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NOT FOR RESALE

SEATS

General Description

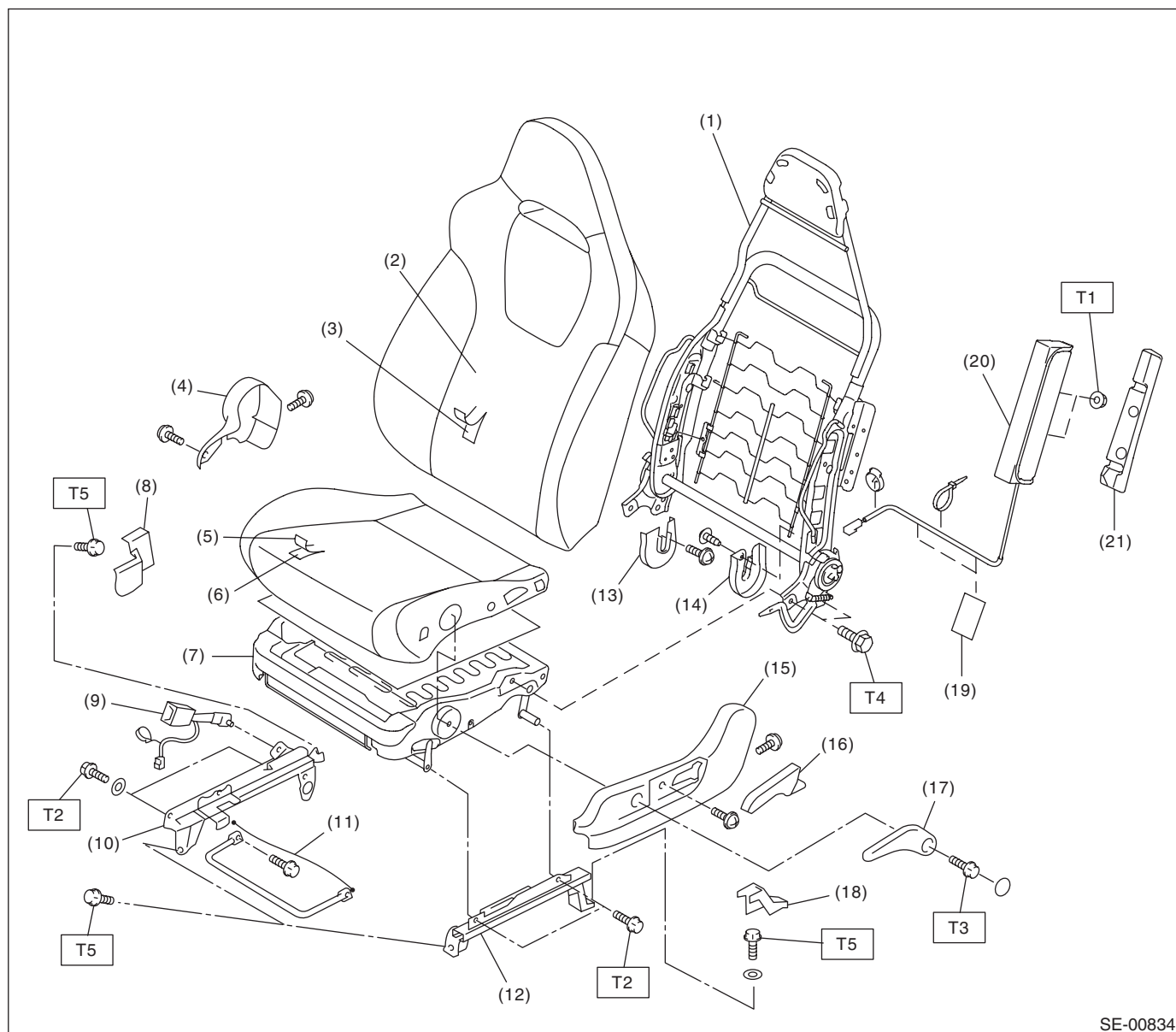
SEATS

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1. General Description

A: COMPONENT

1. FRONT SEAT LH



SE-00834

- | | | |
|-----------------------------|--------------------------------|-------------------------|
| (1) Backrest frame ASSY | (11) Connecting cable | (20) Side airbag module |
| (2) Backrest cover | (12) Slide rail outside | (21) Pad |
| (3) Backrest pad | (13) Seat hinge inner cover RH | |
| (4) Seat side cover inside | (14) Seat hinge inner cover LH | |
| (5) Seat cushion cover | (15) Seat side cover outside | |
| (6) Seat cushion pad | (16) Reclining lever cover | |
| (7) Seat cushion frame ASSY | (17) Lifter lever | |
| (8) Rear bolt cover inside | (18) Rear bolt cover outside | |
| (9) Inner seat belt ASSY | (19) Tape | |
| (10) Slide rail inside | | |

Tightening torque:N·m (kgf·m, ft·lb)

T1: 6 (0.61, 4.43)

T2: 9.8 (1.0, 7.23)

T3: 17.6 (1.8, 13.0)

