

INTAKE (INDUCTION)

IN(DOHC TURBO)

	Page
1. General Description.....	2
2. Air Cleaner	7
3. Air Intake Duct.....	8
4. Intake Duct	9
5. Intercooler.....	10
6. Turbocharger	12
7. Air By-pass Valve	14



GENERAL DESCRIPTION

Intake (Induction)

1. General Description

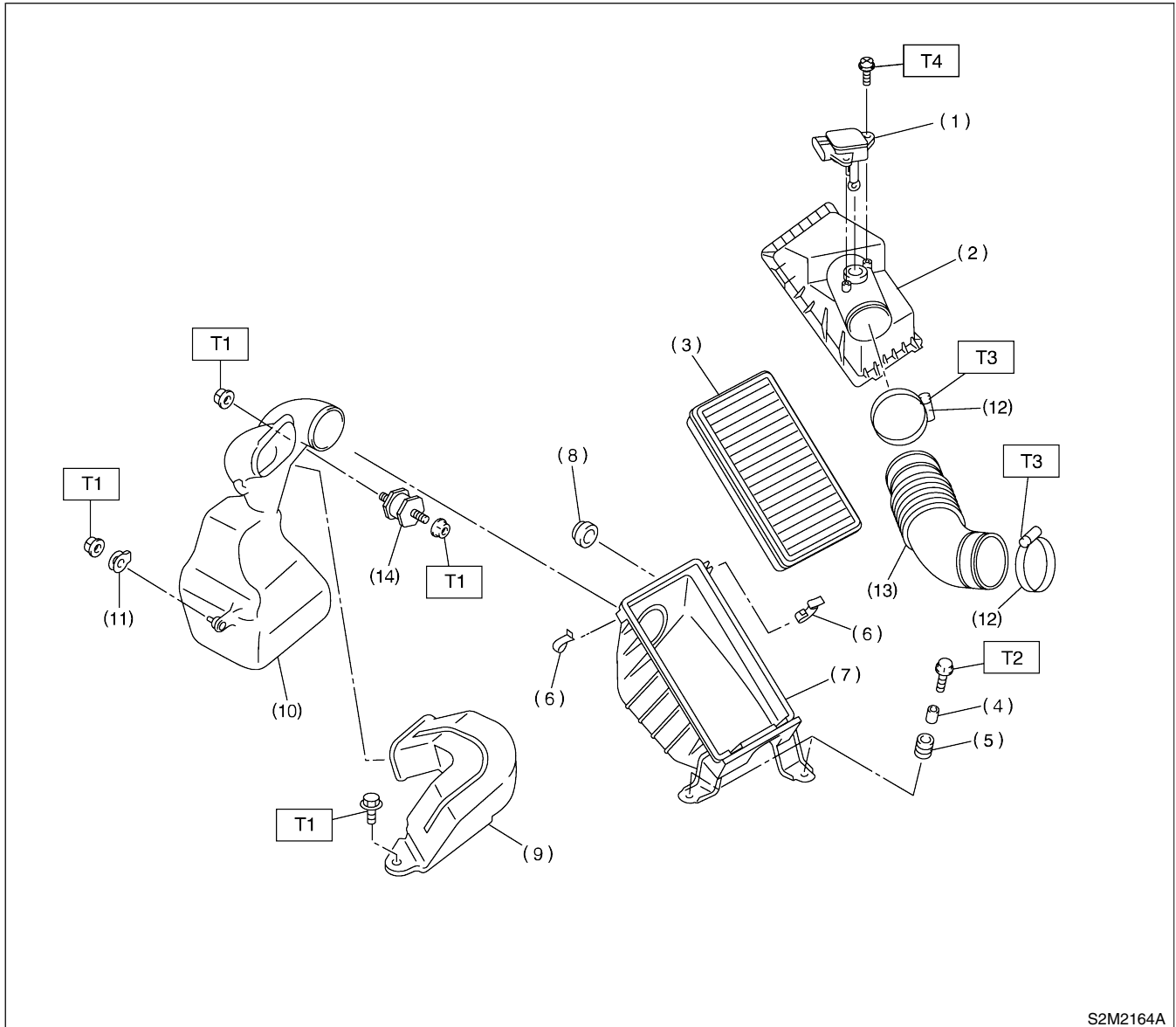
S184001

A: COMPONENT

S184001A05

1. AIR CLEANER

S184001A0501



- | | |
|-----------------------------|-----------------------------|
| (1) Mass air flow sensor | (8) Cushion rubber |
| (2) Air cleaner upper cover | (9) Air intake duct |
| (3) Air cleaner element | (10) Resonator chamber ASSY |
| (4) Spacer | (11) Cushion rubber |
| (5) Bushing | (12) Clamp |
| (6) Clip | (13) Air intake boot |
| (7) Air cleaner lower case | (14) Cushion |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 7.5 (0.76, 5.5)

