

D

Е

F

G

SB

J

Κ

L

M

Ν

0

Ρ

# **CONTENTS**

PRECAUTION2
PRECAUTIONS2 Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TEN- SIONER"2 Precaution for Seat Belt Service2
ON-VEHICLE REPAIR3
FRONT SEAT BELT 3
SEAT BELT RETRACTOR
SEAT BELT BUCKLE
REAR SEAT BELT10

OUTER SEAT BELT RETRACTOR	10 12
CENTER SEAT BELT RETRACTOR  CENTER SEAT BELT RETRACTOR: Inspection. CENTER SEAT BELT RETRACTOR: Exploded View  CENTER SEAT BELT RETRACTOR: Removal and Installation	13 15
SEAT BELT BUCKLE  SEAT BELT BUCKLE : Inspection	16 17
LATCH SYSTEM FOR CHILDREN Exploded View Removal and Installation	18
TOP TETHER STRAP CHILD RESTRAINT Removal and Installation	

# **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 AIRBAG" and "SEAT BELT" 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 AIRBAG".
- 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

INFOID:0000000001182701

#### CAUTION:

- 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 <u>SRC-10</u>, "<u>Diagnosis Description</u>".
- 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).
- 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.

# ON-VEHICLE REPAIR

# FRONT SEAT BELT SEAT BELT RETRACTOR

SEAT BELT RETRACTOR: Inspection

INFOID:0000000001182702

#### 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 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-tensioners 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. 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 after reaching a speed of 15kph and continue until seat belt is buckled.
- 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-III and air bag warning lamp. Refer to SRC-10, "Diagnosis Description".
- 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 tauntly 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.
- 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

Α

В

K

M

Ν

0

O

## < ON-VEHICLE REPAIR >

- 6. Remove the clip fixing the seat belt and check that the webbing returns smoothly.
- 6. Repeat steps above as necessary to check the other seat belts.

#### SEAT BELT RETRACTOR ON-VEHICLE CHECK

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

#### 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. All 3-point type seat belt retractors except the driver seat belt also have an Automatic Locking Retractors (ALR) mode. The ALR mode (also called child restraint mode) is used when installing child seats. The ALR mode is activated by fully extending the seat belt. The webbing can then only be retracted back onto the retractor, any effort to extract the webbing will cause the seat belt to lock. To cancel the ALR mode, release the tongue from the buckle and allow the seat belt to fully retract into the retractor.

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.

# ALR Function Stationary Check

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

#### **ELR Function Moving Check**

#### **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 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.

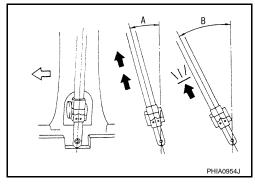
#### SEAT BELT RETRACTOR OFF-VEHICLE CHECK

- Remove the seat belt retractor.
   Remove the front seat belt assembly, refer to SB-6, "SEAT BELT RETRACTOR: Exploded View".
- 2. Slowly pull out webbing while tilting the retractor assembly forward from the mounted position without twisting the retractor assembly as shown in the illustration.

# < ON-VEHICLE REPAIR >

- A: The webbing can be pulled out in case the retractor is tilted 15° degrees or less.
- B: The webbing cannot be pulled out in case the retractor is tilted 27° degrees or more.

  • A and B show tilting angles.
- <□: Vehicle front.



