

COMPONENT TESTS AND GENERAL DIAGNOSTICS

Inspection Locations after a Collision

REPLACEMENT

Replace the following parts if the airbag system has been activated.

1. FRONT COLLISION

1. Driver's airbag module
2. Knee airbag module
3. Passenger's airbag module
4. Driver's seat belt (pretensioner)
5. Passenger's seat belt (pretensioner)
6. Lap seat belt pretensioner (passenger's side only)
7. Airbag control module
8. Front sub sensor (right and left)
9. Roll connector
10. Passenger's side seat cushion pad and frame assembly 11) Instrument panel (for integrating with passenger's airbag module)

2. SIDE COLLISION

1. Airbag control module
2. Satellite safing sensor
3. Cover - satellite safing
4. Side airbag module (operating side)
5. Side airbag sensor (operating side)
6. Front door impact sensor (operating side)
7. Curtain airbag module (operating side)
8. Curtain airbag sensor (operating side)
9. Pad assembly - front seat backrest (operating side)
10. Cover COMPL - front backrest (operating side)
11. Trim panel - roof assembly
12. Trim panel for each pillar (operating side)

3. ROLL OVER

1. Airbag control module
2. Curtain airbag module (both sides)
3. Driver's seat belt (pretensioner)
4. Passenger's seat belt (pretensioner)
5. Lap seat belt pretensioner (passenger's side only)

4. INSPECTION OF OTHER PARTS

Check for the following parts, and replace the damaged parts with new parts.

1. Steering wheel and column assembly - steering

Check the column assembly - steering for mounting conditions and deflection of front and rear, upward and downward directions, and deflection of front and rear direction with tilt lever released. (After a collision, absorbing part of the column assembly - steering may have been operated.)

2. Check the direct type connector of driver's airbag module, knee airbag module, curtain airbag module, and pretensioner for damage, and also check each harness for pinching and connector damage. Replace the main harness as an assembly if damage is found.

3. Check the seat cushion, backrest, slide rail and headrest for installation condition, looseness, deformation and crack.

4. If any break or fray is found in the cover COMPL - front backrest of the driver's seat or passenger's seat, the side airbag system may not operate normally. In this case, replace the cover COMPL - front backrest with a new part.

5. For the passenger's seat, replace the passenger's seat cushion and frame assembly with a new part if the frame assembly - front cushion is deformed or cracked.

6. If there are tears or loosening in the seat cover - front cushion on the passenger's side, it may interfere with the proper operation of the occupant detection system. Replace the passenger's seat cushion and frame assembly with a new part.

7. Use the Subaru Select Monitor to check whether the passenger's seat belt buckle switch is operating normally.

INSPECTION

If the vehicle is involved in a collision, even if it is a slight collision, be sure to check the following systems.

1. DRIVER'S AIRBAG MODULE ASSEMBLY

1. Frontal collision (driver's airbag module assembly activated)

1. Replace the following parts with new ones.

- Airbag control module
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Side airbag module (right and left / if deployed)
- Curtain airbag module (right and left / if deployed)
- Front sub sensor (right and left)
- Column assembly - steering

2. Visually inspect the following items and replace any damaged part with a new one.

- Steering wheel
- Beam COMPL - steering
- Instrument panel harness and connector on body side

2. Frontal collision (driver's airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one.
Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

3. No frontal collision

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

2. KNEE AIRBAG MODULE

1. Frontal collision (knee airbag module activated)

1. Replace the following parts with new ones.

- Airbag control module
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Side airbag module (right and left / if deployed)
- Curtain airbag module (right and left / if deployed)
- Front sub sensor (right and left)
- Column ASSY - steering

2. Visually inspect the following items and replace any damaged part with a new one.

- Steering wheel
- Beam COMPL - steering
- Instrument panel harness and connector on body side

2. Frontal collision (knee airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one.
Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

3. No frontal collision

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

3. PASSENGER'S AIRBAG MODULE

1. Frontal collision (passenger's airbag module activated)

1. Replace the following parts with new ones.

- Airbag control module
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Side airbag module (right and left / if deployed)
- Curtain airbag module (right and left / if deployed)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

