

BODY 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.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)	AC
HVAC SYSTEM (AUTO A/C) (DIAGNOSTIC)	AC
AIRBAG SYSTEM	AB
AIRBAG SYSTEM (DIAGNOSTIC)	AB
SEAT BELT SYSTEM	SB
LIGHTING SYSTEM	LI
WIPER AND WASHER SYSTEM	WW
ENTERTAINMENT	ET
COMMUNICATION SYSTEM	COM
GLASS/WINDOW/MIRROR	GW
BODY STRUCTURE	BS
INSTRUMENTATION/DRIVER INFO	IDI
SEAT	SE
SECURITY AND LOCK	SL
SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)	SR
EXTERIOR/INTERIOR TRIM	EI
EXTERIOR BODY PANEL	EB

BODY SECTION

CRUISE CONTROL SYSTEM CC

CRUISE CONTROL SYSTEM (DIAGNOSTIC) CC(H4SO)

CRUISE CONTROL SYSTEM (DIAGNOSTIC) CC(H4DOTC)

CRUISE CONTROL SYSTEM (DIAGNOSTIC) CC(H4DOTC 2.5)

IMMOBILIZER (DIAGNOSTIC) IM

EXTERIOR BODY PANEL

EB

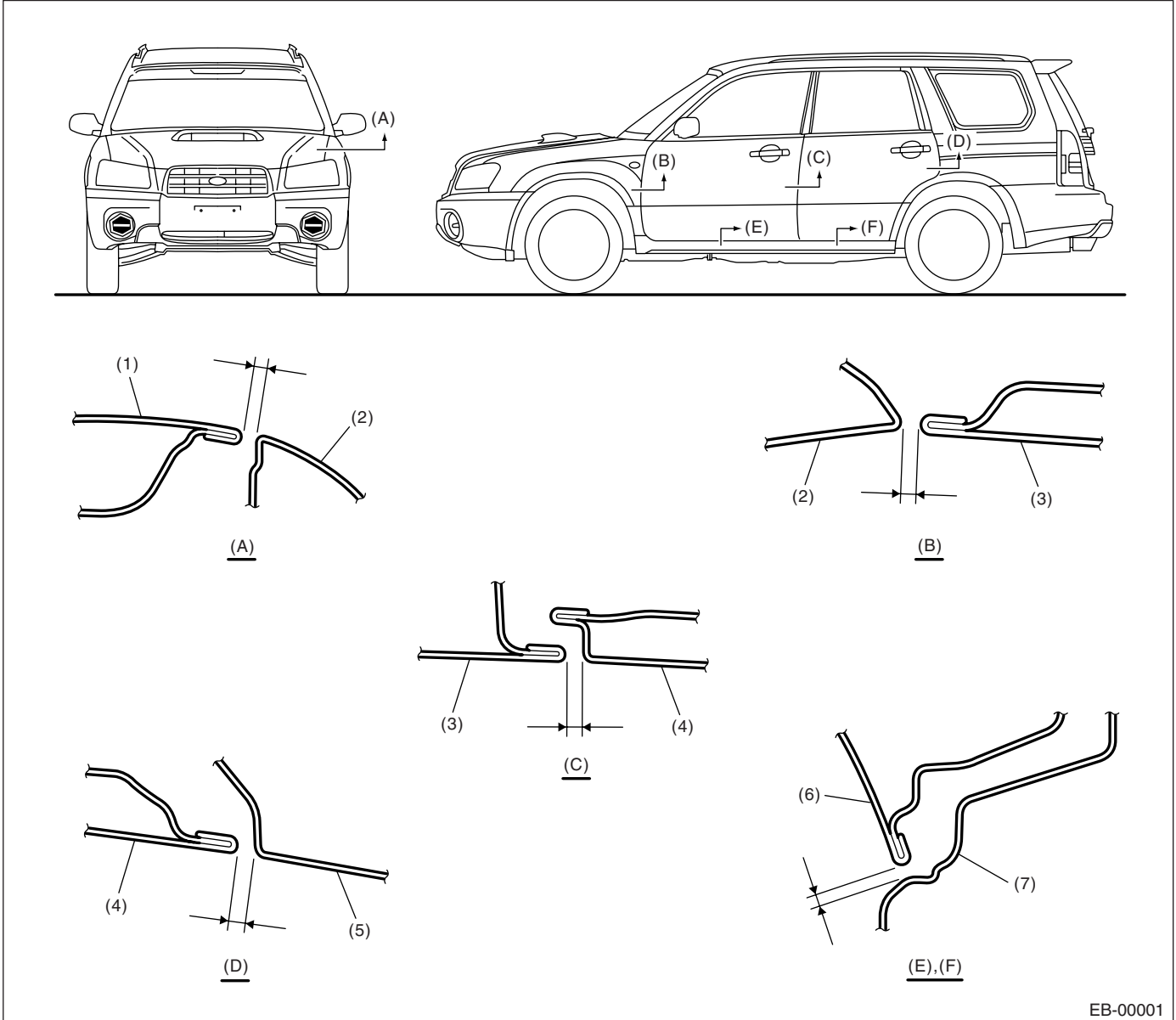
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General Description

