

SECTION **SB**
SEAT BELTS

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PRECAUTIONS

PRECAUTIONS

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Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

EHS000LT

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 and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which 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 the SRS section.
- Do not 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 for Seat Belt Service

EHS000IB

CAUTION:

- Before removing the seat belt pre-tensioner assembly, turn the ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- After replacing or reinstalling seat belt pre-tensioner assembly, or reconnecting seat belt pre-tensioner assembly connector, ensure entire SRS operates properly. Refer to [SRS-18, "SRS Operation Check"](#).
- Do not disassemble buckle or seat belt assembly.
- Do not reuse seat belt anchor bolts after removal. Replace with new ones.
- 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 whole 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 attaching 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-tensioner 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, etc.)
- 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 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.

FRONT SEAT BELT

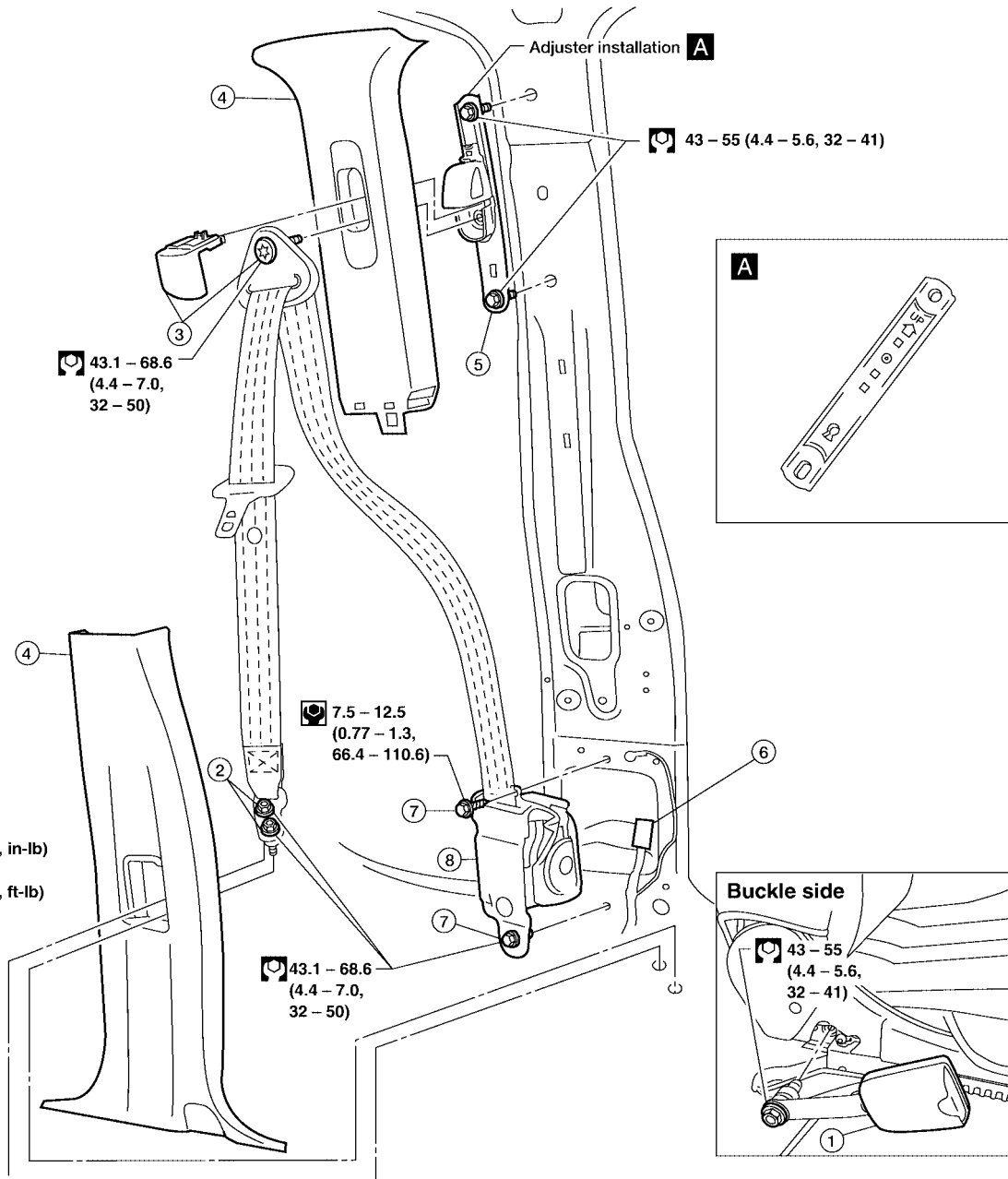
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FRONT SEAT BELT

Removal and Installation

SEC. 868



WRS251

NOTE:

Remove components in the order shown in the illustration above.