T2: 33 (3.4, 25)

T3: 2.5 (0.25, 1.8)

T4: 1.7 (0.17, 1.2)

IN(DOHC TURBO)-2

2. INTAKE DUCT S184001A0502

en0903



EN0903

- (1) Clamp

(2) Air by-pass hose A

(3) Air by-pass hose B
- (4) Air by-pass hose C

(5) Air by-pass hose D

(6) Intake duct

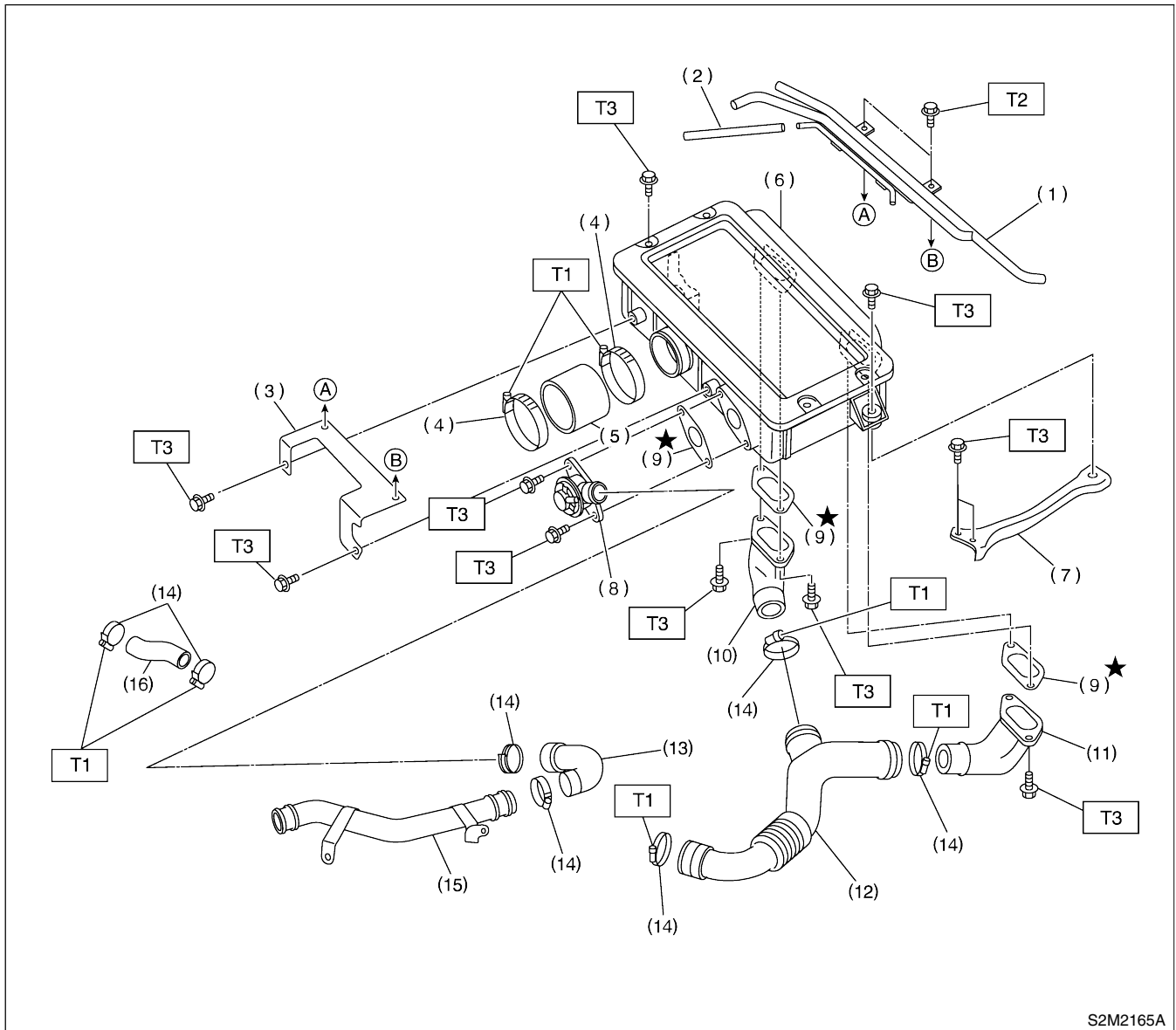
Tightening torque: N·m (kgf-m, ft-lb)

T1: 15.7 (1.6, 11.6)

GENERAL DESCRIPTION

Intake (Induction)