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

Е

 $\mathsf{D}$ 

Α

В

F

G

SB

Κ

L

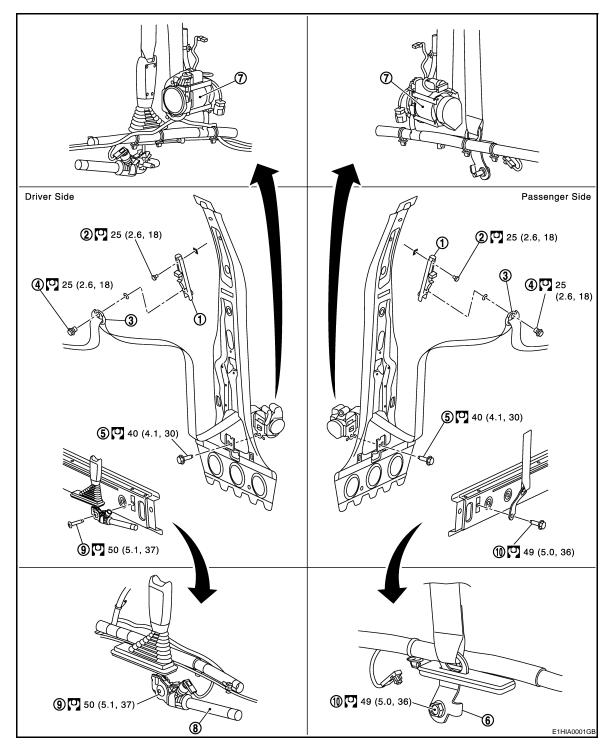
M

Ν

0

# SEAT BELT RETRACTOR: Exploded View

INFOID:0000000001182703



- 1. Seat belt shoulder adjuster
- 4. Shoulder anchor fixing bolt

Refer to GI-3, "Contents" for symbols in the figure.

- 7. Seat belt retractor
- 10. Anchor plate fixing bolt
- 2. Seat belt shoulder adjuster fixing bolt 3.
- 5. Seat belt retractor fixing bolt
- 8. Pre-tensionner

- Shoulder anchor
- Anchor plate
- 9. Pre-tensionner fixing bolt

SEAT BELT RETRACTOR: Removal and Installation

INFOID:0000000001182704

**REMOVAL** 

#### < ON-VEHICLE REPAIR >

#### **CAUTION:**

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

# REMOVAL OF DRIVER SEAT BELT RETRACTOR

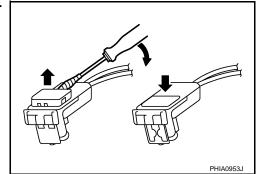
- 1. Remove rear kicking plate. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".</a>
- 2. Remove upper and lower center pillar garnish. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- 3. Remove lower anchor.
  - Pull floor carpet.
  - Disconnect front seat belt pre-tensionner connector.
  - Remove pre-tensionner fixing bolt.
  - Push lower anchor through center pillar garnish.
- 4. Remove shoulder anchor.
  - · Remove anchor fixing bolt.
- Remove seat belt shoulder adjuster.
  - Remove upper fixing bolt.
  - Pull upward to release seat belt shoulder adjuster from center pillar.
- 6. Remove seat belt retractor.
  - · Remove retractor fixing bolts.
  - Disconnect retractor connector.
  - · Remove seat belt retractor.

#### REMOVAL OF PASSENGER SEAT BELT RETRACTOR

- 1. Remove rear kicking plate. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".</a>
- 2. Remove upper and lower center pillar garnish. Refer to INT-14, "Removal and Installation".
- 3. Remove lower anchor.
  - Pull floor carpet.
  - · Remove anchor plate finisher.
  - Remove anchor plate fixing bolt.
- 4. Remove shoulder anchor.
  - Remove anchor fixing bolt.
- 5. Remove seat belt shoulder adjuster.
  - Remove upper fixing bolt.
  - Pull upward to release seat belt shoulder adjuster from center pillar.
- Remove seat belt retractor.
  - · Remove retractor fixing bolts.
  - Disconnect retractor connector.
  - Remove seat belt retractor.

#### **CAUTION:**

- 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.



**INSTALLATION** 

Install in the reverse order of removal.