NOTE:

Slide the seat all the way forward and tilt the seatback toward the front.

1. Remove buckle. For driver and passenger side, disconnect seat belt switch connector.
2. Remove floor anchor bolts.
3. Remove adjuster cover and upper guide loop anchor bolt.
4. Remove center pillar lower and upper garnishes. Refer to [EI-18, "SIDE AND FLOOR TRIM"](#).
5. Remove two adjuster bolts and adjuster assembly.
6. Disconnect seat belt pre-tensioner connector.

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FRONT SEAT BELT

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- When disconnecting or connecting direct-connect SRS connectors, refer to [SRS-7, "Direct-connect SRS Component Connectors"](#) .
7. Remove retractor anchor bolt and screw.
 8. Remove retractor.
 9. Installation is in the reverse order of removal.

REAR SEAT BELT

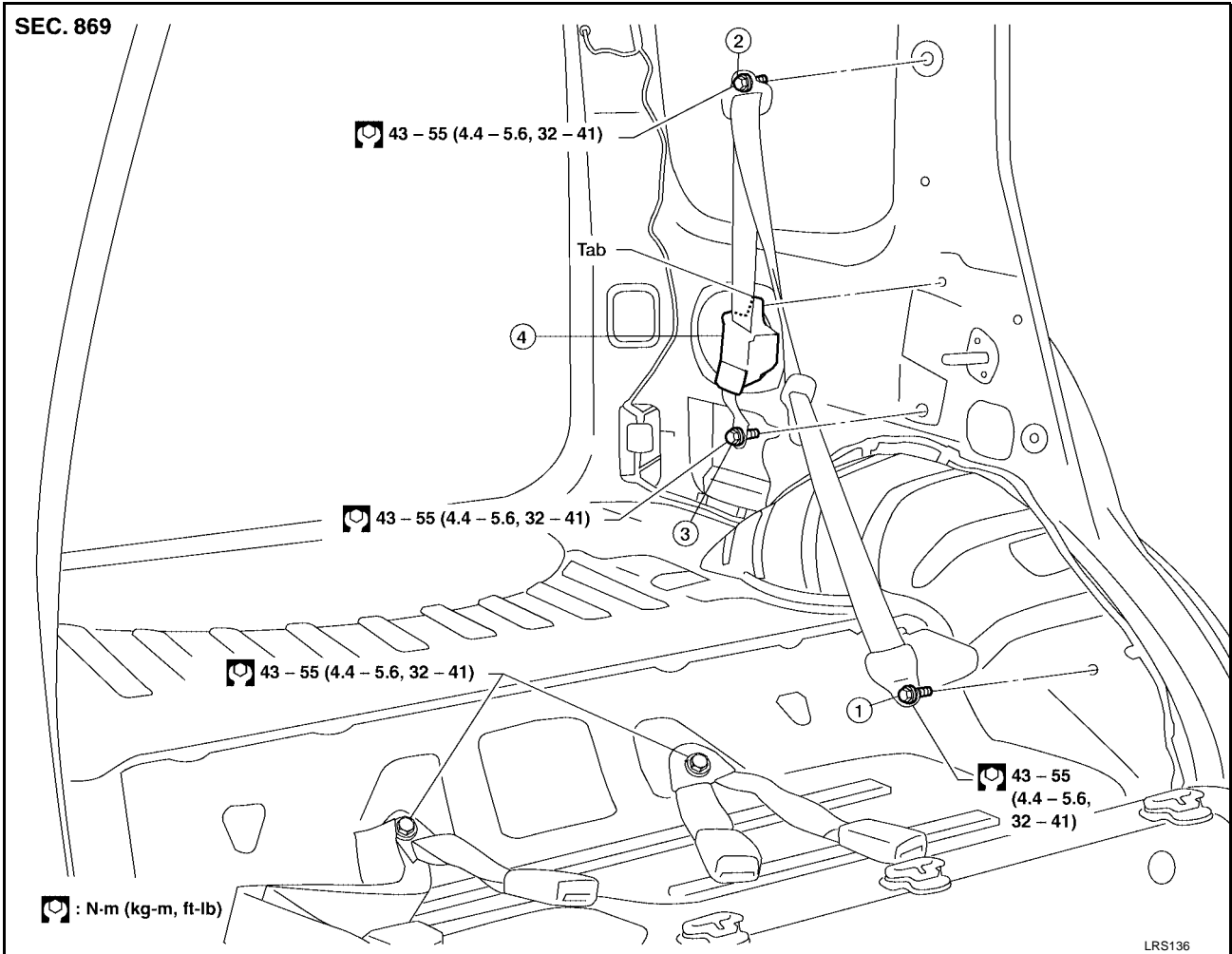
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REAR SEAT BELT

