SEAT BELT

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< PRECAUTION >

PRECAUTION PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions For Xenon Headlamp Service

INFOID:0000000011405540

WARNING:

Comply with the following warnings to prevent any serious accident.

- Disconnect the battery cable (negative terminal) or the power supply fuse before installing, removing, or touching the xenon headlamp (bulb included). The xenon headlamp contains high-voltage generated parts.
- Never work with wet hands.
- Check the xenon headlamp ON-OFF status after assembling it to the vehicle. Never turn the xenon headlamp ON in other conditions. Connect the power supply to the vehicle-side connector.
- (Turning it ON outside the lamp case may cause fire or visual impairments.)
- Never touch the bulb glass immediately after turning it OFF. It is extremely hot.

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Install the xenon bulb securely. (Insufficient bulb socket installation may melt the bulb, the connector, the housing, etc. by high-voltage leakage or corona discharge.)
- Never perform HID circuit inspection with a tester.
- Never touch the xenon bulb glass with hands. Never put oil and grease on it.
- Dispose of the used xenon bulb after packing it in thick vinyl without breaking it.
- Never wipe out dirt and contamination with organic solvent (thinner, gasoline, etc.).

Precaution for Seat Belt Service

CAUTION:

INFOID:000000010989289

PRECAUTIONS

< PRECAUTION >

- Before removing the front seat belt pre-tensioner assembly, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Do not use electrical test equipment for front seat belt pre-tensioner connector.
- After replacing or reinstalling front seat belt pre-tensioner assembly, or reconnecting front seat belt pre-tensioner connector, check the system function. Refer to SRC-10, "Component Description".
- Do not use disassembled buckle or seat belt assembly.
- Replace anchor bolts if they are deformed or worn out.
- Never oil tongue and buckle.
- If any component of seat belt assembly is questionable, do not repair. Replace the entire seat belt assembly.
- If webbing is cut, frayed or damaged, replace seat belt assembly.
- When replacing seat belt assembly, use a genuine NISSAN seat belt assembly.

AFTER A COLLISION

WARNING:

Inspect all seat belt assemblies including retractors and attached hardware after any collision. NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pre-tensioners should be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

- The seat belt was in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt was damaged in an accident (i.e. torn webbing, bent retractor or guide).
- SB • The seat belt attaching point was damaged in an accident. Inspect the seat belt attaching area for damage or distortion and repair as necessary before installing a new seat belt assembly.
- Anchor bolts are deformed or worn out.
- The front seat belt pre-tensioner should be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

Precautions for Removing Battery Terminal

When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

NOTE:

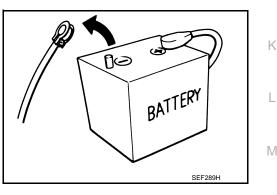
ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

 For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch. NOTE:

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

 After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC. NOTE:

The removal of 12V battery may cause a DTC detection error.



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< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION FRONT SEAT BELT SEAT BELT RETRACTOR

SEAT BELT RETRACTOR : Inspection

INFOID:000000010989290

AFTER A COLLISION

WARNING:

Inspect all seat belt assemblies including retractors and attached hardware after any collision. NISSAN/INFINITI recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pretensioners must be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

- The seat belt is in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt is damaged in an accident (i.e. torn webbing, bent retractor or guide, etc.).
- The seat belt attaching point is damaged in an accident. Inspect the seat belt attaching area for damage or distortion and repair as necessary before installing a new seat belt assembly.
- Anchor bolts are deformed or worn out.
- The seat belt pre-tensioners must be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

