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.

FUJI HEAVY INDUSTRIES LTD.

HVAC SYSTEM (HEATER, VENTILATOR AND A/C)	AC
HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)	AC(diag)
AIRBAG SYSTEM	АВ
AIRBAG SYSTEM (DIAGNOSTICS)	AB(diag)
SEAT BELT SYSTEM	SB
LIGHTING SYSTEM	LI
WIPER AND WASHER SYSTEMS	ww
ENTERTAINMENT	ET
COMMUNICATION SYSTEM	СОМ
GLASS/WINDOWS/MIRRORS	GW
BODY STRUCTURE	BS
INSTRUMENTATION/DRIVER INFO	IDI
SEATS	SE
SECURITY AND LOCKS	SL
SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)	SR
EXTERIOR/INTERIOR TRIM	El
EXTERIOR BODY PANELS	ЕВ

G1870GE6

BODY SECTION

CRUISE CONTROL SYSTEM	СС
CRUISE CONTROL SYSTEM (DIAGNOSTICS)	CC(diag)
IMMOBILIZER (DIAGNOSTICS)	IM(diag)

G1870GE6

EXTERIOR BODY PANELS

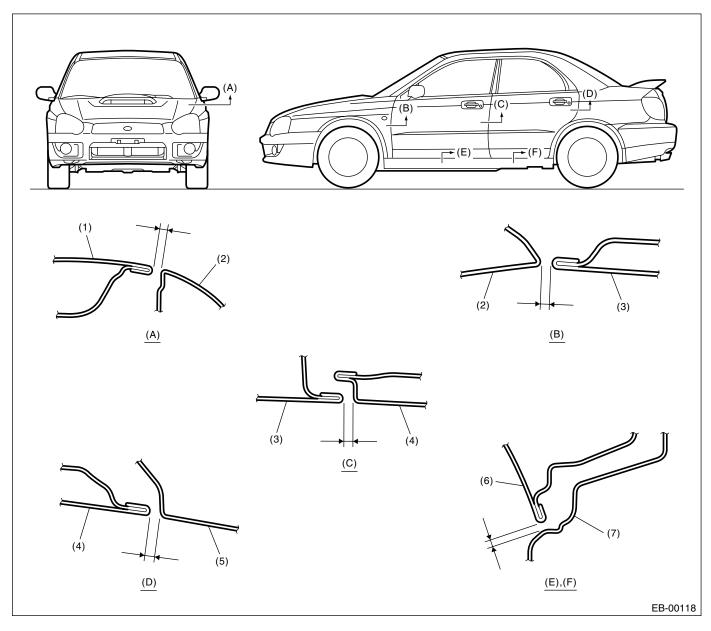


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1. General Description

A: SPECIFICATIONS

1. SIDE



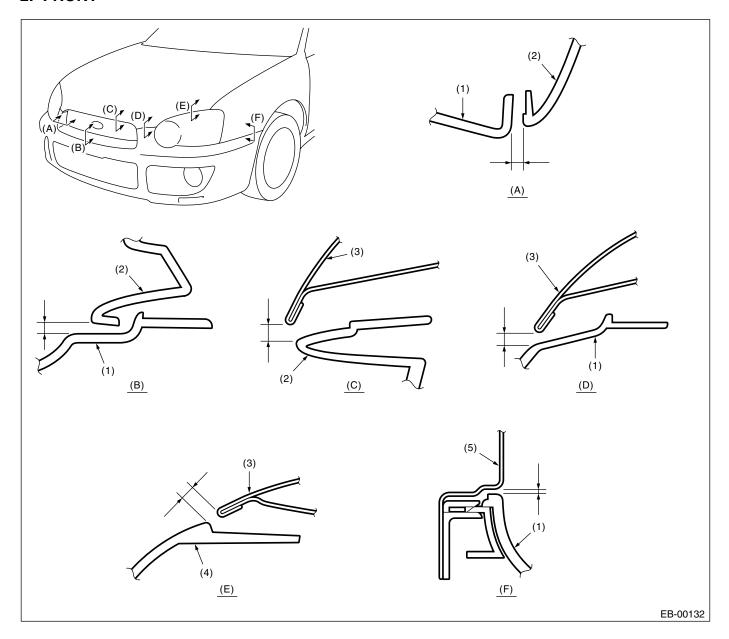
- (1) Front hood panel
- (2) Front fender panel
- (3) Front door panel