2. Visually inspect the following items and replace any damaged part with a new one.

- Beam COMPL - steering
- Instrument panel harness and connector on body side

2. Frontal collision (passenger's airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one.

Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

3. No frontal collision

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

4. SIDE AIRBAG MODULE

1. Side impact (side airbag module activated)

1. Replace the following parts with new ones.

- Airbag control module
- Satellite safing sensor
- Cover - satellite safing
- Front door impact sensor
- Side airbag module (operating side)
- Side airbag sensor (operating side)
- Curtain airbag module (operating side)
- Curtain airbag sensor (operating side)
- Pad assembly - front seat backrest
- Frame assembly - front backrest
- Cover COMPL - front backrest
- Trim panel - roof assembly
- Trim panel for each pillar

2. Visually inspect the following items and replace any damaged part with a new one.

- Headrest assembly
- Bushing - lock headrest
- Slide rail assembly - OUT
- Slide rail assembly - INN
- Cover - hinge front seat
- Knob - lifter
- Lever - reclining
- Side airbag harness and connector on body side

2. Side impact (side airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one.

Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Pad assembly - front seat backrest
- Frame assembly - front backrest
- Cover COMPL - front backrest
- Sensor assembly - satellite safing
- Cover - satellite safing
- Front door impact sensor
- Side airbag module
- Side airbag sensor
- Curtain airbag module
- Curtain airbag sensor

3. No side impact

Visually inspect the airbag modules for contamination and replace any faulty part with a new one.

5. CURTAIN AIRBAG MODULE

1. Side impact or roll over (curtain airbag module activated)

1. Replace the following parts with new ones.

- Airbag control module
- Satellite safing sensor
- Cover - satellite safing
- Curtain airbag module
- Seat belt pretensioner (operating side)
- Front door impact sensor
- Side airbag sensor
- Curtain airbag sensor
- Pad assembly - front seat backrest (operating side)
- Frame assembly - front backrest (operating side)
- Cover COMPL - front backrest (operating side)
- Trim panel - roof ASSY
- Trim panel for each pillar
- Airbag bracket (model with sunroof)

2. Visually inspect the following items and replace any damaged part with a new one.

- Assist rail - front and rear

- Bracket - assist rail front and rear
- Curtain airbag harness and connector on body side.

2. Side impact (curtain airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one.

Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Trim panel - roof ASSY
- Trim panel for each pillar
- Curtain airbag module
- Satellite safing sensor
- Cover - satellite safing
- Front door impact sensor
- Side airbag sensor
- Curtain airbag sensor

3. No side impact or roll over

Visually inspect the airbag covers for damage or contamination and replace any faulty part with a new one.

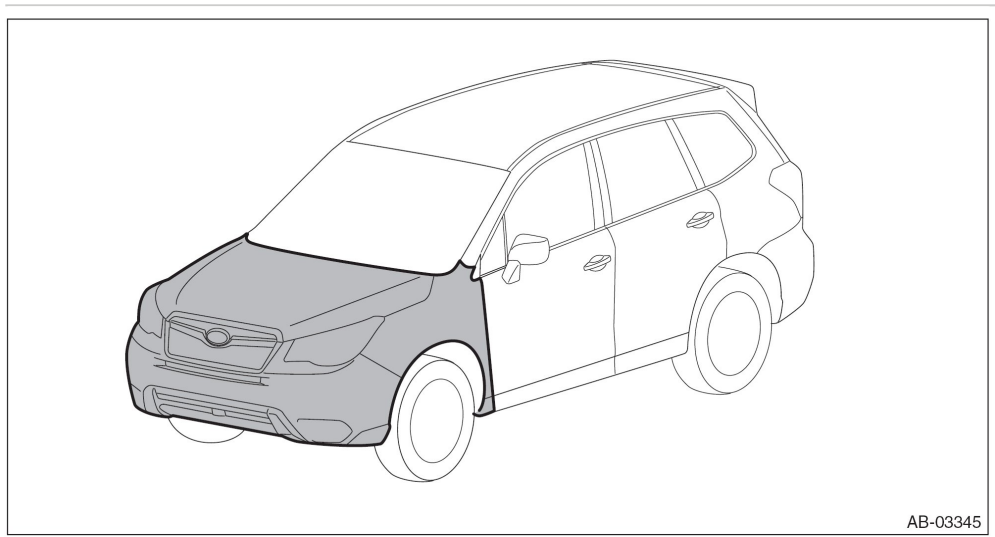
6. AIRBAG CONTROL MODULE

Check for the following, and replace the damaged parts with new parts.