EXTERIOR BODY PANEL

1. General Description

A: SPECIFICATION



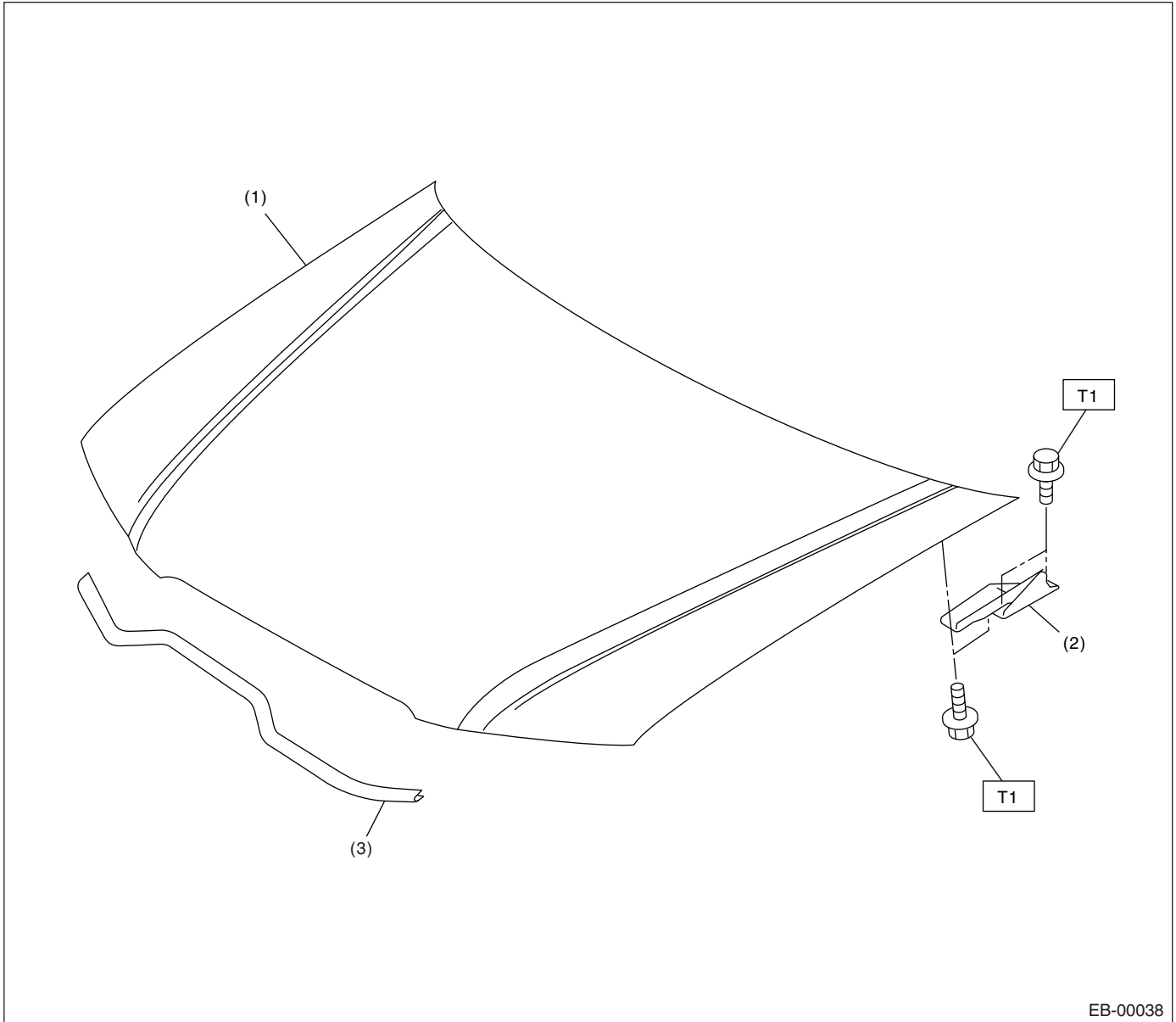
EB-00001

- | | | |
|------------------------|------------------------|---------------|
| (1) Front hood panel | (4) Rear door panel | (7) Side sill |
| (2) Front fender panel | (5) Rear quarter panel | |
| (3) Front door panel | (6) Door panel | |

Section	Part	Specification
(A)	Front hood panel to Front fender panel	3.5±1.0 mm (0.14±0.04 in)
(B)	Front fender panel to Front door panel	4.7±1.0 mm (0.19±0.04 in)
(C)	Front door panel to Rear door panel	5.0 mm (0.20 in)
(D)	Rear door panel to Rear quarter panel	4.6 mm (0.18 in)
(E), (F)	Door panel to Side sill	5.9 mm (0.23 in)

B: COMPONENT

1. FRONT HOOD



EB-00038

(1) Front hood
(2) Hinge

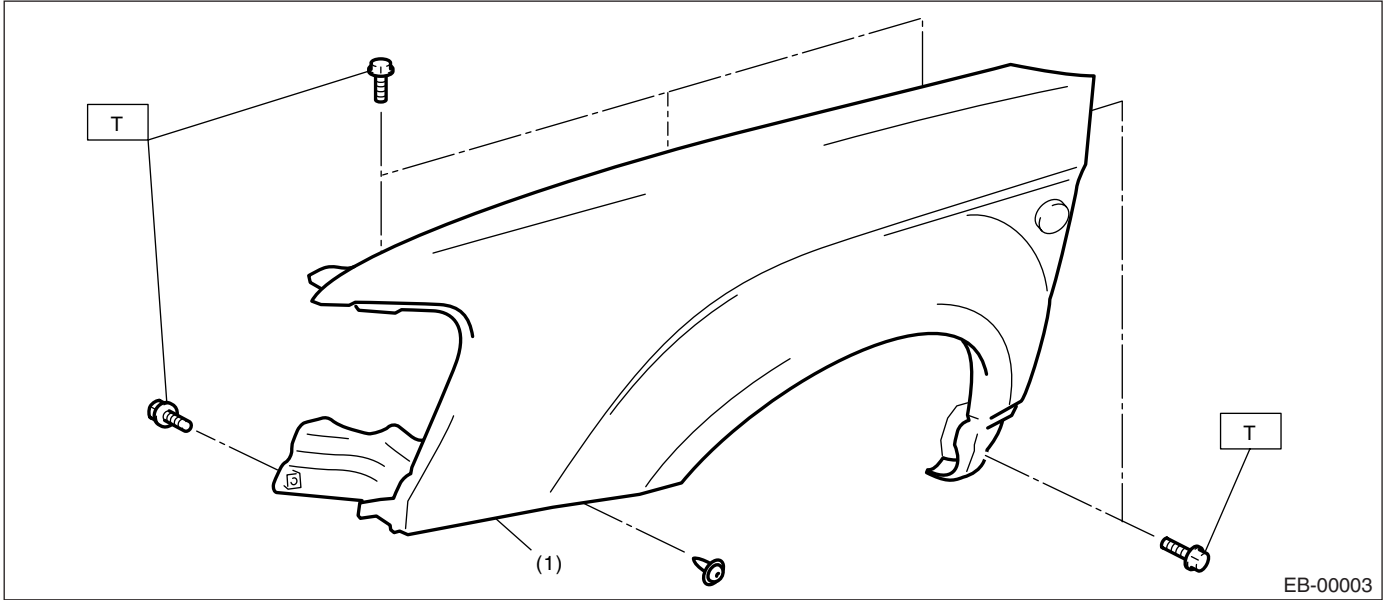
(3) Seal

Tightening torque: N·m (kgf·m, ft·lb)
T1: 24.5 (2.5, 18.1)