PRELIMINARY CHECKS

- 1. Check the seat belt warning lamp/chime for proper operation as follows:
- a. Turn ignition switch ON. The seat belt warning lamp should illuminate. Also, the seat belt warning chime should sound for about six seconds.
- b. Fasten driver seat belt. The seat belt warning lamp should turn off and the chime (if sounding) should stop.
- 2. If the air bag warning lamp is blinking, conduct self-diagnosis with CONSULT and air bag warning lamp. Refer to <u>SRC-17, "Diagnosis Description"</u>.
- 3. Check that the seat belt retractor, seat belt anchor and buckle bolts are securely attached.
- 4. Check the shoulder seat belt guide and shoulder belt height adjuster for front seats. Ensure guide swivels freely and that webbing lays flat and does not bind in guide. Ensure height adjuster operates properly and holds securely.
- 5. Check retractor operation:
- a. Fully extend the seat belt webbing and check for twists, tears or other damage.
- b. Allow the seat belt to retract. Ensure that webbing returns smoothly and completely into the retractor. If the seat belt does not return smoothly, wipe the inside of the loops with a clean paper cloth. Because dirt build-up in the loops of the upper anchors can cause the seat belts to retract slowly.
- c. Fasten the seat belt. Check that seat belt returns smoothly and completely to the retractor. If the webbing does not return smoothly, the cause may be an accumulation of dust or dirt. Use the "SEAT BELT TAPE SET" and perform the following steps.

Inspect the front seat belt through-anchor

- 1. Pull the seat belt out to a length of 500 mm (19.69 in) or more.
- 2. Fix the seat belt at the center pillar webbing opening with a clip or other device.
- 3. Pass a thin wire through the through-anchor webbing opening. Hold both ends of the wire and pull it tightly while moving it up and down several times along the webbing opening surface to remove dirt stuck there.
- 4. Any dirt that cannot be removed with the wire can be removed by cleaning the opening with a clean cloth.
- 5. Apply tape at the point where the webbing contacts the through-anchor webbing opening. **NOTE:**

Apply the tape so that there is no looseness or wrinkling.

SB-4

< REMOVAL AND INSTALLATION >

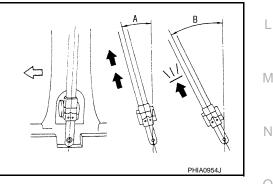
- Remove the clip fixing the seat belt and check that the webbing returns smoothly. 6. А Repeat steps above as necessary to check the other seat belts. SEAT BELT RETRACTOR ON-VEHICLE CHECK В Emergency Locking Retractors (ELR) NOTE: All seat belt retractors are Emergency Locking Retractors (ELR) type. In an emergency (sudden stop) the retractor will lock and prevent the webbing from extending any further. Check the seat belt retractors with the following test(s) to determine if a retractor assembly is operating properly. D ELR Function Stationary Check Grasp the shoulder webbing and pull forward quickly. The retractor should lock and prevent the belt from extending further. Е ELR Function Moving Check WARNING: Perform the following test in a safe, open area clear of other vehicles and obstructions (for example, a F large, empty parking lot). Road surface must be paved and dry. NEVER perform the following test on wet or gravel roads or on public streets and highways. This could result in an accident and serious personal injury. The driver and passenger must be prepared to brace themselves in the event that the retractor does not lock. Fasten driver seat belt. Buckle a passenger into the seat for the belt that is to be tested. 1
- Proceed to the designated safe area.
- SB 3. Drive the vehicle at approximately 16 km/h (10 MPH). Notify any passengers of a pending sudden stop and the driver and passenger must be prepared to brace themselves in the event that the retractor does not lock, apply brakes firmly and make a very hard stop.

During stop, seat belts should lock and not be extended. If the seat belt retractor assembly does not lock, perform the retractor off-vehicle check.

SEAT BELT RETRACTOR OFF-VEHICLE CHECK

- Remove the seat belt retractor. 1. Remove the front seat belt assembly. Refer to SB-6, "SEAT BELT RETRACTOR : Removal and Installation".
- Κ 2. Slowly pull out webbing while tilting the retractor assembly forward from the mounted position without twisting the retractor assembly as shown in the figure.
 - The webbing can be pulled out when the angle (A) is 15 degrees or less.
 - The webbing cannot be pulled out when the angle (B) is 27 degrees or more.

A and B : Tilting angles \triangleleft : Vehicle front



Replace the seat belt assembly if it does not operate normally.