- Control module is cracked or deformed.
- Mounting bracket is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Driver's airbag module has been activated.
- Knee airbag module has been activated.
- Passenger's airbag module has been activated.
- Side airbag module has been activated.
- Curtain airbag module has been activated.
- Seat belt pretensioner has been activated.
- Lap seat belt pretensioner has been activated.

7. FRONT SUB SENSOR

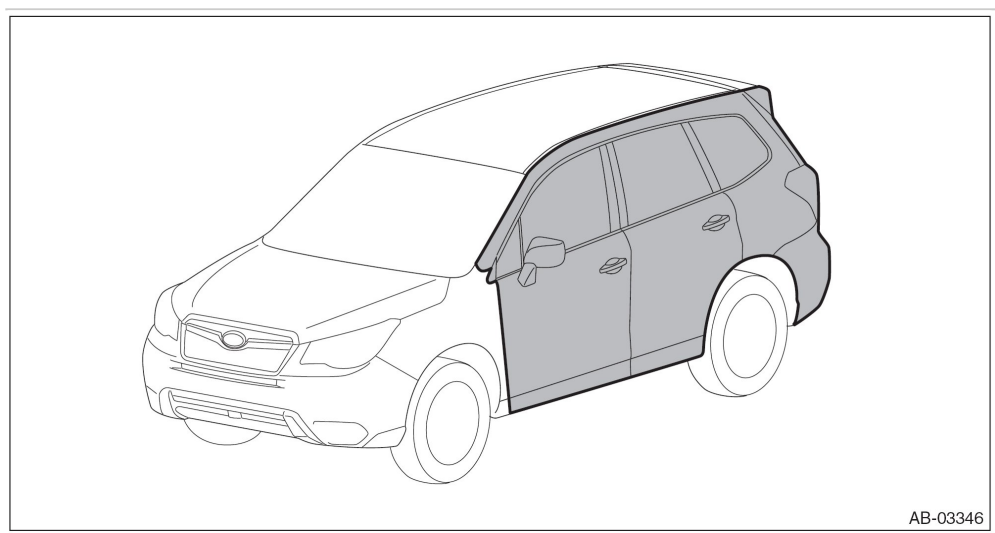
If the section of vehicle as shown in the figure is damaged, check the following items and replace the damaged parts with new parts.



- Front sub sensor is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Driver's airbag module, knee airbag module or passenger's airbag module has been activated.

8. FRONT DOOR IMPACT SENSOR, SATELLITE SAFING SENSOR, SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR

If the section of vehicle as shown in the figure is damaged, check the following items and replace the damaged parts with new parts.



- Front door impact sensor, satellite safing sensor, side airbag sensor and curtain airbag sensor are cracked or deformed.
- Mounting bracket is cracked or deformed.
- Connector is scratched, cracked or deformed.

- Side airbag module or curtain airbag module has been activated. (Operating side)

9. ROLL CONNECTOR

Check the following items and replace any damaged, cracked, or deformed parts with new parts.

- Combination switch
- Steering roll connector

10. COLUMN ASSEMBLY - STEERING & STEERING WHEEL

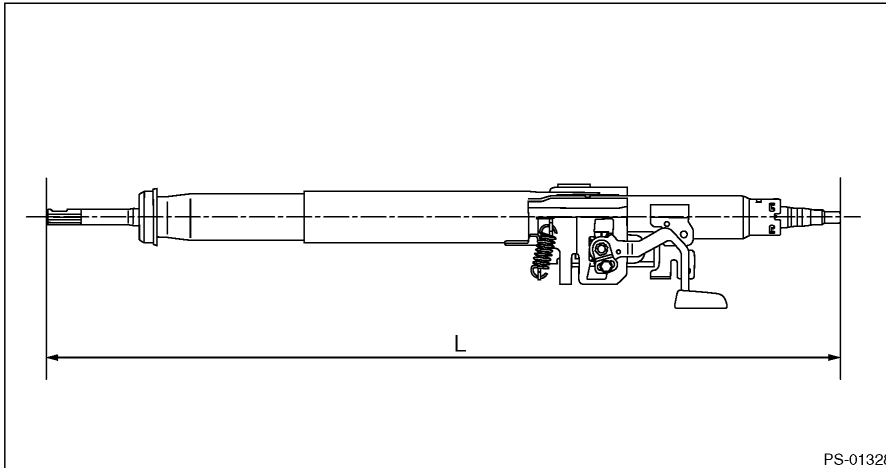
Check the following items, and if there is anything out of standard, it is considered to be damaged. If so, replace it with a new part.