General Description

EXTERIOR BODY PANEL

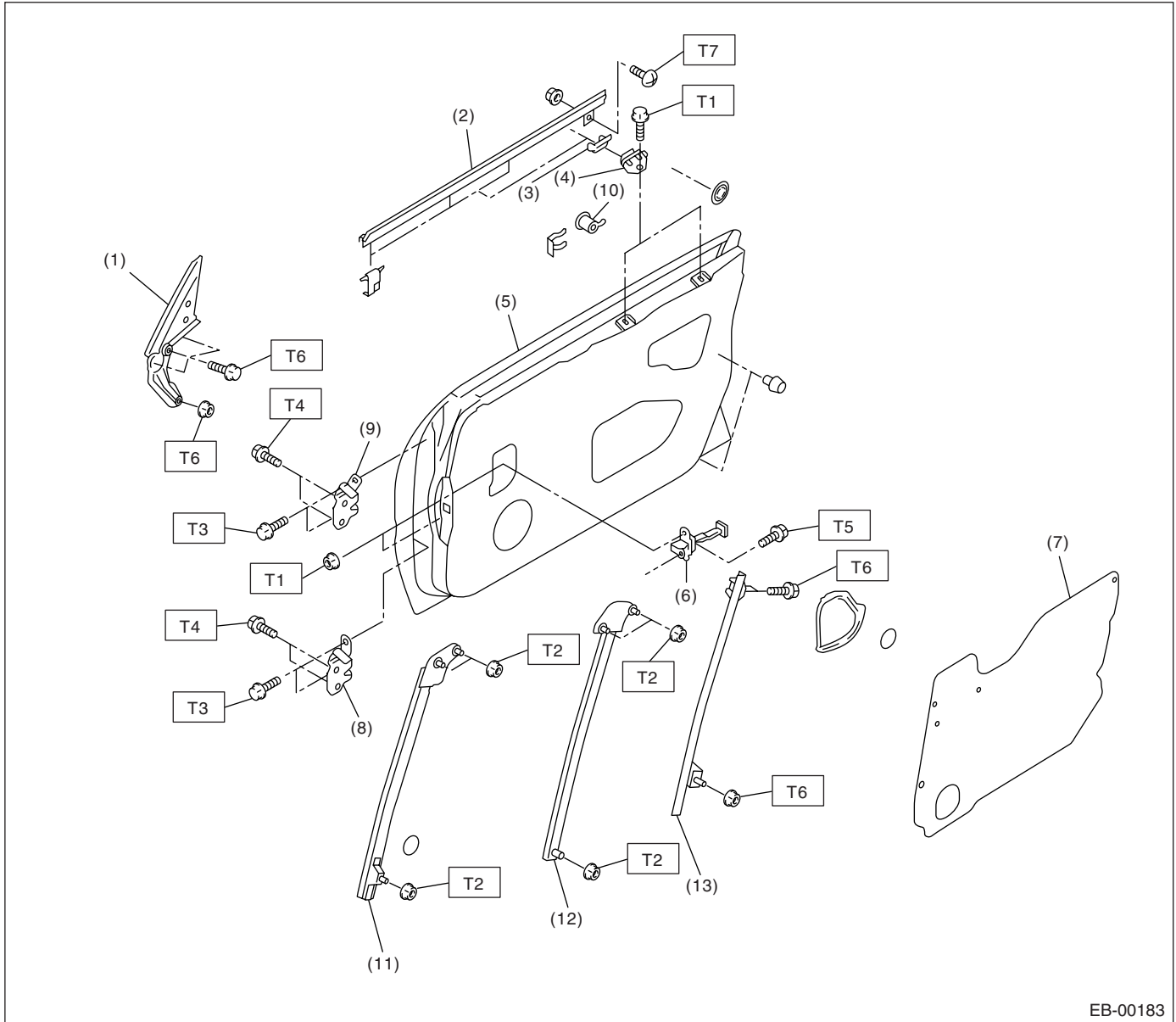
2. FRONT FENDER PANEL



(1) Front fender panel

Tightening torque: N·m (kgf·m, ft·lb)
T: 7.4 (0.75, 5.5)

3. FRONT DOOR PANEL



EB-00183

- | | |
|------------------------|--|
| (1) Gusset | (9) Upper hinge |
| (2) Weather strip | (10) Key cylinder (Driver's side only) |
| (3) Stabilizer (Outer) | (11) Front sash |
| (4) Stabilizer (Inner) | (12) Rear sash |
| (5) Door panel | (13) Guide rail |
| (6) Checker | |
| (7) Sealing cover | |
| (8) Lower hinge | |

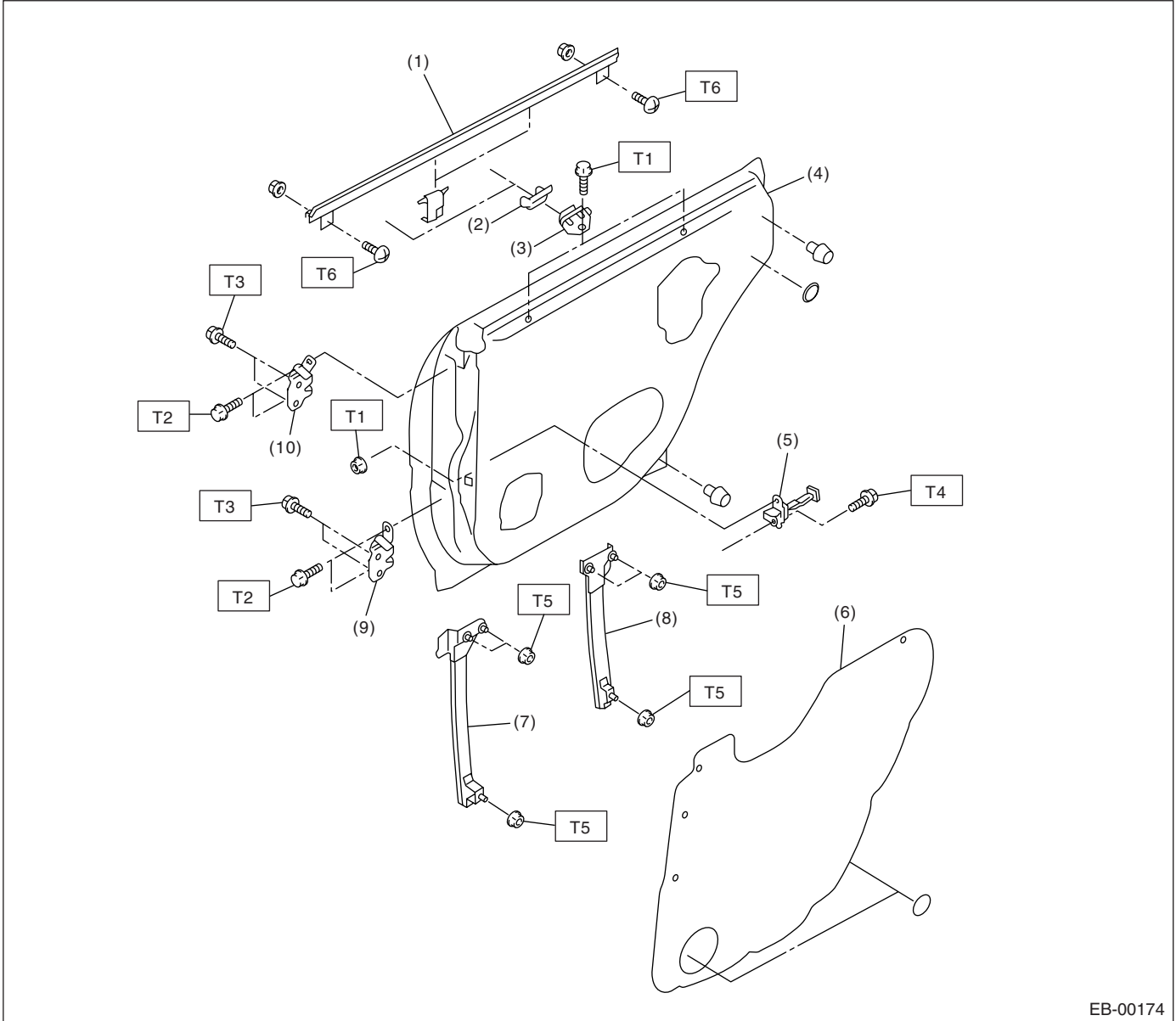
Tightening torque: N·m (kgf·m, ft·lb)

- T1: 7.5 (0.76, 5.5)**
T2: 14 (1.4, 10.3)
T3: 25 (2.5, 18)
T4: 30 (3.1, 22)
T5: 33 (3.4, 24)
T6: 6 (0.6, 4.4)
T7: 1.5 (0.15, 1.1)

General Description

EXTERIOR BODY PANEL

4. REAR DOOR PANEL



EB-00174

- | | |
|------------------------|------------------|
| (1) Weather strip | (8) Rear sash |
| (2) Stabilizer (Outer) | (9) Lower hinge |
| (3) Stabilizer (Inner) | (10) Upper hinge |
| (4) Door panel | |
| (5) Checker | |
| (6) Sealing cover | |
| (7) Front sash | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 7.5 (0.76, 5.5)

T2: 25 (2.5, 18)

