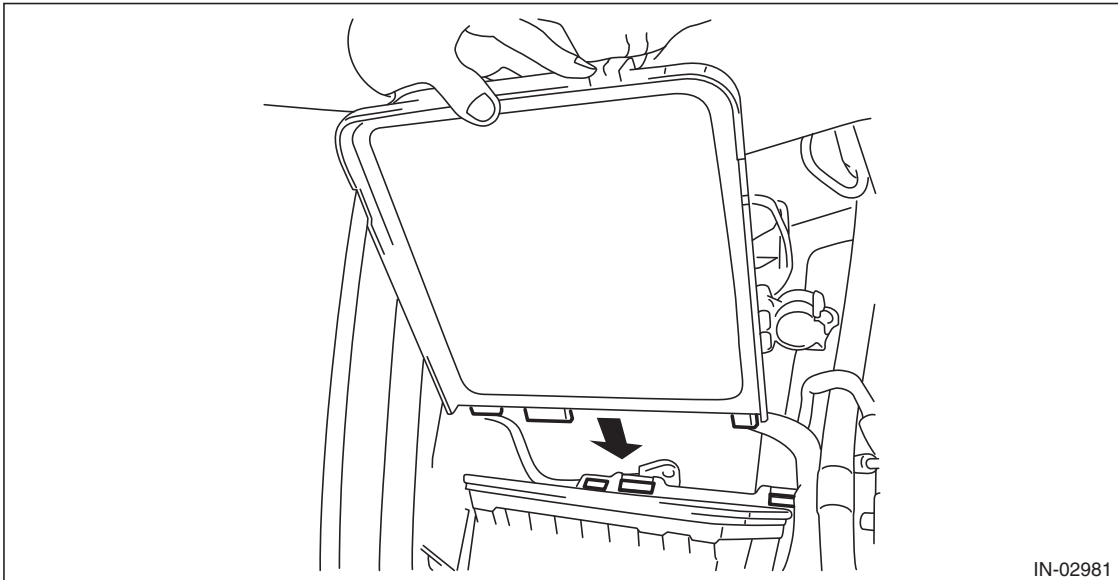
7.5 N·m (0.8 kgf-m, 5.5 ft-lb)



3) Install the air cleaner case (rear) and air cleaner element.

NOTE:

When installing the air cleaner case (rear), align the protrusion of the air cleaner case (rear) to the hole on the air cleaner case (front) to install.



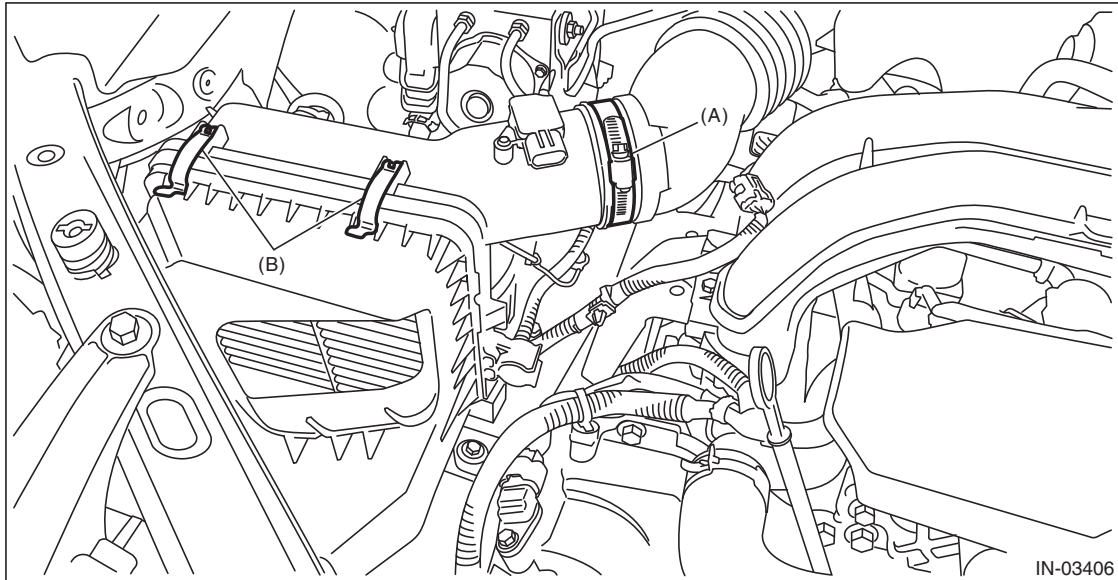
Air Cleaner Case

INTAKE (INDUCTION)

