

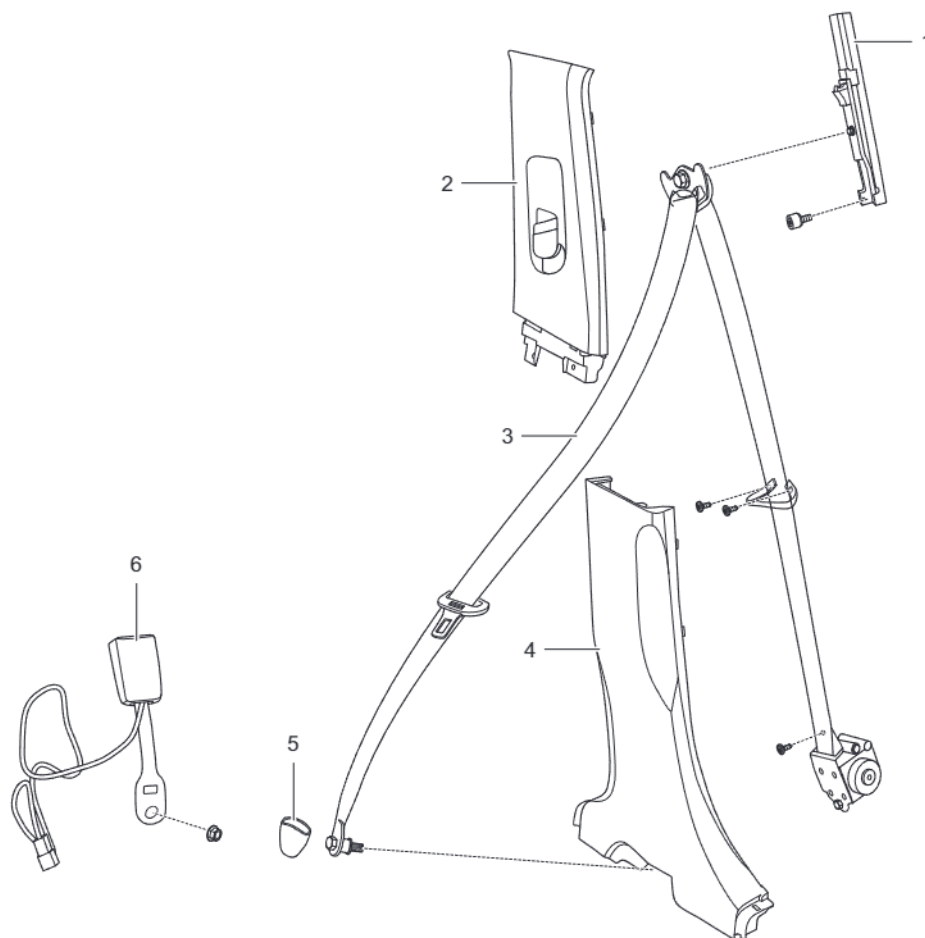
SEAT BELT

GENERAL INFORMATION	33-3	Removal	33-12
Description	33-3	Installation	33-12
Operation	33-5	Height Adjuster Assembly	33-13
Specifications	33-5	Removal	33-13
Tool	33-5	Installation	33-13
Circuit Diagram	33-6	Rear Seat Belt Assembly	33-14
DIAGNOSIS & TESTING	33-7	Removal	33-14
Seat Belt Inspection	33-7	Inspection	33-15
ON-VEHICLE SERVICE	33-8	Installation	33-15
Front Seat Belt Assembly	33-8	Center Seat Belt Assembly	33-16
Removal	33-8	Removal	33-16
Inspection	33-9	Inspection	33-17
Installation	33-10	Installation	33-18
Front Seat Belt Buckle Assembly	33-11	Rear Seat Belt Buckle Assembly	33-19
On-vehicle Inspection	33-11	Removal	33-19
		Installation	33-20

