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OCCUPANT CLASSIFICATION SYSTEM CONTROL UNIT

PRECAUTION

PRECAUTIONS

Precaution for Technicians Using Medical Electric

INFOID:0000000007075274

OPERATION PROHIBITION

WARNING:

- Parts with strong magnet is used in this vehicle.
- Technicians using a medical electric device such as pacemaker must never perform operation on the vehicle, as magnetic field can affect the device function by approaching to such parts.

NORMAL CHARGE PRECAUTION

WARNING:

- If a technician uses a medical electric device such as an implantable cardiac pacemaker or an implantable cardioverter defibrillator, the possible effects on the devices must be checked with the device manufacturer before starting the charge operation.
- As radiated electromagnetic wave generated by on board charger at normal charge operation may effect medical electric devices, a technician using a medical electric device such as implantable cardiac pacemaker or an implantable cardioverter defibrillator must not enter the vehicle compartment (including luggage room) during normal charge operation.

Precaution at telematics system operation

WARNING:

- If a technician uses implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), avoid the device implanted part from approaching within approximately 220 mm (8.66 in) from interior/exterior antenna.
- The electromagnetic wave of TCU might affect the function of the implantable cardiac pacemaker or the implantable cardioverter defibrillator (ICD), when using the service, etc.
- If a technician uses other medical electric devices than implantable cardiac pacemaker or implantable cardioverter defibrillator(ICD), the electromagnetic wave of TCU might affect the function of the device. The possible effects on the devices must be checked with the device manufacturer before TCU use.

Precaution at intelligent key system operation

WARNING:

- If a technician uses implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), avoid the device implanted part from approaching within approximately 220 mm (8.66 in) from interior/exterior antenna.
- The electromagnetic wave of intelligent key might affect the function of the implantable cardiac pacemaker or the implantable cardioverter defibrillator (ICD), at door operation, at each request switch operation, or at engine starting.
- If a technician uses other medical electric devices than implantable cardiac pacemaker or implantable cardioverter defibrillator (ICD), the electromagnetic wave of intelligent key might affect the function of the device. The possible effects on the devices must be checked with the device manufacturer before intelligent key use.

Point to Be Checked Before Starting Maintenance Work

The high voltage system may starts automatically. It is required to check that the timer air conditioner and timer charge (during EVSE connection) are not set before starting maintenance work. NOTE:

If the timer air conditioner or timer charge (during EVSE connection) is set, the high voltage system starts automatically even when the power switch is in OFF state.

Precaution for Removing 12V Battery

Revision: 2010 November

When removing the 12V battery, turn ON/OFF the power switch and check that the charging status indicator does not blink. The 12V battery must be removed within one hour after checking the indicator lamp. NOTE:

The automatic 12V battery charge control may start even when the power switch is in OFF state.

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< PRECAUTION >

 The automatic 12V battery charge control does not start within approximately one hour when the power switch is turned ON/OFF.

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
 power switch ON, 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 power switch OFF, disconnect the 12V battery, and wait at least 3 minutes before performing any service.

Occupant Classification System

Replace occupant classification system control unit and passenger front seat cushion as an assembly. Refer to SE-13, "Exploded View".

Precaution for Work

- Never use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 minutes or more.
 - For approximately 3 minutes after the cables are removed, it is still possible for the air bag and seat belt pretensioner to deploy. Therefore, never work on any SRS connectors or wires until at least 3 minutes have elapsed.
- Diagnosis sensor unit must always be installed with their arrow marks "←" pointing towards the front of the
 vehicle for proper operation. Also check diagnosis sensor unit for cracks, deformities or rust before installation and replace as required.
- The spiral cable must be aligned in the neutral position since its rotations are limited. Never turn steering wheel and column after removal of steering gear.
- Handle air bag module carefully. Always place driver and front passenger air bag modules with the pad side
 facing upward and seat mounted front side air bag module standing with the stud bolt side facing down.
- Conduct self-diagnosis to check entire SRS for proper functioning after replacing any components.
- After air bag inflates, the instrument panel assembly should be replaced if damaged.

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PREPARATION

PREPARATION

Commercial Service Tools

INFOID:0000000006892151

Tool name		Description
Tamper resistant TORX bit	S-NT757	Removes tool of driver air bag module and/or Diagnosis sensor unit
Remover tool	JMKIA3050ZZ	Removes clips, pawls and metal clips

BASIC INSPECTION

COLLISION DIAGNOSIS FOR FRONTAL COLLISION

FOR FRONTAL COLLISION: When SRS is activated in a collision

INFOID:0000000006892110

CAUTION:

Due to varying models and option levels, not all parts listed in the chart below apply to all vehicles.

WORK PROCEDURE

- 1. Before performing any of the following steps, ensure that all vehicle body and structural repairs have been completed.
- 2. Replace the diagnosis sensor unit.
- 3. Remove the front air bag modules, crash zone sensor, bracket and seat belt pre-tensioner assemblies.
- 4. Check the SRS components using the table below:
 Replace any SRS components showing visible signs of damage. (dents, cracks and deformation, etc.)
- Install new front air bag modules, crash zone sensor assembly, bracket and seat belt pre-tensioner assemblies.
- 6. Perform self-diagnosis using CONSULT or "AIR BAG" warning lamp. Refer to <u>SRC-17, "CONSULT Function"</u> or <u>SRC-13, "On Board Diagnosis Function"</u> for details. Ensure entire SRS operates properly.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRC-13</u>, "<u>Description</u>".

