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# **PRECAUTIONS**

PRECAUTIONS PFP:00001

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

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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.

# **Precaution for Seat Belt Service**

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#### **CAUTION:**

- Before removing the front seat belt pre-tensioner assembly, turn the ignition switch off, disconnect the 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 <u>SRS-17</u>, <u>"SRS Operation Check"</u>
- Do not use disassemble 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 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).
- 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**

# **Precautions for Battery Service**

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Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

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SEAT BELTS PFP:86884

# System Description SEAT BELT WARNING CHIME

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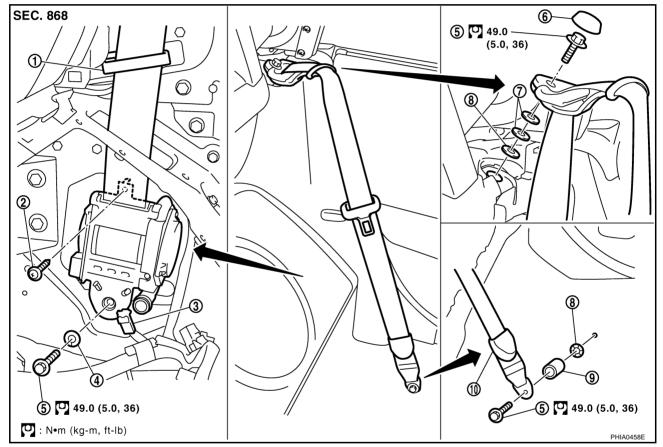
- With ignition switch turned ON and seat belt unfastened (seat belt switch ON), warning chime will sound for approximately 6 seconds.
- If warning chime does not sound. Refer to DI-97, "Seat Belt Warning Chime Does Not Operate".

#### **SEAT BELT WARNING LAMP**

- Fasten driver's seat belt.
- The seat belt warning lamp should go off.
- If the seat belt warning lamp does not go off. Refer to <u>DI-67, "Wiring Diagram WARN —"</u>.

# Removal and Installation of Seat Belt

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- 1. Sash guide
- 4. Spring washer
- 7. Spacer
- 10. Outer anchor cover
- 2. Screw
- 5. Anchor bolt
- 8. Retaining washer

- Seat belt pre-tensioner connector
- 6. Shoulder anchor cover
- 9. Spacer

#### **CAUTION:**

 Before servicing SRS, turn the ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.

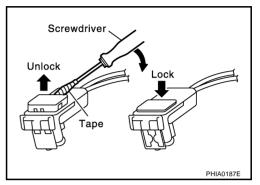
#### REMOVAL OF SEAT BELT RETRACTOR

- 1. Remove the shoulder anchor cover on the seat belt anchor.
- Remove the anchor bolt.
- 3. Slide up outer anchor cover, and remove the anchor bolt on side sill.
- 4. Remove the rear side finisher. Refer to EI-29, "REAR SIDE FINISHER".
- 5. Remove the console finisher (A/T) or console boot (M/T). Refer to <u>IP-13, "CONSOLE FINISHER (A/T)"</u> or <u>IP-13, "CONSOLE BOOT (M/T)"</u>.

- Remove the center console. Refer to IP-13, "CENTER CONSOLE".
- 7. Remove the luggage floor finisher lower. Refer to El-31, "Removal and Installation".
- 8. Remove the woofer and woofer amp. (BOSE system) bracket mounting bolts (LH). Refer to AV-33, "Removal and Installation of Woofer and Woofer Amp. (BOSE System)".
- 9. Remove the rear floor box (RH). Refer to EI-31, "Removal and Installation".
- 10. Disconnect the seat belt pre-tensioner connector.

#### **CAUTION:**

- Before installing or removing a seat belt pre-tensioner connector, insert a screw driver wrapped with tape into notch and lift a lock up.
- For installing the connector, the lock must be lifted up, and the lock must be pushed in after inserting the connector to a seat belt pre-tensioner.



- 11. Remove the seat belt pre-tensioner retractor fixing screw and anchor bolt, and then remove the seat belt retractor.
- 12. Remove the sash guide and then remove the seat belt assembly.

#### INSTALLATION OF SEAT BELT RETRACTOR

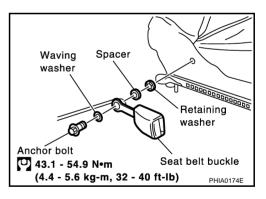
#### **CAUTION:**

 Before servicing SRS, turn the ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.

Install in the reverse order of removal.

#### REMOVAL OF SEAT BELT BUCKLE

- 1. Remove the seat, Refer to SE-63, "REMOVAL".
- 2. Remove the seat cushion inner finisher by removing screws.
- 3. Remove the buckle by removing anchor bolt.