3. INTER COOLER S184001A0503



- | | |
|-------------------------|-------------------------|
| (1) PVC pipe | (9) Gasket |
| (2) Air by-pass hose C | (10) Intercooler duct A |
| (3) Stay | (11) Intercooler duct B |
| (4) Clamp | (12) Intercooler duct C |
| (5) Air intake hose | (13) Air by-pass hose A |
| (6) Intercooler | (14) Clamp |
| (7) Intercooler bracket | (15) Air by-pass pipe |
| (8) Air by-pass valve | (16) Air by-pass hose B |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 3 (0.22, 1.6)

T2: 6.4 (0.65, 4.7)

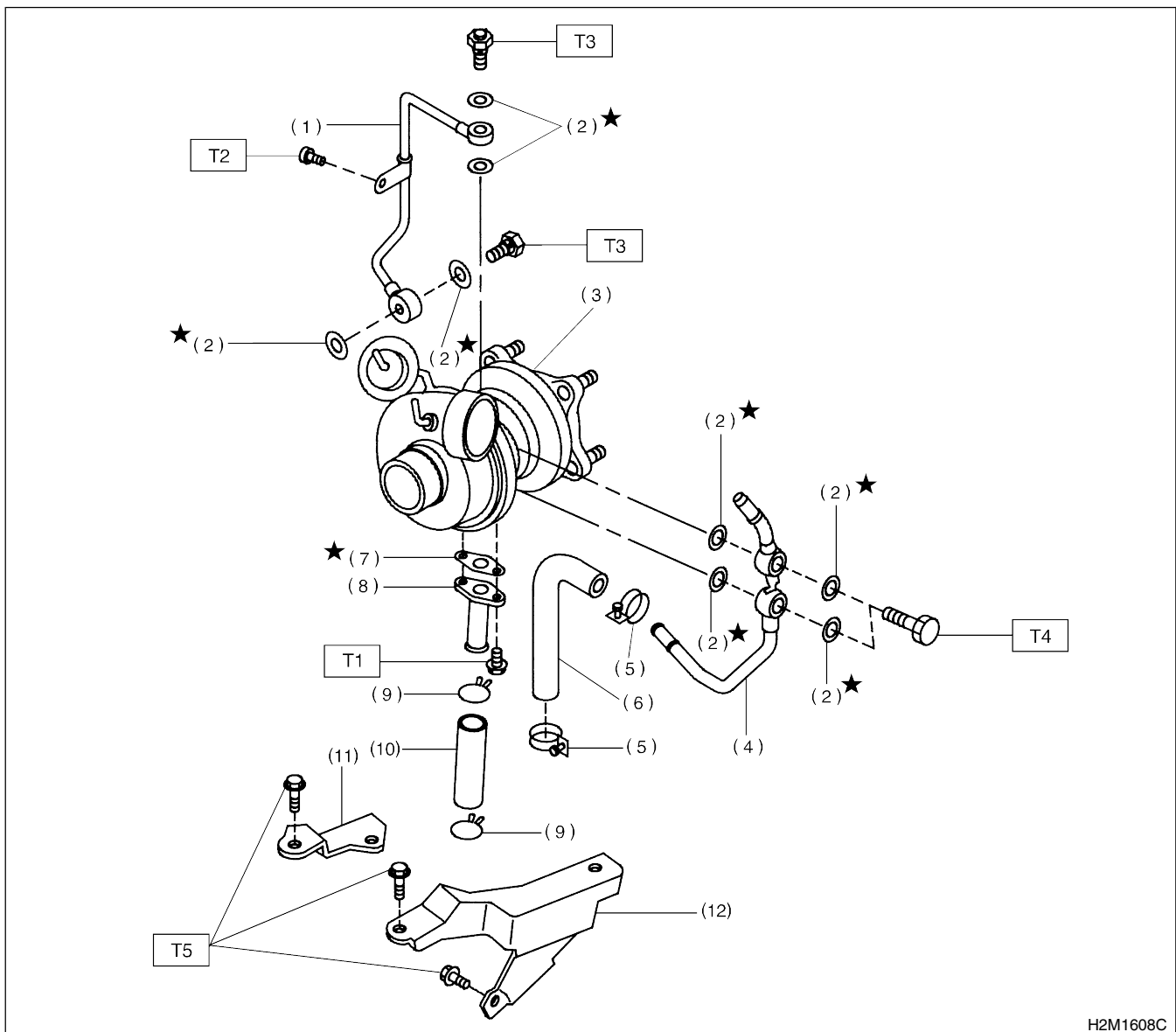
T3: 16 (1.6, 11.7)

IN(DOHC TURBO)-4

GENERAL DESCRIPTION

Intake (Induction)