SRS INSPECTION (FOR FRONTAL COLLISION)

Part	Inspection
Driver air bag module	If the driver air bag has deployed: REPLACE Install with new fasteners.
Passengerair bag module (if equipped)	If the passengerair bag has deployed: REPLACE Install with new fasteners.
Crash zone sensor	If any of the front air bags or seat belt pre-tensioners* have been activated: REPLACE the crash zone sensor and bracket with new fasteners. *: Confirm seat belt pre-tensioner activation using CONSULT only.
Seat belt pre-tensioner assemblies (All applicable locations: buckle, retractor, lap outer)	If either the driver or passenger seat belt pre-tensioner* has been activated: REPLACE all seat belt pre-tensioner assemblies with new fasteners. *: Confirm seat belt pre-tensioner activation using CONSULT only.
Diagnosis sensor unit	If any of the SRS components have been activated: REPLACE the diagnosis sensor unit. Install with new fasteners.
Steering wheel	 Visually check steering wheel for deformities. Check harness (built into steering wheel) and connectors for damage, and terminals for deformities. Install driver air bag module into the steering wheel to check fit and alignment with the wheel. Check steering wheel for excessive free play. If no damage is found, reinstall. If damaged – REPLACE.
Spiral cable	If the driver front air bag has deployed: REPLACE the spiral cable.
Occupant classification system (Passenger seat)	 Remove passenger seat assembly. Check control unit case for dents, cracks of deformities. Check connectors and pressure sensor tube for damage, and terminals for deformities. Check seat frame and cushion pan for dents or deformities. If no damage is found, reinstall seat with new fasteners. If damaged – REPLACE seat cushion assembly with new fasteners.

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< BASIC INSPECTION >

Part	Inspection	
Harness and connectors	 Check connectors for poor connection, damage, and terminals for deformities. Check harness for binding, chafing, cuts, or deformities. If no damage is found, reinstall the harness and connectors. If damaged – REPLACE the damaged harness. Do not attempt to repair, splice or modify any SRS harness. 	
Instrument panel assembly	If the passengerair bag has deployed: REPLACE the instrument panel assembly. (integrated type)	

FOR FRONTAL COLLISION: When SRS is not activated in a collision

INFOID:0000000006892111

CAUTION:

Due to varying models and option levels, not all parts listed in the chart below apply to all vehicles.

WORK PROCEDURE

- Before performing any of the following steps, ensure that all vehicle body and structural repairs have been completed.
- Check the SRS components using the table below:
 Replace any SRS components showing visible signs of damage. (dents, cracks and deformation, etc.)
- 3. Perform self-diagnosis using CONSULT or "" warning lamp. Refer to <u>SRC-17, "CONSULT Function"</u> or <u>SRC-13, "On Board Diagnosis Function"</u> for details. Ensure entire SRS operates properly.
- 4. After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to SRC-13, "Description".

SRS INSPECTION (FOR FRONTAL COLLISION)

Part	Inspection
Driver air bag module	 If the driver air bag has NOT been deployed: Remove driver air bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. Install driver air bag module into the steering wheel to check fit and alignment with the wheel. If no damage is found, reinstall with new fasteners. If damaged – REPLACE. Install driver air bag module with new fasteners.
Passengerair bag module (if equipped)	 If the passengerair bag has NOT been deployed: Remove passengerair bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. Install passengerair bag module into the instrument panel to check fit with the instrument panel. If no damage is found, reinstall with new fasteners. If damaged – REPLACE. Install passengerair bag modules with new fasteners.
Crash zone sensor	 If the front air bags or seat belt pre-tensioners have NOT been activated: Remove the crash zone sensor. Check harness connectors for damage, terminals for deformities, and harness for binding. Check for visible signs of damage (dents, cracks, deformation, etc.) of the crash zone sensor and bracket. Install the crash zone sensor to check fit. If no damage is found, reinstall with new fasteners. If damaged – REPLACE the crash zone sensor and bracket with new fasteners.
Seat belt pre-tensioner assemblies (All applicable locations: buckle, retractor, lap outer)	 If the pre-tensioners have NOT been activated: Remove seat belt pre-tensioners. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. Check belts for damage and anchors for loose mounting. Check retractor for smooth operation. Check seat belt adjuster for damage. Check for deformities of the center pillar inner. If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly. If no damage is found, reinstall seat belt pre-tensioner swith new fasteners.

< BASIC INSPECTION >

Part	Inspection
Diagnosis sensor unit	If none of the SRS components have been activated: 1. Check case for dents, cracks or deformities. 2. Check connectors for damage, and terminals for deformities. 3. If no damage is found, reinstall with new fasteners. 4. If damaged – REPLACE. Install diagnosis sensor unit with new fasteners.
Steering wheel	 Visually check steering wheel for deformities. Check harness (built into steering wheel) and connectors for damage, and terminals for deformities. Install driver air bag module into the steering wheel to check fit and alignment with the wheel. Check steering wheel for excessive free play. If no damage is found, reinstall. If damaged – REPLACE.
Spiral cable	If the driver front air bag has not deployed: 1. Visually check spiral cable and combination switch for damage. 2. Check connectors and protective tape for damage. 3. Check steering wheel for noise, binding or heavy operation. 4. If no damage is found, reinstall. 5. If damaged – REPLACE.
Occupant classification system (Passenger seat)	 Remove passenger seat assembly. Check control unit case for dents, cracks of deformities. Check connectors and pressure sensor tube for damage, and terminals for deformities. Check seat frame and cushion pan for dents or deformities. If no damage is found, reinstall seat with new fasteners. If damaged – REPLACE seat cushion assembly with new fasteners.
Harness and connectors	 Check connectors for poor connection, damage, and terminals for deformities. Check harness for binding, chafing, cuts, or deformities. If no damage is found, reinstall the harness and connectors. If damaged – REPLACE the damaged harness. Do not attempt to repair, splice or modify any SRS harness.
Instrument panel assembly	If the passengerair bag has NOT deployed: 1. Visually check instrument panel assembly for damage. 2. If no damage is found, reinstall the instrument panel assembly. 3. If damaged – REPLACE the instrument panel assembly.

FOR SIDE AND ROLLOVER COLLISION

FOR SIDE AND ROLLOVER COLLISION: When SRS is activated in a collision

INFOID:0000000006892112

CAUTION:

Due to varying models and option levels, not all parts listed in the chart below apply to all vehicles.