- (4) Rear door panel
- (5) Rear quarter panel
- (6) Door panel

(7)	Side sill
(-)	

Section	Part	Standard
(A)	Front hood panel to Front fender panel	NON-TURBO: 4.0±1.0 mm (0.16±0.04 in) TURBO: 3.7±1.0 mm (0.15±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	5.1±1.0 mm (0.20±0.04 in)
(D)	Rear door panel to Rear quarter panel	4.6±1.0 mm (0.18±0.04 in)
(E), (F)	Door panel to Side sill	5.9±1.0 mm (0.23±0.04 in)

2. FRONT



Front bumper (1) Front grille

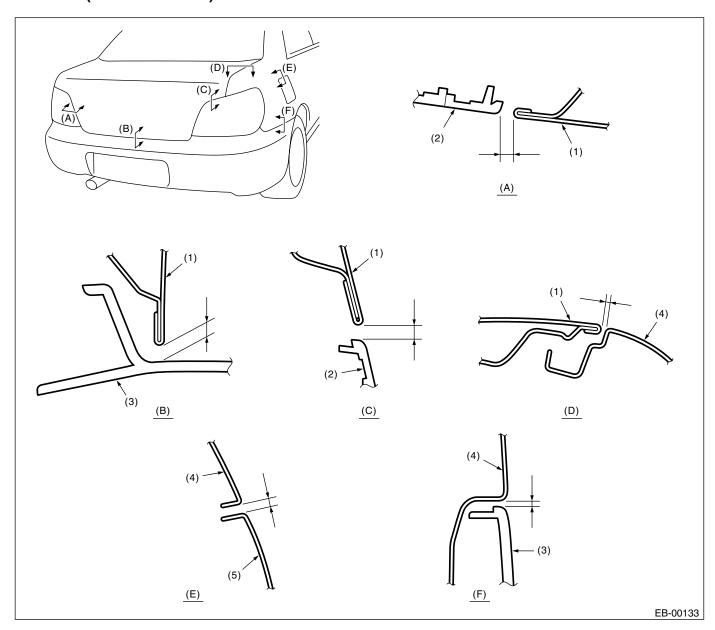
(2)

- Front hood panel (3)
- Headlight (4)

Front fender panel

Section	Part	Standard
(A)	Front bumper to Front grille (Lateral direction)	1.0±0.5 mm (0.04±0.02 in)
(B)	Front bumper to Front grille (Longitudinal direction)	1.0±1.0 mm (0.04±0.04 in)
(C)	Front hood panel to Front grille	Steel: 6.8±1.0 mm (0.27±0.04 in) Aluminum: 6.5±1.0 mm (0.26±0.04 in)
(D)	Front hood panel to Front bumper	6.0±1.0 mm (0.24±0.04 in)
(E)	Front hood panel to Headlight	5.5±1.0 mm (0.22±0.04 in)
(F)	Front fender panel to Front bumper	1.5±0.7 mm (0.06±0.03 in)