4. TURBOCHARGER S184001A0504



- | | |
|-------------------------|------------------------------|
| (1) Oil inlet pipe | (8) Oil outlet pipe |
| (2) Metal gasket | (9) Clip |
| (3) Turbocharger | (10) Oil outlet hose |
| (4) Water pipe | (11) Turbocharger bracket RH |
| (5) Clamp | (12) Turbocharger bracket LH |
| (6) Engine coolant hose | |
| (7) Gasket | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 4.4 (0.45, 3.3)

T2: 4.9 (0.50, 3.6)

T3: 29 (3.0, 21.7)

T4: 30 (3.1, 22.4)

T5: 33 (3.4, 24.6)

IN(DOHC TURBO)-5

GENERAL DESCRIPTION

Intake (Induction)

B: CAUTION S184001A03

- 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 safety stands at the specified points.
- Before disconnecting electrical connectors of sensor or units, be sure to disconnect negative terminal from battery.

IN(DOHC TURBO)-6

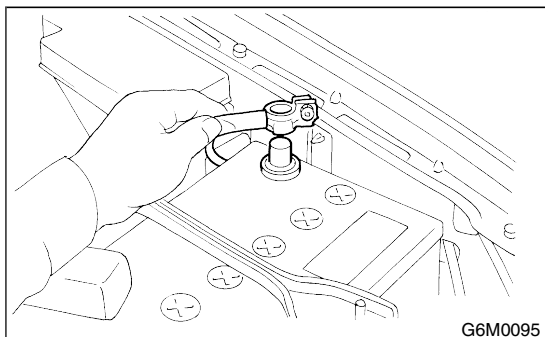
AIR CLEANER

Intake (Induction)

2. Air Cleaner S184087

A: REMOVAL S184087A18

- 1) Disconnect connector battery ground cable.



- 2) Disconnect connector from mass air flow sensor.



- 3) Loosen clamp (A) which connects air intake boot to intake duct.

- 4) Remove the two clips (B) from air cleaner upper cover.



- 5) Remove air cleaner upper cover.
6) Remove air cleaner element.

- 7) Remove air cleaner lower case.

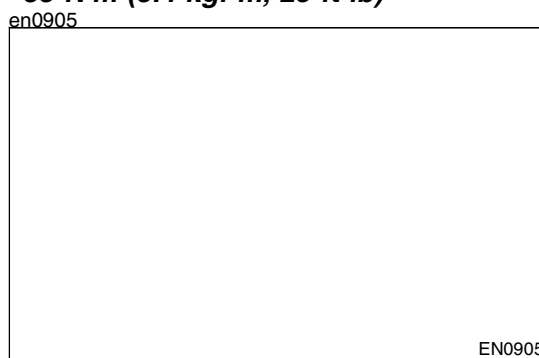


B: INSTALLATION S184087A11

Install in the reverse order of removal.

Tightening torque:

33 N·m (3.4 kgf-m, 25 ft-lb)



CAUTION:

Before installing air cleaner upper cover, align holes with protruding portions of air cleaner lower case, then secure upper cover to lower case.



C: INSPECTION S184087A10

Replace if excessively damaged or dirty.

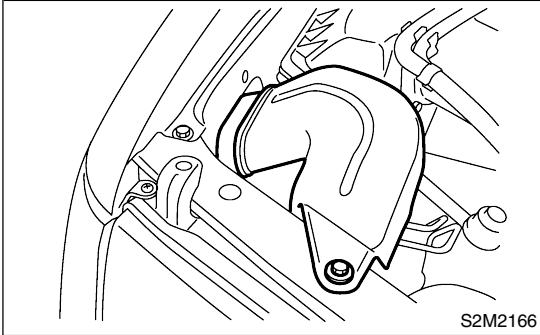
AIR INTAKE DUCT

Intake (Induction)

3. Air Intake Duct S184566

A: REMOVAL S184566A18

Remove bolts which install air intake duct on the front side of body.



B: INSTALLATION S184566A11

Install in the reverse order of removal.

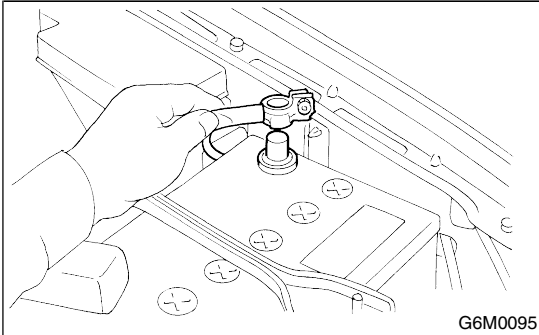
C: INSPECTION S184566A10

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

4. Intake Duct S184760

A: REMOVAL S184760A18

- 1) Disconnect battery ground cable.