GENERAL INFORMATION

Description

Front Seat Belt Assembly



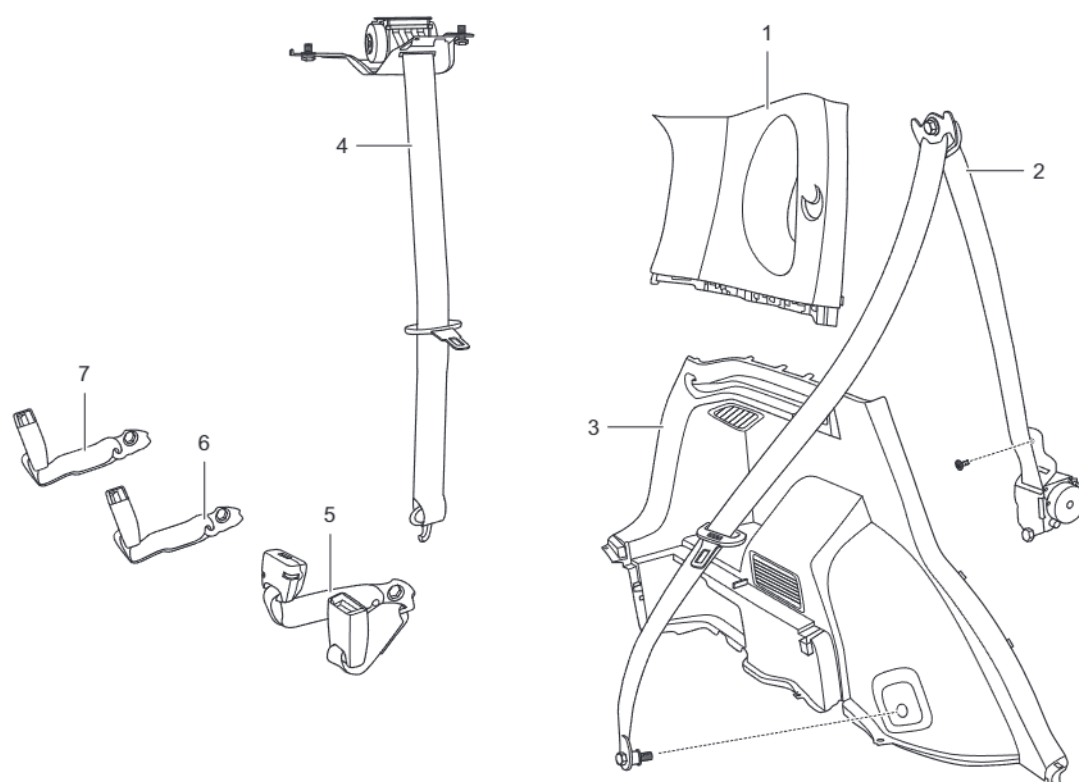
RT21330010

33

1 - Height Adjuster Assembly	2 - B-pillar Upper Protector Assembly
3 - Front Seat Belt Assembly	4 - B-pillar Lower Protector Assembly
5 - Seat Belt Lower Bolt Protective Cap	6 - Front Seat Belt Buckle Assembly

Rear Seat Belt Assembly

33



RT21330020

1 - C-pillar Upper Protector Assembly	2 - Rear Seat Belt Assembly
3 - C-pillar Lower Protector Assembly	4 - Center Seat Belt Assembly
5 - Rear Seat Belt Buckle Assembly	6 - Rear Center Seat Belt Buckle Assembly
7 - Rear Right Seat Belt Buckle Assembly	

The front seat belt assembly is a 3 point type belt with limiter and pretensioner, and front seat belt buckle assembly is a device with alarm function. Front seat belt is equipped with seat belt reminder. The reminder will not work until ignition switch is turned to ON. If driver or front passenger seat belt unfastened, the reminder will continue flashing. When vehicle speed exceeds 25 km/h, the buzzer will sound to inform driver and front passenger to fasten their seat belts. Seat belt reminder will go off immediately after seat belt is fastened.

The rear seat belt assembly is 3 point emergency locking type belt.

Operation

In the event of a collision, the seat belt lock starts to work. Seat belt is locked securely and cannot be pulled out from the retractor freely, so that the passenger will be restricted to seat to prevent head and chest from hitting the steering wheel, instrument panel, windshield or front seat, which can reduce the risk of second collision.

Specifications

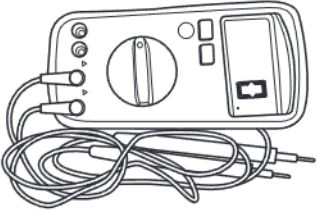
Torque Specifications

Description	Torque (N·m)
Height Adjuster Fixing Bolt	23 ± 2
Front Seat Belt Assembly Fixing Bolt	50 ± 5
Front Seat Belt Retractor Fixing Screw	3 ± 0.5
Front Seat Belt Assembly Center Fixing Screw	1.5 ± 0.5
Rear Seat Belt Assembly Fixing Bolt	50 ± 5
Rear Seat Belt Assembly Fixing Screw	1.5 ± 0.5
Center Seat Belt Assembly Fixing Bolt	50 ± 5
Center Seat Belt Inner Trim Cover Fixing Screw	3 ± 0.5
Rear Seat Belt Buckle Assembly Fixing Bolt	50 ± 5
Rear Center Seat Belt Buckle Assembly Fixing Bolt	50 ± 5
Rear Right Seat Belt Buckle Assembly Fixing Bolt	50 ± 5
Front Seat Belt Buckle Fixing Nut	50 ± 5