- Measure the whole length of the column assembly - steering.

Standard: Overall length L

Tilt and telescopic column (measure while minimized)

$819.7^{+1.5}_{-1.5}$ mm ($32.27^{+0.059}_{-0.059}$ in)



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- Check the steering wheel deflection in axial and vertical directions.

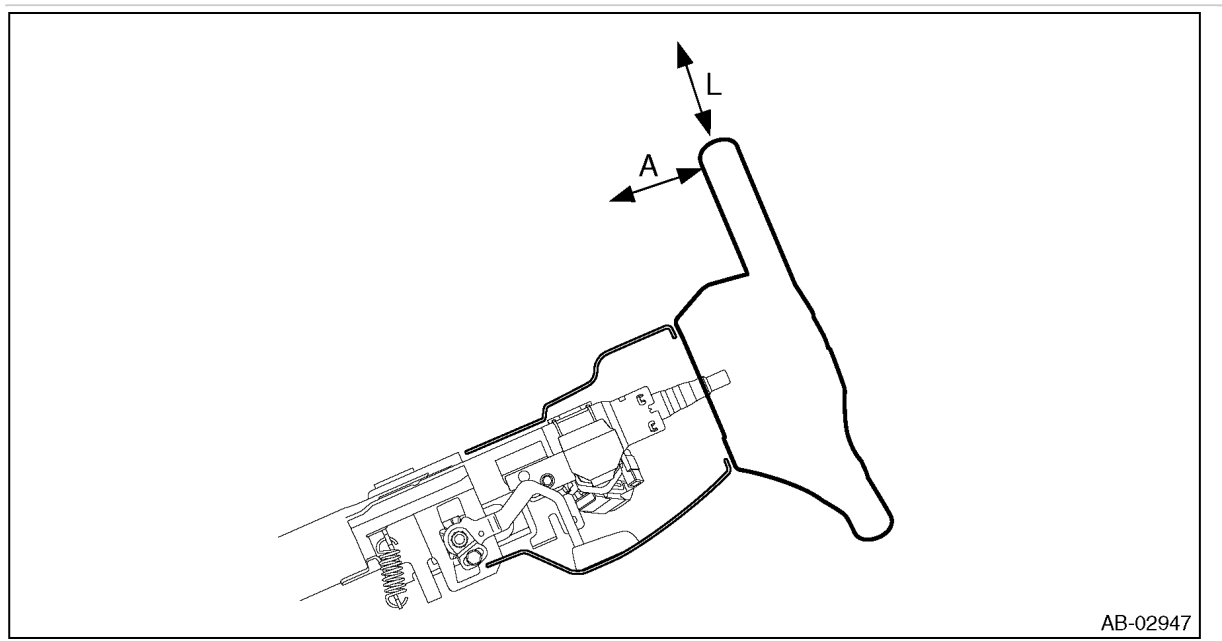
Specification:

Axial deflection A (deflection of steering wheel)

Less than 6 mm (0.24 in)

Vertical deflection L (runout of steering wheel)

Less than 17 mm (0.68 in)



11. PASSENGER'S SEAT

Check for the following, and replace the damaged parts with new parts.

- Body or bracket of the seat belt inner - front is scratched, cracked or deformed.
- Frame assembly - front backrest is cracked or deformed.
- Headrest assembly for deformation or play
- If the cover - front cushion and the cover COMPL - front backrest is damaged or frayed, replace the cover with a new part.

CAUTION:

If any of the following applies, replace the pad assembly - front seat cushion & frame assembly - front cushion as a unit. Do not disassemble.

- **The frame assembly - front cushion or the pad assembly - front seat cushion is cracked or deformed.**
- **Scratches, cracks, or deformation found on the occupant detection system sensor mat or occupant detection control module, or attachment brackets of the control module.**
- **Harness and/or connector is cracked, deformed or open. Harness wire is exposed.**