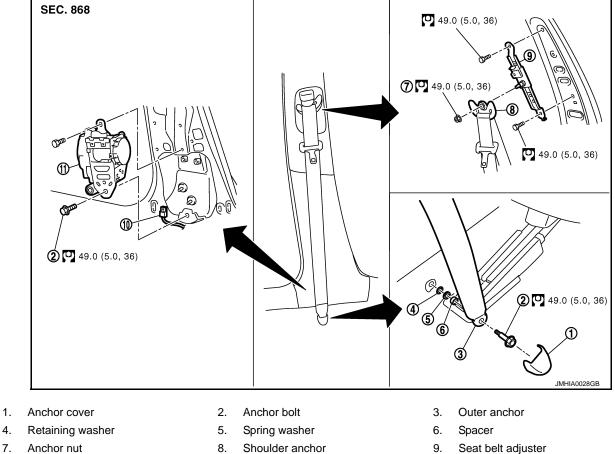
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< REMOVAL AND INSTALLATION >

SEAT BELT RETRACTOR : Exploded View



- 10. Seat belt pre-tensioner connector
- D. : N·m (kg-m, ft-lb)

- Shoulder anchor
- 11. Pre-tensioner seat belt retractor
- SEAT BELT RETRACTOR : Removal and Installation

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REMOVAL

1.

CAUTION:

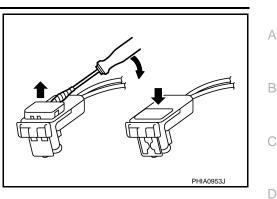
Before servicing SRS, turn the ignition switch OFF, disconnect battery negative terminal and wait at least 3 minutes or more.

Remove the outer anchor. 1.

- Remove the outer anchor cover.
- · Remove the fixing anchor bolt of the outer anchor.
- 2. Remove the shoulder anchor.
 - Remove the center pillar lower and upper garnishes. Refer to <u>INT-15, "Removal and Installation"</u>.
 - Remove the fixing anchor nut of the shoulder anchor.
- Remove the seat belt assembly. 3.
 - Disconnect the seat belt pre-tensioner connector. NOTE:

< REMOVAL AND INSTALLATION >

- For installing/removing seat belt pre-tensioner connector, insert thin screwdriver wrapped in tape into notch, lift lock and remove connector.
- Install connector with lock raised, and push lock into connector.
- After installing the connector, check that lock is pushed securely into it.



• Remove the fixing screw and anchor bolt of the pre-tensioner seat belt retractor.

INSTALLATION Install in the reverse order of removal. SEAT BELT BUCKLE

SEAT BELT BUCKLE : Inspection

AFTER A COLLISION

WARNING:

Inspect all seat belt assemblies including retractors and attached hardware after any collision. NISSAN/INFINITI recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pretensioners must be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

- The seat belt is in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt is damaged in an accident (i.e. torn webbing, bent retractor or guide, etc.).
- The seat belt attaching point is damaged in an accident. Inspect the seat belt attaching area for damage or distortion and repair as necessary before installing a new seat belt assembly.
- Anchor bolts are deformed or worn out.
- The seat belt pre-tensioner must be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

PRELIMINARY CHECKS

- 1. Check the seat belt warning lamp/chime for proper operation as follows:
- a. Turn ignition switch ON. The seat belt warning lamp should illuminate. Also, the seat belt warning chime M should sound for about six seconds.
- b. Fasten driver seat belt. The seat belt warning lamp should turn off and the chime (if sounding) should stop.
- If the air bag warning lamp is blinking, conduct self-diagnosis using CONSULT and air bag warning lamp. Refer to <u>SRC-17, "Diagnosis Description"</u>.
- 3. Check that the seat belt retractor, seat belt anchor and buckle bolts are securely attached.
- 4. Repeat steps above as necessary to check the other seat belts.

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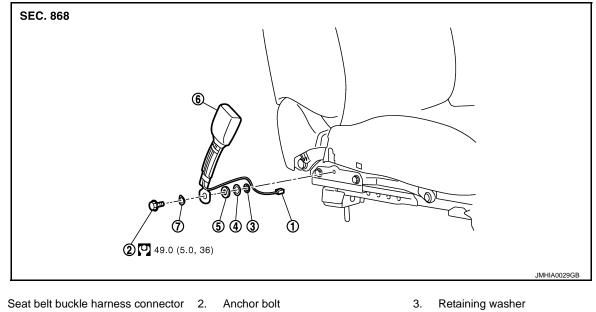
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< REMOVAL AND INSTALLATION >

SEAT BELT BUCKLE : Exploded View

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4. Washer

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5. Spacer

- 7. Wave washer
- : N·m (kg-m, ft-lb)

SEAT BELT BUCKLE : Removal and Installation

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REMOVAL

Remove the seat belt buckle.