SEAT BELT BUCKLE

SB

В

D

Е

F

Ν

M

0

# **SEAT BELT BUCKLE: Inspection**

INFOID:0000000001182705

# 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 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:

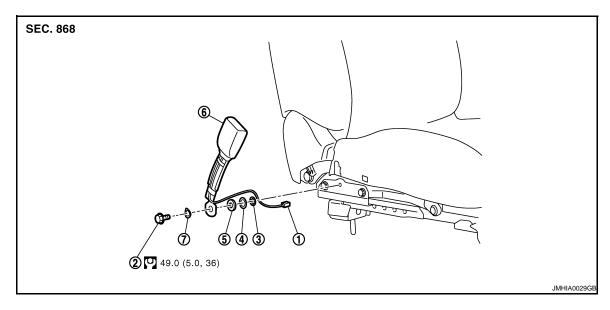
- The seat belt was in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt was damaged in an accident (i.e. torn webbing, bent retractor or guide, etc.).
- The seat belt attaching point was 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.

#### 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 after reaching a speed of 15kph and continue until seat belt is buckled.
- 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 using CONSULT-III and air bag warning lamp. Refer to <a href="SRC-10">SRC-10</a>, "Diagnosis Description".
- 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.

# SEAT BELT BUCKLE: Exploded View

INFOID:0000000001182706



- Seat belt buckle harness connector
- Anchor bolt
- Retaining washer

Washer

Space

6. Seat belt buckle

7. Wave washer

Refer to GI-3, "Contents" for symbols in the figure.

# < ON-VEHICLE REPAIR > SEAT BELT BUCKLE: Removal and Installation INFOID:0000000001182707 **REMOVAL** Remove the seat belt buckle. • Remove the front seat from vehicle. Refer to SE-15, "Removal and Installation". • Remove front seat inner finisher. Refer to SE-15, "Disassembly and Assembly". • Disconnect the seat belt buckle harness connector and harness clamp. • Remove the seat belt buckle anchor fixing bolt. **INSTALLATION** Installation is basically the reverse order of removal. SB

Α

В

C

D

Е

F

G

K

L

M

Ν

0

# REAR SEAT BELT OUTER SEAT BELT RETRACTOR

OUTER SEAT BELT RETRACTOR: Inspection

INFOID:0000000001182708

#### 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 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-tensioners 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. Check the seat belt warning lamp/chime for proper operation as follows:
- a. Turn ignition switch ON. The seat belt warning lamp should illuminate for 35 seconds. Also, the seat belt warning chime does not sound for Rear Seat Belts.
- 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-III and air bag warning lamp. Refer to <u>SRC-10</u>, "<u>Diagnosis Description</u>".
- 3. Check that the seat belt retractor, seat belt anchor and buckle bolts are securely attached.
- 4. Check retractor operation:
- 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 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) and Automatic Locking Retractors (ALR)

#### NOTË:

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. All 3-point type seat belt retractors except the driver's seat belt also have an Automatic Locking Retractors (ALR) mode. The ALR mode (also called child restraint mode) is used when installing child seats. The ALR mode is activated when the seat belt is fully extended. When the webbing is then retracted partially, the ALR mode automatically locks the seat belt in a specific position so the webbing 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 with the following test(s) to determine if a retractor assembly is operating properly.

**ELR Function Stationary Check** 

## < ON-VEHICLE REPAIR >

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

**ALR Function Stationary Check** 

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

**ELR Function Moving Check** 

#### **WARNING:**

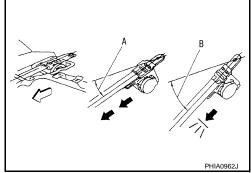
Perform the following test in a safe, open area clear of other vehicles and obstructions (for example, a large, empty parking lot). Road surface must be paved and dry. DO NOT perform the following test on wet or gravel roads or on public streets and highways. This could result in an accident and serious 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.
- 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-12</u>, "<u>OUTER SEAT BELT RETRACTOR</u>: Removal and <u>Installation</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 illustration.
  - **A**: The webbing can be pulled out in case the retractor is tilted 15° degrees or less.
  - **B** : The webbing cannot be pulled out in case the retractor is tilted 27° degrees or more.
  - A and B show tilting angles.
  - <☐: Vehicle front.



