

ENGINE SECTION 3

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicles.

This manual includes the procedures for maintenance, disassembling, reassembling, inspection and adjustment of components and diagnostics for guidance of experienced mechanics.

Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

FUEL INJECTION (FUEL SYSTEMS) FU(H6DO)

**EMISSION CONTROL
(AUX. EMISSION CONTROL DEVICES) EC(H6DO)**

INTAKE (INDUCTION) IN(H6DO)

MECHANICAL ME(H6DO)

EXHAUST EX(H6DO)

COOLING CO(H6DO)

LUBRICATION LU(H6DO)

SPEED CONTROL SYSTEMS SP(H6DO)

IGNITION IG(H6DO)

STARTING/CHARGING SYSTEMS SC(H6DO)

ENGINE (DIAGNOSTICS) EN(H6DO)(diag)

INTAKE (INDUCTION)

IN(H6DO)

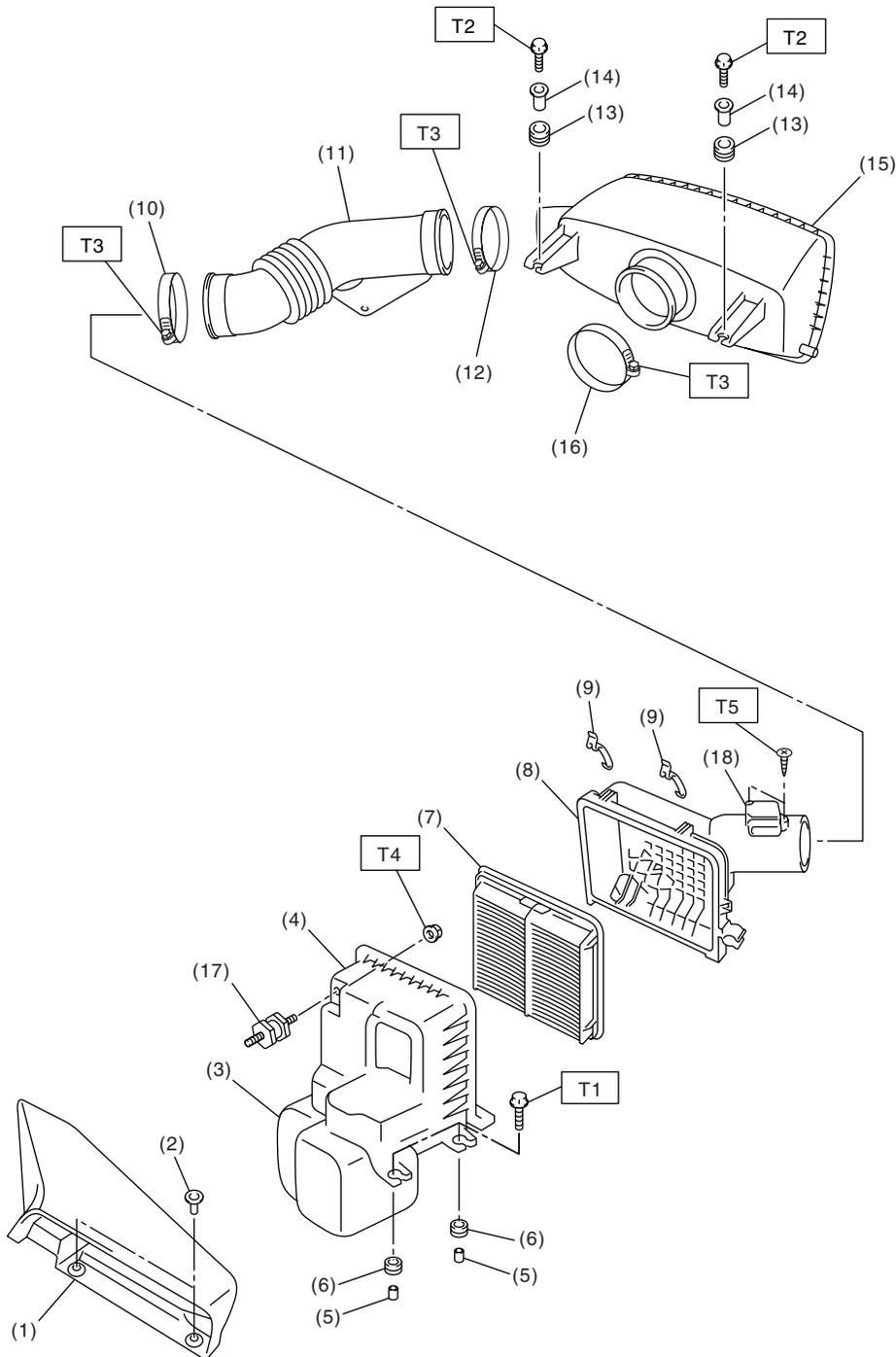
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General Description