3. REAR (SEDAN MODEL)



(1) Trunk lid panel

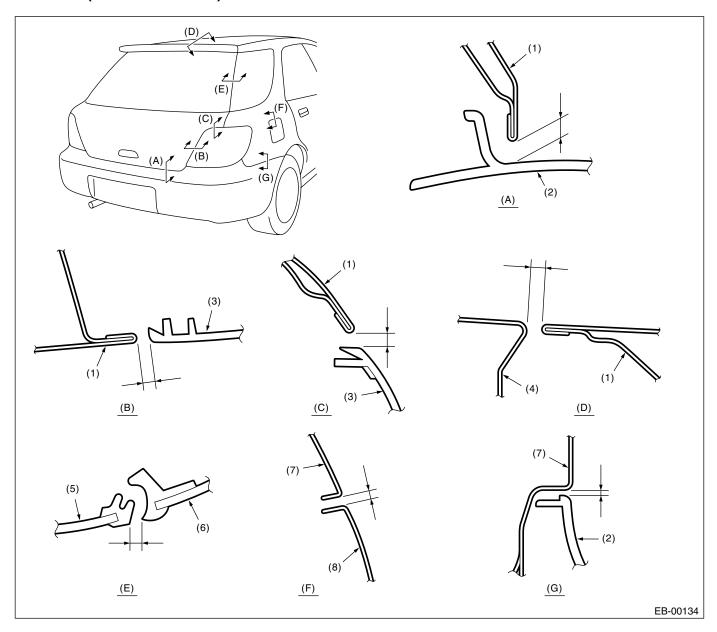
(3) Rear bumper

(5) Fuel lid

- (2) Rear combination light
- (4) Rear fender panel

Section	Part	Standard
(A)	Trunk lid panel to Rear combination light (Lateral direction)	5.0±1.0 mm (0.20±0.04 in)
(B)	Trunk lid panel to Rear bumper	7.0±1.5 mm (0.28±0.06 in)
(C)	Trunk lid panel to Rear combination light (Longitudinal direction)	7.0±1.0 mm (0.28±0.04 in)
(D)	Trunk lid panel to Rear fender panel	4.0±1.0 mm (0.16±0.04 in)
(E)	Rear fender panel to Fuel lid	3.5±0.5 mm (0.14±0.02 in)
(F)	Rear fender panel to Rear bumper	0.3 — 2.2 mm (0.01 — 0.09 in)

4. REAR (WAGON MODEL)

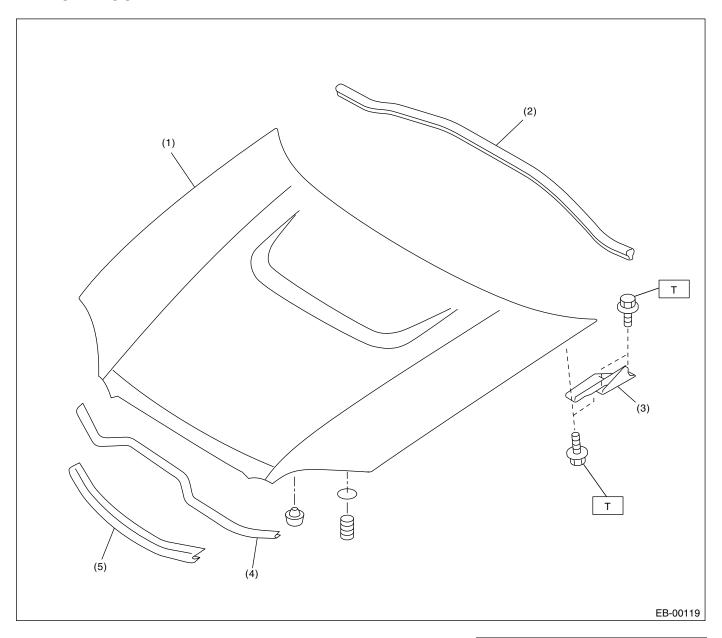


- (1) Rear gate panel
- (2) Rear bumper
- (3) Rear combination light
- (4) Roof panel
- (5) Rear gate glass
- (6) Rear quarter glass
- (7) Rear fender panel
- (8) Fuel lid

Section	Part	Standard
(A)	Rear gate panel to Rear bumper	8.3±1.5 mm (0.33±0.06 in)
(B)	Rear gate panel to Rear combination light (Lateral direction)	5.0±1.0 mm (0.20±0.04 in)
(C)	Rear gate panel to Rear combination light (Longitudinal direction)	6.0±1.0 mm (0.24±0.04 in)
(D)	Roof panel to Rear gate panel	6.1 — 7.6 mm (0.24 — 0.30 in)
(E)	Rear gate glass to Rear quarter glass	6.0±1.5 mm (0.24±0.06 in)
(F)	Rear fender panel to Fuel lid	3.5±0.5 mm (0.14±0.02 in)
(G)	Rear fender panel to Rear bumper	0.3 — 2.2 mm (0.01 — 0.09 in)

B: COMPONENT

1. FRONT HOOD



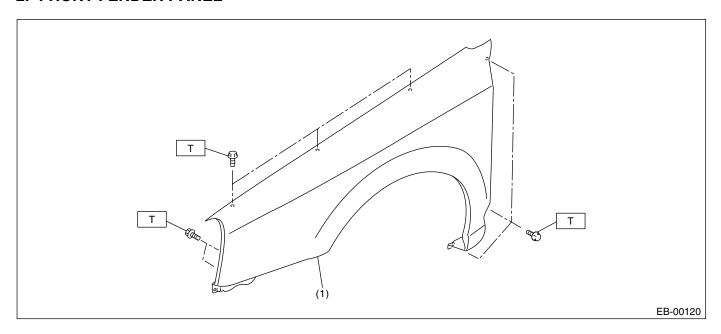
- (1) Front hood
- (2) Seal (Front panel)
- (3) Hinge