33

Tool

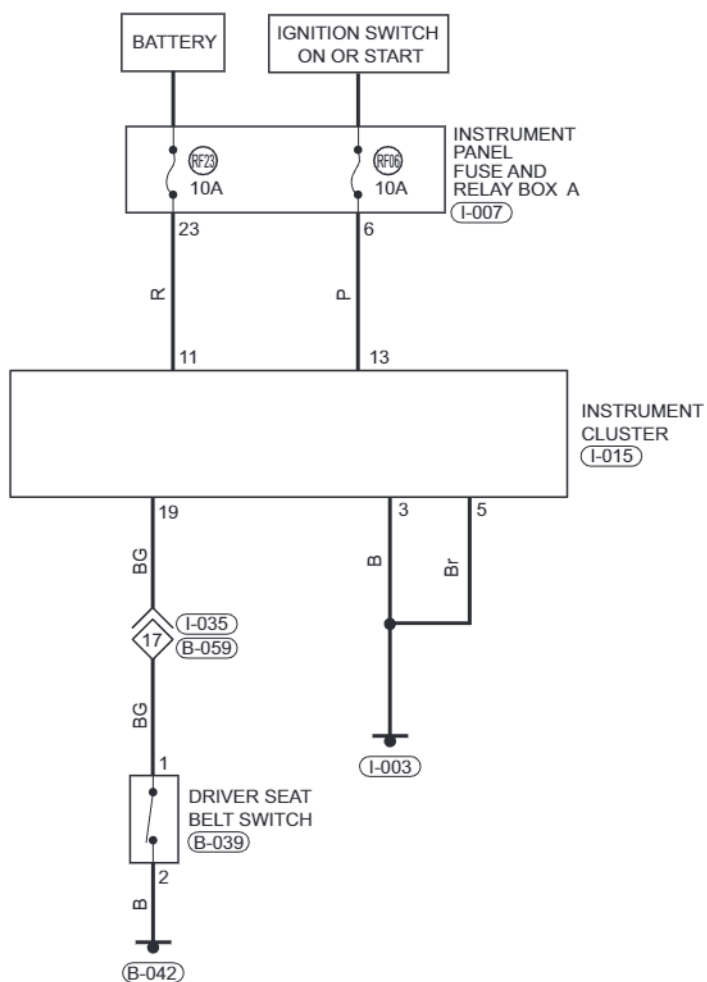
General Tool

Digital Multimeter	 RCH0000002
--------------------	--

Circuit Diagram

Seat Belt System

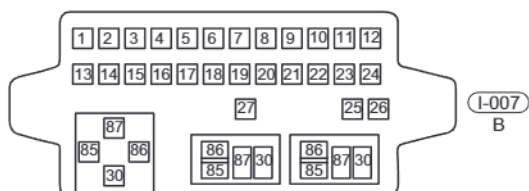
33



17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

(I-015)
L(B-039)
B

9	8	7	6	5	4	3	2	1
18	17	16	15	14	13	12	11	10

(I-035)
W(I-007)
B

ET21330010

DIAGNOSIS & TESTING

Seat Belt Inspection

1. When pulling seat belt downward slowly by hand, the seat belt should be pulled out smoothly from the retractor and can return back after releasing. If it is not as specified, replace the seat belt.
The seat belt should be locked automatically as it is pulled out quickly. If not, replace the seat belt.
2. Check seat belt for cuts, wear and looseness. If damaged, replace the seat belt assembly.
3. Check seat belt for overstretch (for example after accident). If damaged, replace the seat belt assembly or related components.
4. Tighten and release seat belt and seat belt buckle repeatedly to check engagement between them. If those conditions (difficult operation, excessive sliding resistance and sticking, etc.) occur, replace the seat belt assembly or seat belt buckle assembly.

WARNING

- The seat belt system should be checked regularly to reduce the possibility and serious level of injury caused by accident.
- When checking impacted vehicle, be sure to check the seat belt system to reduce the possibility and serious level of injury caused by accident.

33

ON-VEHICLE SERVICE

Front Seat Belt Assembly

Removal

HINT:

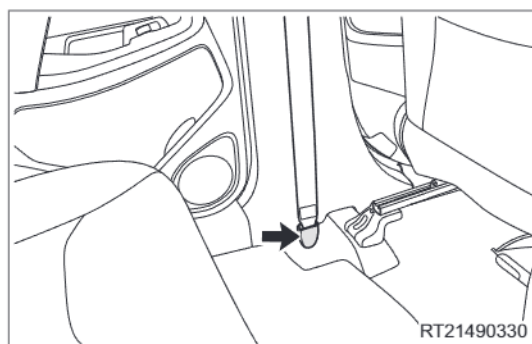
- Use the same procedures for the right side and left side.
- Procedures listed below are for the left side.