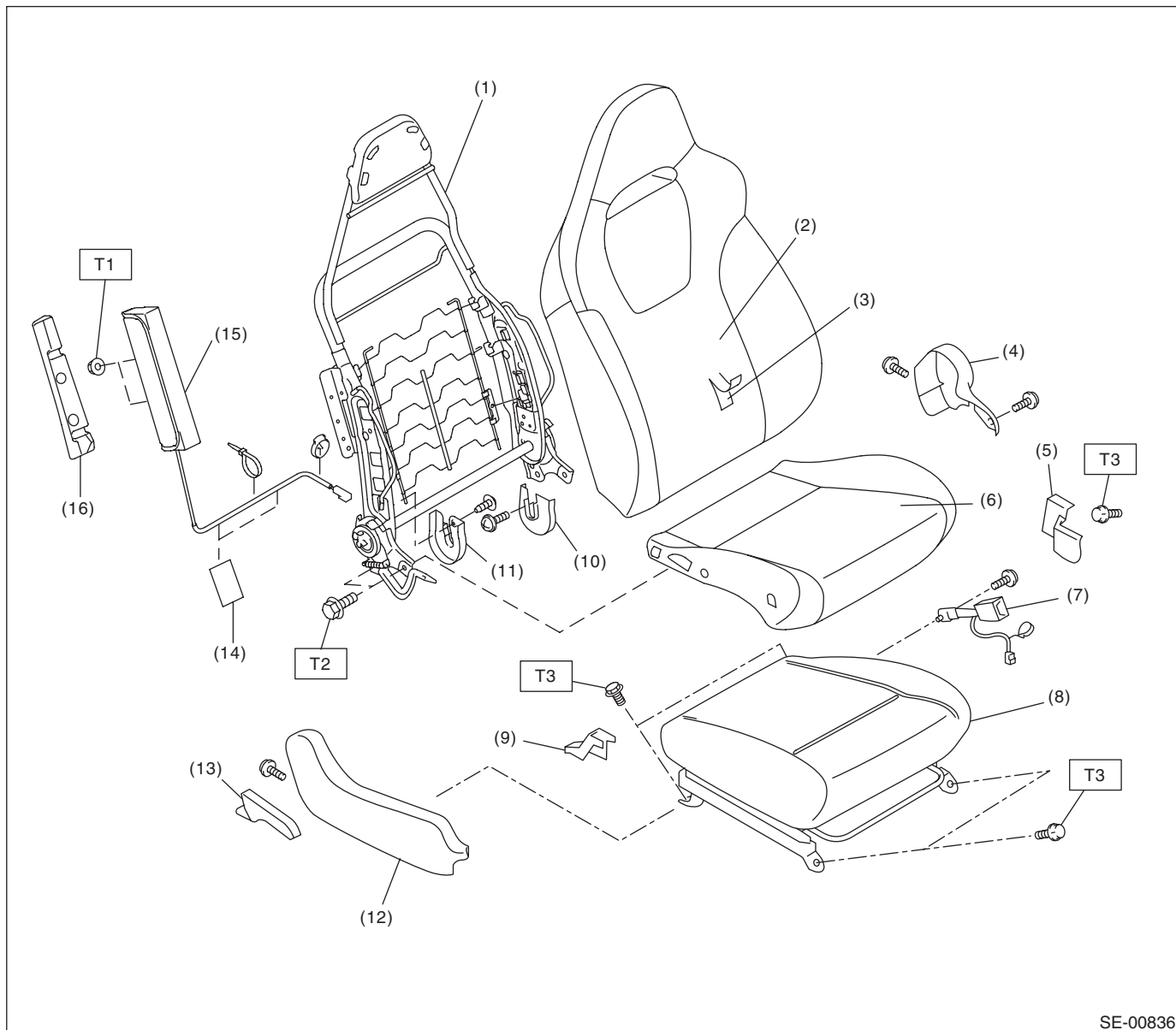
T4: 52 (5.30, 38.4)

T5: 53 (5.40, 39.1)

General Description

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2. FRONT SEAT RH



SE-00836

- | | | |
|-------------------------------------|------------------------------|----------|
| (1) Backrest frame ASSY | (9) Rear bolt cover outside | (16) Pad |
| (2) Backrest cover | (10) Hinge inner cover LH | |
| (3) Backrest pad | (11) Hinge inner cover RH | |
| (4) Seat side cover inside | (12) Seat side cover outside | |
| (5) Rear bolt cover inside | (13) Reclining lever | |
| (6) Seat cushion cover | (14) Tape | |
| (7) Inner seat belt ASSY | (15) Side airbag module | |
| (8) Seat cushion pad and frame ASSY | | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 6 (0.61, 4.43)

T2: 52 (5.30, 38.4)

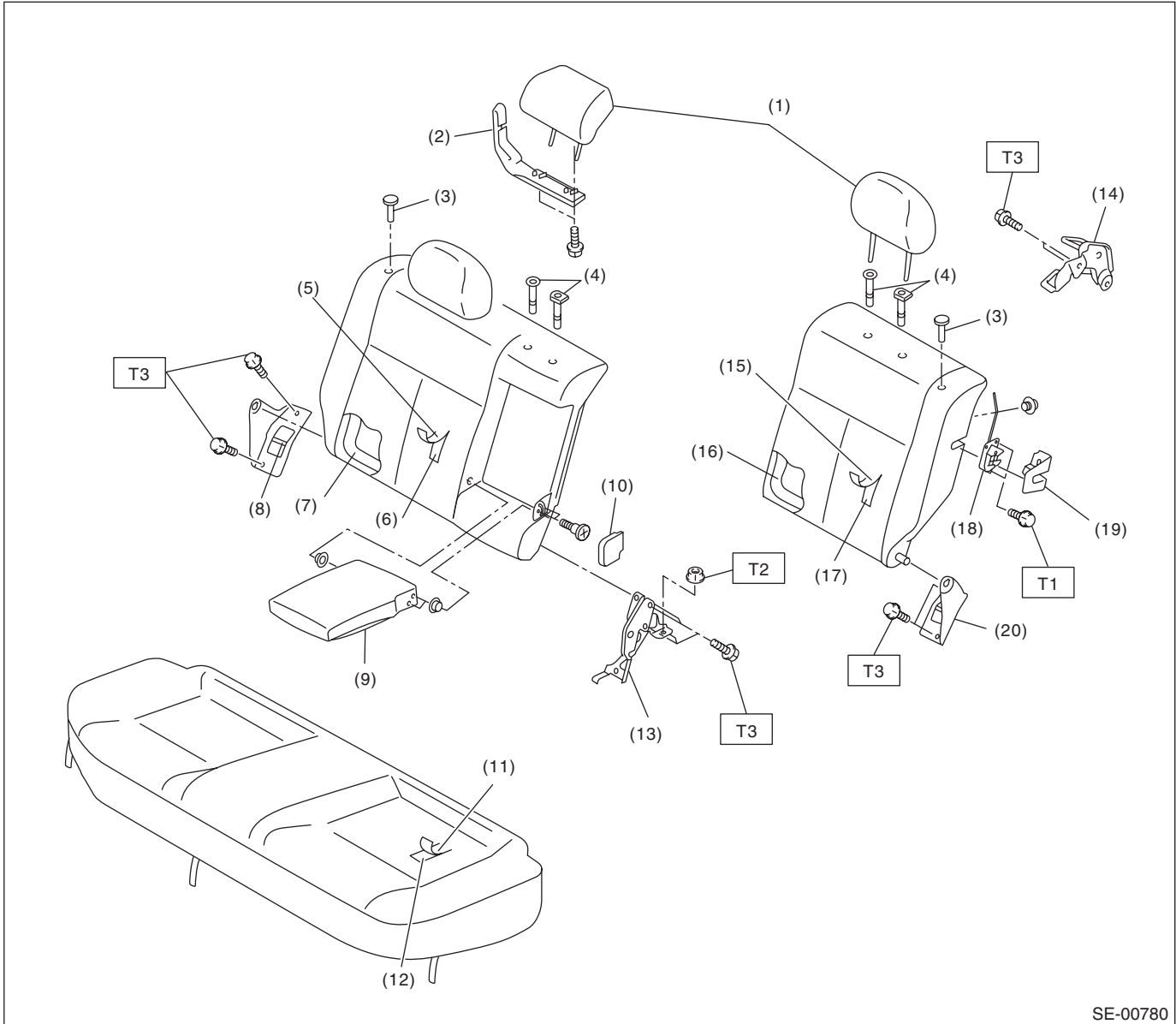
T3: 53 (5.40, 39.1)