#### INSTALLATION OF SEAT BELT BUCKLE

Install in the reverse order of removal.

# Seat Belt Inspection AFTER A COLLISION

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#### 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 a 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 with 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:

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# **SEAT BELTS**

- 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).
- 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 with pre-tensioner should be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

#### PRELIMINARY CHECKS

- 1. To check the seat belt warning lamp/chime for proper operation as follows:
- a. Turn ignition ON. The seat belt warning lamp should illuminate, if driver seat belt has not been fastened. Also, the seat belt warning chime should sound for about 6 seconds.
- b. Fasten driver's seat belt. The seat belt warning lamp should go off and the chime (if sounding) should stop.
- 2. If the air bag warning lamp is blinking, conduct self-diagnosis using CONSULT-II, and confirm with air bag warning lamp. Refer to <u>SRS-17</u>, <u>"SRS Operation Check"</u>.
- 3. Check that each anchor bolt, which is fixing a seat belt retractor, and a buckle, are securely attached.
- 4. Make sure that the shoulder seat belt guide swivels freely and that webbing lays flat and does not bind in the guide.
- 5. Check retractor operation:
- a. Fully extend the seat belt webbing and check for twists, tears or other damage.
- b. Allow the seat belt webbing to retract. Make sure that the webbing is retracted smoothly and completely into the retractor. If the webbing does not retract smoothly, wipe the inside of the belt guide ring with a clean paper cloth to remove dirt which can cause the seat belts to retract slowly.
- c. If the webbing does not retract smoothly, the cause may be an accumulation of dust or dirt. Perform the following steps with "SEAT BELT TAPE SET". Inspect the seat belt through-anchor:
- i. Pull the seat belt out by 500 mm (19.69 in) or more.
- ii. Use a clip or other thing to fix the seat belt at the finisher opening.

#### NOTE:

Do not damage the webbing by fixing it.

- iii. Put a one end of a thin wire through the through-anchor ring. Hold both ends of the wire and move the wire up and down several times while pulling it along the inner surface of the ring to remove dirt.
- iv. Clean the inner surface of the ring with a clean cloth for any dirt that could not be removed with the wire.
- v. Apply tape on the inner surface of the ring, where the webbing contacts.

### NOTE:

Apply the tape without looseness or wrinkles.

- vi. Remove the clip fixing the seat belt, and make sure that the webbing returns smoothly.
- d. Fasten the seat belt, and make sure that the buckle holds the belt tongue securely.
- e. Release the belt tongue from the buckle, and make sure that the webbing and the tongue return to their initial free position.
- 6. Check other seat belts by following above procedures, if necessary.

### **SEAT BELTS**

#### SEAT BELT RETRACTOR ON-VEHICLE CHECK

## **Emergency Locking Retractors (ELR)**

#### NOTE:

Emergency Locking Retractor (ELR) has a function which will lock the webbing not to extract further in an hard breaking or sudden stop.

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

#### **ELR Function Static Check**

When a shoulder webbing is pulled forward quickly. The retractor should lock the webbing and prevent the webbing from extracting further.

## **ELR Function Dynamic Check**

#### **WARNING:**

- Perform the following test in a safe, and wide open area which is clear of other vehicles and obstacles (for instance, a large, empty parking lot).
- Road surface must be paved and in a dry condition. Do Not perform the following test on a wet roads nor unpaved roads nor public streets nor highways. (This could cause an accident and serious injury.)
- The driver and passenger must prepare to brace themselves during the test in case the retractor does not lock.
- 1. Fasten driver's seat belt. Buckle up a passenger seat belt that is to be tested with a passenger.
- 2. Proceed to the designated safe area.
- Drive the vehicle at approximately 16 km/h (10 MPH). Notify any passengers of a sudden hard breaking.
  The driver and passenger must prepare to brace themselves in case the retractor does not lock. Apply
  brake firmly and make a very hard stop.
- 4. While stopping, seat belts should lock and should not be extracted. If the seat belt retractor does not lock, perform the retractor off-vehicle check.

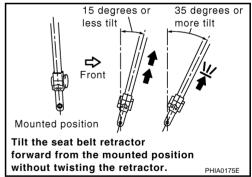
#### SEAT BELT RETRACTOR OFF-VEHICLE CHECK

- Remove the seat belt retractor assembly from the vehicle.
- Slowly pull out webbing while tilting the retractor assembly forward from the mounted position as shown in the figure without rotating the retractor assembly.

15 degrees or less tilt : Webbing can be pulled out.
35 degrees or more tilt : Webbing is locked and can-

not be pulled out.

If the refractor does not work properly, replace the retractor assembly.



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# **SEAT BELTS**