• Remove the front seat from vehicle. Refer to <u>SE-69, "Removal and Installation"</u> (for ease of tool operation in narrow space).

6.

Seat belt buckle

- Disconnect the seat belt buckle harness connector and harness clamp.
- Remove the fixing anchor bolt of the seat belt buckle.

INSTALLATION

Install in the reverse order of removal.

< REMOVAL AND I	INSTALLATION >
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REAR SEAT BELT SEAT BELT RETRACTOR

SEAT BELT RETRACTOR : Inspection

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AFTER A COLLISION

WARNING:

Inspect all seat belt assemblies including retractors and attached hardware after any collision. NISSAN/INFINITI recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pretensioners must be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

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- The seat belt is damaged in an accident (i.e. torn webbing, bent retractor or guide, etc.).
- The seat belt attaching point is damaged in an accident. Inspect the seat belt attaching area for damage or distortion and repair as necessary before installing a new seat belt assembly.
- Anchor bolts are deformed or worn out.
- The seat belt pre-tensioners must be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

PRELIMINARY CHECKS

- 1. Check the seat belt warning lamp/chime for proper operation as follows:
- a. Turn ignition switch ON. The seat belt warning lamp should illuminate. Also, the seat belt warning chime should sound for about six seconds.
- b. Fasten driver seat belt. The seat belt warning lamp should turn off and the chime (if sounding) should stop.
- If the air bag warning lamp is blinking, conduct self-diagnosis with CONSULT and air bag warning lamp. J Refer to <u>SRC-17, "Diagnosis Description"</u>.
- 3. Check that the seat belt retractor, seat belt anchor and buckle bolts are securely attached.
- 4. Check retractor operation:
- a. Fully extend the seat belt webbing and check for twists, tears or other damage.
- b. Allow the seat belt to retract. Ensure that webbing returns smoothly and completely into the retractor. If the seat belt does not return smoothly, wipe the inside of the loops with a clean paper cloth. Because dirt build-up in the loops of that upper anchors can cause the seat belts to retract slowly.
- c. Fasten the seat belt. Check the seat belt returns smoothly and completely to the retractor. If the webbing does not return smoothly, the cause may be an accumulation of dust or dirt. Use the "SEAT BELT TAPE M SET" and perform the following steps.
- 5. Repeat steps above as necessary to check the other seat belts.

SEAT BELT RETRACTOR ON-VEHICLE CHECK

Emergency Locking Retractors (ELR)

NOTE:

All seat belt retractors are Emergency Locking Retractors (ELR) type. In an emergency (sudden stop) the retractor will lock and prevent the webbing from extending any further.

Check the seat belt retractors with the following test(s) to determine if a retractor assembly is operating properly.

ELR Function Stationary Check

Grasp the shoulder webbing and pull forward quickly. The retractor should lock and prevent the belt from extending further.

ELR Function Moving Check WARNING:

REAR SEAT BELT

< REMOVAL AND INSTALLATION >

Perform the following test in a safe, open area clear of other vehicles and obstructions (for example, a large, empty parking lot). Road surface must be paved and dry. NEVER perform the following test on wet or gravel roads or on public streets and highways. This could result in an accident and serious personal injury. The driver and passenger must be prepared to brace themselves in the event that the retractor does not lock.

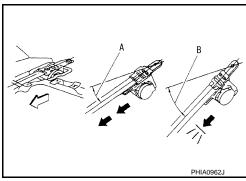
- 1. Fasten driver seat belt. Buckle a passenger into the seat for the belt that is to be tested.
- 2. Proceed to the designated safe area.
- 3. Drive the vehicle at approximately 16 km/h (10 MPH). Notify any passengers of a pending sudden stop and the driver and passenger must be prepared to brace themselves in the event that the retractor does not lock, apply brakes firmly and make a very hard stop.