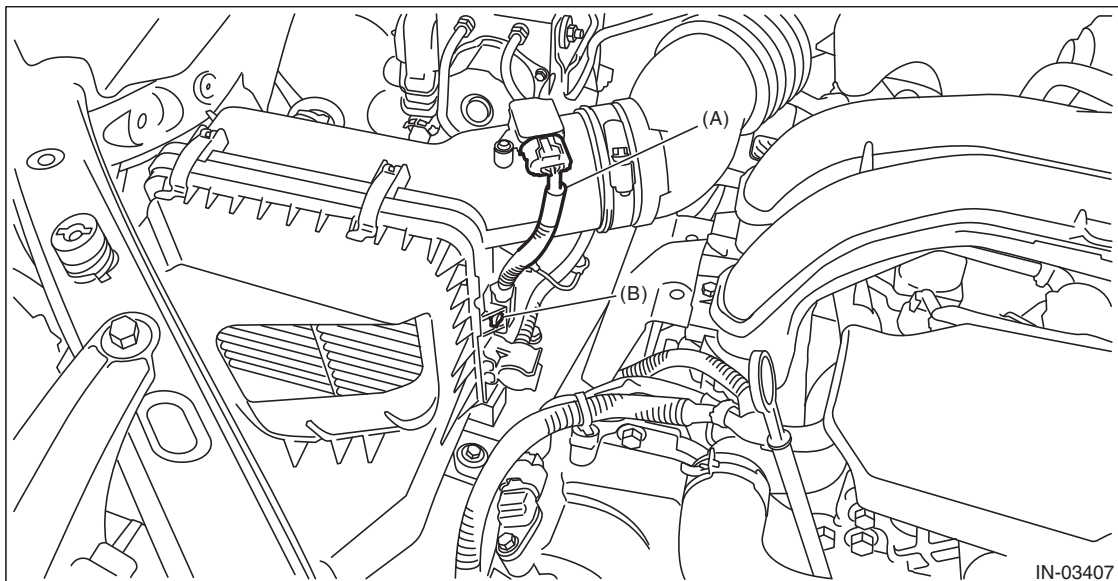
4) Install the clips (B) to the air cleaner case (front), then tighten the clamp (A) that secures the air cleaner case (rear) and air intake boot.

Tightening torque:

3 N·m (0.3 kgf-m, 2.2 ft-lb)



5) Connect the connector (A) to the mass air flow and intake air temperature sensor and secure the harness with clip (B).



6) Install the air intake duct (rear). <Ref. to IN(H4DO)-12, INSTALLATION, Air Intake Duct.>

7) Connect the battery ground terminal.

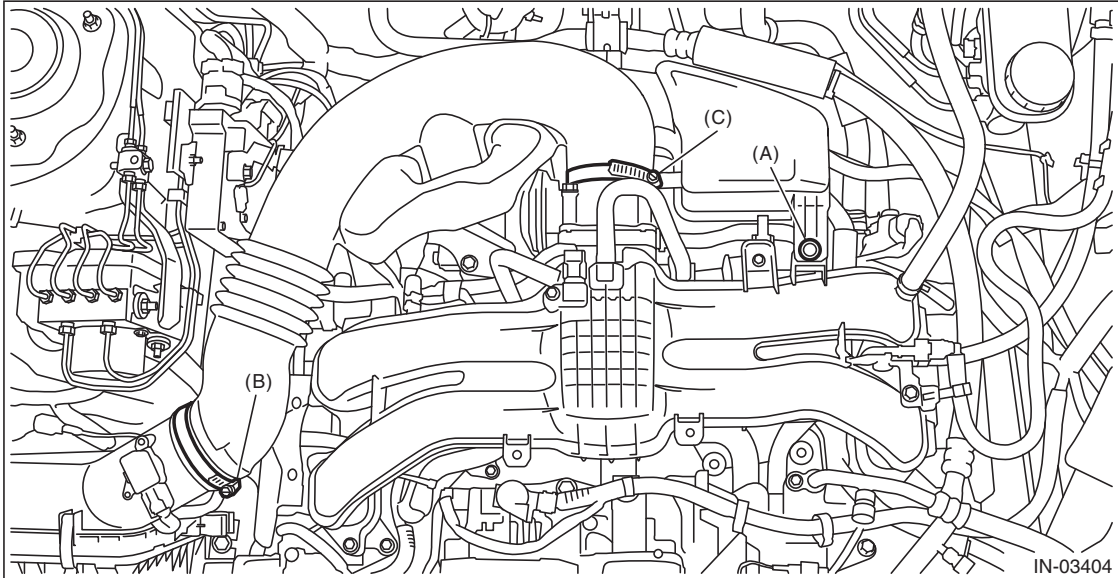
C: INSPECTION

- 1) Check that the air cleaner case has no deformation, cracks or other damages.
- 2) Check that the air intake boot has no cracks, damage or loose part.

4. Air Intake Boot

A: REMOVAL

- 1) Remove the clip (A) from the air intake boot.
- 2) Loosen the clamp (B) securing the air cleaner case (rear) to the air intake boot.
- 3) Loosen the clamp (C) which secures the throttle body to the air intake boot.



- 4) Disconnect the PCV hose and remove the air intake boot.

B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

3 N·m (0.3 kgf-m, 2.2 ft-lb)

C: INSPECTION

- 1) Check that the air intake boot has no deformation, cracks or other damages.
- 2) Inspect that no foreign objects are mixed in the air intake boot.

