

ENGINE SECTION 1

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 SYSTEM) FU(H4SO)

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICE) EC(H4SO)

INTAKE (INDUCTION) IN(H4SO)

MECHANICAL ME(H4SO)

EXHAUST EX(H4SO)

COOLING CO(H4SO)

LUBRICATION LU(H4SO)

SPEED CONTROL SYSTEM SP(H4SO)

IGNITION IG(H4SO)

STARTING/CHARGING SYSTEM SC(H4SO)

ENGINE (DIAGNOSTIC) EN(H4SO)

INTAKE (INDUCTION)

IN(H4SO)

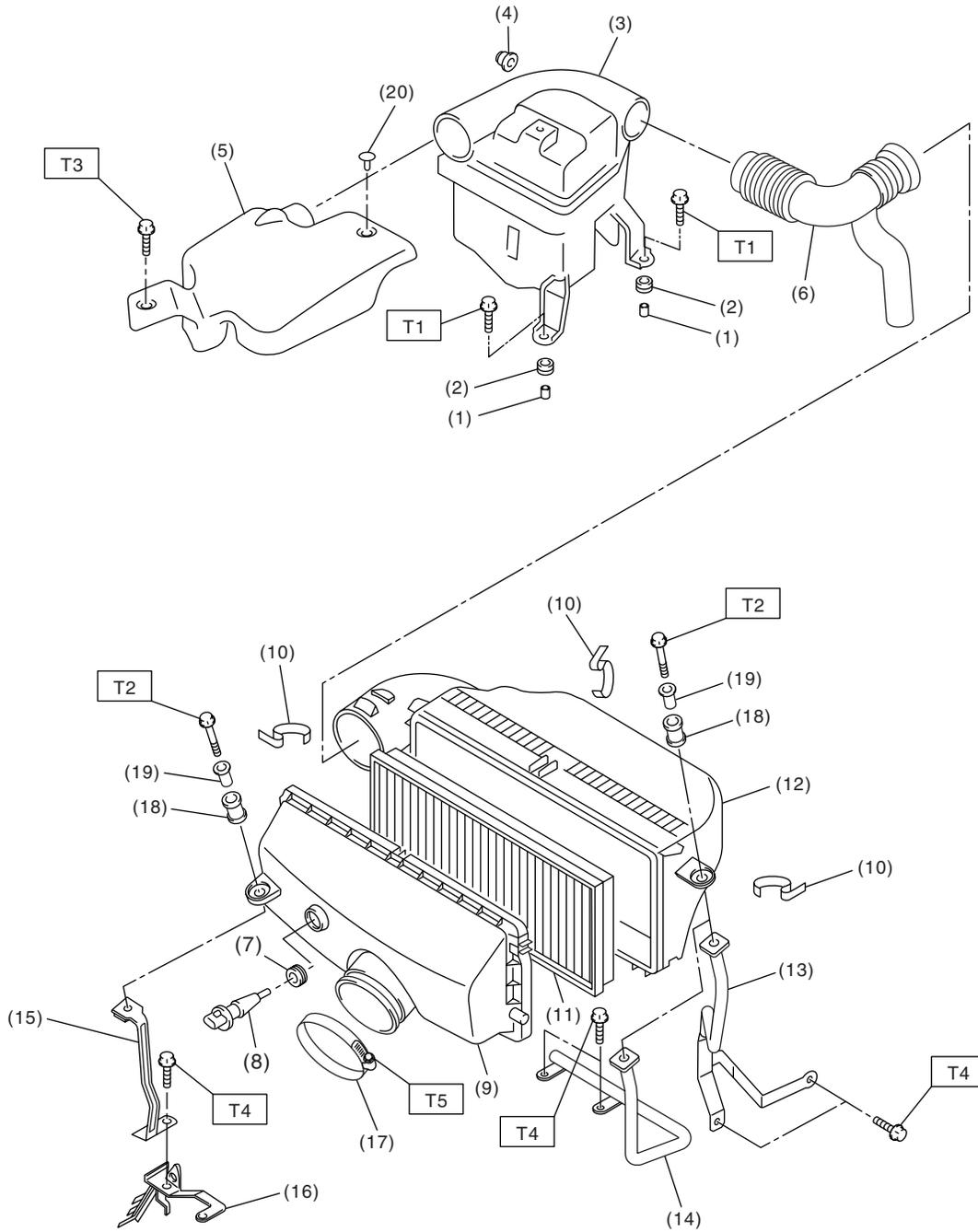
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General Description