General Description

SEATS

3. REAR SEAT

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SE-00780

- | | | |
|-----------------------|--------------------------|--------------------------------|
| (1) Headrest | (10) Armrest hinge cover | (18) Seat back latch |
| (2) Seat belt guide | (11) Seat cushion cover | (19) Seat backrest latch cover |
| (3) Backrest knob | (12) Seat cushion pad | (20) Hinge ASSY LH |
| (4) Headrest bushing | (13) Hinge ASSY center | |
| (5) Backrest cover RH | (14) Striker | |
| (6) Backrest pad RH | (15) Backrest cover LH | |
| (7) Backrest frame RH | (16) Backrest frame LH | |
| (8) Hinge ASSY RH | (17) Backrest pad LH | |
| (9) Armrest ASSY | | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 17.6 (1.8, 13.0)

T2: 24.5 (2.5, 18.1)

T3: 33 (3.3, 24.3)

B: CAUTION

- If the seat cushion cover is removed or replaced, make sure to perform passenger detection system adjustment after installing the seat to the vehicle. <Ref. to OD(diag)-15, SYSTEM CALIBRATION (REZEROING), OPERATION, Subaru Select Monitor.>

Failure to do so may cause improper operation of the passenger detection system.

- The passenger detection system (passenger seat only) control unit and the passenger detection sensor are fixed to the seat cushion frame. Never remove the passenger detection control unit or the pressure sensor from the seat cushion frame.
- Do not replace the seat cushion pad by itself. Always replace the seat cushion pad and frame assembly as a set. The seat cushion pad and cushion frame are adjusted as a set at the time of manufacture. If cushion pads and cushion frames are combined from those of other vehicles or other sets, the passenger detection system may not operate properly.
- If the seat cushion cover is removed, make sure to replace the hang wire on the seat cushion side with a new wire.
- When removing the front seat, follow cautions given in the airbag section. <Ref. to AB-5, CAUTION, General Description.>

C: PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Long nose pillar	Used for removing the hog ring.
Hog ring pliers	Used for installing the hog ring.
TORX® T50	Used for removing and installing the inner seat belt assembly.
Circuit tester	Used for checking voltage and continuity.

2. Front Seat

A: REMOVAL

CAUTION:

The airbag system is fitted with a backup power source. After disconnecting the battery ground cable, the airbag may deploy if you do not wait for 20 seconds before starting the service of airbag system.

1. DRIVER'S SEAT

- 1) Disconnect the ground cable from battery, and wait for 20 seconds or more before starting work.
- 2) Tilt the backrest forward, and move the seat forward.
- 3) Remove the rear bolt cover, and remove the two bolts at the rear side of the slide rail.
- 4) Move the seat towards the rear, and remove the two bolts at the front side of the slide rail.
- 5) Disconnect the connector under the seat.
 - Seat belt buckle switch connector
 - Side airbag connector
 - Seat heater connector (model with seat heater)
- 6) Remove the seat from vehicle.

2. PASSENGER'S SEAT

CAUTION:

Refer to "CAUTION" of "General Description" before starting the work. <Ref. to SE-5, CAUTION, General Description.>

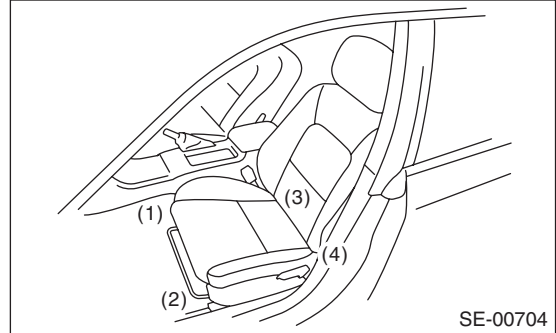
- 1) Disconnect the ground cable from battery, and wait for 20 seconds or more before starting work.
- 2) Tilt the backrest forward, and move the seat forward.
- 3) Remove the rear bolt cover, and then remove the rear side of slide rail.
- 4) Move the seat backward, remove the front bolt cover, and then remove the bolt at the front side of slide rail.
- 5) Disconnect all the connectors of connector holder in the backside of seat cushion.
 - Harness connector of occupant detection control module
 - Side airbag connector
 - Seat heater connector (model with seat heater)
- 6) Remove the seat from vehicle.

B: INSTALLATION

Install in the reverse order of removal.

NOTE:

Tighten the slide rail installing bolt gradually in several steps to the specified torque in the order as shown in the figure.