During stop, seat belts should lock and not be extended. If the seat belt retractor assembly does not lock, perform the retractor off-vehicle check.

SEAT BELT RETRACTOR OFF-VEHICLE CHECK

- Remove the seat belt retractor. Remove the rear seat belt assembly. Refer to <u>SB-11, "SEAT BELT RETRACTOR : Removal and Installa-</u> <u>tion"</u>.
- 2. Slowly pull out webbing while tilting the retractor assembly forward from the mounted position without twisting the retractor assembly as shown in the figure.
 - The webbing can be pulled out when the angle (A) is 15 degrees or less.
 - The webbing cannot be pulled out when the angle (B) is 27 degrees or more.

A and B : Tilting angles



• Replace the seat belt assembly if it does not operate normally.

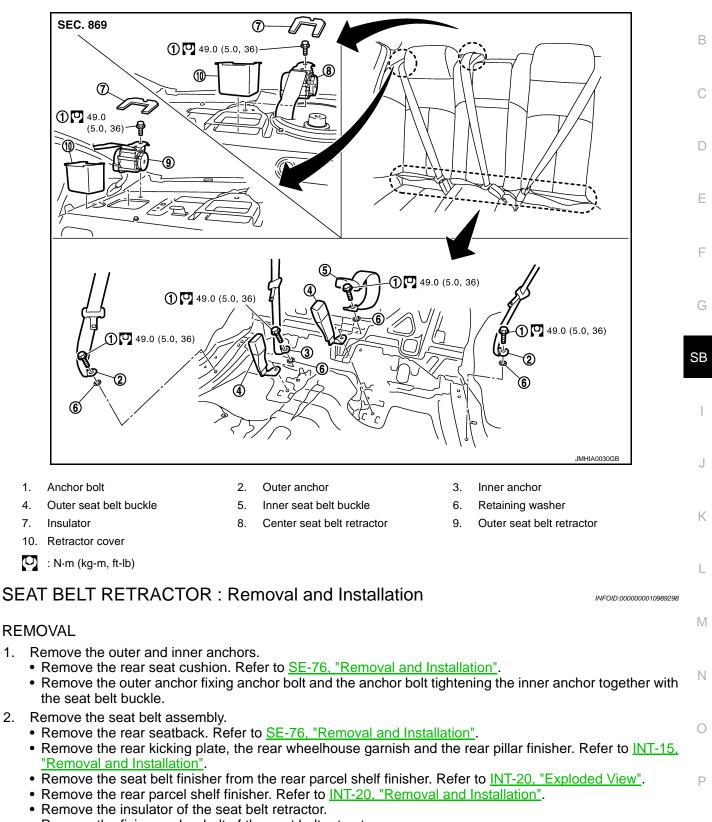
REAR SEAT BELT

< REMOVAL AND INSTALLATION >

SEAT BELT RETRACTOR : Exploded View

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· Remove the fixing anchor bolt of the seat belt retractor.

INSTALLATION

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Install in the reverse order of removal. SEAT BELT BUCKLE

< REMOVAL AND INSTALLATION >

SEAT BELT BUCKLE : Inspection

AFTER A COLLISION

WARNING:

Inspect all seat belt assemblies including retractors and attached hardware after any collision. NISSAN/INFINITI recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pretensioners must be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

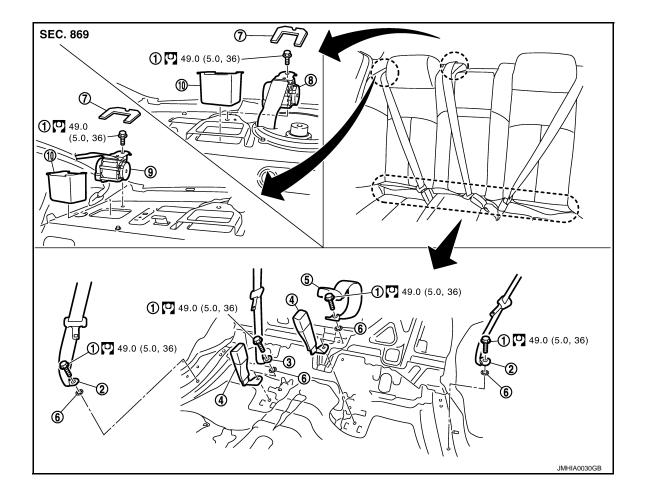
- The seat belt is in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt is damaged in an accident. (i.e. torn webbing, bent retractor or guide, etc.)
- The seat belt attaching point is damaged in an accident. Inspect the seat belt attaching area for damage or distortion and repair as necessary before installing a new seat belt assembly.
- Anchor bolts are deformed or worn out.
- The seat belt pre-tensioner must be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