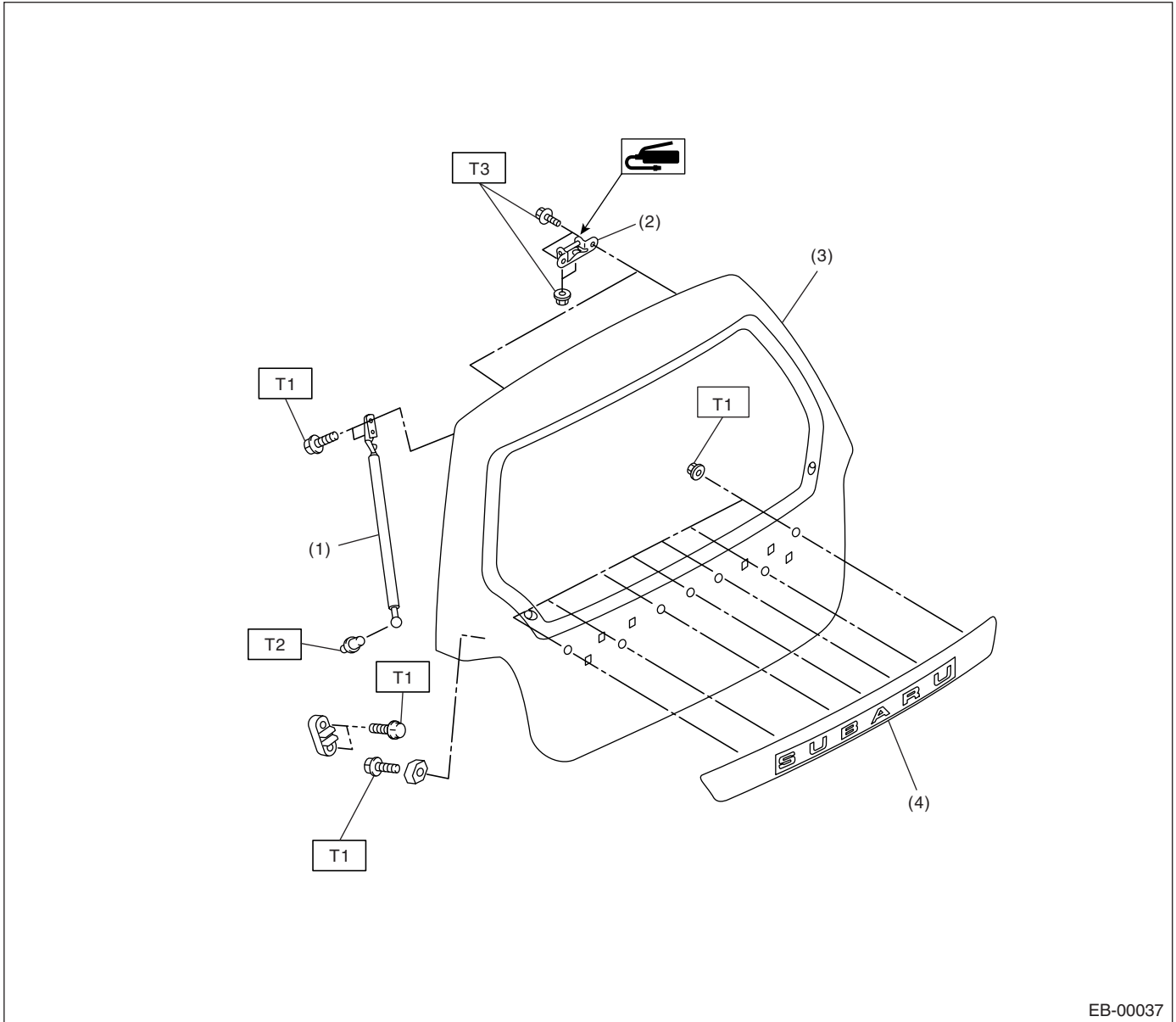
T3: 30 (3.1, 18)

T4: 33 (3.4, 24)

T5: 14 (1.4, 10.3)

T6: 1.5 (0.15, 1.1)

5. REAR GATE PANEL



EB-00037

- (1) Damper stay
- (2) Hinge

- (3) Rear gate
- (4) Rear gate garnish

Tightening torque: N·m (kgf·m, ft·lb)

T1: 7.5 (0.76, 5.5)

T2: 14 (1.4, 10.1)

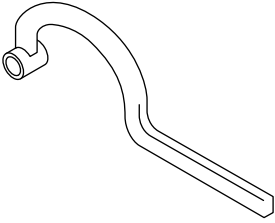
T3: 25 (2.5, 18.1)

General Description

EXTERIOR BODY PANEL

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-925610000</p>	925610000	WRENCH	Used for removing and installing door hinge.

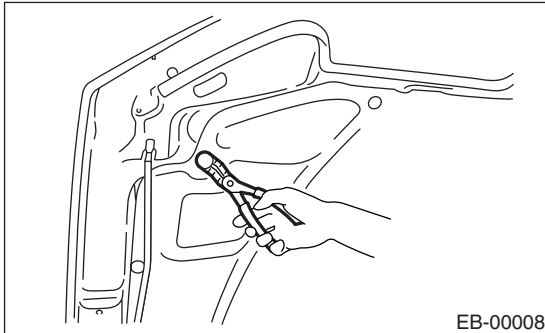
2. GENERAL TOOL

TOOL NAME	REMARKS
Support jack	Used for supporting door panel.

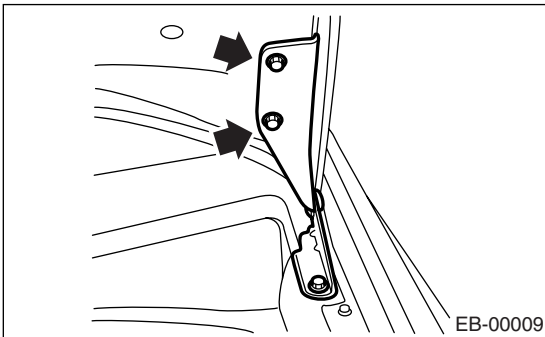
2. Front Hood Panel

A: REMOVAL

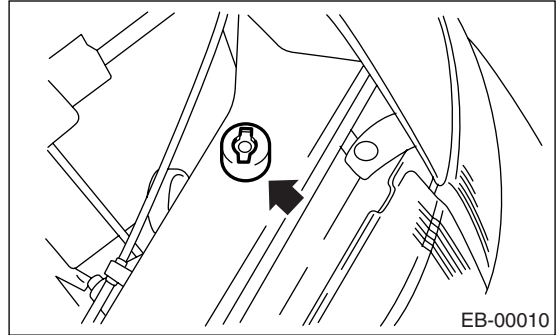
- 1) Open the front hood to remove washer nozzles.
- 2) Release the clips to remove front hood insulator.



- 3) Remove the bolts to remove front hood from hinges.



- 3) Rotate the hood buffer to adjust lateral height.



B: INSTALLATION

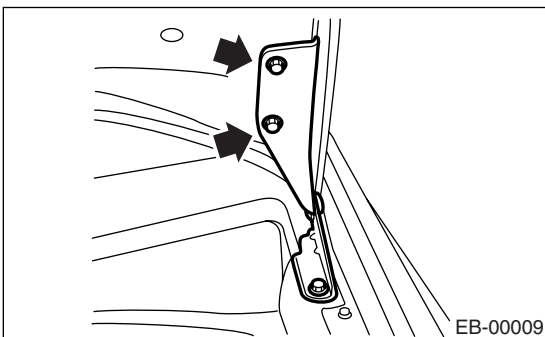
- 1) Install in the reverse order of removal.
- 2) Adjust the clearance between front hood panel and front fender panel. Clearance must be equal at both sides.

Tightening torque:

24.5 N·m (2.5 kgf·m, 18.1 ft·lb)

C: ADJUSTMENT

- 1) Use the hinge mounting holes to align the front hood longitudinally and laterally.