Removal and Installation

SEC. 869



NOTE:

Remove components in the order shown in the illustration above.

NOTE:

The rear seat must be removed to access the rear seat belt components. Refer to [SE-3. "Removal and Installation"](#).

1. Remove lower seat belt anchor bolt.
2. Remove shoulder anchor bolt.
3. Remove retractor bolt.
4. Remove retractor.
5. Installation is in the reverse order of removal.

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COLLISION DIAGNOSIS

Seat Belt Inspection AFTER A COLLISION

WARNING:

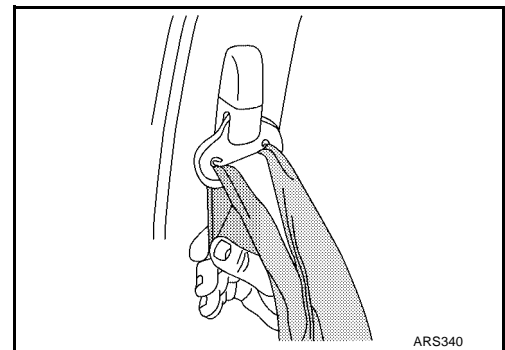
- Inspect all seat belt assemblies including retractors and attaching hardware after any collision.
- NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could 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 assemblies which are equipped with 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 after minor collisions when 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, etc.).
- 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.
- The seat belt assembly is equipped with a pre-tensioner, even if the seat belt is not in use during a collision in which the air bags are deployed.

PRELIMINARY CHECKS

1. Check the "SEAT BELT" warning lamp for proper operation as follows:
 - a. Switch ignition ON. With driver seat belt unfastened, the "SEAT BELT" warning lamp should illuminate. Also, the "SEAT BELT" warning chime should sound for about seven seconds.
 - b. Fasten driver's seat belt. The "SEAT BELT" warning lamp should go out.
2. If the "AIR BAG" warning lamp is blinking, conduct self-diagnosis using "AIR BAG" warning lamp or CONSULT-II. Refer to [SRS-18, "SRS Operation Check"](#).
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 belt 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 belt 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 etc. Dirt built up in the loops of the upper anchors can cause the seat belts to retract slowly.
 - c. Fasten the seat belt. Pull firmly on belt and buckle to ensure belt remains latched. Unfasten seat belt. Ensure belt releases freely and buckle button returns to original position.
6. For non-retractable seat belts, check that the seat belts are accessible. Check seat belt webbing for twists, tears or other damage. Fasten the seat belt. Pull firmly on belt and buckle to ensure belt remains latched. Unfasten seat belts. Ensure belt releases freely and buckle button returns to original position.
7. Repeat steps above as necessary to check the other seat belts.



COLLISION DIAGNOSIS

SEAT BELT RETRACTOR ON-VEHICLE CHECK

Emergency Locking Retractors (ELR) and Automatic Locking Retractors (ALR)

NOTE:

- All seat belt retractors are of the Emergency Locking (ELR) type. In an emergency (sudden stop) the retractor will lock and prevent the belt from extending any further. All outboard 3-point type seat belt retractors except the driver's seat belt also have an Automatic Locking (ALR) mode. The ALR mode (also called child restraint mode) is used when installing child seats in outboard seating positions. The ALR mode is activated when the seat belt is fully extended. When the belt is then retracted partially, the ALR mode automatically locks the seat belt in a specific position so the belt cannot be extended any further. To cancel the ALR mode, allow the seat belt to fully wind back into the retractor.
- Check the seat belt retractors using the following test(s) to determine if a retractor assembly is operating properly.