CAUTION

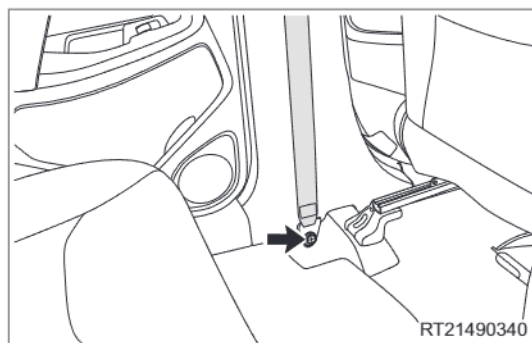
- Make sure to wear safety equipment to prevent accidents when removing front seat belt assembly.
- Appropriate force should be applied when removing front seat belt assembly, and avoid operating roughly.
- DO NOT scratch the interior when removing front seat belt assembly.

33

1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the front left seat belt assembly.
 - a. Using a screwdriver wrapped with protective tape, pry the lower bolt protective cap (arrow) of front seat belt assembly.

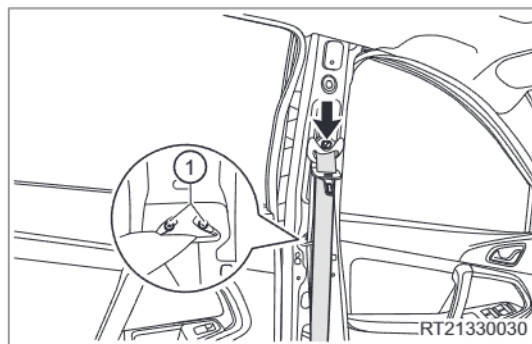


- b. Remove the fixing bolt (arrow) from the lower part of front seat belt assembly.
(Tightening torque: 50 ± 5 N·m)

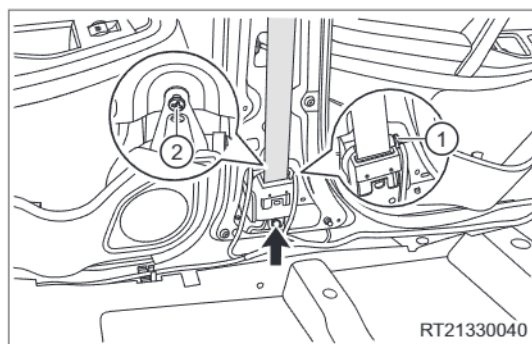


- c. Remove the left B-pillar lower protector assembly ([See page 49-20](#)).
- d. Remove the left B-pillar upper protector assembly ([See page 49-21](#)).

- e. Remove the fixing bolt (arrow) from the upper part of front seat belt assembly.
(Tightening torque: $50 \pm 5 \text{ N}\cdot\text{m}$)
- f. Remove 2 fixing screws (1) from the center part of front seat belt assembly.
(Tightening torque: $1.5 \pm 0.5 \text{ N}\cdot\text{m}$)



- g. Disconnect the connector (1) from the front seat belt.
- h. Remove the fixing screw (2) from the front seat belt retractor.
(Tightening torque: $3 \pm 0.5 \text{ N}\cdot\text{m}$)
- i. Remove the fixing bolt (arrow) from the front seat belt retractor.
(Tightening torque: $50 \pm 5 \text{ N}\cdot\text{m}$)



- j. Remove the front left seat belt assembly.

33

Inspection

Check the front seat belt retractor.

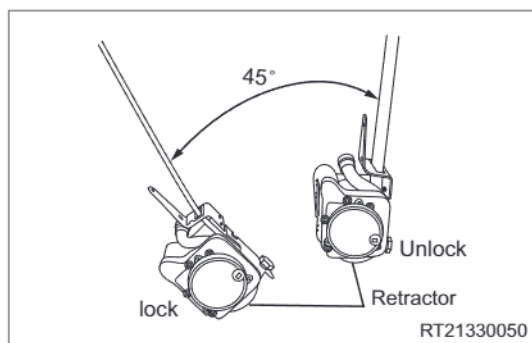
CAUTION

- DO NOT disassemble the front seat belt retractor.

HINT:

When the inclination of front seat belt retractor is 15° or less, check that the front seat belt can be pulled out from the front seat belt retractor. When the inclination of front seat belt retractor is over 45° , check that the front seat belt locks.

If result is not as specified, replace the front seat belt assembly.



Installation

Installation is in the reverse order of removal.

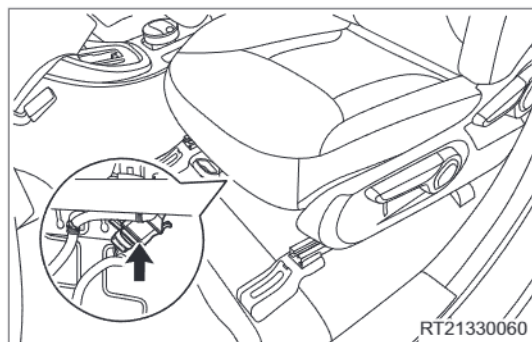
CAUTION

- Keep seat belt assembly clean, avoid attaching oil and check seat belt assembly for damage when installing the front seat belt assembly.
- Make sure to tighten all fixing bolts and fixing screws according to the specified torque when installing the front seat belt assembly.