WORK PROCEDURE

- 1. Before performing any of the following steps, ensure that all vehicle body and structural repairs have been completed.
- 2. Replace the following components:
 - Front seat back assembly (on the side on which side air bag is activated)
 - Door finisher (on the side on which door-mounted curtain air bag is activated)
 - Pop-up roll bar assemblies and pop-up roll bar covers
 - Satellite sensor LH/RH (on the side on which side air bag is activated)
 - · Diagnosis sensor unit
 - Seat belt pre-tensioner assemblies
- Check the SRS components and the related parts using the following table.
 Replace any SRS components and the related parts showing visible signs of damage. (dents, cracks, deformation, etc.)
- 4. Perform self-diagnosis using CONSULT and "AIR BAG" warning lamp. Refer to SRC-17, "CONSULT function" or SRC-13, "On Board Diagnosis Function" for details. Make sure entire SRS operates properly.
- 5. After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRC-13</u>, "<u>Description</u>".

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< BASIC INSPECTION >

SRS INSPECTION (FOR SIDE AND ROLLOVER COLLISION)

Part	Inspection
Curtain air bag module LH	If the curtain air bag LH has deployed: REPLACE the curtain air bag module LH. Install with new fasteners.
Curtain air bag module RH	If the curtain air bag RH has deployed: REPLACE the curtain air bag module RH. Install with new fasteners.
Side air bag module LH	If the side air bag LH has deployed: REPLACE front seatback assembly LH.
Side air bag module RH	If the side air bag RH has deployed: REPLACE front seatback assembly RH.
Satellite sensor (LH or RH)	If any of the SRS components have deployed: REPLACE the satellite sensor on the collision side with new fasteners.
Diagnosis sensor unit	If any of the SRS components have deployed: REPLACE the diagnosis sensor unit with new fasteners.
Seat belt pre-tensioner assemblies (All applicable locations: buckle, retractor, lap outer)	If either the driver or passenger seat belt pre-tensioner* has been activated: REPLACE all seat belt pre-tensioner assemblies with new fasteners. *: Confirm seat belt pre-tensioner activation using CONSULT only.
Center inner pillar	 Check the center inner pillar on the collision side for damage (dents, cracks, deformation, etc.). If damaged – REPAIR the center inner pillar.
Trim/headlining	 Check for visible signs of damage (dents, cracks, deformation, etc.) of the interior trim on the collision side. If damaged – REPLACE the damaged trim parts.
Door-mounted curtain air bag module LH	If the door-mounted curtain air bag module LH has deployed: REPLACE the door finisher LH and door-mounted curtain air bag module. Install with new fasteners.
Door-mounted curtain air bag module RH	If the door-mounted curtain air bag module RH has deployed: REPLACE the door finisher RH and door-mounted curtain air bag module. Install with new fasteners.
Pop-up roll bar assemblies	If the pop-up roll bar has deployed: REPLACE pop-up roll bar assemblies and pop-up roll bar covers. Install with new fasteners.

FOR SIDE AND ROLLOVER COLLISION: When SRS is not activated in a collision

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CAUTION:

Due to varying models and option levels, not all parts listed in the chart below apply to all vehicles.

WORK PROCEDURE

- 1. Before performing any of the following steps, ensure that all vehicle body and structural repairs have been completed.
- 2. Check the SRS components and the related parts using the following table.
 - If the front seat back assembly is damaged, the front seat back assembly must be replaced.
 - If the door finisher assembly is damaged, the door finisher assembly and door-mounted curtain air bag module must be replaced.
- Perform self-diagnosis using CONSULT and "AIR BAG" warning lamp. Refer to <u>SRC-17</u>, "CONSULT <u>Function"</u> or <u>SRC-13</u>, "On <u>Board Diagnosis Function"</u> for details. Make sure entire SRS operates properly.
- 4. After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to SRC-13, "Description".

SRS INSPECTION (FOR SIDE AND ROLLOVER COLLISION)

< BASIC INSPECTION >

Part	Inspection
Curtain air bag module LH	 If the curtain air bag LH has NOT deployed: Check for visible signs of damage (dents, tears, deformation, etc.) of the center pillar on the collision side. If damaged – Remove the curtain air bag module LH. Check for visible signs of damage (tears etc.) of the curtain air bag module LH. Check harness and connectors for damage, and terminals for deformities. If no damage is found, reinstall the curtain air bag module LH with new fasteners. If damaged – REPLACE the curtain air bag module LH with new fasteners.
Curtain air bag module RH	 If the curtain air bag RH has NOT deployed: Check for visible signs of damage (dents, tears, deformation, etc.) of the center pillar on the collision side. If damaged – Remove the curtain air bag module RH. Check for visible signs of damage (tears etc.) of the curtain air bag module RH. Check harness and connectors for damage, and terminals for deformities. If no damage is found, reinstall the curtain air bag module RH with new fasteners. If damaged – REPLACE the curtain air bag module RH with new fasteners.
Side air bag module LH	 If the side air bag LH has NOT deployed: Check for visible signs of damage (dents, tears, deformation, etc.) of the seat back on the collision side. Check harness and connectors for damage, and terminals for deformities. If damaged – REPLACE the front seatback assembly LH.
Side air bag module RH	If the side air bag RH has NOT deployed: Check for visible signs of damage (dents, tears, deformation, etc.) of the seat back on the collision side. Check harness and connectors for damage, and terminals for deformities. If damaged – REPLACE the front seatback assembly RH.
Satellite sensor (LH or RH)	 If none of the SRS components have been activated: Remove the satellite sensor (LH or RH) on the collision side. Check harness connectors for damage, terminals for deformities, and harness for binding. Check for visible signs of damage (dents, cracks, deformation, etc.) of the satellite sensor (LH or RH). Install the satellite sensor (LH or RH) to check fit. If no damage is found, reinstall the satellite sensor (LH or RH) with new fasteners. If damaged – REPLACE the satellite sensor (LH or RH) with new fasteners.
Diagnosis sensor unit	If none of the SRS components have been activated: Check case and bracket for dents, cracks or deformities. Check connectors for damage, and terminals for deformities. If no damage is found, reinstall the diagnosis sensor unit with new fasteners. He damaged – REPLACE the diagnosis sensor unit with new fasteners.
Seat belt pre-tensioner assemblies (All applicable locations: buckle, retractor, lap outer)	 If the pre-tensioners have NOT been activated: Remove seat belt pre-tensioners. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. Check belts for damage and anchors for loose mounting. Check retractor for smooth operation. Check seat belt adjuster for damage. Check for deformities of the center pillar inner. If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly. If no damage is found, reinstall seat belt pre-tensioners with new fasteners.
Seat (with side air bag)	 If the front LH or front RH side air bag modules have NOT deployed: Visually check the seat on the collision side. Remove the seat on the collision side and check the following for damage and deformities. Harness, connectors and terminals Frame and recliner (for front and rear seat), and also adjuster and slides (for front seat) If no damage is found, reinstall the seat. If damaged – REPLACE the damaged seat parts using new fasteners. If the front seat back is damaged, the front seat back assembly must be replaced.
Center inner pillar	 Check the center inner pillar on the collision side for damage (dents, cracks, deformation, etc.). If damaged – REPAIR the center inner pillar.