- (4) Seal (Intake duct) (Turbo model)
- (5) Seal (Hood)

Tightening torque: N⋅m (kgf-m, ft-lb)

T: 24.5 (2.5, 18.1)

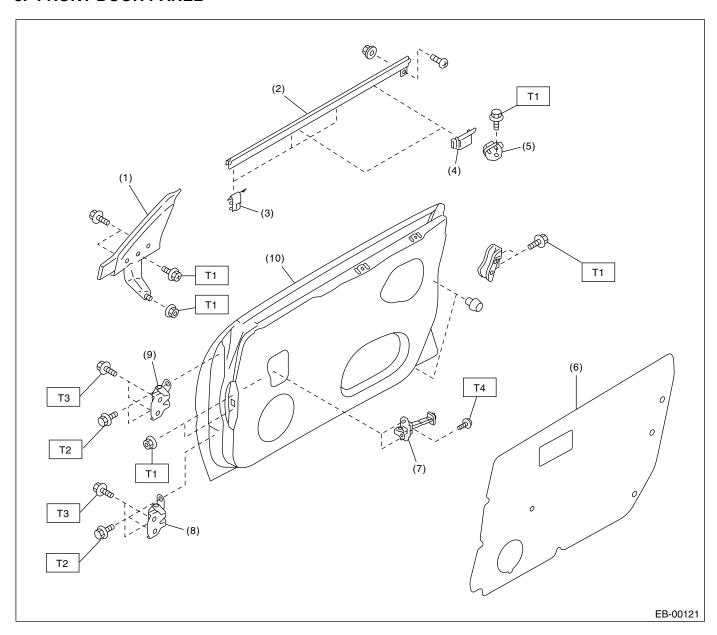
2. FRONT FENDER PANEL



(1) Front fender panel

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

3. FRONT DOOR PANEL



- (1) Gusset
- (2) Weather strip (Outer)
- (3) Clip (Weather strip, outer)
- (4) Stabilizer (Outer)
- (5) Stabilizer (Inner)

- (6) Sealing cover
- (7) Checker
- (8) Lower hinge
- (9) Upper hinge
- (10) Front door panel

Tightening torque: N⋅m (kgf-m, ft-lb)

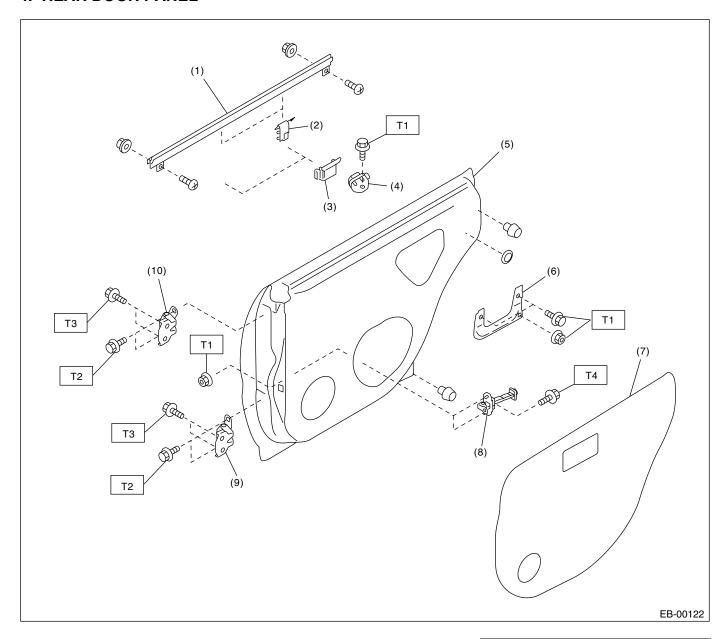
T1: 7.4 (0.75, 5.5)

T2: 24.5 (2.5, 18.1)

T3: 29.4 (3.0, 21.7)

T4: 32.3 (3.3, 23.8)

4. REAR DOOR PANEL



- (1) Weather strip (Outer)
- (2) Clip (Weather strip, outer)
- (3) Stabilizer (Outer)
- (4) Stabilizer (Inner)
- (5) Rear door panel

- (6) Outer handle bracket
- (7) Sealing cover
- (8) Checker
- (9) Lower hinge
- (10) Upper hinge

Tightening torque: N⋅m (kgf-m, ft-lb)