INTAKE (INDUCTION)

1. General Description

A: COMPONENT



IN-00076

IN(H4SO)-2

General Description

INTAKE (INDUCTION)

- (1) Spacer
- (2) Bushing
- (3) Resonator chamber
- (4) Cushion
- (5) Air intake duct A
- (6) Air intake duct B
- (7) Bushing
- (8) Intake air temperature sensor
- (9) Air cleaner case A

- (10) Clip
- (11) Air cleaner element
- (12) Air cleaner case B
- (13) Stay LH (MT model)
- (14) Stay LH (AT model)
- (15) Stay RH
- (16) Engine harness bracket
- (17) Clamp
- (18) Bushing

- (19) Spacer
- (20) Clip

Tightening torque: N·m (kgf-m, ft-lb)

T1: 33 (3.4, 24.6)

T2: 6.5 (0.66, 4.8)

T3: 7.5 (0.76, 5.5)

T4: 16 (1.6, 11.6)

T5: 3 (0.3, 2.2)

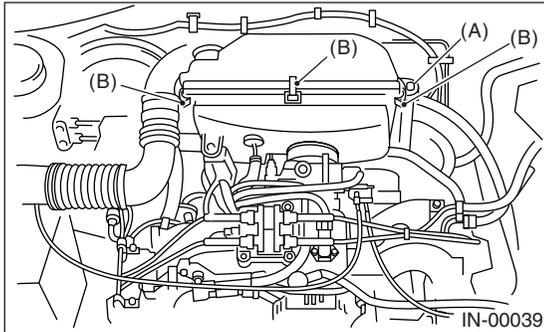
B: CAUTION

- Wear working 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 or dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly, and replacement.
- Be careful not to burn your hands, 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 sensor or units, be sure to disconnect the ground cable from battery.

2. Air Cleaner Element

A: REMOVAL

- 1) Remove the air intake duct from air cleaner case.
- 2) Remove the bolt (A) which secures air cleaner case to stay.
- 3) Remove the clip (B) above the air cleaner case.



- 4) Remove the air cleaner element.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

- Fasten with a clip after inserting the lower tab of the case.
- Refer to "COMPONENT" for tightening torque.
<Ref. to IN(H4SO)-2, COMPONENT, General Description.>

C: INSPECTION

Replace if excessively damaged or dirty.

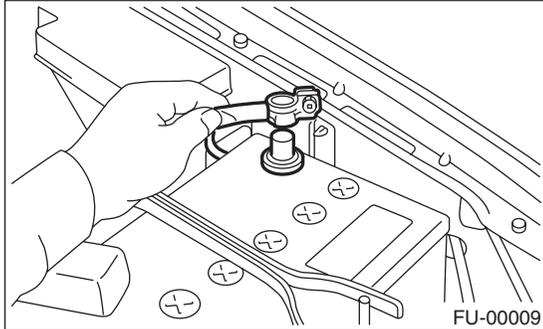
Air Cleaner Case

INTAKE (INDUCTION)

3. Air Cleaner Case

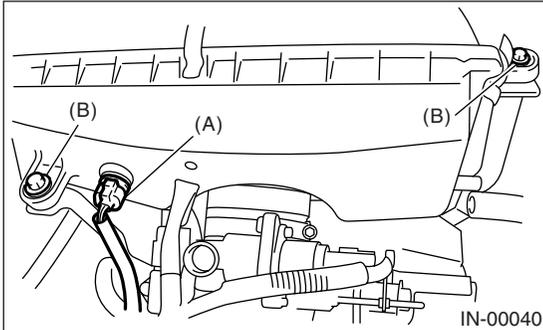
A: REMOVAL

1) Disconnect the ground cable from battery.