Tightening torque:

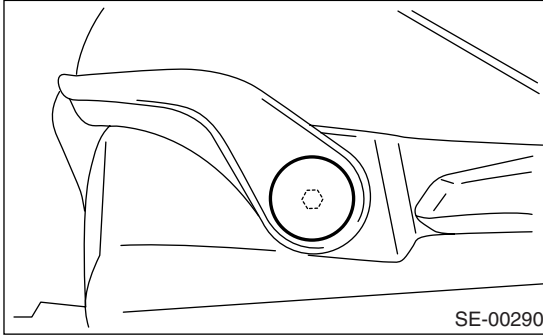
Refer to "COMPONENT" of "General Description". <Ref. to SE-2, FRONT SEAT LH, COMPONENT, General Description.>

C: DISASSEMBLY

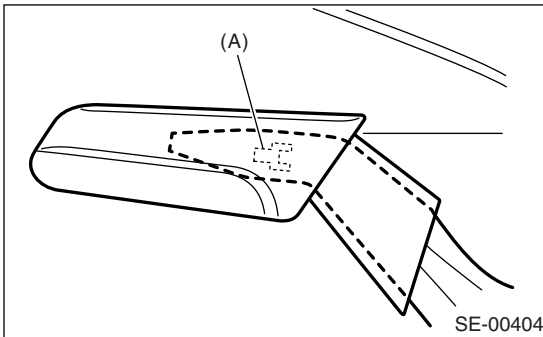
1. STANDARD SEAT

1) Remove the seat from vehicle. <Ref. to SE-6, REMOVAL, Front Seat.>

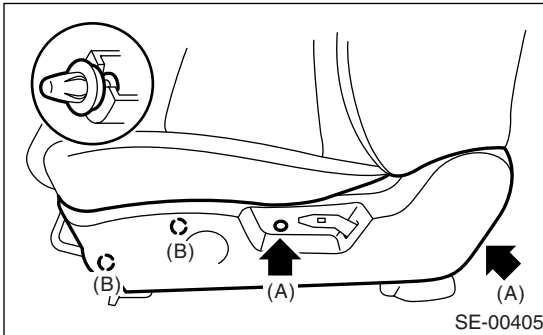
2) Remove the seat lifter cover using a flat tip screwdriver and loosen the inner bolt to remove the seat lifter lever.



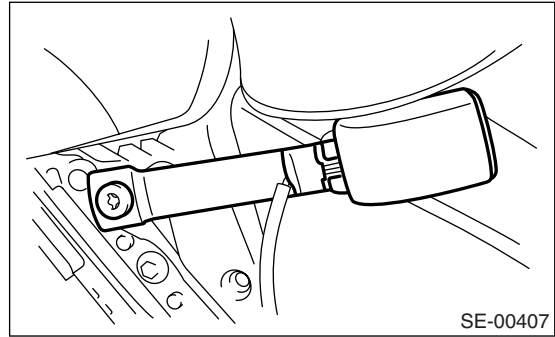
3) Remove the reclining lever cover, while pulling up backside claw (A).



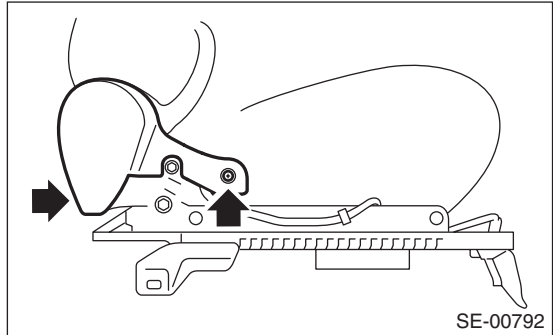
4) Remove screws (A) and clips (B), and then detach the seat side cover outside.



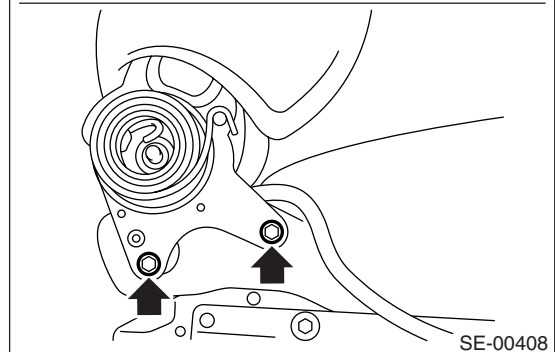
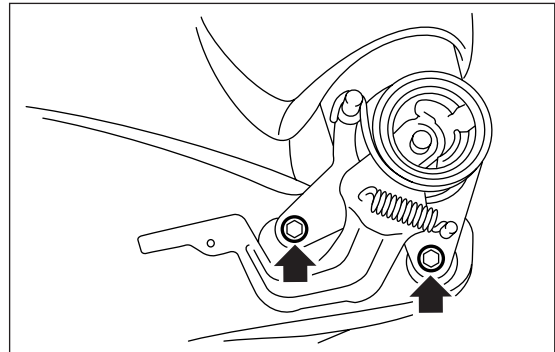
5) Remove the TORX® bolt, and then remove the inner seat belt assembly.



6) Loosen the screws to detach the seat side cover inside.



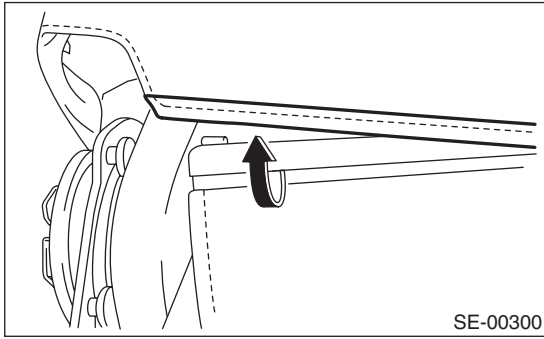
7) Remove the bolts from reclining hinge both side.



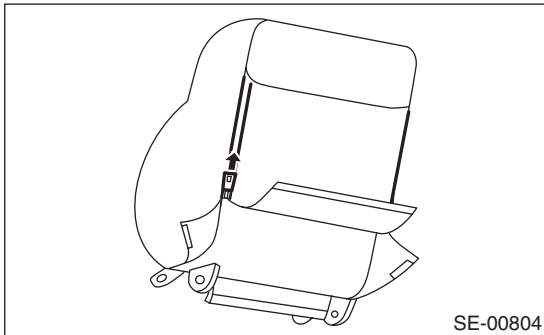
Front Seat

SEATS

- 8) Remove the resin fastener at the bottom-back side of backrest.