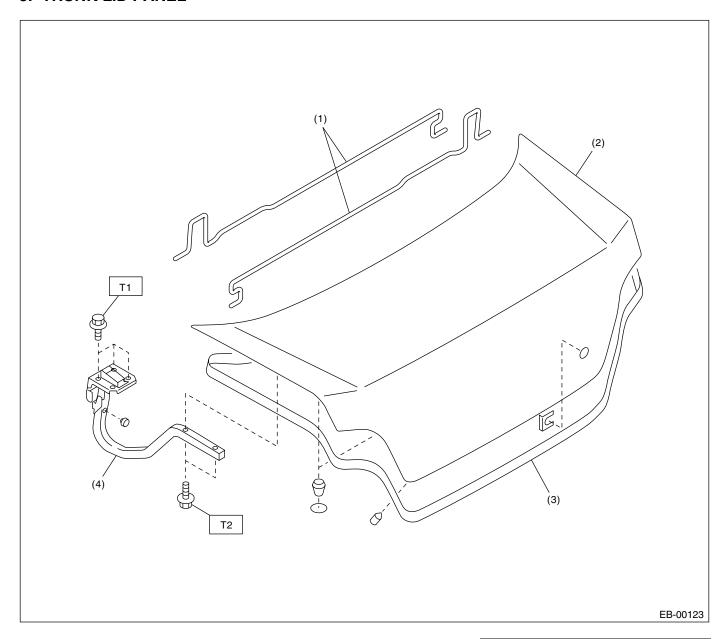
T1: 7.4 (0.75, 5.5)

T2: 24.5 (2.5, 18.1)

T3: 29.4 (3.0, 21.7)

T4: 32.3 (3.3, 23.8)

5. TRUNK LID PANEL



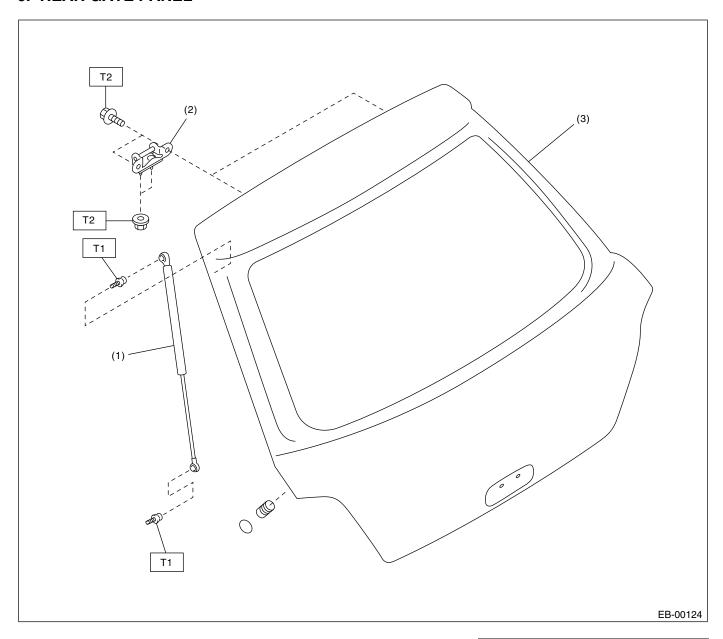
- (1) Torsion bar
- Trunk lid panel (2)
- Weather strip (3)

(4) Hinge ASSY Tightening torque: N⋅m (kgf-m, ft-lb)

T1: 7.5 (0.76, 5.5)

T2: 14 (1.43, 10.3)

6. REAR GATE PANEL



- (1) Rear gate damper stay
- (2) Hinge

(3) Rear gate panel

Tightening torque: N⋅m (kgf-m, ft-lb)

T1: 19.6 (2.0, 14.5) T2: 24.5 (2.5, 18.1)

C: CAUTION

- Exterior body panels are heavy. Do not drop and damage the panels. During removal and installation, do not damage the panel painting surface.
- While removing the mounting bolts, using assistance devices such as a support jack will help support the panel.
- Be careful not to lose small parts.

D: PREPARATION TOOL

1. SPECIAL TOOLS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
	925610000	WRENCH	Used for removing and installing door hinge.
ST-925610000			
	927780000	REMOVER	Used for removing and installing trunk torsion bar.
ST-927780000			

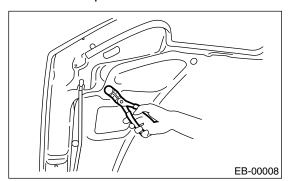
2. GENERAL TOOL

TOOL NAME	REMARKS
Support Jack	Used for supporting door panel.

