

ENGINE 2 SECTION

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(SOHCw/oOBD) |
| EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES) | EC(SOHCw/oOBD) |
| EXHAUST | EX(SOHCw/oOBD) |
| IGNITION | IG(SOHCw/oOBD) |
| ENGINE(DIAGNOSTICS) | EN(SOHCw/oOBD) |
| FUEL INJECTION (FUEL SYSTEMS) | FU(DOHC TURBO) |
| EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES) | EC(DOHC TURBO) |
| INTAKE (INDUCTION) | IN(DOHC TURBO) |
| MECHANICAL | ME(DOHC TURBO) |
| EXHAUST | EX(DOHC TURBO) |
| IGNITION | IG(DOHC TURBO) |
| ENGINE (DIAGNOSTICS) | EN(DOHC TURBO) |

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES) *EC(DOHC TURBO)*

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GENERAL DESCRIPTION

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

1. General Description

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

FRONT CATALYTIC CONVERTER

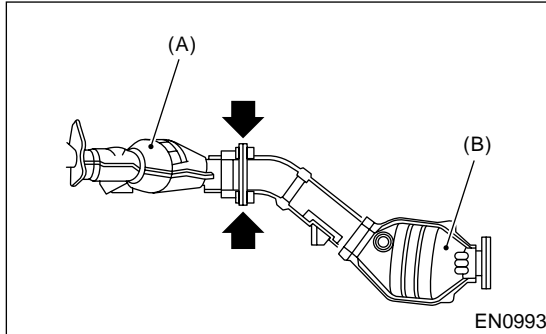
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

2. Front Catalytic Converter

A: REMOVAL

1) Remove center exhaust pipe. <Ref. to EX(DOHC TURBO)-8, REMOVAL, Center Exhaust Pipe.>

2) Separate front catalytic converter (A) from rear catalytic converter (B).



B: INSTALLATION

NOTE:

Replace gaskets with new ones.

Install in the reverse order of removal.

C: INSPECTION

1) Make sure there are no exhaust leaks from connections and welds.

2) Make sure there are no holes or rusting.

REAR CATALYTIC CONVERTER

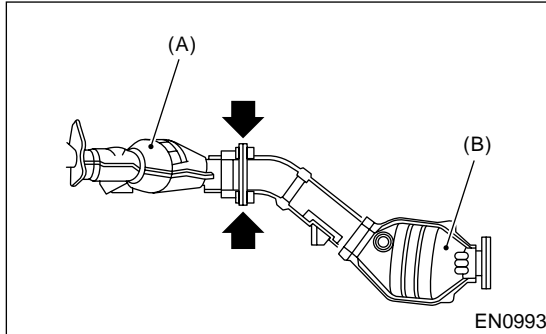
EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

3. Rear Catalytic Converter

A: REMOVAL

1) Remove center exhaust pipe. <Ref. to EX(DOHC TURBO)-8, REMOVAL, Center Exhaust Pipe.>

2) Separate rear catalytic converter (B) from front catalytic converter (A).



B: INSTALLATION

NOTE:

Replace gaskets with new ones.

Install in the reverse order of removal.

C: INSPECTION

1) Make sure there are no exhaust leaks from connections and welds.

2) Make sure there are no holes or rusting.

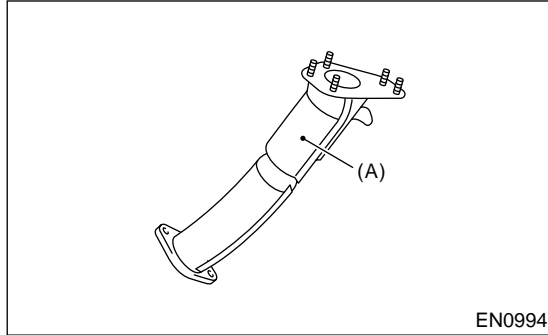
PRECATALYTIC CONVERTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

4. Precatalytic Converter

A: REMOVAL

Precatalytic converter (A) is built in joint pipe. Refer to removal of joint pipe for removal procedure. <Ref. to EX(DOHC TURBO)-12, REMOVAL, Joint Pipe.>



B: INSTALLATION

Precatalytic converter is built in joint pipe. Refer to installation of joint pipe for installation procedure. <Ref. to EX(DOHC TURBO)-12, INSTALLATION, Joint Pipe.>

C: INSPECTION

- 1) Make sure there are no exhaust leaks from connections and welds.
- 2) Make sure there are no holes or rusting.

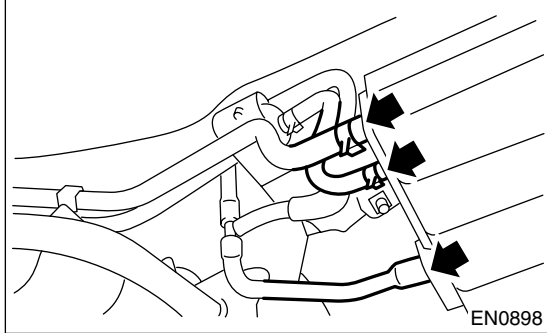
CANISTER

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

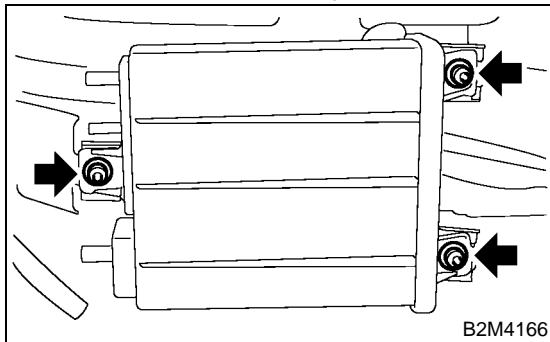
5. Canister

A: REMOVAL

- 1) Lift-up the vehicle.
- 2) Loosen two clamps which hold two canister hoses, and disconnect evaporation three hoses from canister.