Front Seat Belt Buckle Assembly

On-vehicle Inspection

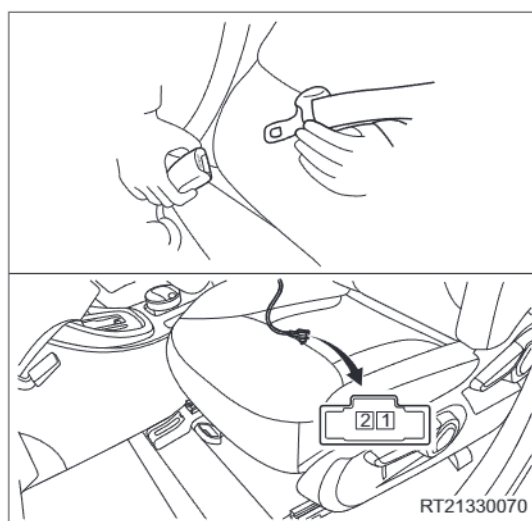
1. Check the front seat belt buckle assembly.
 - a. Disconnect the front seat belt buckle connector (arrow).



- b. Using a digital multimeter, measure the resistance between terminals 1 and 2 of front seat belt buckle assembly connector.

Under normal conditions, the measured resistance is $\infty \Omega$ (no continuity) when front seat belt assembly is fastened; the measured resistance is less than 0Ω (continuity) when front seat belt assembly is unfastened.

If result is not as specified, replace the front seat belt buckle assembly.



Removal

HINT:

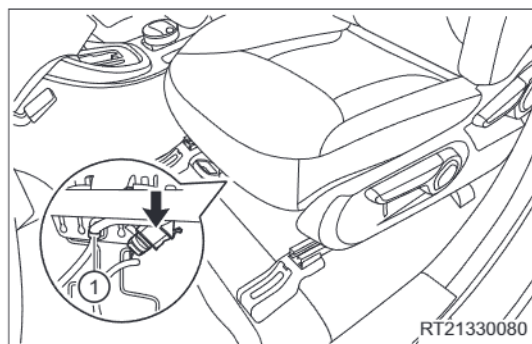
- Use the same procedures for the front passenger seat belt buckle assembly and driver seat belt buckle assembly.
- The procedures listed below are for the driver seat belt buckle assembly.

CAUTION

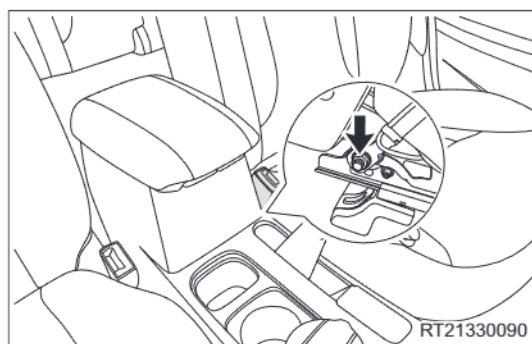
- Make sure to wear safety equipment to prevent accidents when removing front seat belt buckle assembly.
- DO NOT scratch the interior when removing front seat belt buckle assembly.
- DO NOT damage the wire harness and connector when removing front seat belt buckle assembly.

33

1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the front seat belt buckle assembly.
 - a. Using a screwdriver wrapped with protective tape, pry the clip (1) on the wire harness connector.
 - b. Disconnect the front seat belt buckle connector (arrow).



- c. Remove the fixing nut (arrow) from front seat belt buckle assembly.
(Tightening torque: 50 ± 5 N·m)



- d. Remove the front seat belt buckle assembly.

Installation

Installation is in the reverse order of removal.

CAUTION

- Make sure to tighten all fixing nuts according to the specified torque when installing the front seat belt buckle assembly.
- Install the connector in place when installing the front seat belt buckle assembly.

Height Adjuster Assembly

Removal

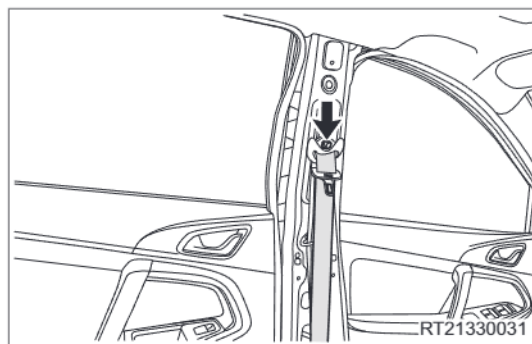
HINT:

- Use the same procedures for the right side and left side.
- Procedures listed below are for the left side.

