RESTRAINT SYSTEM

SECTION RS

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Precautions

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 seat belt, helps to reduce the risk or severity of injury to the driver and front passenger in for certain types of collision. The Supplemental Restraint System consists of driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on the passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.

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 should be performed by an authorized NISSAN dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. Spiral cable and wiring harnesses (except "SEAT BELT PRE-TENSIONER") covered with yellow insulation either just before the harness connectors or for the complete harness, are related to the SRS.

PRECAUTION FOR SEAT BELT SERVICE

CAUTION:

- Before removing the seat belt pre-tensioner assembly, turn the ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- After replacing or reinstalling seat belt pre-tensioner assembly, or reconnecting seat belt pre-tensioner assembly connector, ensure entire SRS operates properly. Refer to "SRS Operation Check", SU RS-37.
- Do not 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-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 if:

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

Front Seat Belt

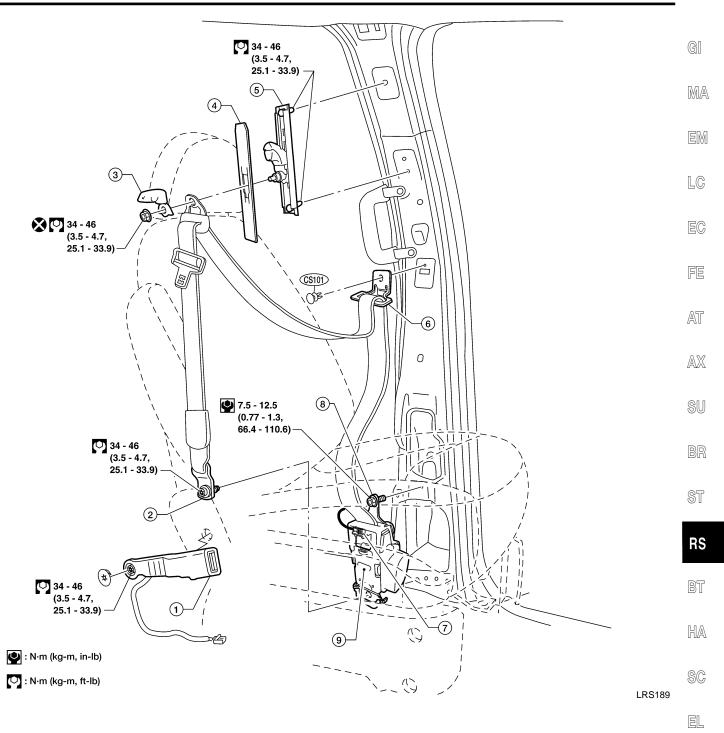
REMOVAL AND INSTALLATION

1. Remove buckle from seat. For driver side, disconnect harness connector.

2. Remove lower seat belt anchor bolt.

- Remove center pillar lower garnish. Refer to **BT-28**, "Side and Floor Trim".
- 3. Remove shoulder anchor cover and nut. Remove center pillar upper garnish.
- 4. Remove adjuster slide plate cover.
- 5. Remove two adjuster bolts and adjuster assembly.
- 6. Remove mid-guide.
- 7. Disconnect front seat belt pre-tensioner connector.
- 8. Remove pre-tensioner retractor bolt.
- 9. Remove pre-tensioner retractor.