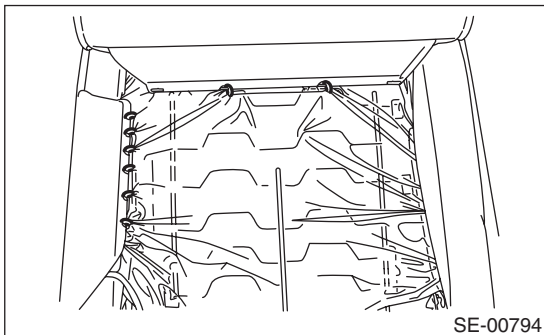
- 9) Open the fastener at the rear side of backrest.



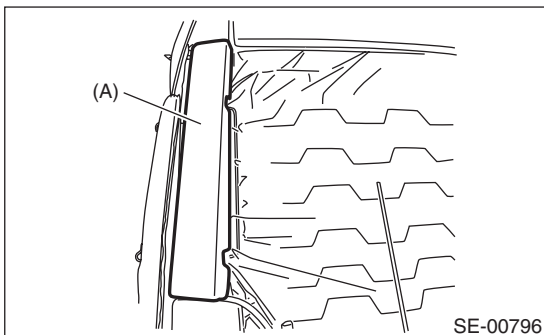
- 10) Remove the hog rings of backrest cover.

CAUTION:

Be careful not to break the plastic bag inside the seat, while removing the hog ring. If the plastic bag is broken, replace the new one.



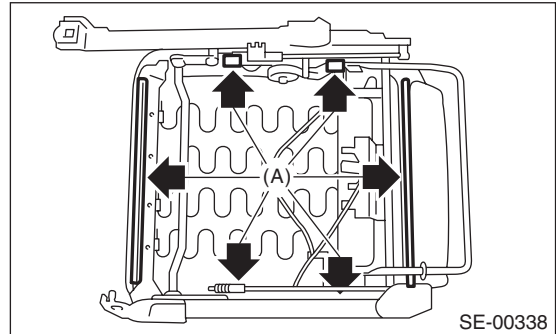
- 11) Remove the pad (A), and then remove the side airbag module attaching nut.



- 12) Pull out the backrest frame.

- 13) Remove the hog rings at front of seat back, and then remove the seat back cover from seat backrest.

- 14) Remove the seat cushion cover resin hooks (A), and then remove the seat cushion frame assembly.



- 15) Remove the hog rings, and then remove the seat cushion cover from seat cushion pad.

- 16) Remove the seat cushion assembly side bolt, and then remove the slide rail.

2. PASSENGER'S SEAT

CAUTION:

- If the seat cushion cover is removed or replaced, make sure to perform passenger detection system adjustment after installing the seat to the vehicle. <Ref. to OD(diag)-15, SYSTEM CALIBRATION (REZEROING), OPERATION, Subaru Select Monitor.>

Failure to do so may cause improper activation of passenger's airbag.

- The passenger detection system (passenger seat only) control unit, passenger detection sensor, seat cushion pad and seat cushion frame are considered as a single seat cushion pad and frame assembly. Never remove the passenger detection control unit or the pressure sensor from the seat cushion frame.

- If the seat cushion cover is removed, make sure to replace the hang wire on the seat cushion side with a new wire.

- 1) Remove the seat from vehicle. <Ref. to SE-6, PASSENGER'S SEAT, REMOVAL, Front Seat.>

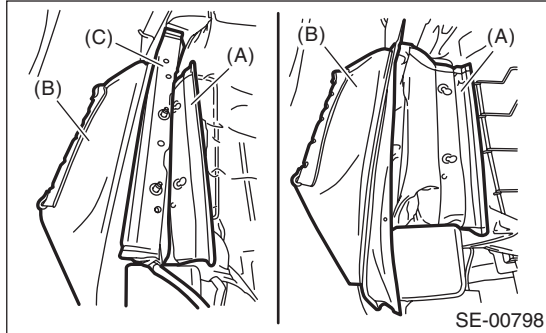
- 2) Refer to the disassembly procedures for the driver's seat.

D: ASSEMBLY

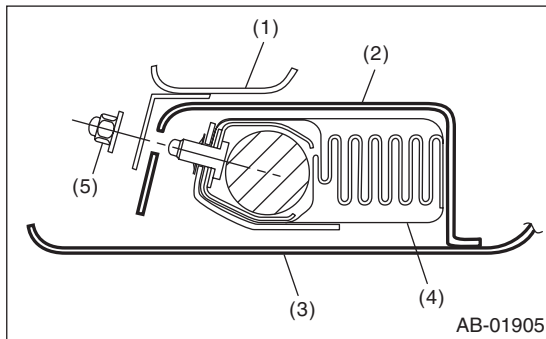
Assemble in the reverse order of disassembly.

CAUTION:

When installing the side airbag module assembly, be sure to install it by inserting the side airbag module between the backrest cover and airbag guide cloth.



- (A) Airbag guide cloth
- (B) Backrest cover
- (C) Side airbag module ASSY



- (1) Backrest frame ASSY
- (2) Airbag guide cloth
- (3) Backrest cover
- (4) Side airbag module ASSY
- (5) Hexagon cap nut

When the backrest cover is not installed securely, the side airbag module may not be deployed properly, therefore keep strictly to the following procedure.

- Be careful not to stain or damage the backrest cover during assembly.
- Always use new hog rings.
- Secure the hog ring using hog ring pliers.
- Install the hog rings to the specified points securely and make sure that no wrinkle or twisting on backrest cover.

Tightening torque:

Refer to "COMPONENT" of "General Description". <Ref. to SE-2, FRONT SEAT LH, COMPONENT, General Description.>

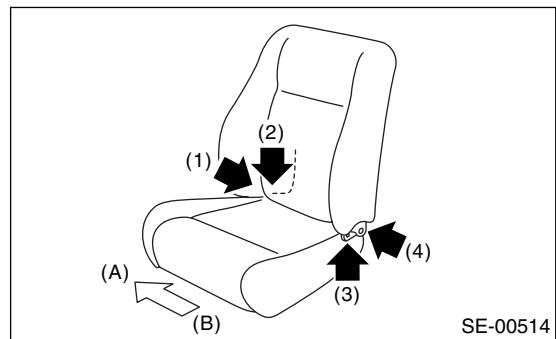
1. DRIVER'S SEAT

NOTE:

- When installing the inner seat belt assembly, follow the procedure described in the seat belt section. <Ref. to SB-17, INSTALLATION, Front Seat Belt.>

- Install the backrest assembly and seat cushion assembly in the following procedure.