- 2) Remove intake manifold. <Ref. to FU(DOHC TURBO)-15, REMOVAL, Intake Manifold.>
- 3) Remove sensor, engine harness, and fuel pipe attached to the intake manifold. <Ref. to FU(DOHC TURBO)-21, DISASSEMBLY, Intake Manifold.>
- 4) Remove intake duct from intake manifold.



B: INSTALLATION S184760A11

Install in the reverse order of removal.

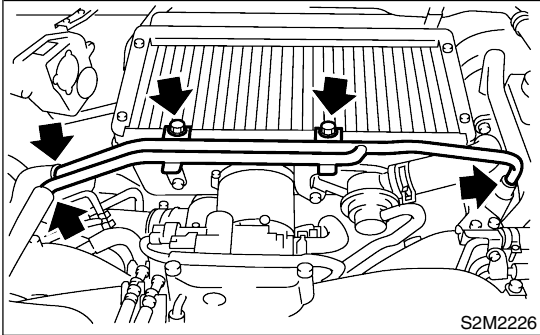
INTERCOOLER

Intake (Induction)

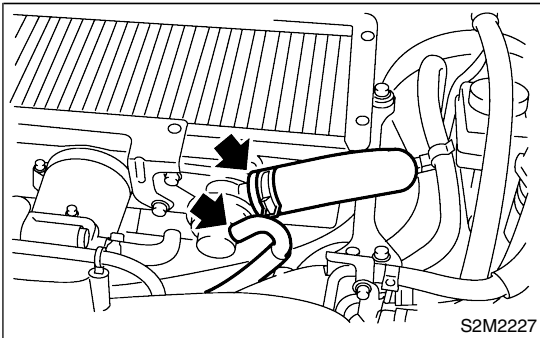
5. Intercooler S184761

A: REMOVAL S184761A18

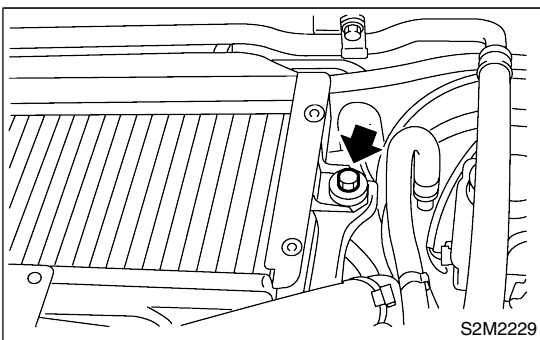
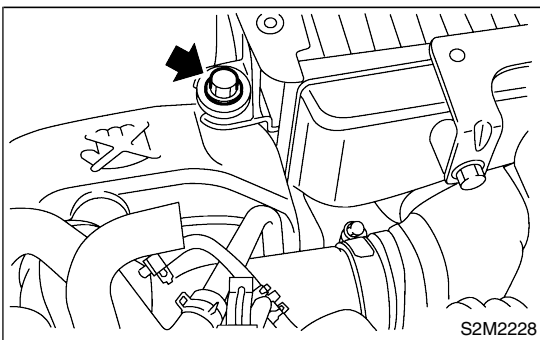
1) Remove air by-pass hoses from intercooler.



2) Loosen clamp, and remove hoses from air by-pass valve.

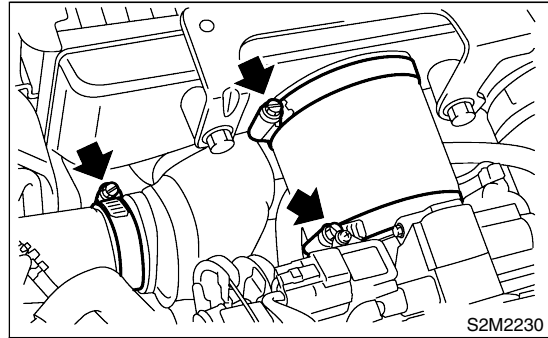


3) Remove bolts which secure intercooler to bracket.



4) Separate intercooler air duct from turbocharger.

5) Separate intercooler from throttle body.

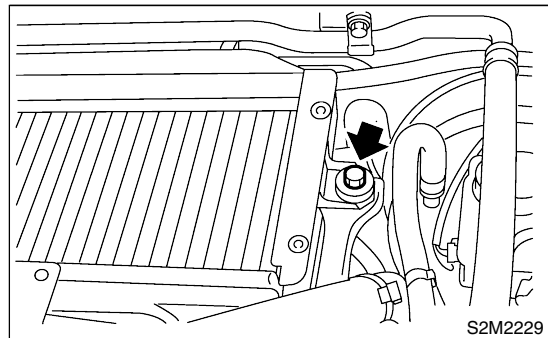
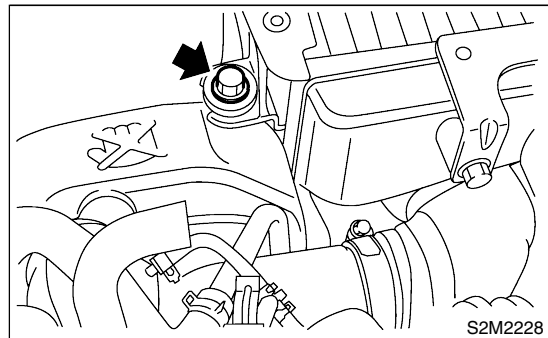


B: INSTALLATION S184761A11

Install in the reverse order of removal.