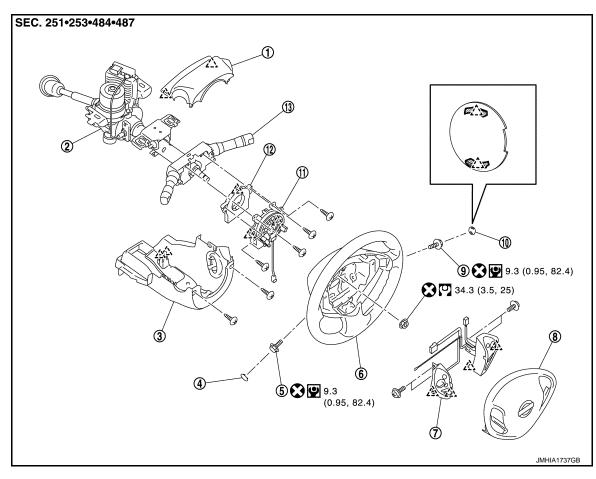
< BASIC INSPECTION >

Part	Inspection	
Trim/headlining	 Check for visible signs of damage (dents, cracks, deformation, etc.) of the interior trim on the collision side. If damaged – REPLACE the damaged trim parts. 	
Door-mounted curtain air bag module LH	 If the door-mounted curtain air bag LH has NOT deployed: Check for visible signs of damage (dents, tears, deformation, etc.) of the door finisher on the collision side. If damaged – REPLACE the door finisher LH with new fasteners. Check for visible signs of damaged (tears etc.) of the door-mounted curtain air bag module LH Check harness and connectors for damage, and terminals for deformities. If no damage is found, reinstall door finisher. CAUTION: When removing door-mounted curtain air bag module from door finisher, never reuse door finisher. If damaged – REPLACE the door finisher LH and door-mounted curtain air bag module LH with new fasteners. 	
Door-mounted curtain air bag module RH	 If the door-mounted curtain air bag RH has NOT deployed: Check for visible signs of damage (dents, tears, deformation, etc.) of the door finisher on the collision side. If damaged – REPLACE the door finisher RH with new fasteners. Check for visible signs of damage (tears etc.) of the door-mounted curtain air bag module R Check harness and connectors for damage, and terminals for deformities. If no damage is found, reinstall door finisher. CAUTION: When removing door-mounted curtain air bag module from door finisher, never reuse door finisher. If damaged – REPLACE the door finisher RH and door-mounted curtain air bag module RH winew fasteners. 	
Pop-up roll bar	 If the pop-up roll bar has NOT deployed: Check for visible signs of damage (dents, tears, deformation, etc.) of the pop-up roll bar. If damaged – REPLACE the pop-up roll bar with new fasteners. Check harness and connectors for damage, and terminals for deformities. If no damage is found, reinstall the pop-up roll bar with new fasteners. Check for visible signs of damage (dents, cracks, deformation, etc.) of the seatback support brace assembly. If damaged – REPAIR the seatback support brace assembly. 	

REMOVAL AND INSTALLATION

DRIVER AIR BAG MODULE

Exploded View INFOID:0000000006892114



- Steering column upper cover
- Side lid LH
- Steering switch
- 10. Side lid RH
- Combination switch
- : Pawl
- : Always replace after every disassembly.
- : N·m (kg-m, in-lb)
- : N·m (kg-m, ft-lb)

- 2. Steering column assembly
- TORX bolt 5.
- 8. Driver air bag module
- 11. Spiral cable

- 3. Steering column lower cover
- 6.
- 12. Steering angle sensor

Removal and Installation

WARNING:

- . Before servicing, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 min-
- Always work from the side of air bag module. Never work in front of it.
- Never use the air tools or electric tools for servicing.

REMOVAL

Steering wheel

9. TORX bolt

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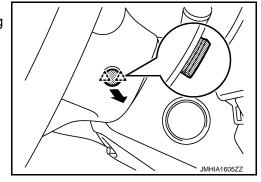
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DRIVER AIR BAG MODULE

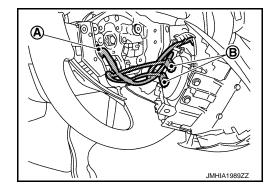
< REMOVAL AND INSTALLATION >

Remove side lid (LH and RH).
 Insert flat-bladed screwdriver between side lid and steering wheel to disengage pawls as shown in the figure.



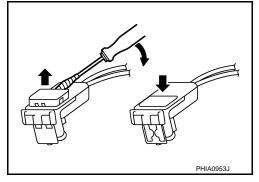


- 2. Remove TORX bolts (LH and RH) from the steering wheel lower side.
- 3. Pull out driver air bag module.
- 4. Disconnect steering switch harness connector (A).
- 5. Disconnect driver air bag harness connectors (B).



CAUTION:

- For installing/removing the driver air bag module harness connector, insert thin screwdriver wrapped in tape into notch, lift lock and remove the connector.
- Install the connector with lock raised, and push lock into the connector.
- After installing the connector, check that the lock is pushed securely into it.

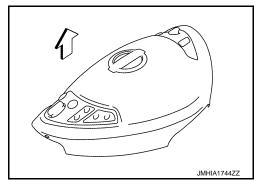


6. Remove driver air bag module.

CAUTION:

 Always place the driver air bag module with pad side facing upward.