PRELIMINARY CHECKS

- 1. Check that the seat belt retractor, seat belt anchor and buckle bolts are securely attached.
- 2. Repeat step above as necessary to check the other seat belts.

SEAT BELT BUCKLE : Exploded View

INFOID:000000010989300



REAR SEAT BELT

< REMOVAL AND INSTALLATION >

 Anchor bolt Outer seat belt buckle Insulator Retractor cover : N·m (kg-m, ft-lb) 	 Outer anchor Inner seat belt buckle Center seat belt retractor 	3. 6. 9.	Inner anchor Retaining washer Outer seat belt retractor	A
SEAT BELT BUCKLE : Remo	oval and Installation		INFOID:000000010989301	С
REMOVAL Remove the seat belt buckle. • Remove the rear seat cushion. Refe • Remove the fixing anchor bolt of the		tion'		D
INSTALLATION				Е
Install in the reverse order of removal	I.			
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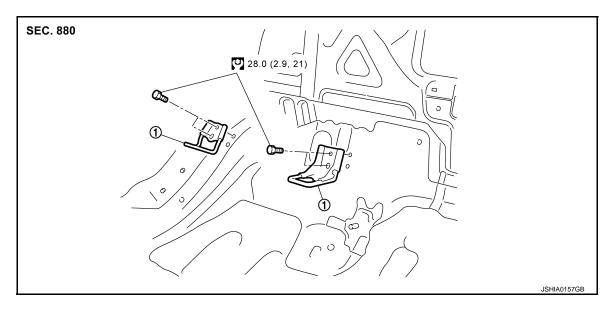
LATCH SYSTEM FOR CHILDREN

< REMOVAL AND INSTALLATION >

LATCH SYSTEM FOR CHILDREN

Exploded View

INFOID:000000010989302



- 1. LATCH system
- : N·m (kg-m, ft-lb)

Removal and Installation

REMOVAL

CAUTION:

Replace anchor bolts if they are deformed or worn out.

- 1. Remove the rear seat cushion. Refer to <u>SE-76, "Removal and Installation"</u>.
- 2. Remove LATCH (Lower Anchor and Tether for Children) system.

INSTALLATION

Install in the reverse order of removal.

INFOID:000000010989303

TOP TETHER STRAP CHILD RESTRAINT

< REMOVAL AND INSTALLATION >

TOP TETHER STRAP CHILD RESTRAINT

Exploded View

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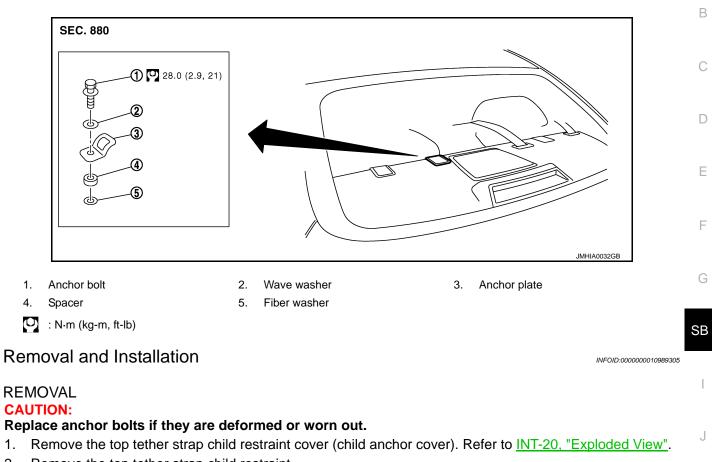
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2. Remove the top tether strap child restraint.

INSTALLATION

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Install in the reverse order of removal.