INTAKE (INDUCTION)

1. General Description

A: COMPONENT



IN-02008

General Description

INTAKE (INDUCTION)

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

Tightening torque: N·m (kgf·m, ft·lb)

T1: 6.0 (0.6, 4.4)

T2: 6.4 (0.65, 4.7)

T3: 3.0 (0.3, 2.2)

T4: 7.5 (0.76, 5.5)

T5: 1.0 (0.10, 0.7)

B: CAUTION

- Wear work clothing, including a cap, protective goggles and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Be careful not to burn yourself, because each part on the vehicle is hot after running.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before disconnecting electrical connectors of sensors or units, be sure to disconnect the ground cable from battery.

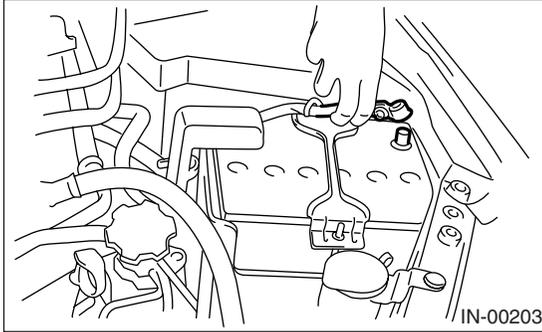
Air Cleaner Element

INTAKE (INDUCTION)

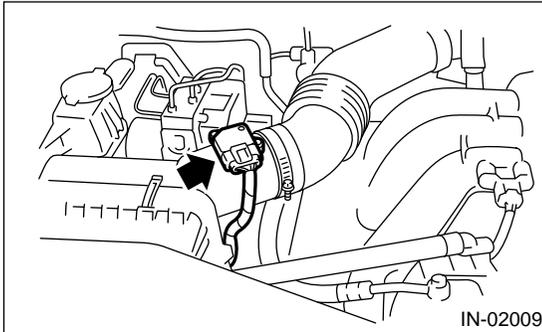
2. Air Cleaner Element

A: REMOVAL

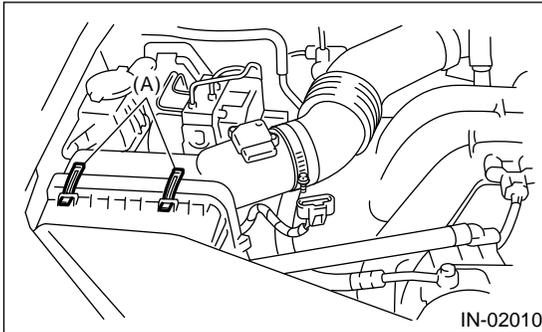
1) Disconnect the ground cable from battery.



2) Disconnect the connector from mass air flow and intake air temperature sensor.



3) Remove the clip (A) from the upper side of air cleaner case.



4) Pull the air cleaner case (rear) to the rearward of vehicle, and then remove the air cleaner element.

NOTE:

Be careful that the power steering hose is secured to the under side of air cleaner case (rear).

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Fasten with a clip after inserting the lower tab of the case.



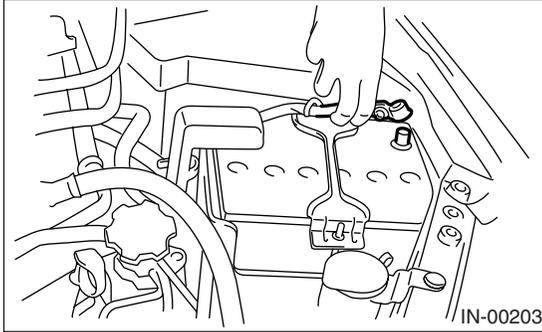
C: INSPECTION

Replace if excessively damaged or dirty.