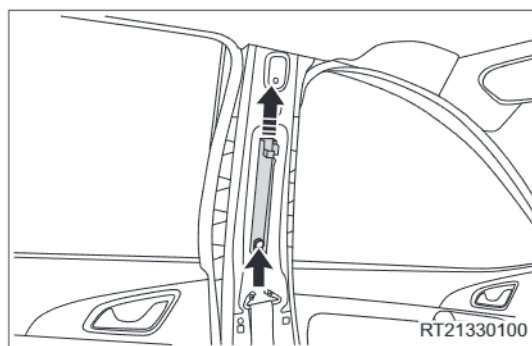
CAUTION

- Make sure to wear safety equipment to prevent accidents when removing the height adjuster assembly.
- DO NOT scratch the interior when removing the height adjuster assembly.

1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the left B-pillar lower protector assembly (See page 49-20).
4. Remove the left B-pillar upper protector assembly (See page 49-21).
5. Remove the height adjuster assembly.
 - a. Remove the fixing bolt (arrow) from upper part of front seat belt assembly.
(Tightening torque: 50 ± 5 N·m)



- b. Remove the fixing bolt (arrow) from the height adjuster assembly.
(Tightening torque: 23 ± 2 N·m)
- c. Remove the height adjuster assembly in the direction of arrow as shown in the illustration.



Installation

Installation is in the reverse order of removal.

CAUTION

- Make sure to tighten all fixing bolts according to the specified torque when installing the height adjuster assembly.

Rear Seat Belt Assembly

Removal

HINT:

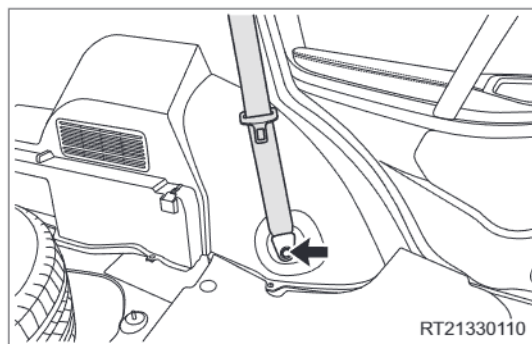
- Use the same procedures for the right side and left side.
- Procedures listed below are for the left side.

CAUTION

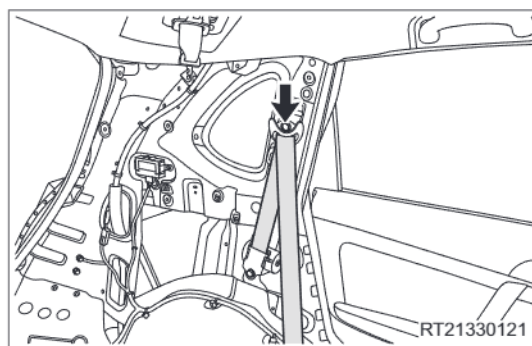
- Make sure to wear safety equipment to prevent accidents when removing the rear seat belt assembly.
- Appropriate force should be applied when removing the rear seat belt assembly, and avoid operating roughly.
- DO NOT scratch the interior when removing the rear seat belt assembly.

33

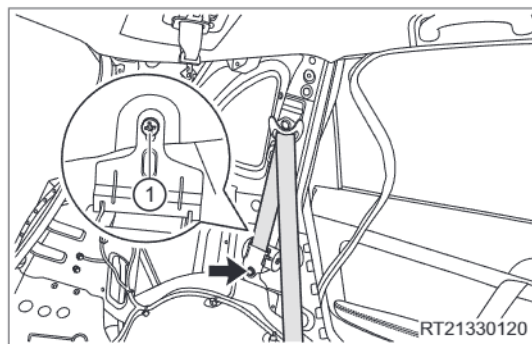
1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the rear seat assembly ([See page 46-25](#)).
4. Remove the rear left seat belt assembly.
 - a. Remove the fixing bolt (arrow) from the lower part of rear seat belt assembly.
(Tightening torque: 50 ± 5 N·m)



- b. Remove the left C-pillar lower protector assembly ([See page 49-23](#)).
- c. Remove the left C-pillar upper protector assembly ([See page 49-26](#)).
- d. Remove the fixing bolt (arrow) from the upper part of rear seat belt assembly.
(Tightening torque: 50 ± 5 N·m)



- e. Remove the fixing bolt (arrow) from the rear seat belt retractor.
(Tightening torque: 50 ± 5 N·m)
- f. Remove the fixing screw (1) from the rear seat belt retractor.
(Tightening torque: 1.5 ± 0.5 N·m)



- g. Remove the rear left seat belt assembly.

Inspection

Check the rear seat belt retractor.