Tightening torque:

16 N·m (1.6 kgf-m, 11.7 ft-lb)



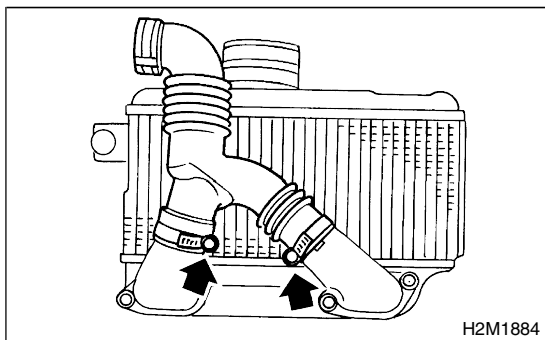
IN(DOHC TURBO)-10

INTERCOOLER

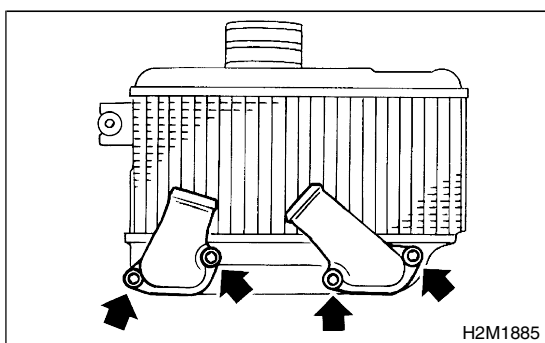
Intake (Induction)

C: DISASSEMBLY S184761A06

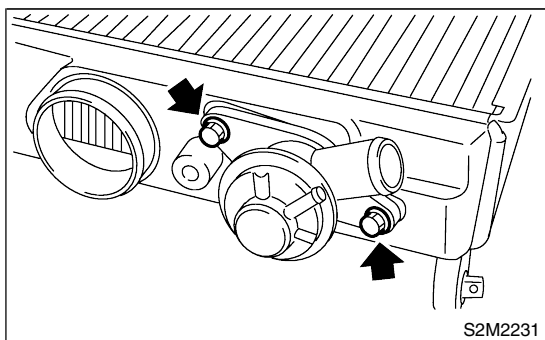
- 1) Loosen clamps, then remove intercooler duct.



- 2) Remove intercooler ducts from intercooler.



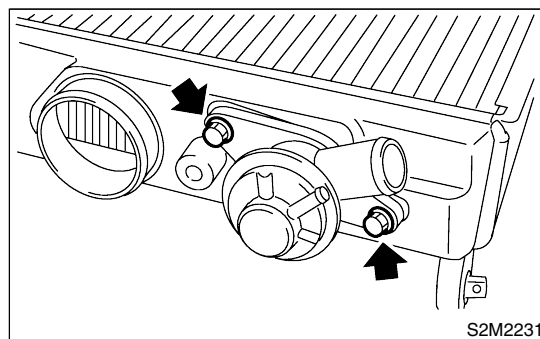
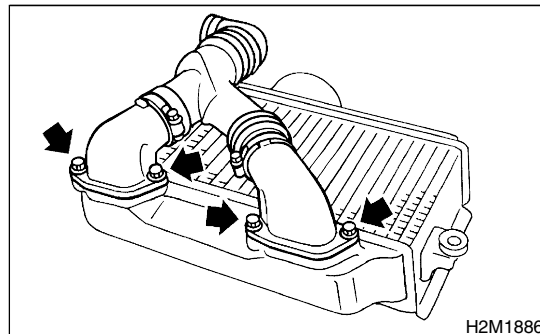
- 3) Remove air by-pass valve.



D: ASSEMBLY S184761A02

Assemble in the reverse order of disassembly.