- 1) Temporarily tighten the four reclining hinge bolts.
- 2) Place the backrest in the most upright position.
- 3) Tighten the reclining hinge bolts in the order of (1) through (4), in two or three steps by gradually increasing the torque until they reach the specified torque.



- (A) Vehicle inside
- (B) Vehicle outside

4) Assemble in the reverse order of disassembly.

2. PASSENGER'S SEAT

CAUTION:

Make sure to adhere to the following rules when assembling the passenger seat. Improper work procedures can cause the passenger detection system to not operate properly.

- If the seat cushion cover is removed or replaced, make sure to perform passenger detection system adjustment after installing the seat to the vehicle. <Ref. to OD(diag)-15, SYSTEM CALIBRATION (REZEROING), OPERATION, Subaru Select Monitor.>

Failure to do so may cause improper activation of passenger's airbag.

- The passenger detection system (passenger seat only) control unit, passenger detection sensor, seat cushion pad and seat cushion frame are considered as a single seat cushion pad and frame assembly. Never remove the passenger detection control unit or the pressure sensor from the seat cushion frame.

- If the seat cushion cover is removed, make sure to replace the hang wire on the seat cushion side with a new wire.

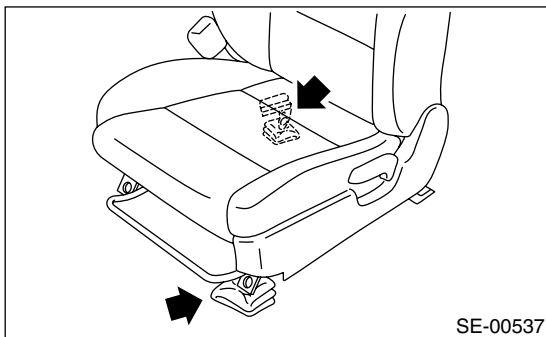
- Make sure to install the hog rings/clips to the specified locations. Do not reuse hog rings.

Assemble in the reverse order of disassembly.

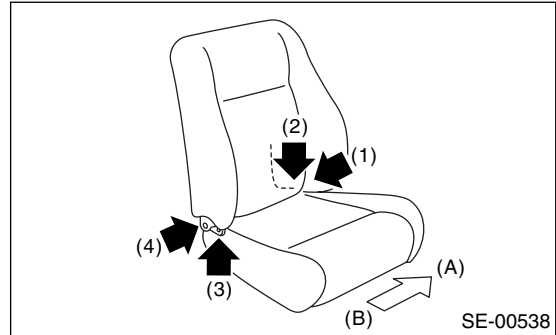
1) Assemble the seat cushion in the reverse order of disassembly.

2) Assemble the backrest in the reverse order of disassembly.

3) When installing the backrest assembly to the seat cushion assembly, fill the gap in the front side of slide rail LH and in the rear side of slide rail RH with cloth etc. in order to stabilize the seat cushion assembly.



4) Temporarily tighten the reclining hinge bolts in the order of (1) through (4) to an extent that the seat backrest assembly is not held securely.



- (A) Vehicle inside
- (B) Vehicle outside

5) Use the reclining lever to place the backrest in the most upright position, and check the first lock position of recliner.

6) Hold the seat cushion assembly securely, and tighten the reclining hinge bolts in the order described above until they reach the specified torque.

CAUTION:

Do not touch the backrest assembly when tightening the reclining hinge bolts.

7) Assemble each harness, inner belt assembly and each cover in the reverse order of removal.

Tightening torque:

Refer to "COMPONENT" of "General Description". <Ref. to SE-2, COMPONENT, General Description.>

E: INSPECTION

Check that no tear or fray on the backrest cover and seat cushion cover.

NOTE:

If the door side of the backrest cover is torn or frayed, the side airbag may not be deployed properly. In this case, replace the backrest cover.

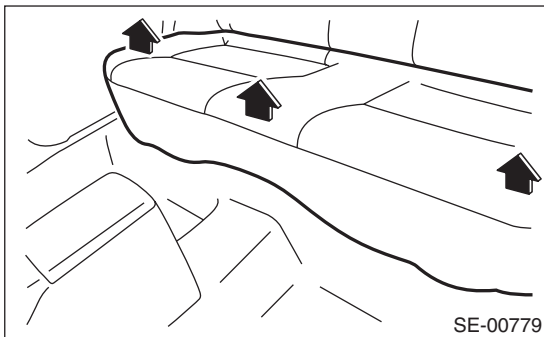
3. Rear Seat

A: REMOVAL

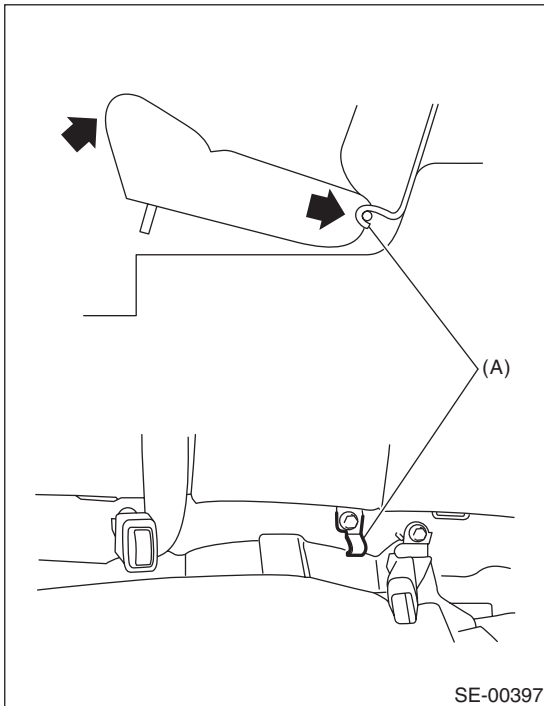
CAUTION:

- Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Read the cautions given in AB section before removing the rear seat. <Ref. to AB-5, CAUTION, General Description.>
- The airbag system is fitted with a backup power source. After disconnecting the battery ground cable, the airbag may deploy if you do not wait for 20 seconds before starting the service of airbag system.

1) Remove the three hooks while lifting up the rear seat cushion.