- 3) Remove canister from body.

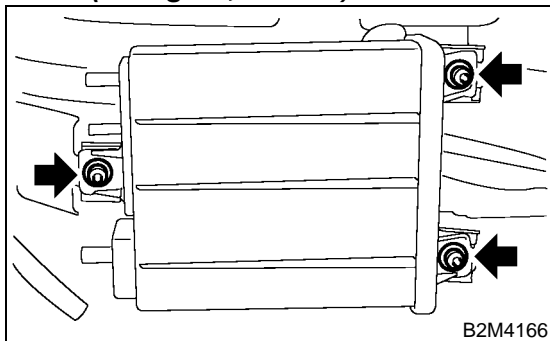


B: INSTALLATION

- 1) Install in the reverse order of removal.

Tightening torque:

23 N·m (2.3 kgf·m, 17 ft·lb)



C: INSPECTION

Make sure the canister and canister hoses are not cracked or loose.

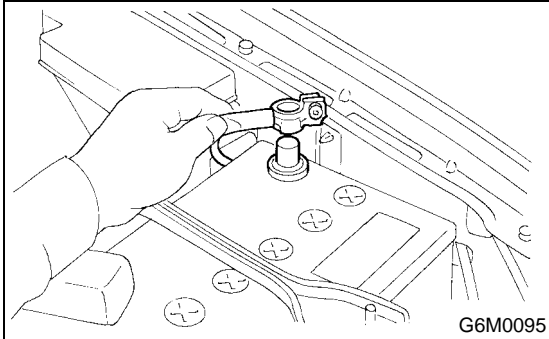
PURGE CONTROL SOLENOID VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

6. Purge Control Solenoid Valve

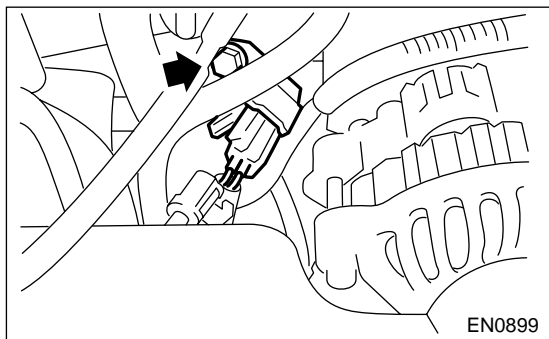
A: REMOVAL

1) Disconnect battery ground cable.



2) Disconnect connector and hoses from purge control solenoid valve.

3) Remove bolt which installs purge control solenoid valve onto intake manifold.

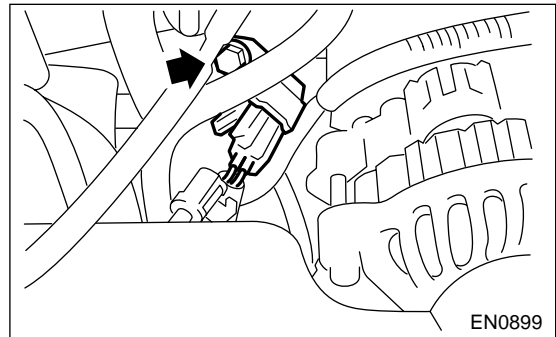


B: INSTALLATION

Install in the reverse order of removal.

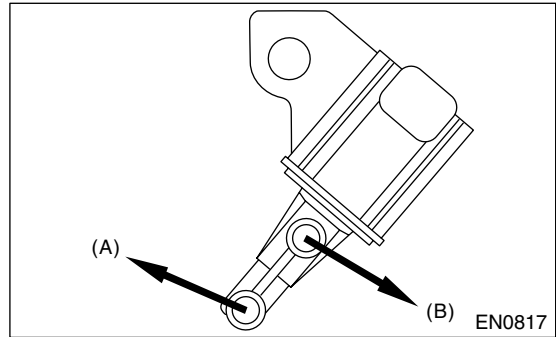
Tightening torque:

16 N·m (1.6 kgf-m, 11.6 ft-lb)



CAUTION:

Carefully connect the evaporation hoses.



(A) To intake manifold

(B) To purge valve

C: INSPECTION

Make sure hoses are not cracked or loose.

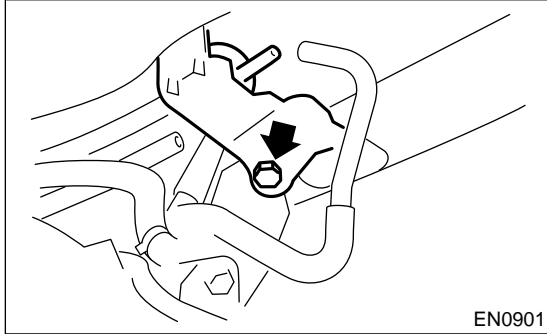
TWO-WAY VALVE

EMISSION CONTROL (AUX. EMISSION CONTROL DEVICES)

7. Two-way Valve

A: REMOVAL

- 1) Lift-up the vehicle.
- 2) Remove canister from body. <Ref. to EC(DOHC TURBO)-6, REMOVAL, Canister.>
- 3) Remove two-way valve with bracket as a single unit from body.



- 4) Remove two-way valve from bracket.

B: INSTALLTION

Install in the reverse order of removal.

C: INSPECTION

Make sure that hoses are not cracked or loose.