Tightening torque:
16 N·m (1.6 kgf-m, 11.7 ft-lb)



TURBOCHARGER

Intake (Induction)

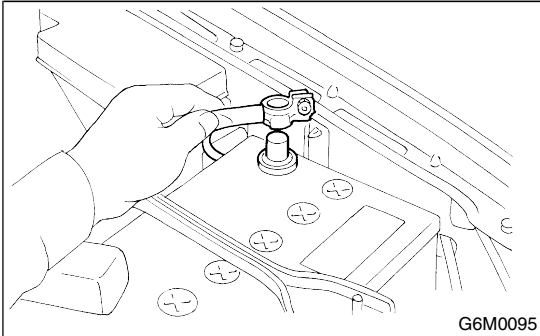
6. Turbocharger

S184762

A: REMOVAL

S184762A18

- 1) Set the vehicle on the lift.
- 2) Disconnect battery ground cable.



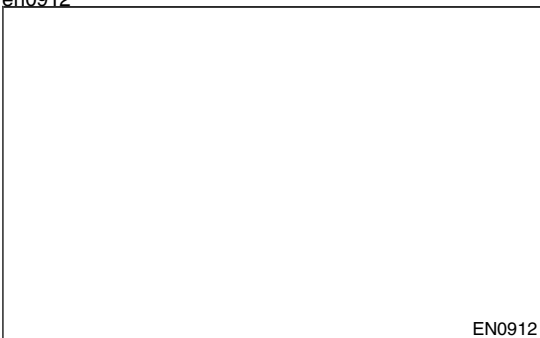
- 3) Remove center exhaust pipe. <Ref. to EX(DOHC TURBO)-9, REMOVAL, Center Exhaust Pipe.>
- 4) Lower the vehicle.
- 5) Separate turbocharger joint pipe from turbocharger.

en0911

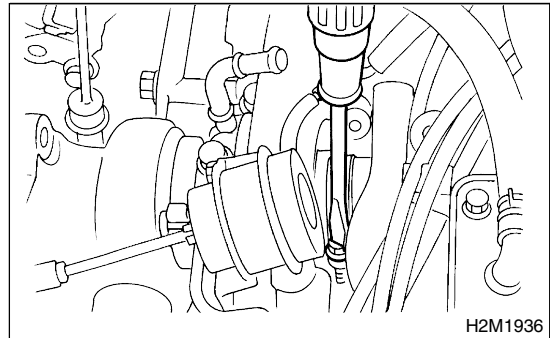


- 6) Disconnect engine coolant hose which is connected to coolant filler tank.

en0912



- 7) Loosen clamp which secures turbocharger to air inlet duct.

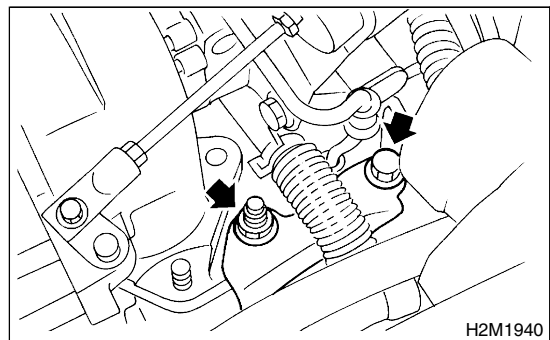


- 8) Remove bolt which secures bracket of oil pipe to turbocharger.
- 9) Remove oil pipe from turbocharger.

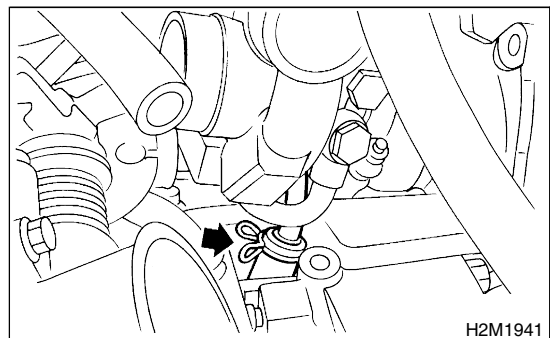
en0913



- 10) Remove turbocharger bracket.



- 11) Disconnect oil outlet hose from pipe.



- 12) Take out turbocharger from engine compartment.

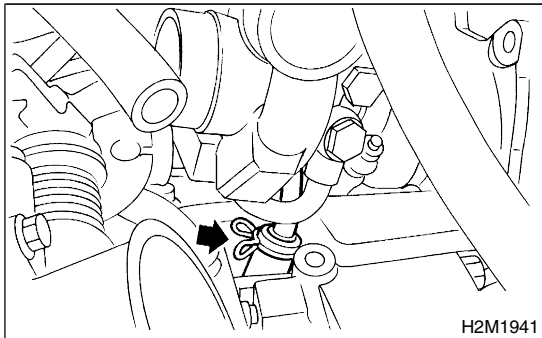
TURBOCHARGER

Intake (Induction)

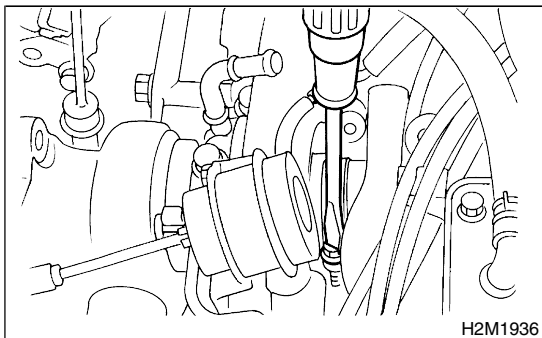
B: INSTALLATION

S184762A11

- 1) Connect oil outlet hose to outlet pipe.