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Rear Seat Belt

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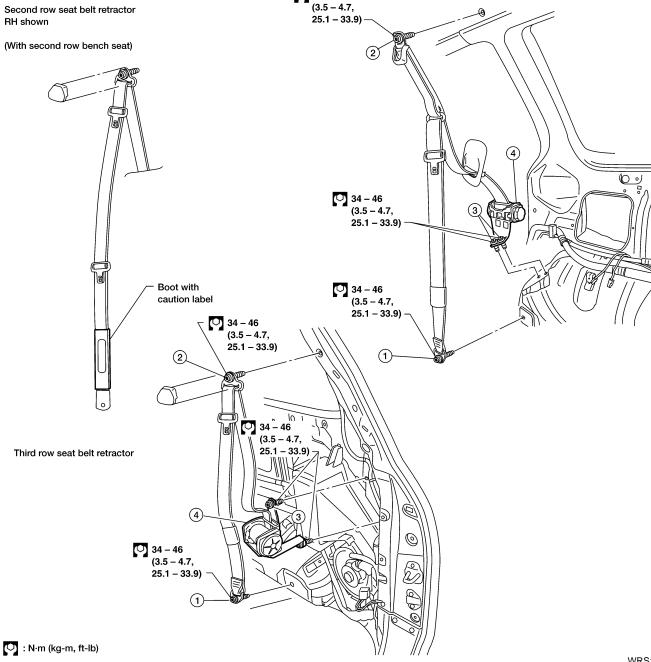
REMOVAL AND INSTALLATION

- 1. Remove lower seat belt anchor bolts. Remove interior side trim. Refer to BT-28, "Side and Floor Trim".
- 2. Remove shoulder anchor cover and bolt.
- 3. Remove retractor bolt(s).
- 4. Remove retractor.

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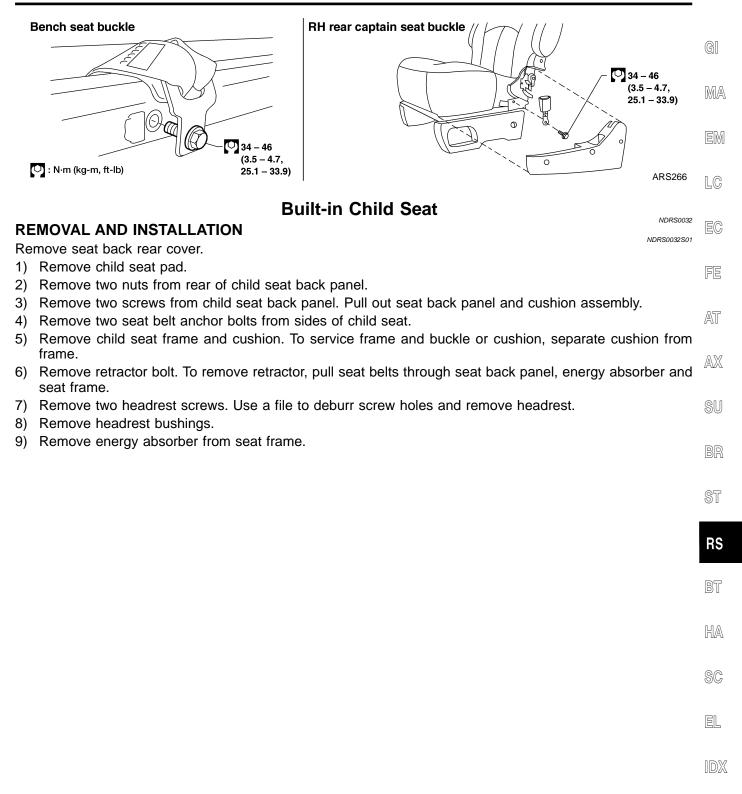
Second row seat belt retractor RH shown