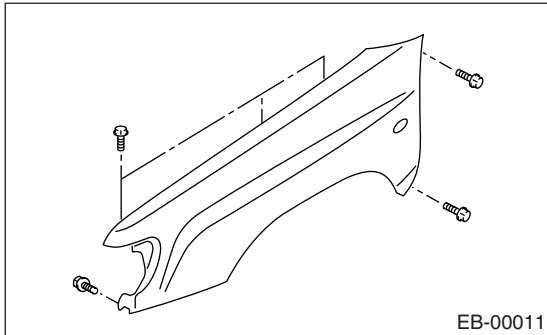


- 2) Adjust the height at front end of hood. <Ref. to SL-33, ADJUSTMENT, Front Hood Lock Assembly.>

3. Front Fender Panel

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the front bumper face. <Ref. to EI-23, REMOVAL, Front Bumper.>
- 3) Remove the mud guard. <Ref. to EI-31, REMOVAL, Mud Guard.>
- 4) Remove the side sill spoiler. <Ref. to EI-33, REMOVAL, Side Sill Spoiler.>
- 5) Remove the side protector. <Ref. to EI-34, REMOVAL, Side Garnish.>
- 6) Loosen the bolts and clip to remove front fender panel.



B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) When the front fender panel is installed, clearance between front fender panel and front hood panel must be equal.

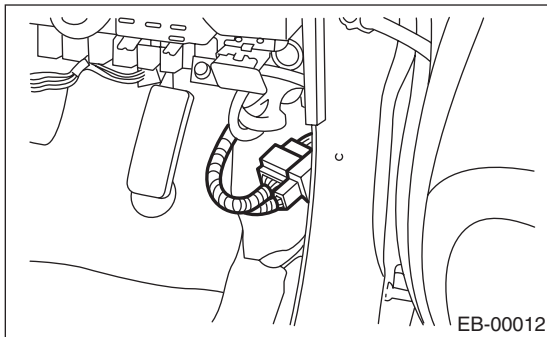
Tightening torque:

7.4 N·m (0.75 kgf-m, 5.5 ft-lb)

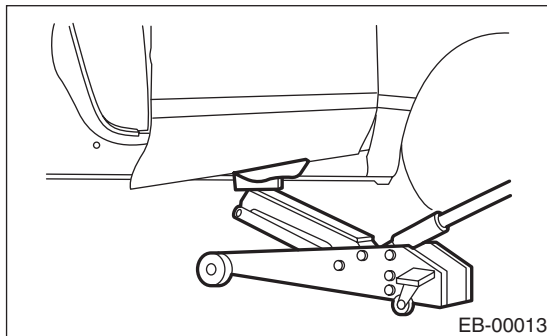
4. Front Door Panel

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-35, REMOVAL, Front Door Trim.>
- 3) Remove the outer mirror assembly. <Ref. to GW-12, REMOVAL, Outer Mirror Assembly.>
- 4) Remove the front sealing cover. <Ref. to EB-13, REMOVAL, Front Sealing Cover.>
- 5) Remove the front door glass. <Ref. to GW-17, REMOVAL, Front Door Glass.>
- 6) Remove the front door regulator and motor. <Ref. to GW-21, REMOVAL, Front Regulator and Motor Assembly.>
- 7) Remove the front door latch assembly. <Ref. to SL-24, REMOVAL, Front Door Latch Assembly.>
- 8) Remove the front outer handle. <Ref. to SL-23, REMOVAL, Front Outer Handle.>
- 9) Remove the front pillar lower trim to disconnect the connector from body harness.



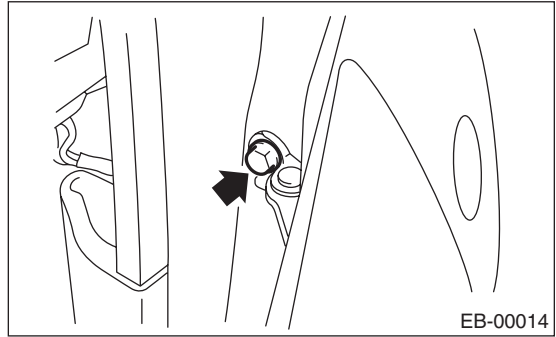
- 10) Put a wooden block on jack and place jack under door. Support the door with a jack to protect it from damage.



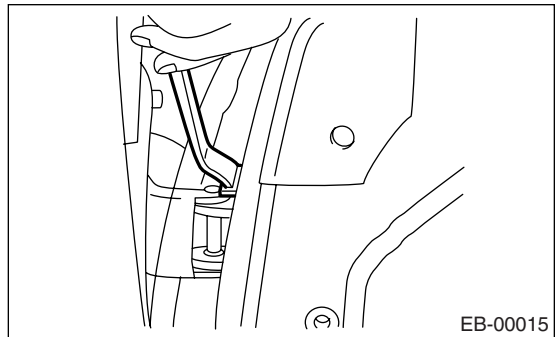
NOTE:

When supporting the door with a jack, be careful not to deform the door hinges while working.

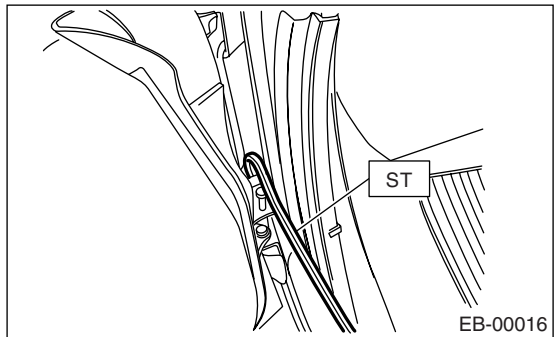
- 11) Remove the checker bolts.



- 12) Remove the door-side bolts for upper and lower hinges to remove the front door panel.



- 13) Using the ST, remove the body-side bolts for upper and lower hinges, and remove door hinges.
ST 925610000 WRENCH



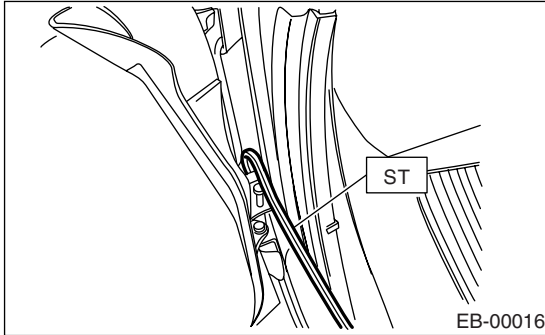
B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Apply grease to the sliding area of door hinges.
- 3) Refer to COMPONENT in General Description for tightening torque. <Ref. to EB-6, REAR DOOR PANEL, COMPONENT, General Description.>

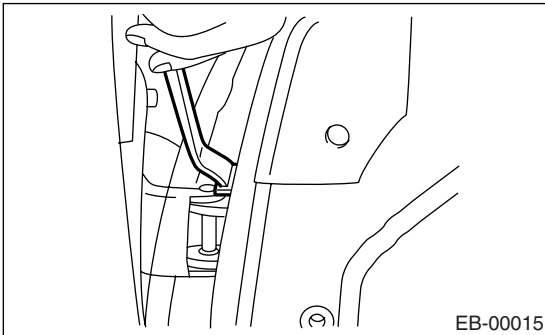
C: ADJUSTMENT

1) Using the ST, loosen the body-side bolts of upper and lower hinges to align the position of front door panel longitudinally and vertically.

ST 925610000 WRENCH



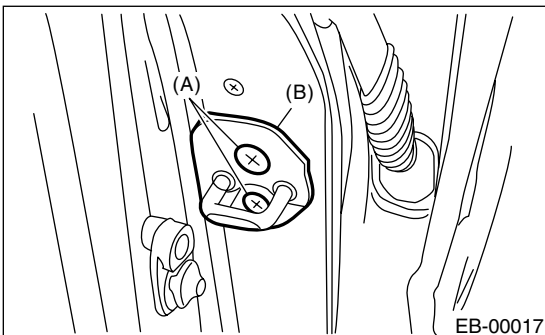
2) Loosen the door-side bolts of upper and lower hinges to align the position of front door panel vertically and laterally at the front end.