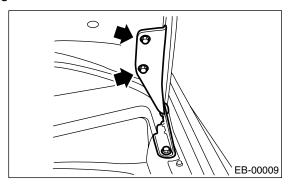
2. Front Hood Panel

A: REMOVAL

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



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



B: INSTALLATION

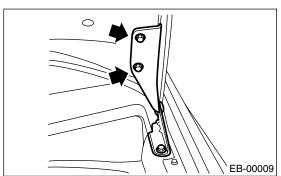
- 1) Install in the reverse order of removal.
- 2) Adjust the clearance between front hood panel and front fender panel. Clearance must be equal at both sides.

Tightening torque:

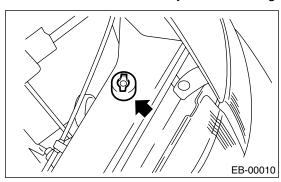
24.5 N·m (2.5 kgf-m, 18.1 ft-lb)

C: ADJUSTMENT

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



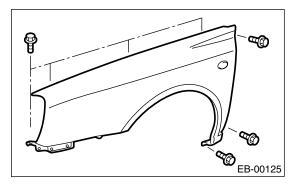
- 2) Adjust the height at front end of hood. <Ref. to SL-34, ADJUSTMENT, Front Hood Lock Assembly.>
- 3) Rotate the hood buffer to adjust lateral height.



3. Front Fender Panel

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the front bumper face. <Ref. to EI-22, REMOVAL, Front Bumper.>
- 3) Remove the headlight. <Ref. to LI-14, REMOV-AL, Headlight Assembly.>
- 4) Remove the side sill spoilers. <Ref. to El-36, Side Sill Spoiler.> (Model with side sill spoiler)
- 5) Remove the mud guard. <Ref. to EI-31, RE-MOVAL, Mud Guard.>
- 6) Loosen the bolts 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.

CAUTION:

After the installation of front fender panel, be sure to perform headlight aiming adjustment.

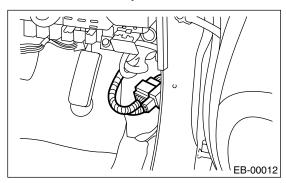
Tightening torque:

7.4 N·m (0.75 kgf-m, 5.5 ft-lb)

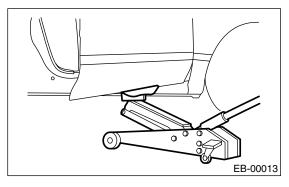
4. Front Door Panel

A: REMOVAL

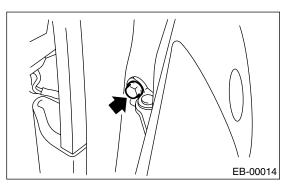
- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-37, RE-MOVAL, Front Door Trim.>
- 3) Remove the outer mirror assembly. <Ref. to GW-19, REMOVAL, Outer Mirror Assembly.>
- 4) Remove the front door glass. <Ref. to GW-12, REMOVAL, Front Door Glass.>
- 5) Remove the front door regulator and motor. <Ref. to GW-16, REMOVAL, Front Regulator and Motor Assembly.>
- 6) Remove the front door latch assembly. <Ref. to SL-24, REMOVAL, Front Door Latch Assembly.>
- 7) Remove the front outer handle. <Ref. to SL-23, REMOVAL, Front Outer Handle.>
- 8) Remove the front pillar lower trim to disconnect the connector from body harness.



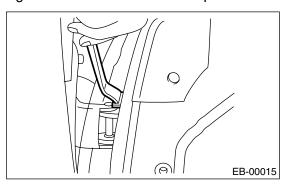
9) Put a wooden block on jack and place the jack under front door panel. Support the front door with the jack to protect it from damage.



10) Remove the checker bolts.



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



B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Apply grease to the sliding area of door hinges.

Tightening torque:

Refer to COMPONENT in General Description.

<Ref. to EB-7, FRONT FENDER PANEL,
COMPONENT, General Description.>

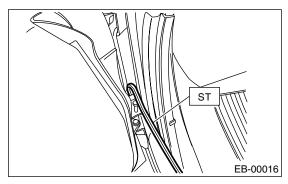
C: ADJUSTMENT

1) Loosen the bolts of upper and lower hinges to align the position of front door panel.

NOTE:

Use ST to loosen the bolts of door hinges on body side.