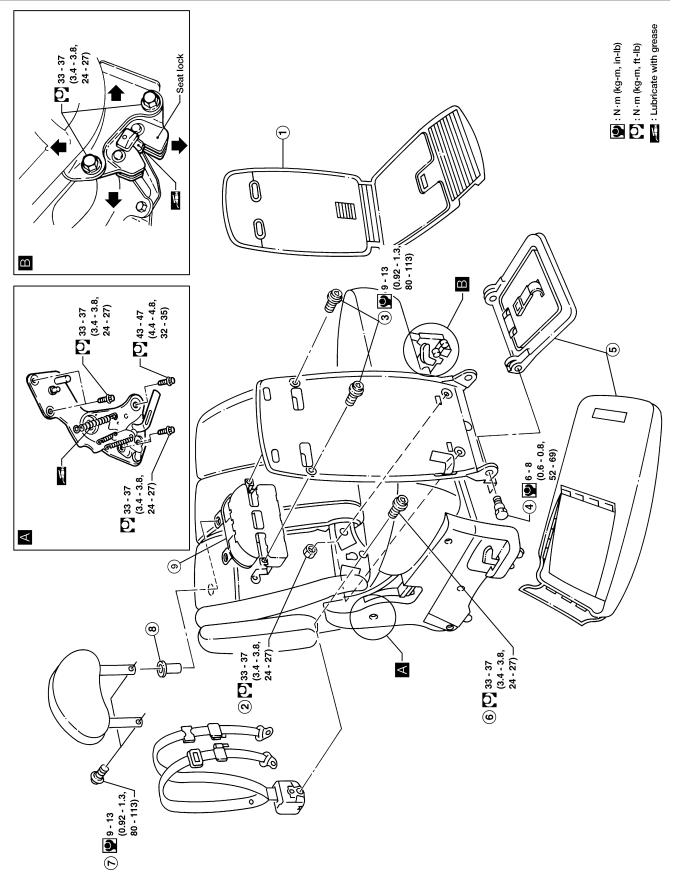
(With second row bench seat)



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Seat Belt Inspection

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Seat Belt Inspection

AFTER A COLLISION

WARNING:

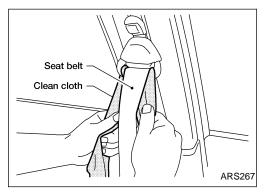
Inspect all seat belt assemblies including retractors and attaching hardware after any collision. NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could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

Replace any seat belt assembly 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.).
- Anchor bolts are deformed or worn out.
- 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.

PRELIMINARY CHECKS

- 1. Check the seat belt warning lamp for proper operation as follows:
- a. Turn ignition switch ON. With the driver seat belt unfastened, the seat belt warning lamp should illuminate.
- b. Fasten driver seat belt. The seat belt warning lamp should go out and the chime (if sounding) should stop.
- If the "AIR BAG" warning lamp is blinking, conduct self-diagnosis using "AIR BAG" warning lamp or CON-SULT-II. Refer to "DIAGNOSTIC PROCEDURE 1", RS-37.
- 3. Check that the seat belt retractor, seat belt anchor and buckle bolts are securely attached.
- Check the shoulder seat belt guide and shoulder belt height adjuster for front seats. Ensure guide swively els freely and that belt lays flat and does not bind in guide. Ensure height adjuster operates properly and holds securely.
- 5. Check retractor operation including:
- a. Fully extend the seat belt webbing and check for twists, tears or other damage.
- Allow the seat belt to retract. Ensure that belt returns smoothly and completely into the retractor.
 If the seat belt does not return smoothly, wipe the inside of the loops with a clean paper cloth etc. because dirt built up in the loops of the upper anchors can cause the seat belts to retract slowly.



- c. Fasten the seat belt. Pull firmly on belt and buckle to ensure belt remains latched. Unfasten seat belt. Ensure belt releases freely and buckle button returns to original position.
- 6. For non-retractable seat belts, check that the seat belts are accessible. Check seat belt webbing for twists, ID2 tears or other damage. Fasten the seat belt. Pull firmly on belt and buckle to ensure belt remains latched. Unfasten seat belts. Ensure belt releases freely and buckle button returns to original position.
- 7. Repeat steps above as necessary to check the other seat belts.

SEAT BELT RETRACTOR ON-VEHICLE CHECK

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

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

SEAT BELTS

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

ELR Function Stationary Check

NDRS0029S03 Grasp the shoulder belt and pull forward quickly. The retractor should lock and prevent the belt from extending further.

ALR Function Stationary Check

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

ELR Function Moving Check (all outboard seating positions)

WARNING:

Perform the following test in a safe, open area clear of other vehicles and obstructions (for example, a large, empty parking lot). Road surface must be paved and dry. DO NOT perform the following test on wet 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 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 the retractor does not lock. Apply brakes firmly and make a very hard stop.