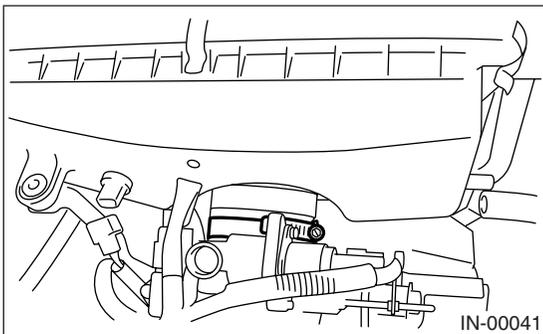
2) Disconnect the connector (A) of intake air temperature sensor.

3) Remove the bolt (B) which installs air cleaner case to stay.



4) Disconnect the hoses and intake duct from air cleaner case.

5) Loosen the clamp which connects air cleaner case to throttle body.



6) Remove the air cleaner case.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Refer to "COMPONENT" for tightening torque.
<Ref. to IN(H4SO)-2, COMPONENT, General Description.>

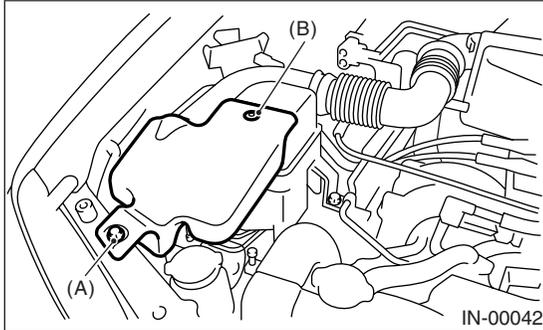
C: INSPECTION

Inspect for cracks and loose connections.

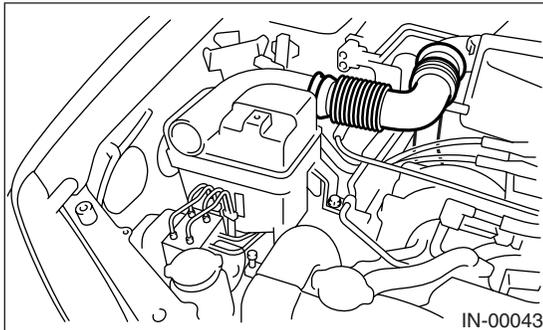
4. Air Intake Duct

A: REMOVAL

- 1) Remove the bolt (A) which installs air intake duct A on the front side of body.
- 2) Remove the clip (B) which connects air intake duct A to resonator chamber.
- 3) Remove the air intake duct A.



- 4) Remove the air intake duct B from resonator chamber and air cleaner case.



B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Refer to "COMPONENT" for tightening torque.
<Ref. to IN(H4SO)-2, COMPONENT, General Description.>

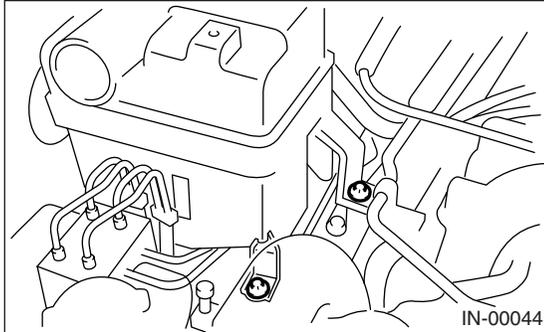
C: INSPECTION

- 1) Inspect for cracks and loose connections.
- 2) Inspect that no foreign objects are mixed in the air intake duct.

5. Resonator Chamber

A: REMOVAL

- 1) Remove the air intake duct. <Ref. to IN(H4SO)-7, REMOVAL, Air Intake Duct.>
- 2) Remove the resonator chamber.



B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Refer to “COMPONENT” for tightening torque.
<Ref. to IN(H4SO)-2, COMPONENT, General Description.>

C: INSPECTION

Inspect for cracks and loose connections.