ELR Function Stationary Check

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

ALR Function Stationary Check

1. Pull out entire length of seat belt from retractor until a click is heard.
2. Retract the belt partially. A clicking noise should be heard as the belt retracts, indicating that the retractor is in the Automatic Locking (ALR) mode.
3. Grasp the seat belt and try to pull out of retractor. The belt must lock and not extend any further. If NG, replace the retractor assembly.
4. Allow the entire length of the belt to retract to cancel the automatic locking mode.

ELR Function Moving Check (all outboard seating positions)

WARNING:

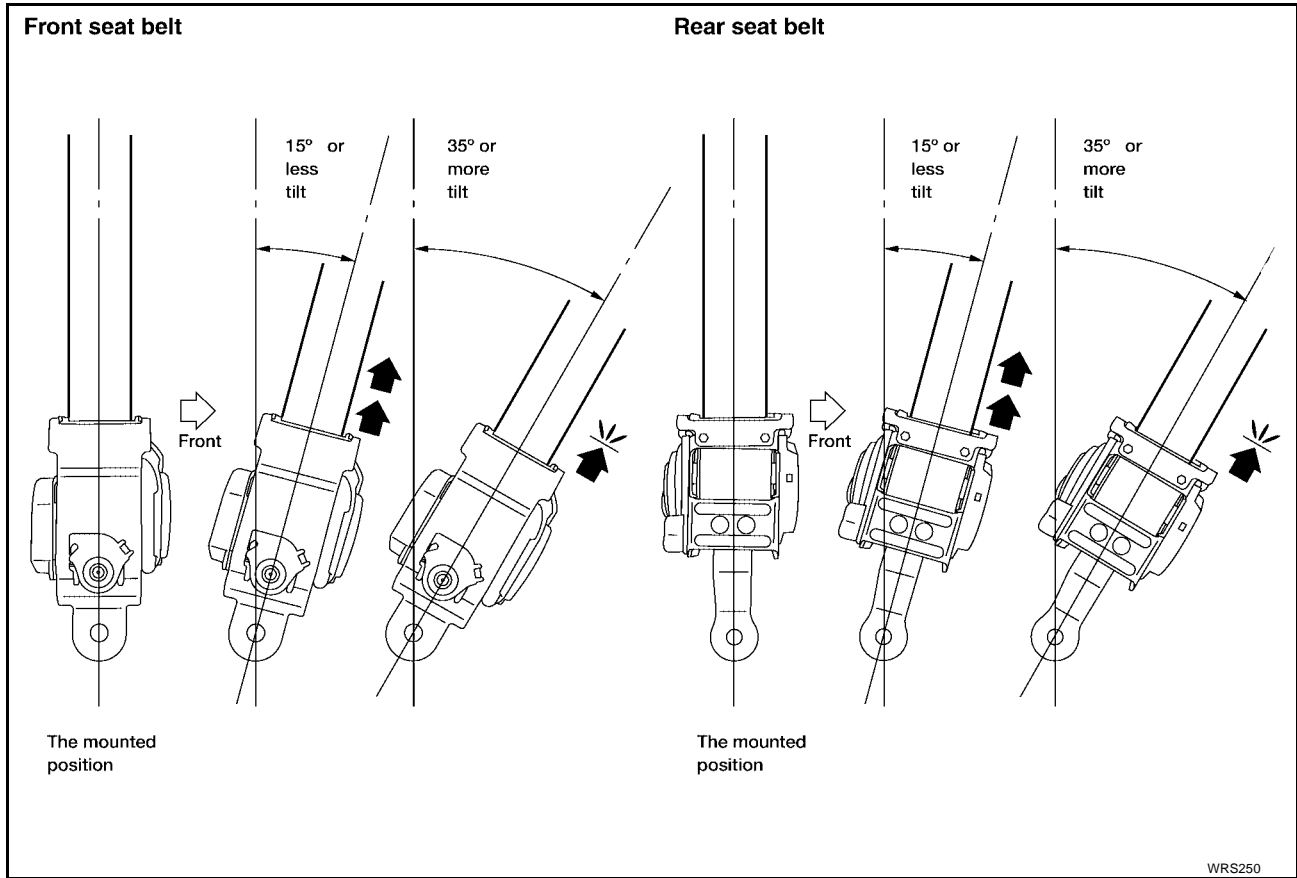
Perform the following test in a safe, open area clear of other vehicles and obstructions (for example, a large, empty parking lot). Road surface must be paved and dry. DO NOT perform the following test on wet roads, gravel roads, public streets or highways. This could result in an accident and serious personal injury. The driver and passenger must be prepared to brace themselves in the event the retractor does not lock.