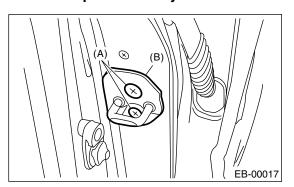
ST 925610000 DOOR HINGE WRENCH



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

CAUTION:

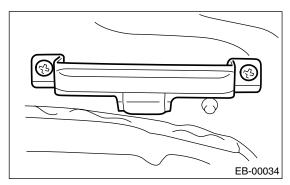
Do not use an impact wrench. Welding area on the striker nut plate is easily broken.



5. Front Sealing Cover

A: REMOVAL

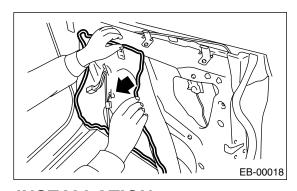
- 1) Disconnect the ground cable from battery.
- 2) Remove the front door trim. <Ref. to EI-37, RE-MOVAL, Front Door Trim.>
- 3) Remove the front speaker. <Ref. to ET-6, RE-MOVAL, Front Speaker.>
- 4) Remove the door trim bracket.



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 the butyl tape.
- 3) Press the butyl tape-applied area firmly to prevent any floating on surface.

Butyl tape:

3M8626 or equivalent

NOTF:

- 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.

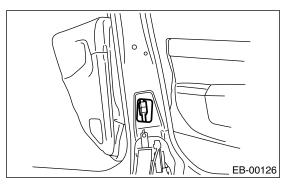
C: INSPECTION

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

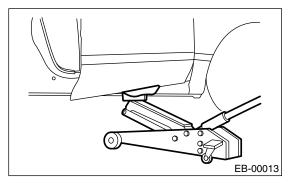
6. Rear Door Panel

A: REMOVAL

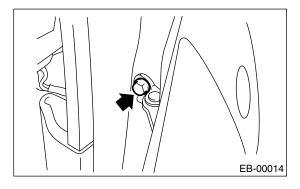
- 1) Disconnect the ground cable from battery.
- 2) Remove the rear door trim. <Ref. to EI-38, RE-MOVAL, Rear Door Trim.>
- 3) Remove the rear door glass. <Ref. to GW-22, REMOVAL, Rear Door Glass.>
- 4) Remove the rear door regulator and motor assembly. <Ref. to GW-24, REMOVAL, Rear Regulator and Motor Assembly.>
- 5) Remove the rear door latch. <Ref. to SL-28, RE-MOVAL, Rear Door Latch Assembly.>
- 6) Remove the rear outer handle. <Ref. to SL-27, REMOVAL, Rear Outer Handle.>
- 7) Remove the center pillar lower trim. <Ref. to El-47, REMOVAL, Lower Inner Trim.>
- 8) Disconnect the connector of door harness.



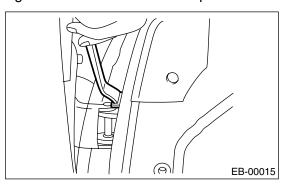
9) Put a wooden block on the jack and place the jack under the rear door. Support the rear door with jack to protect it.



10) Remove the checker bolts.



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



B: INSTALLATION

- 1) Install in the reverse order of removal.
- 2) Apply grease to the sliding area of door hinges.

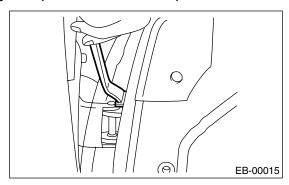
Tightening torque:

Refer to COMPONENT in General Description.

<Ref. to EB-8, FRONT DOOR PANEL, COMPONENT, General Description.>

C: ADJUSTMENT

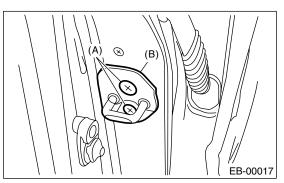
1) Loosen the bolts of upper and lower hinges to align the position of rear door panel.



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

CAUTION:

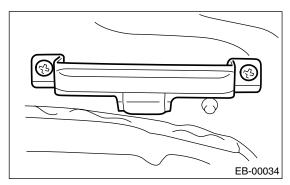
Do not use an impact wrench. The welding area on the striker nut plate is easily broken.



7. Rear Sealing Cover

A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Remove the rear door trim. <Ref. to EI-38, RE-MOVAL, Rear Door Trim.>
- 3) Remove the rear speaker. <Ref. to ET-8, RE-MOVAL, Rear 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

NOTF:

- · 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

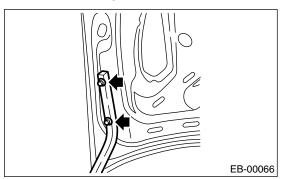
If the sealing cover is damaged, replace it with a new one.