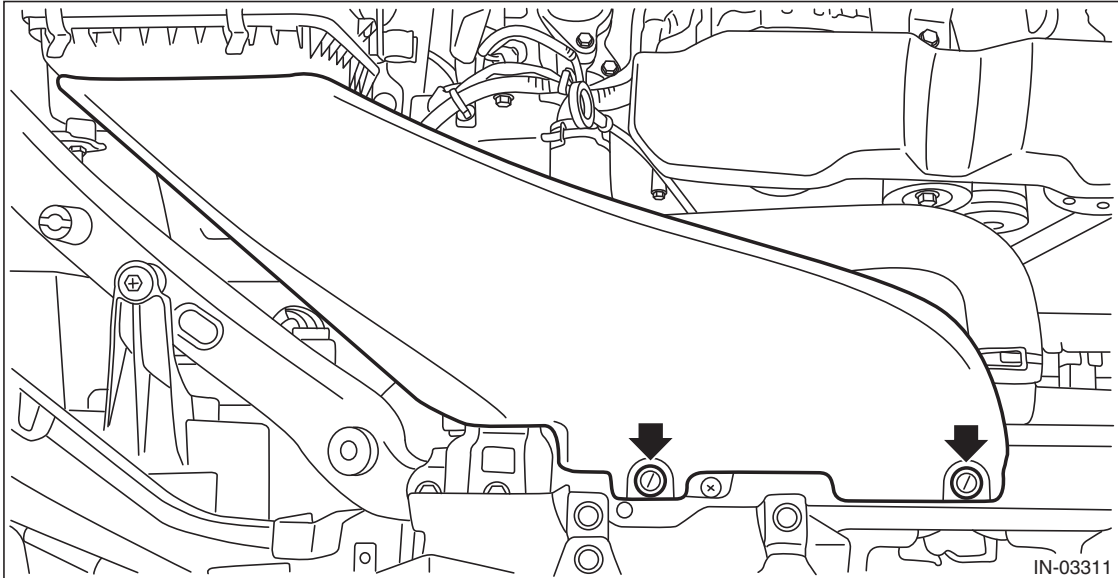
Air Intake Duct

INTAKE (INDUCTION)

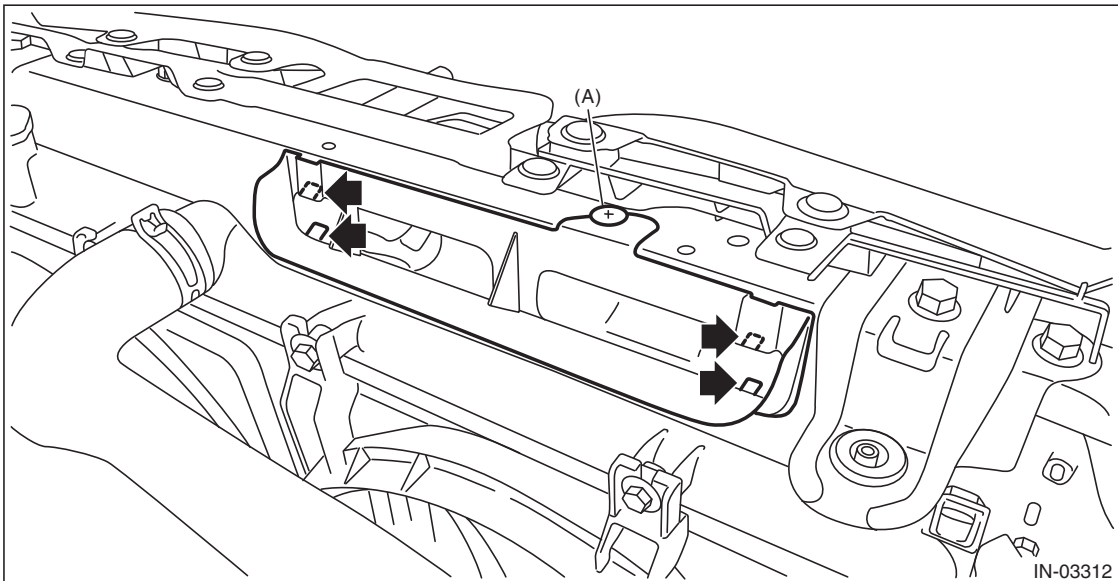
5. Air Intake Duct

A: REMOVAL

- 1) Remove the clip which secures air intake duct (rear), and remove the air intake duct (rear).



- 2) Remove the clip (A) and four claws and then remove the air intake duct (front).



B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

- 1) Check that the air intake duct has no deformation, cracks or other damages.
- 2) Inspect that no foreign objects are mixed in the air intake duct.

6. Resonator Chamber

A: REMOVAL

The resonator chamber and air cleaner case are integrated into one unit; therefore, refer to “Air Cleaner Case” for removal procedure. <Ref. to IN(H4DO)-6, REMOVAL, Air Cleaner Case.>

B: INSTALLATION

The resonator chamber and air cleaner case are integrated into one unit; therefore, refer to “Air Cleaner Case” for installation procedure. <Ref. to IN(H4DO)-8, INSTALLATION, Air Cleaner Case.>

C: INSPECTION

Check that the resonator chamber has no deformation, cracks or other damages.

Resonator Chamber

INTAKE (INDUCTION)