1. Fasten driver's 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 the retractor does not lock. Apply brakes firmly and make a very hard stop.
4. During stop, seat belts should lock and not extend. If the seat belt retractor assembly does not lock, perform the retractor off-vehicle check.

COLLISION DIAGNOSIS

SEAT BELT RETRACTOR OFF-VEHICLE CHECK

1. Remove the seat belt retractor assembly.
2. Slowly pull out belt while tilting the retractor assembly forward from the mounted position as shown in the illustration.



15 degrees or less tilt : Belt can be pulled out.

35 degrees or more tilt : Belt locks and cannot be pulled out.

3. If NG, replace the retractor assembly.

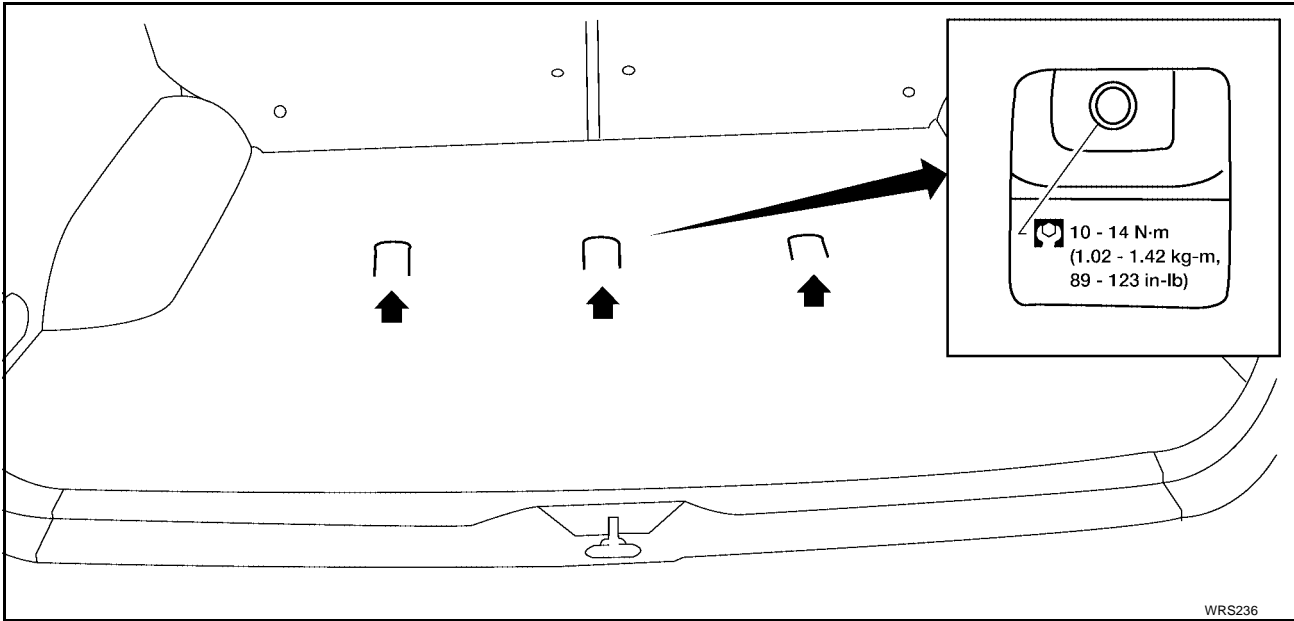
TOP TETHER STRAP CHILD RESTRAINT

TOP TETHER STRAP CHILD RESTRAINT

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Removal and Installation

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TOP TETHER STRAP CHILD RESTRAINT