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

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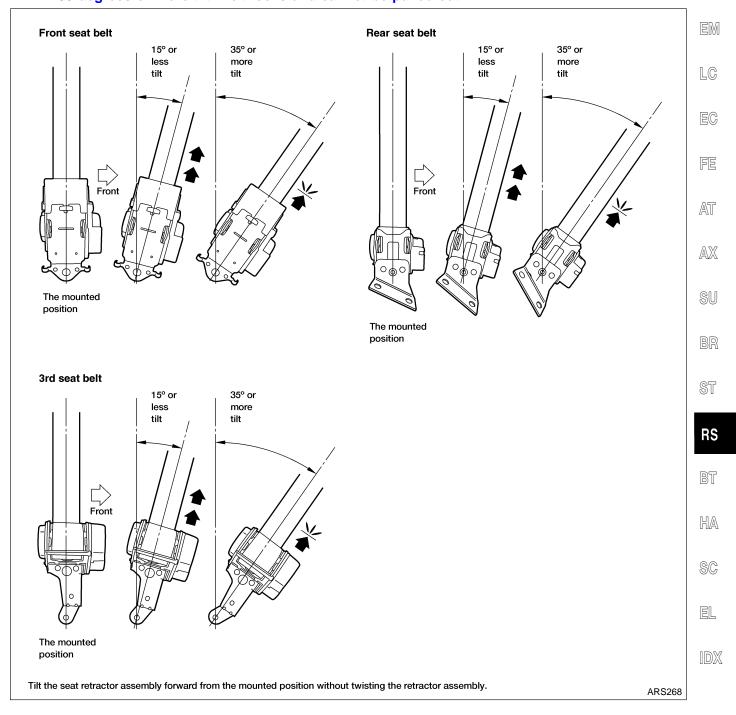
NDRS0029S0303

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SEAT BELT RETRACTOR OFF-VEHICLE CHECK

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



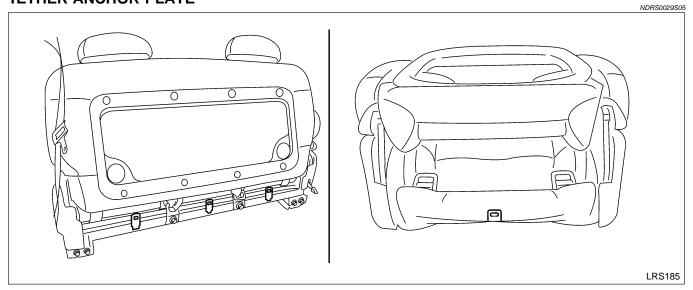


If NG, replace the retractor assembly.

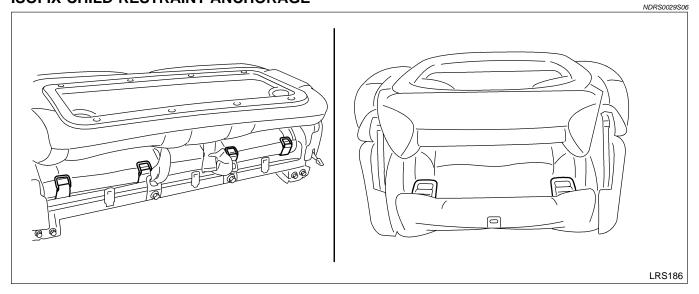
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TETHER ANCHOR PLATE



ISOFIX CHILD RESTRAINT ANCHORAGE



Precautions

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Precautions

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 seat belt, helps to reduce the risk or severity of injury to the driver and front passenger in for certain types of collision. The Supplemental Restraint System consists of driver air bag module (located in the center of the steering wheel), front passenger air bag module (located on the instrument panel on the passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.

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 should be performed by an authorized NISSAN dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. Spiral cable and wiring harnesses (except "SEAT BELT PRE-TENSIONER") covered with yellow insulation either just before the harness connectors or for the complete harness, are related to the SRS.