3) Loosen the screw (A) and lightly tap striker (B) using a plastic hammer to adjust striker to align the position of front door panel vertically and laterally at the rear end.

CAUTION:

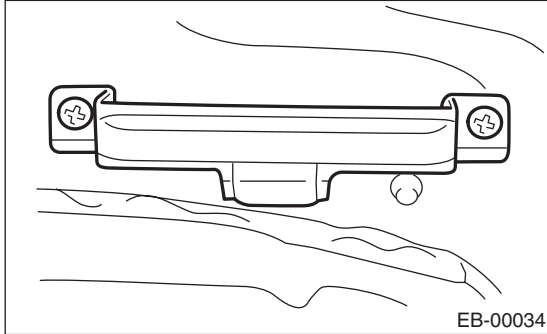
Do not use an impact wrench. Welding area on the striker nut plate is easily broken.



5. Front Sealing Cover

A: REMOVAL

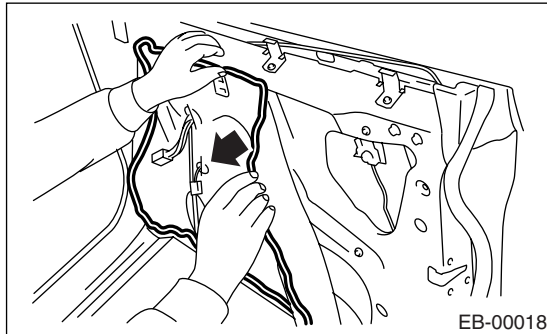
- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-35, REMOVAL, Front Door Trim.>
- 3) Remove the front speaker. <Ref. to ET-6, REMOVAL, Front Speaker.>
- 4) Remove the door trim bracket.



- 5) Remove the sealing cover.

NOTE:

- Carefully remove the butyl tape. Excessive force will easily break the cover.
- If the cover gets broken, replace it with a new one.



B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) When replacing the sealing cover, use butyl tape.
- 3) Press the butyl tape-applied area firmly to prevent any floating on surface.

Butyl tape:

3M8626 or equivalent

NOTE:

- Apply a uniform bead of butyl tape.
- Attach the sealing cover, keeping it from becoming wrinkled.
- Breaks in the bead will allow water leakage and contamination.

C: INSPECTION

If the sealing cover is damaged, replace it with a new one.

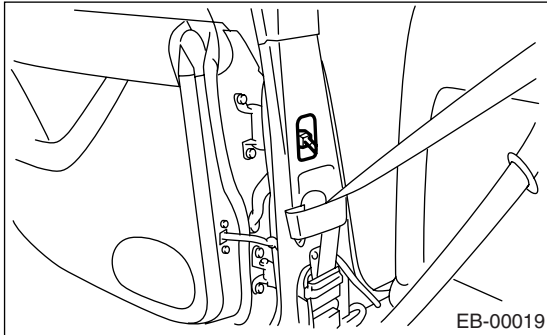
Rear Door Panel

EXTERIOR BODY PANEL

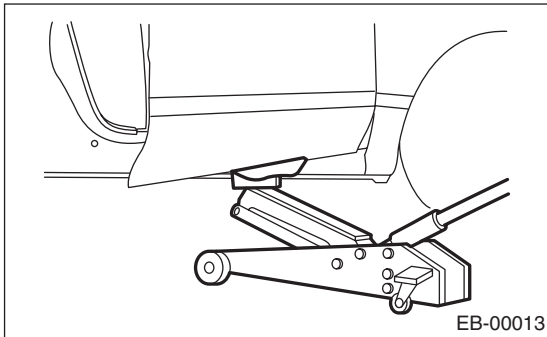
6. Rear Door Panel

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear door trim. <Ref. to EI-36, REMOVAL, Rear Door Trim.>
- 3) Remove the rear sealing cover. <Ref. to EB-16, REMOVAL, Rear Sealing Cover.>
- 4) Remove the rear door glass. <Ref. to GW-22, REMOVAL, Rear Door Glass.>
- 5) Remove the rear door regulator and motor assembly. <Ref. to GW-24, REMOVAL, Rear Regulator and Motor Assembly.>
- 6) Remove the rear door latch assembly. <Ref. to SL-28, REMOVAL, Rear Door Latch Assembly.>
- 7) Remove the rear outer handle. <Ref. to SL-27, REMOVAL, Rear Outer Handle.>
- 8) Remove the center pillar lower trim. <Ref. to EI-44, REMOVAL, Lower Inner Trim.>
- 9) Remove the seat belt bracket and blind plug. Disconnect the connector of door harness and remove the door hinge nut.



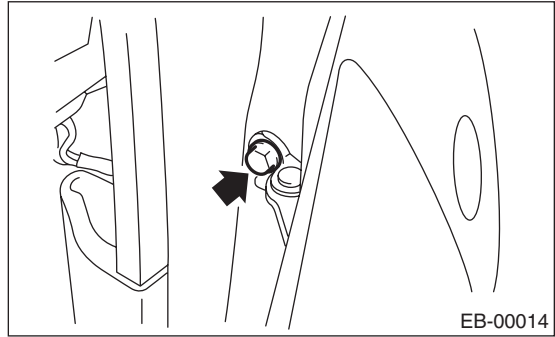
- 10) Put a wooden block on the jack and place the jack under the door. Support the door with the jack to protect it.



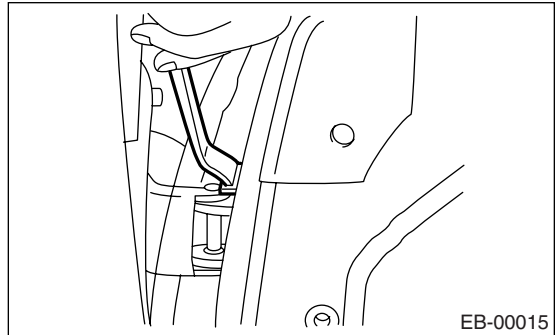
NOTE:

When supporting the door with a jack, be careful not to deform the door hinges while working.

- 11) Remove the checker bolts.



- 12) Remove the door-side bolts for upper and lower hinges to remove the rear door panel.



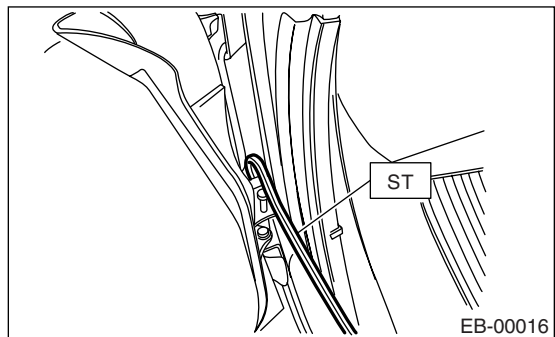
- 13) Using the ST, remove the body-side bolts for upper and lower hinges, and remove door hinges.
ST 925610000 WRENCH

B: INSTALLATION

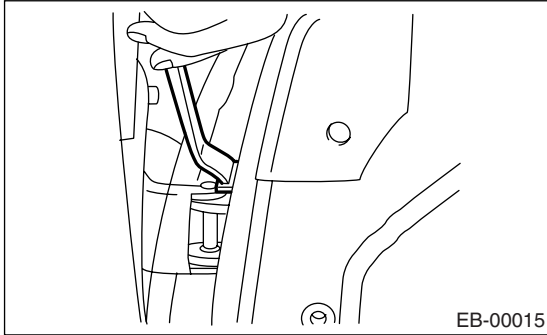
- 1) Install in the reverse order of removal.
- 2) Apply grease to the sliding area of door hinges.
- 3) Refer to COMPONENT in General Description for tightening torque. <Ref. to EB-6, REAR DOOR PANEL, COMPONENT, General Description.>

C: ADJUSTMENT

- 1) Using the ST, loosen the body-side bolts of upper and lower hinges to align the position of rear door panel longitudinally and vertically.
ST 925610000 WRENCH



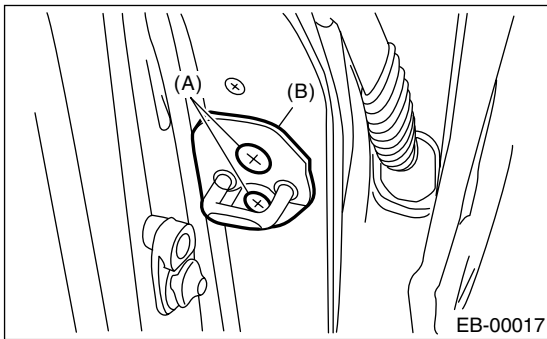
2) Loosen the door-side bolts of upper and lower hinges to align the position of rear door panel vertically and laterally at front-end.