8. Trunk Lid Panel

A: REMOVAL

1. TRUNK LID

- 1) Open the trunk lid.
- 2) Disconnect the trunk lid connector.
- 3) Loosen the trunk lid mounting bolts to remove the trunk lid from hinges.



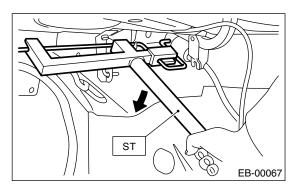
2. TORSION BAR

- 1) Open the trunk lid.
- 2) Using the ST, remove the torsion bar from hinge link.

ST 927780000 REMOVER

CAUTION:

During removal and installation, carefully handle the torsion bar, because it will generate reactive force.



3) Remove the right/left torsion bars.

CAUTION:

Be careful not to get hit by the trunk lid, because the trunk lid will slam shut after the torsion bar is removed.

B: INSTALLATION

1. TRUNK LID

- 1) Install in the reverse order of removal.
- 2) Install the trunk lid with uniform clearance.

Tightening torque:

14 N⋅m (1.43 kgf-m, 10.3 ft-lb)

2. TORSION BAR

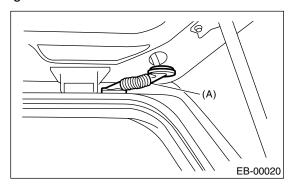
- 1) Install in the reverse order of removal.
- 2) Apply grease to the rotating area of hinges and mating surface of torsion bar.

9. Rear Gate Panel

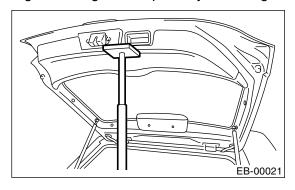
A: REMOVAL

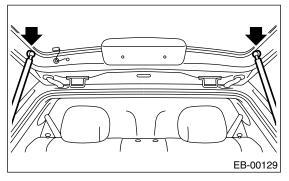
1. REAR GATE PANEL

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



9) Using a support, support the rear gate while removing the rear gate damper stay mounting bolts.

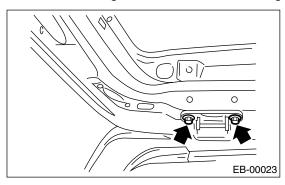




CAUTION:

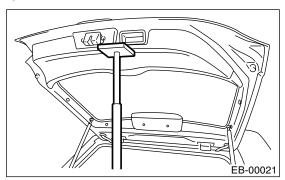
When the rear gate is released, it may hit and damage the body. To prevent this, place a shop cloth between the body and gate.

10) Loosen the rear gate bolts to remove rear gate.



2. REAR GATE DAMPER STAY

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



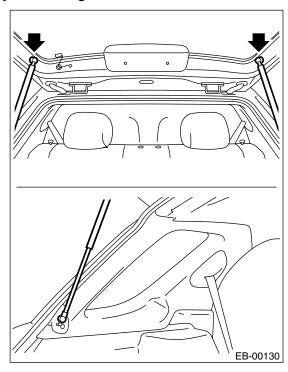
NOTE:

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.

Refer to COMPONENT of General Description for tightening torque. <Ref. to EB-10, TRUNK LID PANEL, General Description.>

CAUTION:

Do not damage the painted surfaces of body and rear gate panel.

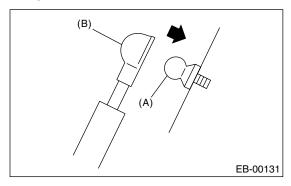
2. REAR GATE DAMPER STAY

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

Tightening torque:

19.6 N·m (2.0 kgf-m, 14.5 ft-lb)

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



NOTE:

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

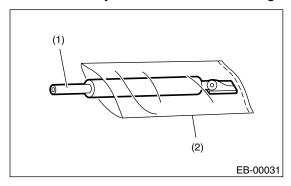
C: DISPOSAL

1. REAR GATE DAMPER STAY

CAUTION:

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

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

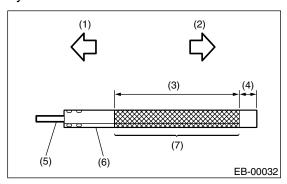


- (1) Rear gate damper stay
- (2) Vinyl sack

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 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