PRECAUTIONS FOR SRS "AIR BAG" SERVICE

- Do not use a circuit tester to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
 For approximately 3 minutes after the cables are removed, it is still possible for the air bag to deploy.

For approximately 3 minutes after the cables are removed, it is still possible for the air bag to deploy. Therefore, do not work on any SRS connectors or wires until at least 3 minutes have passed.

- The spiral cable must be aligned in the neutral position since its rotations are limited. Do not rotate steering column while steering gear is removed to avoid damaging spiral cable.
- Handle air bag module carefully. Always place it with the pad side facing upward.
- Conduct self-diagnosis to check entire SRS for proper function after replacing any components.
- After air bag inflates, the instrument panel assembly should be replaced if damaged.

WIRING DIAGRAMS AND TROUBLE DIAGNOSIS

When you read wiring diagrams, refer to the following:

- GI-10, "HOW TO READ WIRING DIAGRAMS"
- EL-12, "POWER SUPPLY ROUTING", for power distribution circuit

When you perform trouble diagnosis, refer to the following:

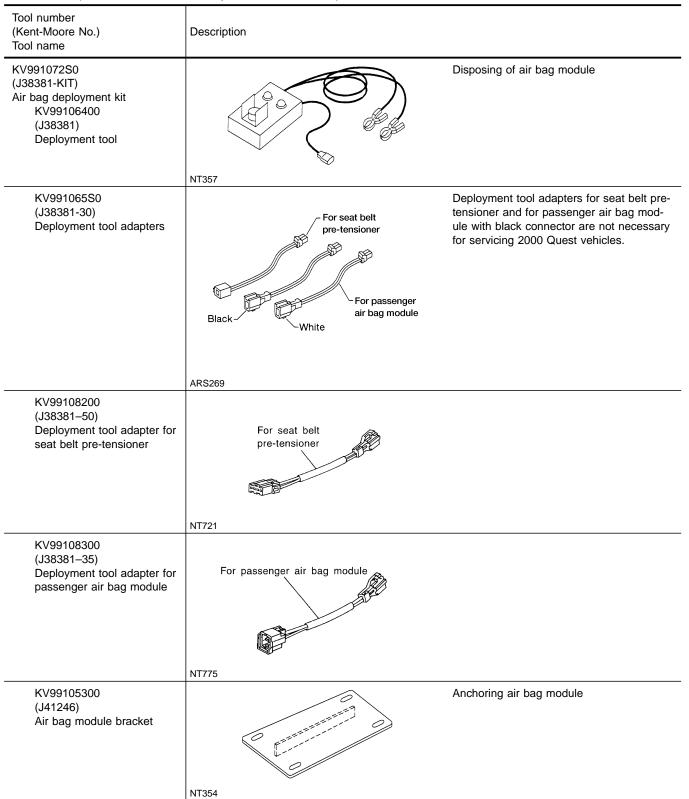
- GI-33, "How to Follow Test Groups in Trouble Diagnoses"
- GI-22, "HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT"

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Preparation

SPECIAL SERVICE TOOLS

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.



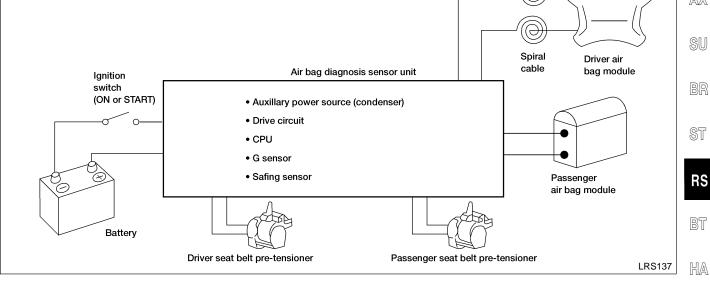
Preparation (Cont'd)