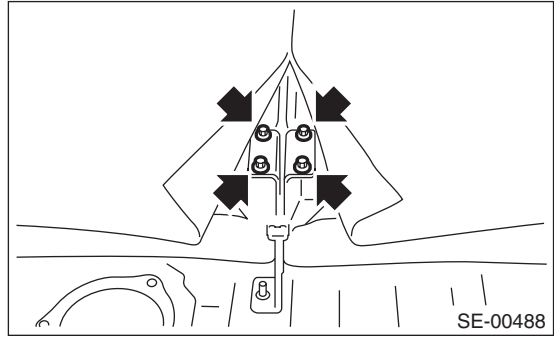
2) Remove the hook (A) by pushing it back while lifting the front side of the seat cushion, and remove the seat cushion.



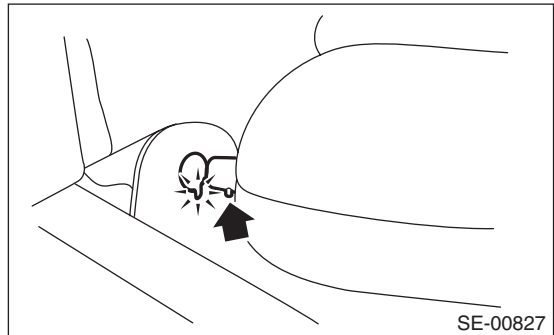
3) Remove the headrest, and then tilt the backrest forward.

4) Remove the luggage floor mat.

5) Turn over the seat cover to remove the bolt.



6) Remove the backrest from hinge assembly LH (hinge assembly RH).



NOTE:

The backrest cannot be detached while the hinge assembly side and the backrest pin are not aligned.

B: INSTALLATION

Install in the reverse order of removal.

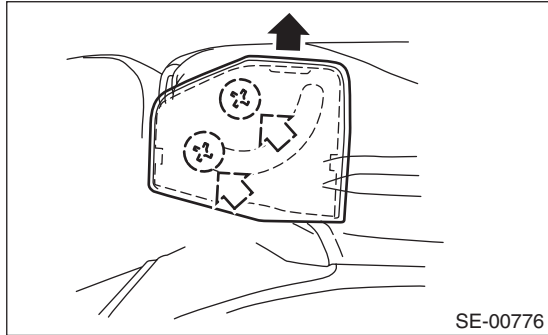
Tightening torque:

Refer to "COMPONENT" of "General Description". <Ref. to SE-4, REAR SEAT, COMPONENT, General Description.>

SEATS

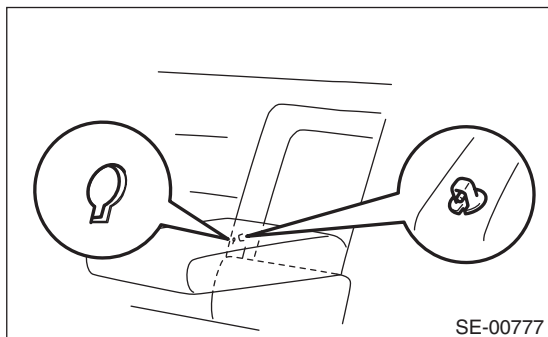
C: DISASSEMBLY

- 1) Remove the rear seat. <Ref. to SE-11, REMOVAL, Rear Seat.>
- 2) Remove the armrest hinge cover in the direction of black arrow, and loosen the screws to remove the armrest.

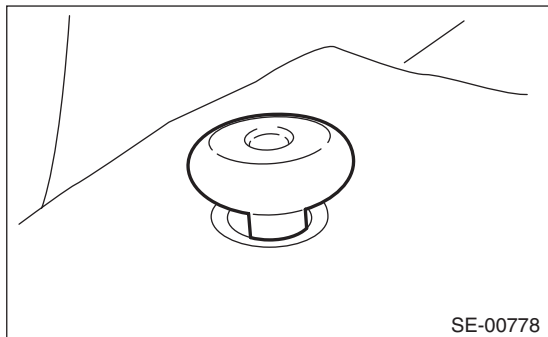


NOTE:

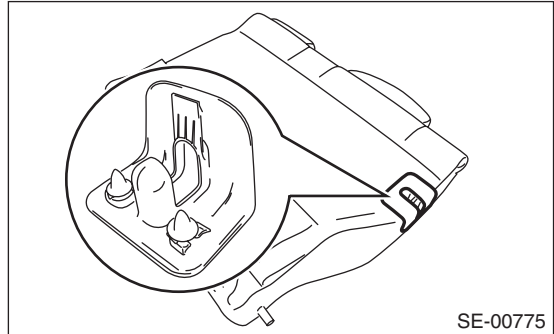
The armrests cannot be detached while the backrest assembly RH and armrest side pin positions are not aligned.



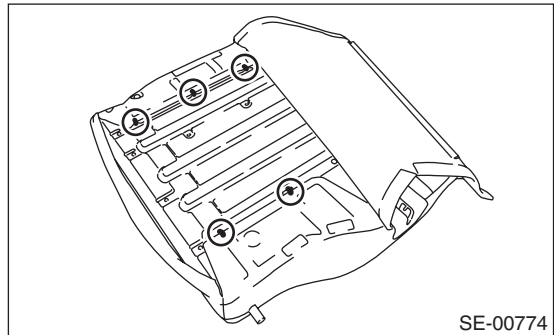
- 3) Remove the backrest knob. (Screw-in type) (Wagon model)



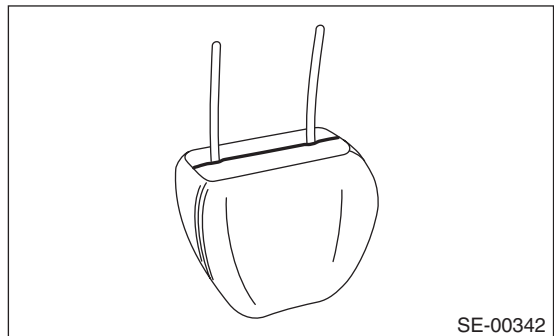
- 4) Remove the seat back latch cover.