DRIVER AIR BAG MODULE

< REMOVAL AND INSTALLATION >

- Never impact the driver air bag module.
- Replace the driver air bag module if it has been dropped or sustained an impact.



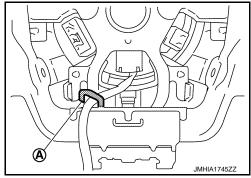
- Never insert any foreign objects (screwdriver, etc.) into the driver air bag module.
- Never disassemble the driver air bag module.
- Never expose the driver air bag module to temperatures exceeding 90 °C (194 °F).
- Never allow oil, grease, detergent, or water to come in contact with the driver air bag module.

INSTALLATION

Note the following items, and then install in the reverse order of removal.

CAUTION:

- Never use the old TORX bolts after removal, replace with the new TORX bolts.
- Fix the driver air bag module harnesses to the harness fixing hook (A).



- Never damage the harness while installing.
- Tighten the TORX bolts after completely adjusting the centers of fixing holes on the driver air bag module side and the steering wheel side. If the holes are misaligned, the bolt threads are damaged and the module is not installed securely.
- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is complete, check that no system malfunction is detected by air bag warning lamp.

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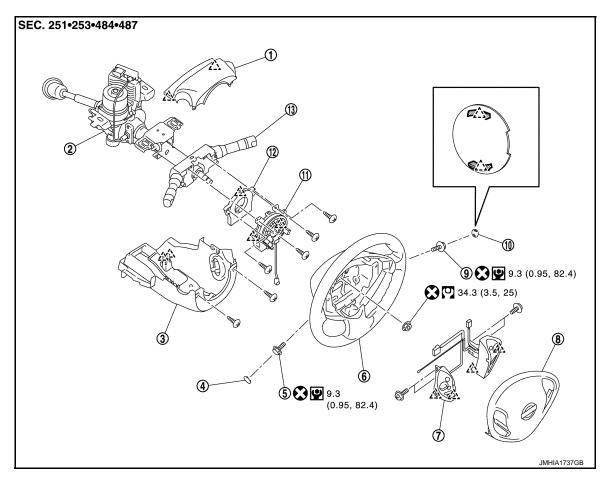
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SPIRAL CABLE

Exploded View



- 1. Steering column upper cover
- 4. Side lid LH
- 7. Steering switch
- 10. Side lid RH
- 13. Combination switch
- \bigwedge : Pawl
- : Always replace after every disassembly.
- : N·m (kg-m, in-lb)
- : N·m (kg-m, ft-lb)

- 2. Steering column assembly
- 5. TORX bolt
- 8. Driver air bag module
- 11. Spiral cable

3. Steering column lower cover

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- 6. Steering wheel
- 9. TORX bolt
- 12. Steering angle sensor

Removal and Installation

WARNING:

- Before servicing, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 minutes or more.
- Never use the air tools or electric tools for servicing.

REMOVAL

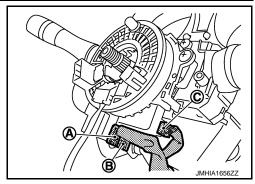
- 1. Remove driver air bag module. Refer to SR-11, "Removal and Installation".
- Remove steering wheel. Refer to <u>ST-9, "Removal and Installation"</u>.
- Remove steering column upper cover and steering column lower cover. Refer to <u>IP-13, "Removal and Installation"</u>.

SPIRAL CABLE

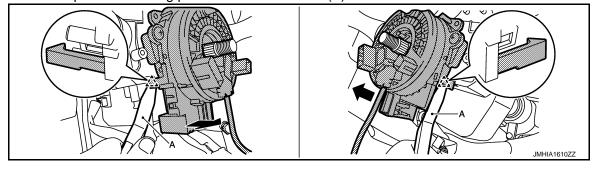
< REMOVAL AND INSTALLATION >

Disconnect the spiral cable body side harness connectors (A),
 (B) and steering angle sensor harness connectors (C).
 NOTE:

Disconnect the spiral cable body side harness connector (B) after removing the spiral cable (A).



- Remove the spiral cable fixing screws.
- 6. Remove the spiral cable fixing pawls with remover tool (A).



______: Pawl

CAUTION:

Remove pawls slowly so that they are not damaged.

7. Remove the steering angle sensor. Refer to BRC-155, "Removal and Installation".

CAUTION:

- Never impact the spiral cable.
- Replace the spiral cable if it is dropped or sustains an impact.



- Never disassemble the spiral cable.
- Never apply lubricant to the spiral cable.
- Never allow oil, grease, detergent, or water to come in contact with the spiral cable.

INSTALLATION

Note the following items, and then install in the reverse order of removal.

CAUTION:

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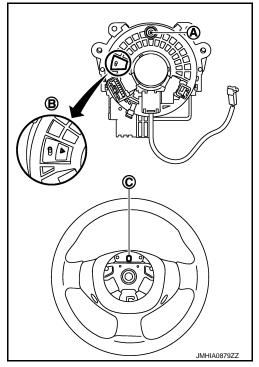
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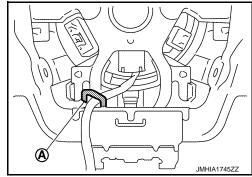
SPIRAL CABLE

< REMOVAL AND INSTALLATION >

- The spiral cable may snap during steering operation if the cable is installed in an improper position.
 - The neutral position is set as per the following.
- Carefully turn the spiral cable clockwise to the end position.
 Then turn it counterclockwise (about 2 and a half turns) and
 stop turning at the mark (B) when the stopper insertion holes
 are in the same position.
- The service part is installed in the neutral position by the stopper and can be set without adjusting after the stopper is removed.
- Never over turn the spiral cable or go beyond the number of turns required. (This causes the cable to snap)
- Adjust the spiral cable locating pin (A) to the steering wheel locating pin hole (C).