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EL

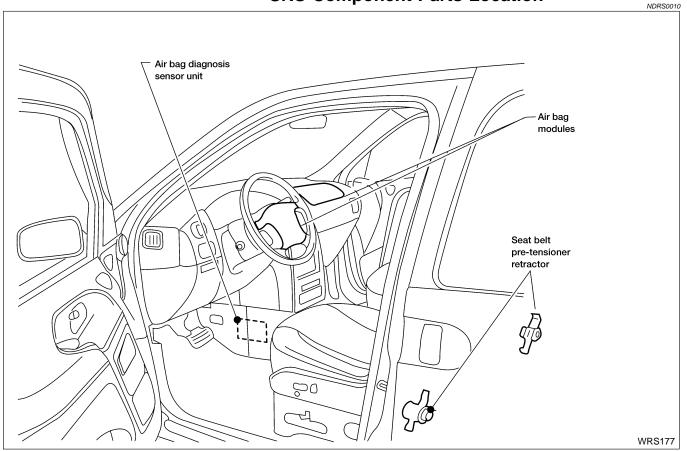
IDX

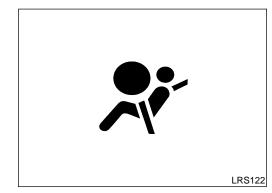
Tool number (Kent-Moore No.) Tool name	Description		G]
(J-42057) Air bag master key set		Removing and installing accessory air bag locking bolts	MA
			EM
			LC
	LRS210		EC
*: Special tool or commercial equiva	lent		
	Description		FE
The air bags and seat belt put tion switch is in the ON or S	e-tensioners deploy if the air bag diagnos	sis sensor unit activates while the igni-	AT
			AX



SRS Component Parts Location

SRS Component Parts Location





Maintenance Items

1.

Check "AIR BAG" warning lamp operation After turning ignition switch ON, "AIR BAG" warning la

After turning ignition switch ON, "AIR BAG" warning lamp illuminates. The "AIR BAG" warning lamp will turn off after about 7 seconds if no malfunction is detected.

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If any of the following air bag warning lamp conditions occur, immediately check the air bag system. Refer to "SRS Operation Check", RS-37 for details.

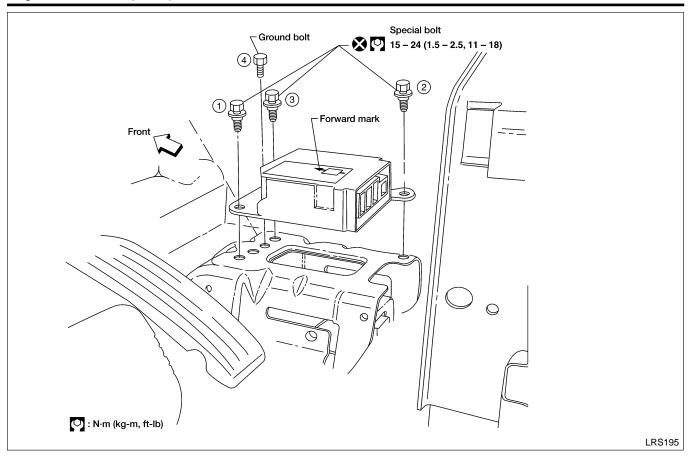
- The warning lamp does not illuminate when the ignition switch is turned ON.
- The warning lamp does not turn off about 7 seconds after the ignition switch is turned ON.
 - The warning lamp blinks after illuminating for about 7 seconds after the ignition switch is turned ON.
 - 2. Visually check SRS components
- 1) Air bag diagnosis sensor unit
- Check air bag diagnosis sensor unit and bracket for dents, cracks and deformities.
- Check connectors for damage and terminals for deformities.
- 2) Air bag modules, steering wheel and instrument panel
- Remove driver air bag module from steering wheel. Check