3. Air Cleaner Case

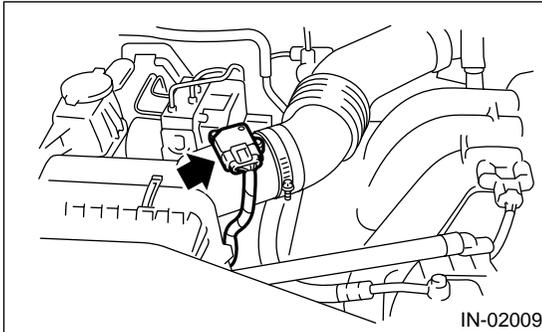
A: REMOVAL

1) Disconnect the ground cable from battery.



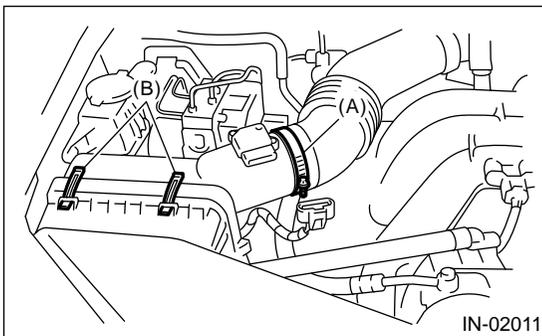
2) Remove the air intake duct. <Ref. to IN(H6DO)-8, REMOVAL, Air Intake Duct.>

3) Disconnect the connector from mass air flow and intake air temperature sensor.

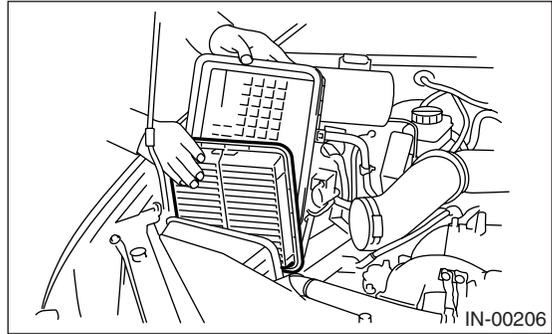


4) Loosen the clamp (A) which connects air cleaner case to intake duct.

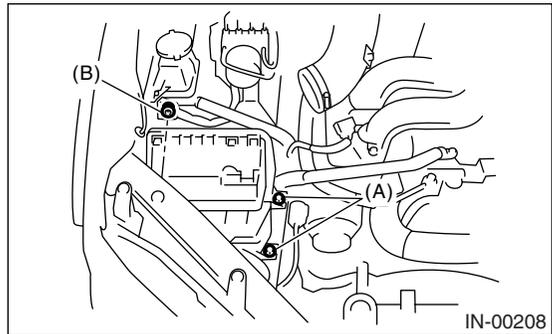
5) Remove the clip (B) from the upper side of air cleaner case.



6) Remove the air cleaner case (rear) and air cleaner element.



7) Remove the bolt (A) and nut (B) which hold air cleaner case on the body.



8) Remove the air cleaner case (front).

Air Cleaner Case

INTAKE (INDUCTION)

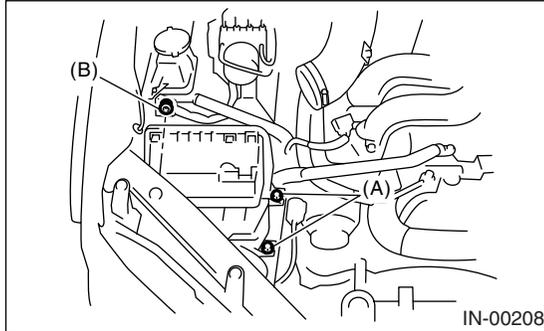
B: INSTALLATION

Install in the reverse order of removal.