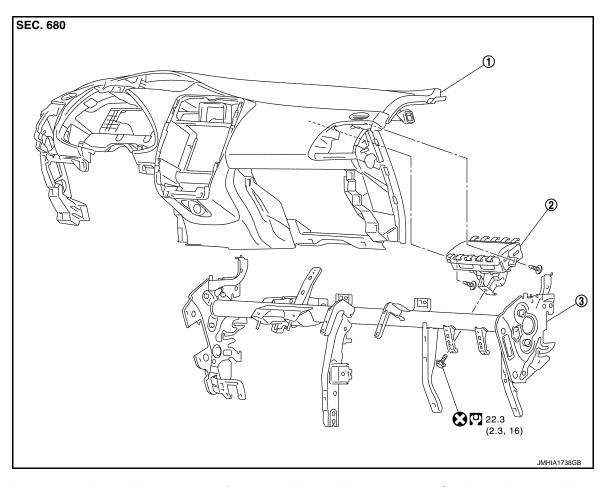
• Fix the driver air bag module harnesses to the harness fixing hook (A).



- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is completed, check that no system malfunction is detected by air bag warning lamp.

PASSENGER AIR BAG MODULE

Exploded View



- 1. Instrument panel assembly
- 2. Passenger air bag module
- Steering member assembly

<u>/</u>^、:Pav

: Always replace after every disassembly.

: N-m (kg-m, ft-lb)

Removal and Installation

WARNING:

- Before servicing, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 minutes or more.
- · Always work from the side of air bag module. Never work in front of it.
- Never use the air tools or electric tools for servicing.

REMOVAL

1. Remove the instrument panel assembly. Refer to <u>IP-13, "Removal and Installation"</u>.

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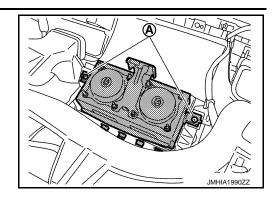
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Revision: 2010 November

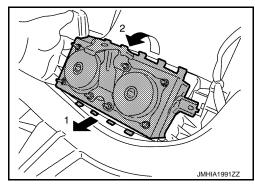
PASSENGER AIR BAG MODULE

< REMOVAL AND INSTALLATION >

2. Remove the passenger air bag module fixing screws (A).



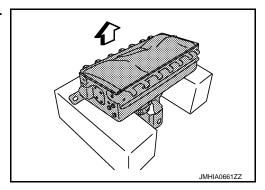
- 3. Move the passenger air bag module, and disengage the pawl as shown in the figure.
- 4. Lift up passenger air bag module, and then remove passenger air bag module.



CAUTION:

Always place the passenger air bag module with pad side facing upward.





- Never impact the passenger air bag module.
- Replace the passenger air bag module if it has been dropped or sustained an impact.



- Never insert any foreign objects (screwdriver, etc.) into the passenger air bag module.
- Never disassemble the passenger air bag module.
- Never expose the passenger air bag module to temperatures exceeding 90 °C (194 °F).
- Never allow oil, grease, detergent, or water to come in contact with the passenger air bag module.

INSTALLATION

Note the following item, and install in the reverse order of removal.

CAUTION:

- Never use the old fixing bolts after removal, replace with the new bolts.
- · Never damage the harness while installing.

PASSENGER AIR BAG MODULE

< REMOVAL AND INSTALLATION >

- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is completed, check that no system malfunction is detected by air bag warning lamp.

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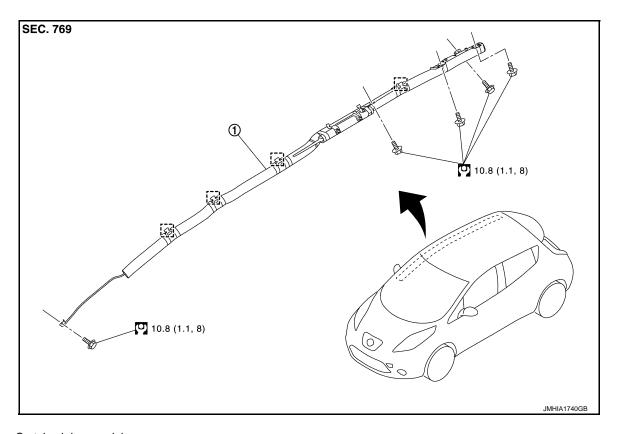
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CURTAIN AIR BAG MODULE

Exploded View



Curtain air bag module

[] : Metal clip

: N-m (kg-m, ft-lb)

Removal and Installation

WARNING:

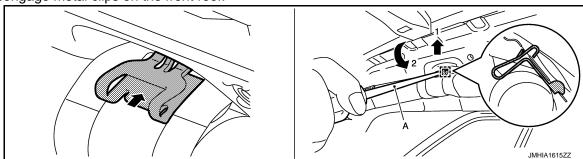
 Before servicing, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 minutes or more.

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- Always work from the side of curtain air bag module. Never work in front of it.
- Never use the air tools or electric tools for servicing.

REMOVAL

- 1. Remove headlining assembly. Refer to INT-29, "Removal and Installation".
- 2. Remove the curtain air bag module mounting bolt that is located on the front pillar.
- 3. Disengage metal clips on the front roof.



1. Fully insert a flat-bladed screwdriver (A) into center of metal clip.

CURTAIN AIR BAG MODULE

< REMOVAL AND INSTALLATION >

- 2. Lift the flat-bladed screwdriver upward as shown in the figure and disengage upper side of metal clip.
- 3. Rotate the flat-bladed screwdriver as shown in the figure and disengage lower side of metal clip.

[] : Metal clip

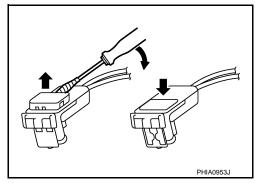
CAUTION:

Never deform metal clip.

4. Disconnect curtain air bag module harness connector.

CAUTION:

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



- 5. Remove the curtain air bag module mounting bolts that are located on the rear pillar.
- 6. Remove the curtain air bag module mounting bolts that are located on the inflator, and then remove curtain air bag module.

CAUTION:

- Never impact the curtain air bag module.
- Replace the curtain air bag module if it has been dropped or sustained an impact.



- Never insert any foreign objects (screwdriver, etc.) into the curtain air bag module.
- Never disassemble the curtain air bag module.
- Never expose the curtain air bag module to temperatures exceeding 90 °C (194 °F).
- Never allow oil, grease, detergent, or water to come in contact with the curtain air bag module.