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

SB

F

Α

D

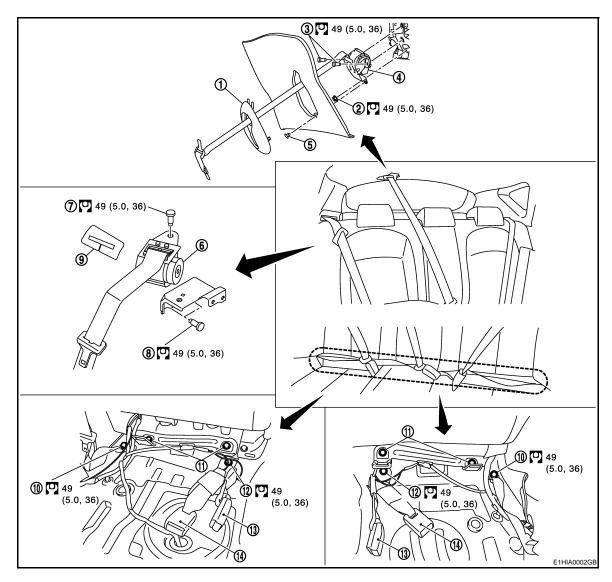
K

M

N

# **OUTER SEAT BELT RETRACTOR: Exploded View**

INFOID:0000000001182709



- 1. Center seat belt retractor finisher
- 4. Center seat belt retractor
- 7. Side seat belt retractor fixing bolt

Refer to GI-3, "Contents" for symbols in the figure.

- 10. Anchor bolt
- 13. Center seat belt buckle
- 2. Center seat belt retractor fixing nut
- 5. Clip
- 8. Side seat belt retractor bracket fixing 9. bolt
- 11. Latch fixing bolts
- 14. Outer seat belt buckle
- 3. Center seat belt retractor fixing bolts
- 6. Side seat belt retractor
  - . Side seat belt retractor cover
- 12. Seat belt buckle fixing bolt

# **OUTER SEAT BELT RETRACTOR: Removal and Installation**

#### **REMOVAL**

- 1. Remove outer anchor.
  - Remove rear seat cushion. Refer to <u>SE-21, "Removal and Installation"</u>.
  - Remove the outer lower anchor fixing bolt and the outer lower anchor.
- 2. Remove center kicking plate. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- Remove rear kicking plate. Refer to <u>INT-14</u>, "Removal and Installation".
- 4. Remove lower and upper rear trim. Refer to <a href="INT-14">INT-14</a>, "Removal and Installation".
- 5. Remove side seat belt retractor.
  - Remove retractor fixing bolt.

**SB-12** 

INFOID:0000000001182710

# < ON-VEHICLE REPAIR >

- · Release seat bolt finisher.
- Push seat belt tongue through trim finisher
- Remove outer seat belt retractor support
  - Remove outer seat belt retractor support fixing bolts

#### INSTALLATION

Install in the reverse order of removal.

CENTER SEAT BELT RETRACTOR

# **CENTER SEAT BELT RETRACTOR: Inspection**

INFOID:0000000001182711

#### 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 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-tensioners 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. Check the seat belt warning lamp/chime for proper operation as follows:
- a. Turn ignition switch ON. The seat belt warning lamp should illuminate for 35 seconds. Also, the seat belt warning chime does not sound for Rear Seat Belts.
- Fasten driver seat belt. The seat belt warning lamp should turn off and the chime (if sounding) should b.
- If the air bag warning lamp is blinking, conduct self-diagnosis with CONSULT-III and air bag warning lamp. Refer to SRC-10, "Diagnosis Description".
- Check that the seat belt retractor, seat belt anchor and buckle bolts are securely attached.
- 4. Check retractor operation:
- Fully extend the seat belt webbing and check for twists, tears or other damage.
- 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.
- 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 SET" and perform the following steps.
- Repeat steps above as necessary to check the other seat belts.

#### SEAT BELT RETRACTOR ON-VEHICLE CHECK

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

# 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. All 3-point type seat belt retractors except the driver's seat belt also have an Automatic Locking Retractors (ALR) mode. The ALR mode (also called child restraint mode) is used when installing child seats. The ALR mode is activated when the seat belt is fully extended. When the webbing is then retracted partially, the ALR mode automatically locks the seat belt

SB

Α

D

L

Ν

## < ON-VEHICLE REPAIR >

in a specific position so the webbing 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 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.