Tightening torque:

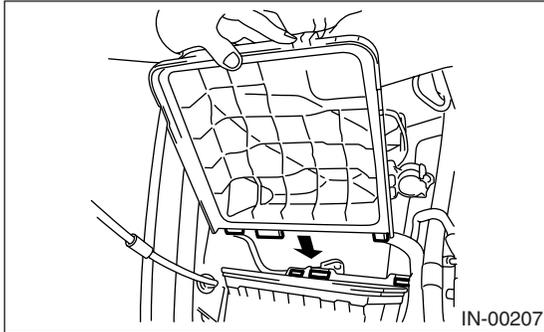
Bolt (A): 6.0 N·m (0.6 kgf-m, 4.4 ft-lb)

Nut (B): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)



NOTE:

Fasten with a clip after inserting the lower tab of the case.



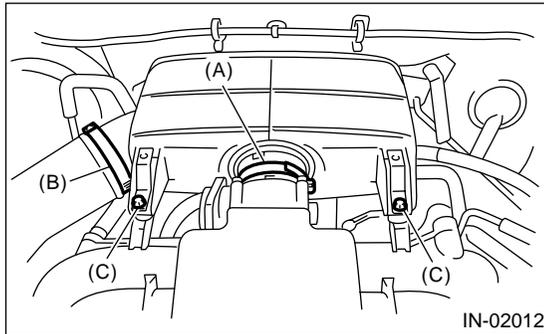
C: INSPECTION

Check for cracks or loose connection.

4. Air Intake Chamber

A: REMOVAL

- 1) Remove the collector cover.
- 2) Loosen the clamp (A) which connects air intake chamber to throttle body.
- 3) Loosen the clamp (B) which connects intake duct to air intake chamber.
- 4) Remove the bolt (C) which secures air intake chamber to the stay.



- 5) Disconnect one part of blow-by hose, and remove the air intake chamber.

B: INSTALLATION

Install in the reverse order of removal.

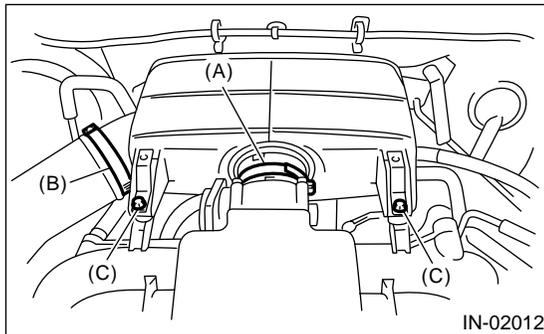
Tightening torque:

Clamp (A), (B)

3.0 N·m (0.3 kgf-m, 2.2 ft-lb)

Bolt (C)

6.4 N·m (0.65 kgf-m, 4.7 ft-lb)



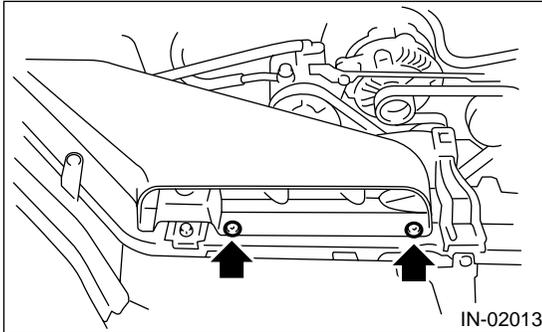
C: INSPECTION

- 1) Check for cracks or loose connections.
- 2) Inspect that no foreign objects in the air intake chamber.

5. Air Intake Duct

A: REMOVAL

- 1) Remove the clips which install air intake duct on the front side of body.
- 2) Remove the air intake duct.



B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

- 1) Check for cracks or loose connections.
- 2) Inspect that no foreign objects in the air intake duct.

6. Resonator Chamber

A: REMOVAL

Refer to “Air Cleaner Case” for removal procedure because the resonator chamber forms a single unit with air cleaner case. <Ref. to IN(H6DO)-5, REMOVAL, Air Cleaner Case.>

B: INSTALLATION

Refer to “Air Cleaner Case” for installation procedure because the resonator chamber forms a single unit with air cleaner case. <Ref. to IN(H6DO)-6, INSTALLATION, Air Cleaner Case.>

C: INSPECTION

Check for cracks or loose connections.

Resonator Chamber

INTAKE (INDUCTION)