INSTALLATION

Note the following items, and then install in the reverse order of removal.

CAUTION:

- Insert metal clips of front roof until a locking sound is heard. Pull metal clips and check that it is fully locked to the vehicle body.
- Check perforation of curtain air bag module to check that curtain air bag module is not twisted.
- Never damage the harness while installing.
- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is completed, check that no system malfunction is detected by air bag warning lamp.

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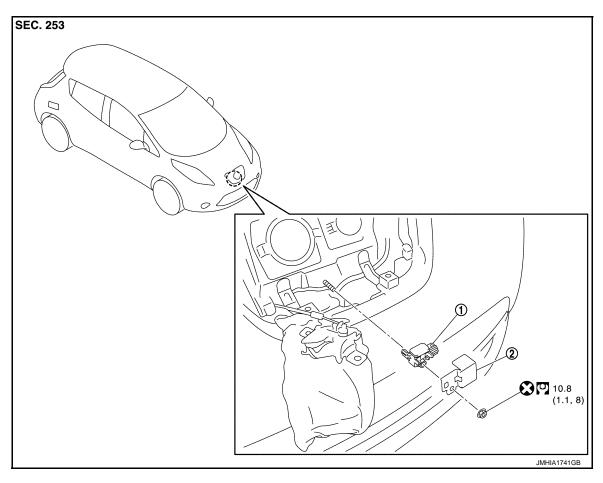
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CRASH ZONE SENSOR

Exploded View INFOID:0000000006892124



Crash zone sensor

Bracket

: Always replace after every disassembly.

: N-m (kg-m, ft-lb)

Removal and Installation

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WARNING:

- . Before servicing, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 minutes or more.
- · Never use the air tools or electric tools for servicing.

REMOVAL

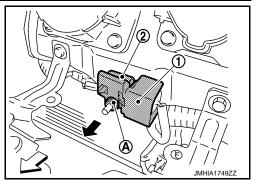
- 1. Remove charge port cover. Refer to DLK-143, "CHARGE PORT COVER: Removal and Installation".
- Remove charge port lid lock. Refer to <u>DLK-173</u>, "Removal and Installation".

CRASH ZONE SENSOR

< REMOVAL AND INSTALLATION >

3. Remove the crash zone sensor fixing nut (A), and then pull the bracket (1) and crash zone sensor (2) for vehicle front.

⟨□ : Vehicle front



4. Disconnect the crash zone sensor harness connector, and then remove crash zone sensor.

CAUTION:

- Never impact the crash zone sensor.
- Replace the crash zone sensor if it has been dropped or sustained an impact.



 Replace the crash zone sensor of deployed driver air bag, deployed passenger air bag, seat belt pretensioner and deployed lap pre-tensioner.

INSTALLATION

Note the following items, and then install in the reverse order of removal.

CAUTION:

- Never use the old fixing nut after removal, replace with the new nut.
- Never damage the harness while installing.
- Always install normally aligning to the cutout hole, because performance of the crash zone sensor excessively fluctuates according to the installation position.
- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is completed, check that no system malfunction is detected by air bag warning lamp.

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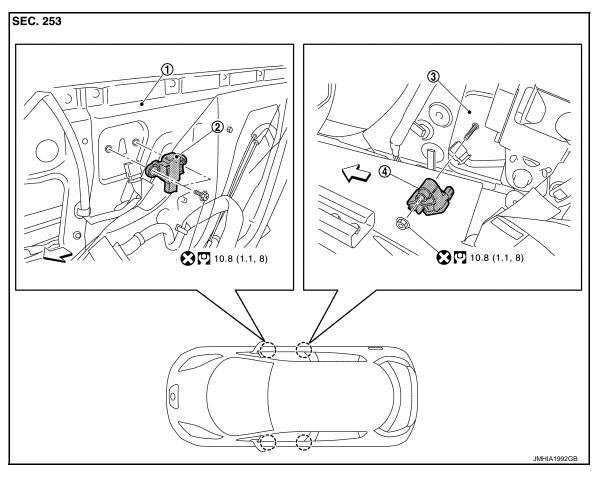
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SATELLITE SENSOR

Exploded View



- 1. Front door panel
- 2. Front satellite sensor
- 3. Center pillar outer panel

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4. Rear satellite sensor

: Always replace after every disassembly.

: N-m (kg-m, ft-lb)

Removal and Installation

WARNING:

- Before servicing, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 minutes or more.
- Never use the air tools or electric tools for servicing.

FRONT SATELLITE SENSOR

Removal

- 1. Remove the front door finisher. Refer to INT-13, "Removal and Installation".
- Remove sealing screen partially.

NOTE:

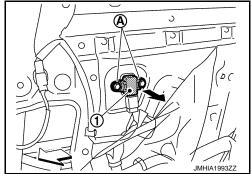
Cut the butyl-tape with utility knives so that some parts of the butyl-tape do not remain on the sealing screen, if the sealing screen is reused.

SATELLITE SENSOR

< REMOVAL AND INSTALLATION >

3. Remove the front satellite sensor mounting bolts (A), and then pull the front satellite sensor (1).

⟨□ : Vehicle front



4. Disconnect the harness connector and then remove the front satellite sensor.

CAUTION:

- Never impact the front satellite sensor.
- Replace the front satellite sensor if it has been dropped or sustained an impact.



 Replace the front satellite sensor of deployed SRS side air bag module and deployed SRS curtain air bag module.

Installation

Note the following items, and then install in the reverse order of removal.

CAUTION:

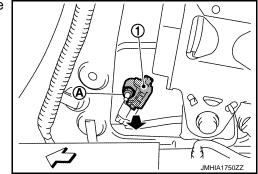
- Never use the old fixing bolts after removal, replace with the new bolts.
- Never damage the harness while installing.
- Always install normally aligning to the cutout hole, because performance of the front satellite sensor excessively fluctuates according to the installation position.
- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is completed, check that no system malfunction is detected by air bag warning lamp.