33

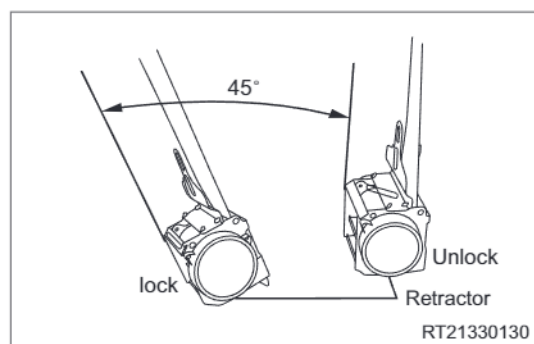
CAUTION

- DO NOT disassemble the rear seat belt retractor.

HINT:

When inclination of rear seat belt retractor is 15° or less, check that rear seat belt can be pulled out from rear seat belt retractor. When the inclination of rear seat belt retractor is over 45° , check that rear seat belt locks.

If result is not as specified, replace the rear seat belt assembly.



Installation

Installation is in the reverse order of removal.

CAUTION

- Keep seat belt assembly clean, avoid attaching oil and check seat belt assembly for damage when installing the rear seat belt assembly.
- Make sure to tighten all fixing bolts and fixing screws according to the specified torque when installing rear seat belt assembly.

Center Seat Belt Assembly

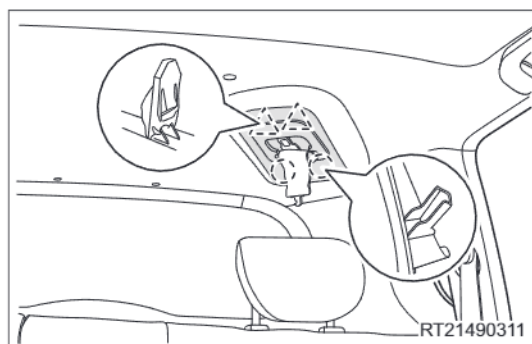
Removal

CAUTION

- Make sure to wear safety equipment to prevent accidents when removing center seat belt assembly.
- Appropriate force should be applied when removing center seat belt assembly, and avoid operating roughly.
- DO NOT scratch the interior when removing center seat belt assembly.

33

1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the center seat belt outer trim cover.
 - a. Using a screwdriver wrapped with protective tape, pry the clip on the center seat belt outer trim cover, and remove the center seat belt outer trim cover.

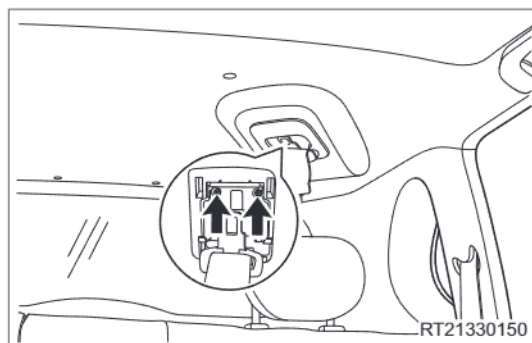


4. Remove the roof assembly (See page 49-30).

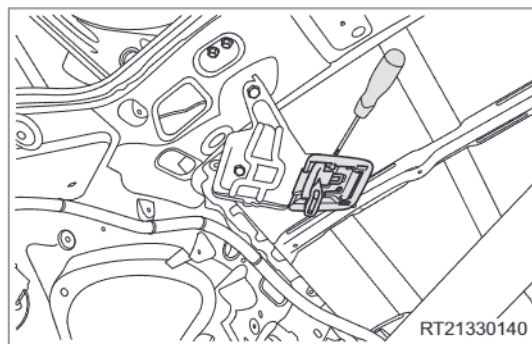
HINT:

It is unnecessary to completely remove the roof assembly, but it is necessary to lower the rear part of roof assembly, so that the center seat belt assembly can be removed.

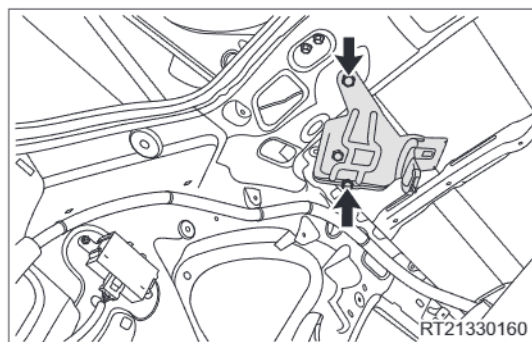
5. Remove the center seat belt inner trim cover.
 - a. Remove 2 fixing screws (arrow) from the center seat belt inner trim cover.
(Tightening torque: 3 ± 0.5 N·m)



- b. Using a screwdriver wrapped with protective tape, pry the clip on the center seat belt inner trim cover.
- c. Remove the center seat belt inner trim cover.