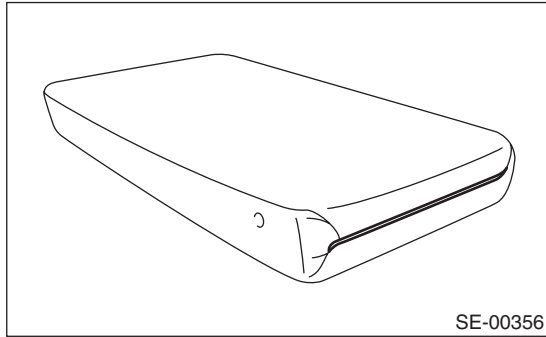
- 5) Turn over the backrest cover to remove the hog rings.



- 6) Remove all the hog rings securing the backrest frame and backrest pad.
- 7) Remove the headrest bushing.
- 8) Remove the backrest pad and backrest cover from the backrest frame.
- 9) Disassemble the backrest assembly LH by referring to above procedures.
- 10) Remove all the hog rings on the rear side of the seat cushion to separate the seat cushion cover and cushion pad.
- 11) Open the plastic fastener, then remove the headrest cover from the headrest.



12) Remove the plastic fastener and hog rings, and then remove the armrest cover.



D: ASSEMBLY

Assemble in the reverse order of disassembly.

CAUTION:

- Always use new hog rings.
- Secure the hog ring using hog ring pliers.
- Install the hog rings to the specified points securely and make sure that no wrinkle or twisting on backrest cover.

NOTE:

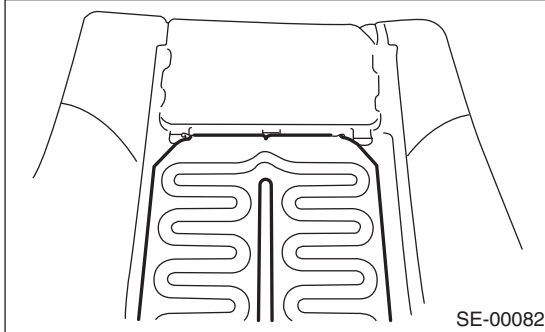
- Do not contaminate or damage the cover.
- While installing the hog rings, prevent the seat from getting wrinkled.

4. Seat Heater System

A: REMOVAL

1. SEAT HEATER UNIT

- 1) Remove the front seats. <Ref. to SE-6, REMOVAL, Front Seat.>
- 2) Remove the backrest cover of front seat and seat cushion cover. <Ref. to SE-7, DISASSEMBLY, Front Seat.>
- 3) Remove the hog rings, and then remove the seat heater unit.



2. SEAT HEATER SWITCH

- 1) Remove the console box. <Ref. to EI-43, REMOVAL, Console Box.>
- 2) Remove the seat heater switch from the console box.

B: INSTALLATION

Install in the reverse order of removal.

C: INSPECTION

1. WIRING DIAGRAM

<Ref. to WI-67, WIRING DIAGRAM, Seat Heater System.>

2. DIAGNOSTIC CHART

Symptoms	Repair order
Seat heater does not operate.	1. Check the fuse. <Ref. to SE-14, CHECK SEAT HEATER FUSE, INSPECTION, Seat Heater System.>
	2. Check the seat heater system power supply and ground circuit. <Ref. to SE-15, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Seat Heater System.>
	3. Check the thermistor circuit. <Ref. to SE-15, CHECK THERMISTOR CIRCUIT, INSPECTION, Seat Heater System.>
	4. Check the seat heater switch circuit. <Ref. to SE-15, CHECK SEAT HEATER SWITCH, INSPECTION, Seat Heater System.>

3. CHECK SEAT HEATER FUSE

Remove the seat heater fuse, and then visually check.

Is the fuse blown out?

- Yes → Replace the fuse.
- No → Check the power supply and ground circuit.

4. CHECK POWER SUPPLY AND GROUND CIRCUIT

1) CHECK THE POWER SUPPLY CIRCUIT

- (1) Disconnect the seat heater switch.
- (2) Turn the ignition switch to ON.
- (3) Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal

(AD8) No. 12 (+) — Chassis ground (-):

Is the voltage 12 V or more?

- Yes → Go to symptom 2.
- No → Check the harness between seat heater switch and fuse.

2) CHECK THE GROUND CIRCUIT

Measure the resistance between harness connector terminal and chassis ground.

Connector & terminal

(AD8) No. 2 — Chassis ground:

Is the resistance less than 10 Ω?

- Yes → Go to symptom 3.
- No → Repair the harness.

3) CHECK THE GROUND CIRCUIT

Measure the resistance between harness connector terminals.

Connector & terminal

(AD8) No. 1 — (AD8) No. 2:

(AD8) No. 3 — (AD8) No. 2:

Is the resistance less than 10 Ω?

- Yes → The power supply and ground circuit are OK.
- No → Repair the harness.

5. CHECK THERMISTOR CIRCUIT

- 1) Disconnect the connector of seat heater switch.
- 2) Measure the resistance between harness connector terminals.

Connector & terminal

Check LHD side

(AD8) No. 8 — (AD8) No. 3:

Check RHD side

(AD8) No. 6 — (AD8) No. 1:

Is the resistance between 1 kΩ and 200 kΩ?

- Yes → Thermistor circuit is normal
- No → Harness faulty or thermistor faulty

6. CHECK SEAT HEATER SWITCH

1) CHECK THERMISTOR OUTPUT VOLTAGE

- (1) Turn the ignition switch to ON.
- (2) Measure the voltage between seat heater switch and chassis ground.

Connector & terminal:

LHD side seat

(AD8) No. 8 (+) — Chassis ground (-):

RHD side seat

(AD8) No. 6 (+) — Chassis ground (-):

Is the voltage 1.5 V or more?

- Yes → Go to symptom 2.
- No → Replace the seat heater switch.

2) CHECK OUTPUT VOLTAGE

- (1) Turn the ignition switch to ON.
- (2) Measure the voltage between seat heater switch and chassis ground when turning the switch to other than OFF position.

Connector & terminal:

LHD side seat

(AD8) No. 9 (+) — Chassis ground (-):

RHD side seat

(AD8) No. 7 (+) — Chassis ground (-):

Does the voltage repeat 12V and 0V?

- Yes → Harness faulty, open circuit of heater or thermostat faulty
- No → Replace the seat heater switch.

Seat Heater System

SEATS

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