## **ALR Function Stationary Check**

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

## **ELR Function Moving Check**

#### **WARNING:**

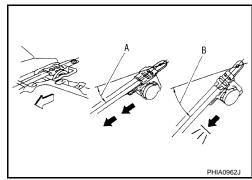
Perform the following test in a safe, open area clear of other vehicles and obstructions (for example, a large, empty parking lot). Road surface must be paved and dry. DO NOT perform the following test on wet or gravel roads or on public streets and highways. This could result in an accident and serious 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.
- 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

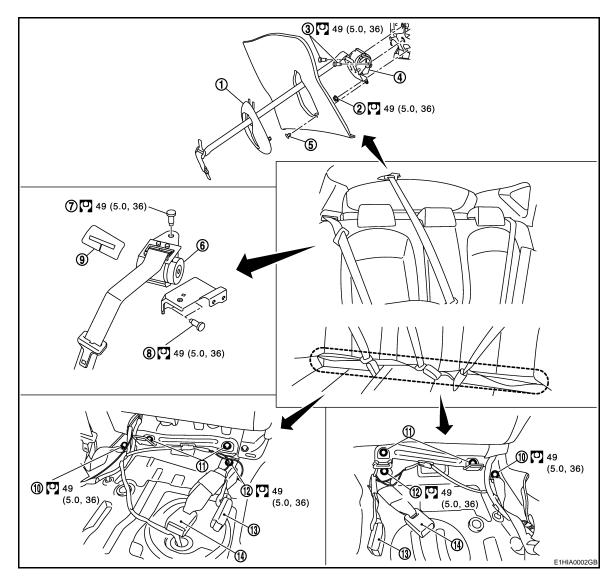
- 1. Remove the seat belt retractor.
  - Remove the rear seat belt assembly, refer to <u>SB-15</u>, "CENTER SEAT BELT RETRACTOR: Removal and Installation".
- 2. Slowly pull out webbing while tilting the retractor assembly forward from the mounted position without twisting the retractor assembly as shown in the illustration.
  - **A**: The webbing can be pulled out in case the retractor is tilted 15° degrees or less.
  - ${\bf B}$  : The webbing cannot be pulled out in case the retractor is tilted 27° degrees or more.
  - A and B show tilting angles.
  - <□: Vehicle front.</li>



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

# CENTER SEAT BELT RETRACTOR: Exploded View

INFOID:0000000001182712



- 1. Center seat belt retractor finisher
- 4. Center seat belt retractor
- 7. Side seat belt retractor fixing bolt
- 10. Anchor bolt
- 13. Center seat belt buckle
- 2. Center seat belt retractor fixing nut
- 5. Clip
- Side seat belt retractor bracket fixing 9. bolt
- 11. Latch fixing bolts
- 14. Outer seat belt buckle
- 3. Center seat belt retractor fixing bolts
- 6. Side seat belt retractor
- Side seat belt retractor cover
- 12. Seat belt buckle fixing bolt

CENTER SEAT BELT RETRACTOR: Removal and Installation

#### **REMOVAL**

- 1. Remove seat belt retractor finisher.
  - Release rear pawls from the roof.

Refer to GI-3, "Contents" for symbols in the figure.

- Release pawls from seat belt retractor.
- Slide down and pull backward.
- 2. Remove upper back trim (LH/RH). Refer El.
- 3. Remove holder (RH/LH). Refer El.
- 4. Remove rear headlining.

#### **CAUTION:**

D

Α

В

Е

F

SB

Κ

L

. .

M

N

Ρ

INFOID:0000000001182713

#### < ON-VEHICLE REPAIR >

# Use safety glove to avoid the damage of headlining.

- 5. Remove center seat belt retractor.
  - Remove fixing bolts and fixing nut.