6. Remove the center seat belt assembly.
 - a. Remove 2 fixing bolts (arrow) from the center seat belt assembly.
(Tightening torque: $50 \pm 5 \text{ N}\cdot\text{m}$)



33

- b. Remove the center seat belt assembly.

Inspection

Check the center seat belt retractor.

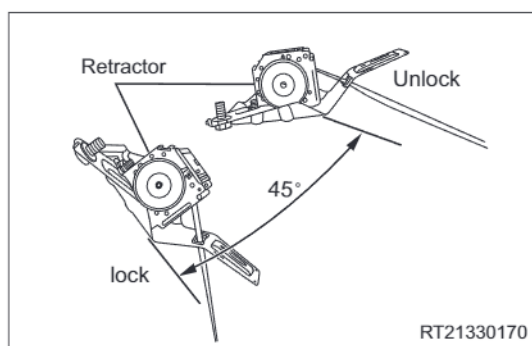
CAUTION

- DO NOT disassemble the center seat belt retractor.

HINT:

When the inclination of center seat belt retractor is 15° or less, check that the center seat belt can be pulled out from center seat belt retractor. When the inclination of center seat belt retractor is over 45° , check that center seat belt locks.

If result is not as specified, replace the center seat belt assembly.



Installation

Installation is in the reverse order of removal.

CAUTION

- Keep seat belt assembly clean, avoid attaching oil and check seat belt assembly for damage when installing the center seat belt assembly.
- Make sure to tighten all fixing bolts according to the specified torque when installing the center seat belt assembly.

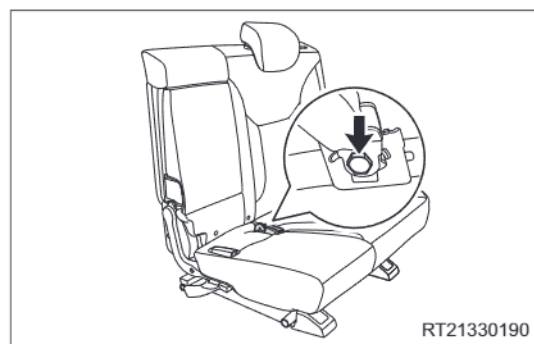
Rear Seat Belt Buckle Assembly

Removal

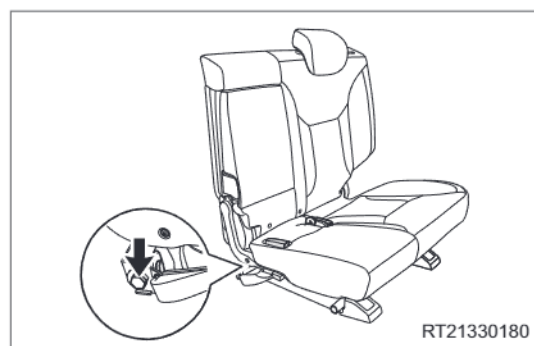
CAUTION

- Make sure to wear safety equipment to prevent accidents when removing the rear seat belt buckle assembly.
- DO NOT scratch the interior when removing the rear seat belt buckle assembly.

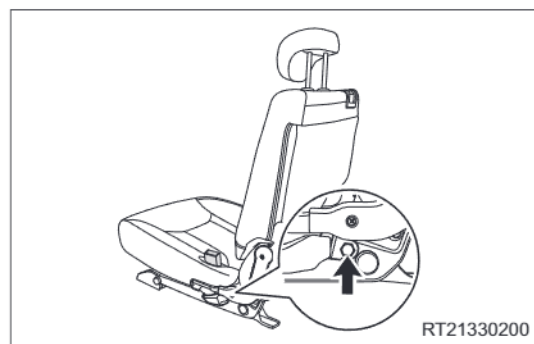
1. Turn off all the electrical equipment and ignition switch.
2. Disconnect the negative battery cable.
3. Remove the rear seat assembly (See page 46-25).
4. Remove the rear left seat belt buckle assembly.
 - a. Remove the fixing bolt (arrow) from the rear left seat belt buckle assembly.
(Tightening torque: 50 ± 5 N·m)
 - b. Pull out and remove the rear left seat belt buckle assembly from the rear left seat assembly.



5. Remove the rear center seat belt buckle assembly.
 - a. Remove the fixing bolt (arrow) from the rear center seat belt buckle assembly.
(Tightening torque: 50 ± 5 N·m)
 - b. Pull out and remove the rear center seat belt buckle assembly from the rear left seat assembly.



6. Remove the rear right seat belt buckle assembly.
 - a. Remove the fixing bolt (arrow) from the rear right seat belt buckle assembly.
(Tightening torque: 50 ± 5 N·m)
 - b. Pull out and remove the rear right seat belt buckle assembly from the rear right seat assembly.



Installation

Installation is in the reverse order of removal.

CAUTION

- Make sure to tighten all fixing bolts according to the specified torque when installing the rear seat belt buckle assembly.