3) Loosen the screw (A) and lightly tap striker (B) using plastic hammer to adjust striker to align the position of rear door panel vertically and laterally at the rear end.

CAUTION:

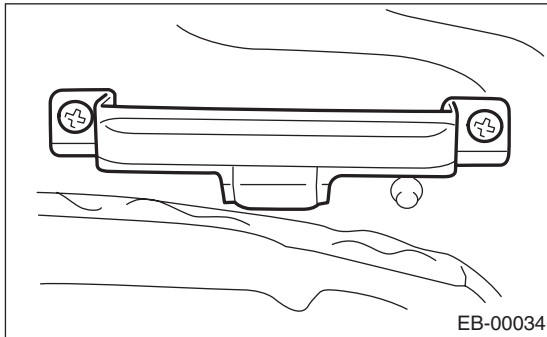
Do not use an impact wrench. The welding area on the striker nut plate is easily broken.



7. Rear Sealing Cover

A: REMOVAL

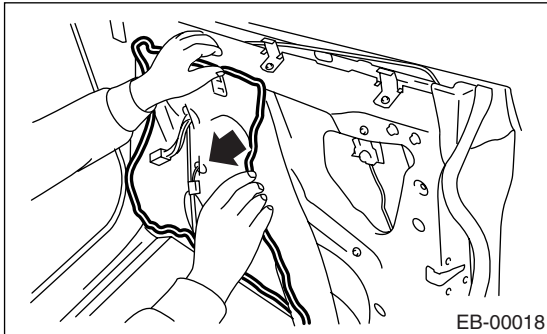
- 1) Disconnect the ground cable from battery.
- 2) Remove the rear door trim. <Ref. to EI-36, REMOVAL, Rear Door Trim.>
- 3) Remove the door trim bracket.



- 4) Remove the sealing cover.

NOTE:

- Carefully remove the butyl tape. Excessive force will easily break the cover.
- If the cover gets broken, replace it with a new one.



B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) When replacing the sealing cover, use butyl tape.
- 3) Press the butyl tape-applied area firmly to prevent any floating on surface.

Butyl tape:

3M8626 or equivalent

NOTE:

- Apply an uniform bead of butyl tape.
- Attach the sealing cover, keeping it from becoming wrinkled.
- Breaks in the bead will allow water leakage and contamination.

C: INSPECTION

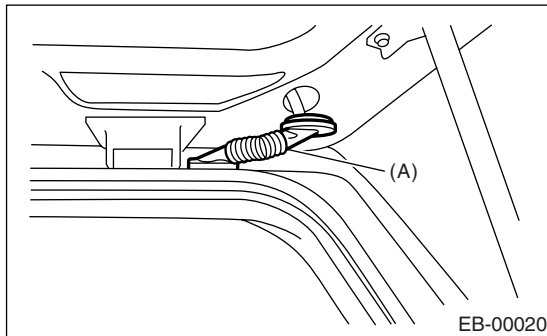
If the sealing cover is damaged, replace it with a new one.

8. Rear Gate Panel

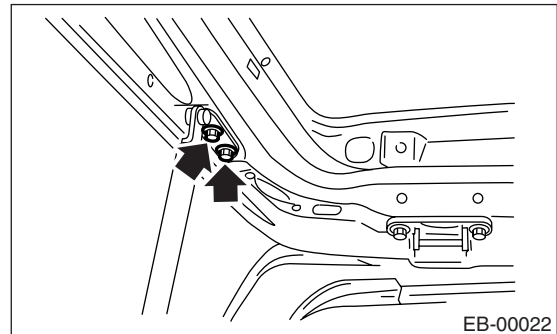
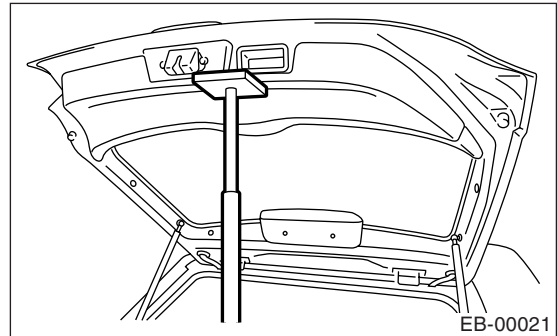
A: REMOVAL

1. REAR GATE PANEL

- 1) Disconnect the ground cable from battery.
- 2) Open the rear gate.
- 3) Remove the rear gate trim. <Ref. to EI-48, REMOVAL, Rear Gate Trim.>
- 4) Remove the rear wiper motor. <Ref. to WW-17, REMOVAL, Rear Wiper Motor.>
- 5) Remove the rear gate garnish assembly. <Ref. to EB-20, REMOVAL, Rear Gate Garnish Assembly.>
- 6) Remove the rear gate outer handle. <Ref. to SL-30, REMOVAL, Rear Gate Outer Handle.>
- 7) Remove the rear gate latch assembly. <Ref. to SL-31, REMOVAL, Rear Gate Latch Assembly.>
- 8) Disconnect the connectors of rear wiper, rear defogger, and other lighting devices.
- 9) Disconnect the washer hose.
- 10) Remove the rubber duct (A) connection, and pull out the harness and washer hose from rear gate.



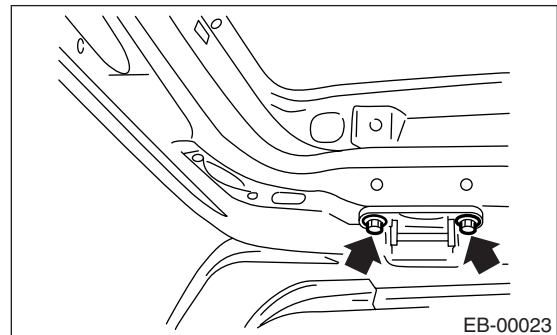
- 11) Using a support, support the rear gate and then remove damper stay mounting bolts.



NOTE:

When the rear gate is released, it may hit and damage the body. To prevent this, place a shop cloth between the body and gate.

- 12) Loosen the rear gate bolts to remove rear gate.

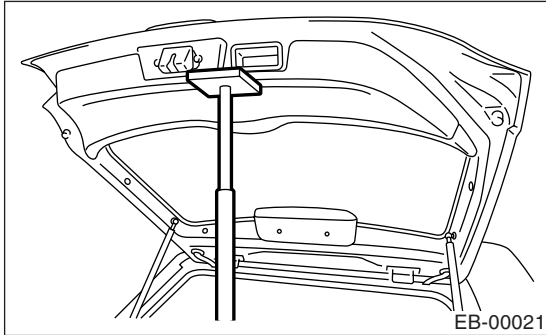


Rear Gate Panel

EXTERIOR BODY PANEL

2. REAR GATE DAMPER STAY

1) Open the rear gate. Use a support to support the rear gate.