#### INSTALLATION

Installation is basically the reverse order of removal.

SEAT BELT BUCKLE

SEAT BELT BUCKLE: Inspection

INFOID:0000000001182714

#### 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 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:

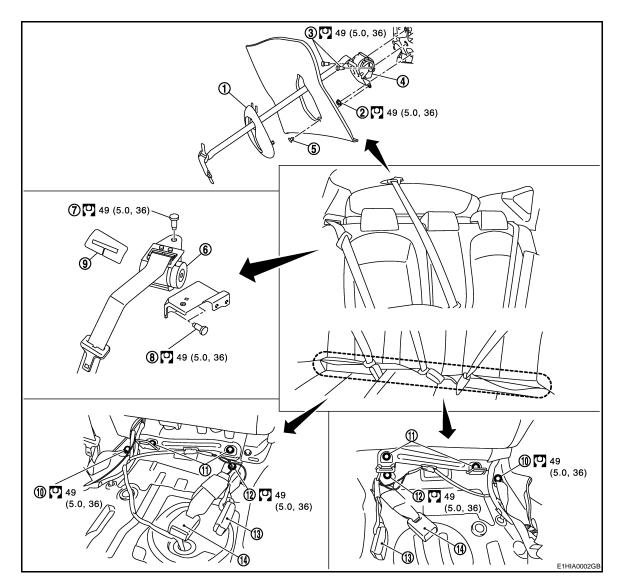
- The seat belt was in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt was damaged in an accident. (i.e. torn webbing, bent retractor or guide, etc.)
- The seat belt attaching point was 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.

#### PRELIMINARY CHECKS

- 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:0000000001182715



- Center seat belt retractor finisher
- Center seat belt retractor
- Side seat belt retractor fixing bolt

Refer to GI-3, "Contents" for symbols in the figure.

- 10. Anchor bolt
- 13. Center seat belt buckle
- 2. Center seat belt retractor fixing nut
- 5. Clip
- Side seat belt retractor bracket fixing 9.
- 11. Latch fixing bolts
- 14. Outer seat belt buckle
- 3. Center seat belt retractor fixing bolts
- 6. Side seat belt retractor
  - Side seat belt retractor cover
- 12. Seat belt buckle fixing bolt

# SEAT BELT BUCKLE: Removal and Installation

#### **REMOVAL**

Remove the seat belt buckle.

- Remove the rear seat cushion. Refer to SE-21, "Removal and Installation".
- Disconnect harness.
- · Remove the center anchor fixing bolt.

# INSTALLATION

Installation is basically in the reverse order of removal.

В

Α

D

Е

F

SB

K

M

Ν

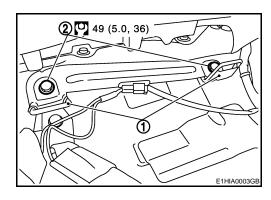
INFOID:0000000001182716

# LATCH SYSTEM FOR CHILDREN

Exploded View

1. LATCH system

Refer to GI-3, "Contents" for symbols in the figure.



# Removal and Installation

INFOID:0000000001182718

# **REMOVAL**

#### **CAUTION:**

Replace anchor bolts if they are deformed or worn out.

- 1. Remove the rear seat cushion. Refer to SE-21, "Removal and Installation".
- 2. Remove LATCH (Lower Anchor and Tether for Children) system.

# **INSTALLATION**

Install in the reverse order of removal.

# TOP TETHER STRAP CHILD RESTRAINT

# < ON-VEHICLE REPAIR >

# TOP TETHER STRAP CHILD RESTRAINT

# Removal and Installation

# INFOID:0000000001182719

# **REMOVAL**

## **CAUTION:**

Replace anchor bolts if they are deformed or worn out.

- 1. Remove the top tether strap child restraint cover. Refer to <a href="INT-14">INT-14</a>, "Exploded View".
- 2. Remove the top tether strap child restraint.

# **INSTALLATION**

Install in the reverse order of removal.

Е

D

Α

В

C

F

G

SB

1

K

L

M

Ν

0