REAR SATELLITE SENSOR

Removal

- 1. Remove the center pillar lower garnish. Refer to INT-24, "CENTER PILLAR UPPER GARNISH: Removal and Installation".
- Remove the rear satellite sensor fixing nut (A), and then pull the rear satellite sensor (1).

: Vehicle front



Disconnect the harness connector and then remove the rear satellite sensor.

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Revision: 2010 November SR-25 LEAF

SATELLITE SENSOR

< REMOVAL AND INSTALLATION >

CAUTION:

- Never impact the rear satellite sensor.
- Replace the rear satellite sensor if it has been dropped or sustained an impact.



 Replace the rear satellite sensor of deployed SRS side air bag module and deployed SRS curtain air bag module.

Installation

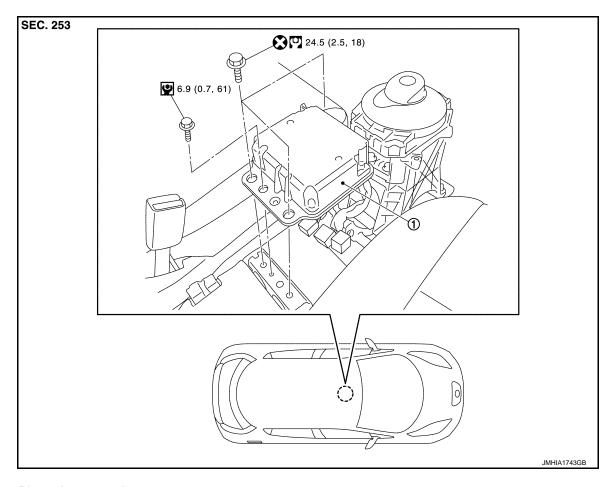
Note the following items, and then install in the reverse order of removal.

CAUTION:

- Never use the old fixing nut after removal, replace with the new nut.
- · Never damage the harness while installing.
- Always install normally aligning to the cutout hole, because performance of the rear satellite sensor excessively fluctuates according to the installation position.
- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is completed, check that no system malfunction is detected by air bag warning lamp.

DIAGNOSIS SENSOR UNIT

Exploded View



Diagnosis sensor unit

: Always replace after every disassembly.

: N·m (kg-m, ft-lb)

: N·m (kg-m, in-lb)

Removal and Installation

WARNING:

- Before servicing, turn ignition switch OFF, disconnect 12V battery negative terminal and wait 3 minutes or more.
- Before disconnecting the air bag sensor unit harness connector, be sure to disconnect the each harness connector of the air bag module and pre-tensioner seat belt to prevent air bag deployment by static electricity and pre-tensioner seat belt operation.
- Never use the air tools or electric tools for servicing.
- When replacing the air bag diagnosis sensor unit, always check with the parts department for the latest parts information. Installing an incorrect air bag diagnosis sensor unit may or may not cause the air bag warning lamp to illuminate and may cause incorrect deployment of the supplemental air bags and seat belt pre-tensioners in a collision resulting in serious personal injury or death.

REMOVAL

- Always check the air bag diagnosis sensor unit ECU discriminated number (identification number) using CONSULT.
- 2. Disconnect the each connector of all air bag modules and pre-tensioner seat belts.

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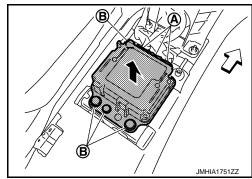
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DIAGNOSIS SENSOR UNIT

< REMOVAL AND INSTALLATION >

- 3. Remove the center console assembly. Refer to IP-23, "Removal and Installation".
- Disconnect the diagnosis sensor unit harness connectors (A).
- 5. Remove the diagnosis sensor unit mounting bolts (B), and then remove the diagnosis sensor unit.

: Vehicle front



CAUTION:

- · Never impact the diagnosis sensor unit.
- Replace the diagnosis sensor unit if it has been dropped or sustained an impact.



 Replace the diagnosis sensor unit of deployed SRS air bag and deployed SRS front seat belt pre-tensioner.

INSTALLATION

Note the following items, and then install in the reverse order of removal.

CAUTION:

- Never use the old bolts after removal, replace with the new bolts.
- · Never damage the harness while installing.
- If malfunction is detected by the air bag warning lamp, after repair or replacement of the malfunctioning parts, reset the memory using self-diagnosis or CONSULT. Refer to SRC-13, "On Board Diagnosis Function" or SRC-17, "CONSULT Function".
- After the work is completed, check that no system malfunction is detected by air bag warning lamp.
- After replacing the air bag diagnosis sensor unit, confirm using CONSULT that the ECU discriminated number (identification number) of the new replacement air bag sensor unit matches the ECU discriminated number (identification number) of the replaced (old) air bag diagnosis sensor unit.
 NOTE:

If the ECU discriminated number of the new replacement air bag diagnosis sensor unit differs from the ECU discriminated number of the replaced air bag diagnosis sensor unit, reconfirm the parts information and verify that the correct air bag diagnosis sensor unit was installed.

SEAT BELT PRE-TENSIONER

< REMOVAL AND INSTALLATION >

SEAT BELT PRE-TENSIONER

Exploded View

Refer to SB-4, "Exploded View".

Removal and Installation

For removal and installation procedures, refer to <u>SB-5, "SEAT BELT RETRACTOR: Removal and Installation"</u>.

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LAP PRE-TENSIONER

< REMOVAL AND INSTALLATION >

LAP PRE-TENSIONER

Exploded View

Refer to SB-4, "Exploded View".

Removal and Installation

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For removal and installation procedures, refer to <u>SB-5. "SEAT BELT RETRACTOR: Removal and Installation"</u>.

OCCUPANT CLASSIFICATION SYSTEM CONTROL UNIT

< REMOVAL AND INSTALLATION >

OCCUPANT CLASSIFICATION SYSTEM CONTROL UNIT

Exploded View

Refer to SE-13, "Exploded View".

Removal and Installation

For removal and installation

The occupant classification system control unit and seat sensor mat are an integral part of the front passenger seat cushion and are replaced as an assembly. Refer to <u>SE-20, "SEAT CUSHION: Disassembly and Assembly"</u>.

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