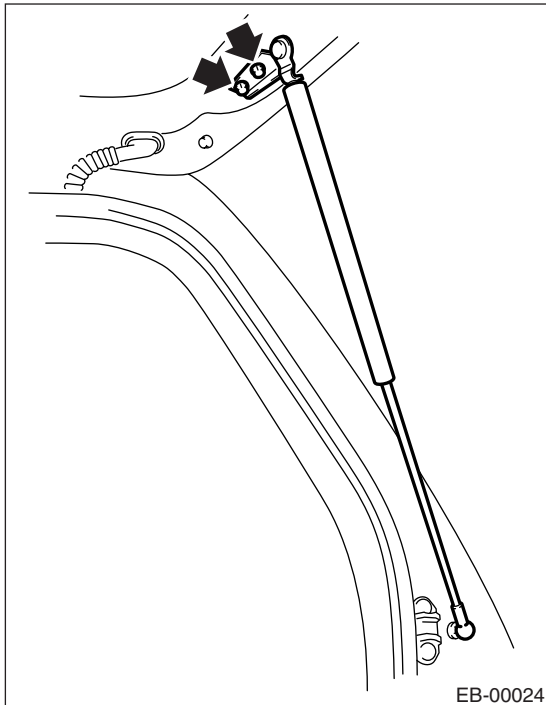
NOTE:

After the rear gate damper stay is removed, the rear gate cannot stay open. Supporting the rear gate with a jack, remove the bolts.

CAUTION:

- Do not damage the piston rods and oil seals.
- Never disassemble the cylinders: They contain gas.

2) Loosen the bolts to remove the rear gate damper stay from rear gate.



B: INSTALLATION

1. REAR GATE PANEL

- 1) Install in the reverse order of removal.
- 2) Install the rear gate panel with uniform clearance to the body.
- 3) Refer to COMPONENT of General Description for tightening torque. <Ref. to EB-7, REAR GATE PANEL, COMPONENT, General Description.>

NOTE:

After supporting the rear gate with a jack, start working.

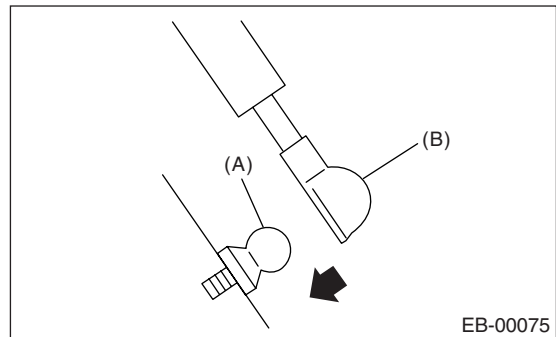
2. REAR GATE DAMPER STAY

- 1) Install the mounting bolt (A) to the rear gate panel and body.

Tightening torque:

14 N·m (1.43 kgf-m, 10.3 ft-lb)

- 2) Firmly install the rear gate damper stay (B) to mounting bolt (A).



- 3) Tighten the bolts at upper side of rear gate damper stay.

Tightening torque:

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

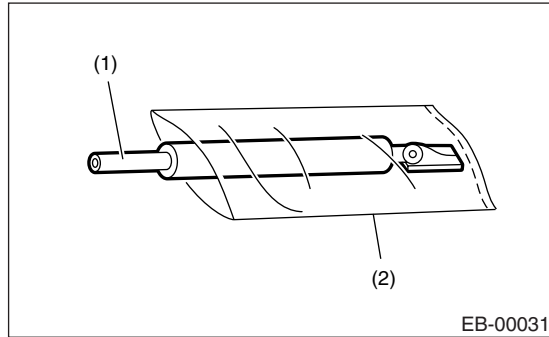
C: DISPOSAL

1. REAR GATE DAMPER STAY

CAUTION:

Gas is colorless, odorless and harmless. However, gas pressure may spray cutting powder or oil. Be sure to wear dust-resistant goggles.

1) Cover with a vinyl case as shown in the figure.

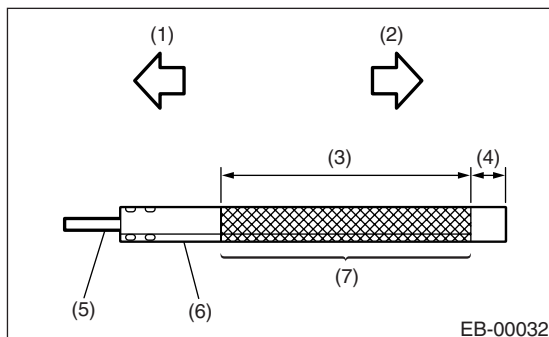


- (1) Rear gate damper stay
- (2) Vinyl sack

NOTE:

Prevent the vinyl case from being caught by drill cutting edge.

2) Lift the body-side slightly with piston rods fully extended, and secure the body side on vise stand. Drill a hole in 2 to 3 mm (0.08 to 0.12 in) diameter at a point 10 to 200 mm (0.39 to 7.87 in) from the door side, and bleed the rear gate damper stay completely.



- (1) Body-side
- (2) Door-side
- (3) 190 mm (7.48 in)
- (4) 10 mm (0.39 in)
- (5) Piston rod
- (6) Cylinder
- (7) Portion to be drilled

Rear Gate Garnish Assembly

EXTERIOR BODY PANEL

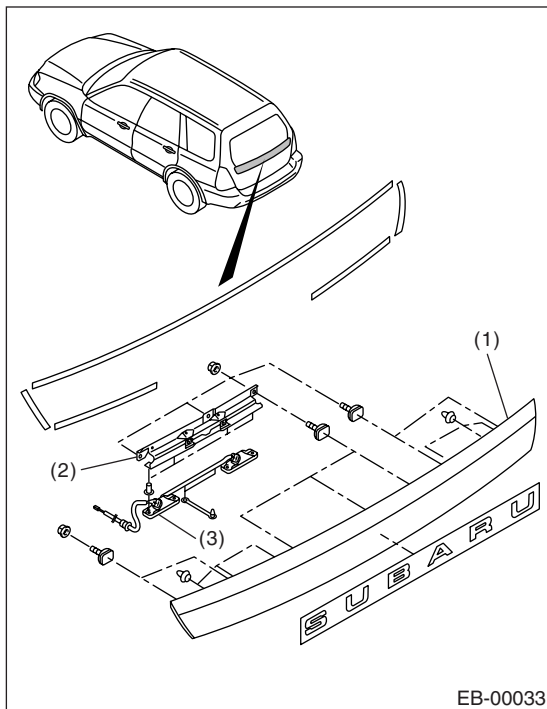
9. Rear Gate Garnish Assembly

A: REMOVAL

- 1) Remove the rear gate panel trim. <Ref. to EI-48, REMOVAL, Rear Gate Trim.>
- 2) Remove the rear wiper motor. <Ref. to WW-17, REMOVAL, Rear Wiper Motor.>
- 3) Remove the seven frange nuts from inside of rear gate panel.
- 4) Remove the licence plate light assembly.
- 5) Close the gate, and then remove the rear gate garnish assembly, pulling it forward by hand.

NOTE:

Be careful not to pull it strongly to avoid damage to clips.



- (1) Rear gate garnish ASSY
- (2) Licence plate light bracket
- (3) Licence plate light

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

Check for serious scratches or cracks in rear gate garnish assembly.