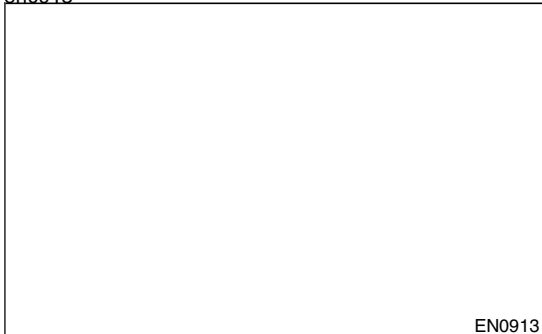


- 2) Install turbocharger to air intake duct.



- 3) Install oil pipe to turbocharger.

en0913



- 4) Install joint pipe to turbocharger.

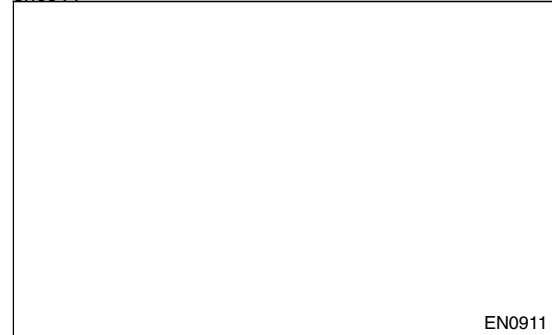
CAUTION:

Replace gasket with a new one.

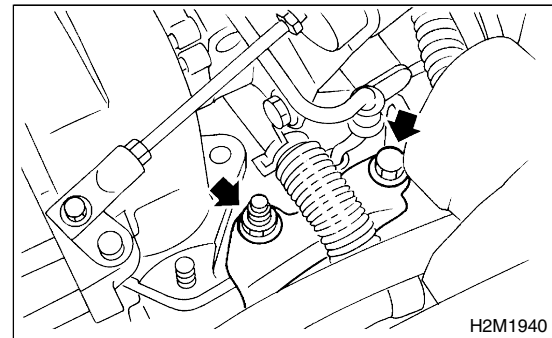
Tightening torque:

30 N·m (3.1 kgf-m, 22.4 ft-lb)

en0911



- 5) Install turbocharger bracket.



- 6) Connect engine coolant hose which is connected to coolant filler tank.

en0912



- 7) Lift-up the vehicle.

- 8) Install center exhaust pipe. <Ref. to EX(DOHC TURBO)-10, INSTALLATION, Center Exhaust Pipe.>

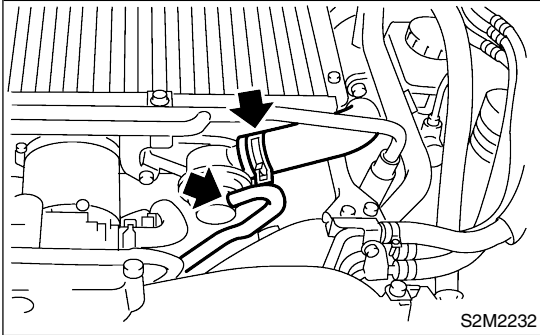
AIR BY-PASS VALVE

Intake (Induction)

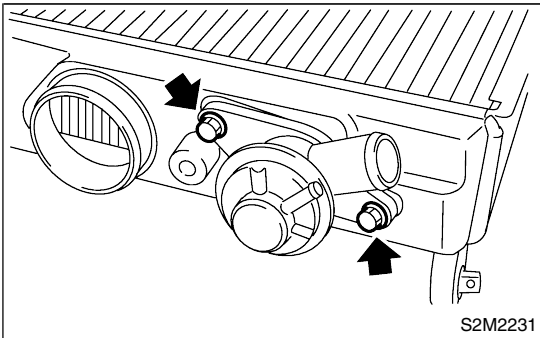
7. Air By-pass Valve S184016

A: REMOVAL S184016A18

- 1) Disconnect air by-pass hoses from air by-pass valve.



- 2) Remove air by-pass valve from intercooler.



B: INSTALLATION S184016A11

Install in the reverse order of removal.

Tightening torque:

16 N·m (1.6 kgf-m, 11.7 ft-lb)