Maintenance Items (Cont'd)

harness cover and connectors for damage, terminals for deformities and harness for binding. Install driver air bag module to steering wheel to check fit or G • alignment with the wheel. Check steering wheel for excessive free play. MA Remove passenger air bag module. Check harness cover and connectors for damage, terminals for deformities and harness for binding. Check the bracket for deformities and rust. Install passenger air bag module to instrument panel to check • fit or alignment with the instrument panel. 3) Spiral cable LC Check spiral cable for dents, cracks and deformities. • Check connectors and protective tape for damage. • Check steering wheel for noise, binding and heavy operation. • 4) Seat belt pre-tensioner Check harness cover and connectors for damage, terminals • for deformities, and harness for binding. Check belts for damage and anchors for loose mounting. . AT Check retractor for smooth operation. Perform self-diagnosis for seat belt pre-tensioner using "AIR BAG" warning lamp or CONSULT-II. Refer to "Checking seat AX belt pre-tensioner operation using "AIR BAG" warning lamp-User mode", RS-37. Main harness and air bag harness 5) SU Check connectors for poor connections, damage, and terminals for deformities. Check harnesses for binding, chafing and cuts. **CAUTION:** Replace previously used special bolts and nuts with new ST ones. RS **Diagnosis Sensor Unit** BT **REMOVAL AND INSTALLATION** NDRS0012 **CAUTION:** HA Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait for at least 3 minutes. The special bolts are coated with bonding agent while the •

- The special bolts are coated with bonding agent while the scale of the special bolts after scale
- Check air bag diagnosis sensor unit for proper installation.
- Check air bag diagnosis sensor unit to ensure it is free of deformities, dents, cracks and rust. If there are any visible signs of damage, replace it with a new one.
- Check air bag diagnosis sensor unit brackets to ensure they are free of deformities or rust.
- Replace air bag diagnosis sensor unit if it has been dropped or has sustained an impact.

Diagnosis Sensor Unit (Cont'd)



- 1. Disconnect driver and passenger air bag module connectors and seat belt pre-tensioner connectors.
- 2. Remove console box. Refer to *BT-23*, "INSTRUMENT PANEL ASSEMBLY".
- 3. Disconnect air bag diagnosis sensor unit connectors.
- 4. Remove ground bolt and also remove special bolts from air bag diagnosis sensor unit.

Then remove the air bag diagnosis sensor unit.

NOTE:

- To install, reverse the removal procedure and tighten new bolts in the sequence indicated in the illustration.
- After replacement, perform self-diagnosis for SRS. Refer to "SRS Operation Check", RS-37.

CAUTION:

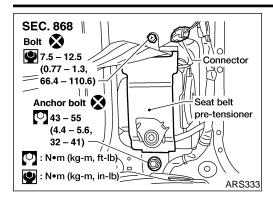
Air bag diagnosis sensor unit must always be installed with forward mark " \leftarrow " pointing toward the front of the vehicle for proper operation. Also check air bag diagnosis sensor unit for cracks, deformities and rust before installation and replace as required.

Seat Belt Pre-tensioner

NDRS0035

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AX



Seat Belt Pre-tensioner REMOVAL AND INSTALLATION

CAUTION:

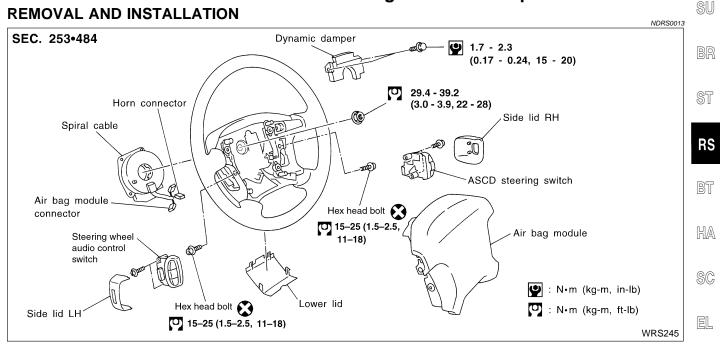
- Before servicing SRS, turn the ignition switch OFF, disconnect both battery cable and wait at least 3 minutes.
- Do not use old bolts and nuts after removal; replace with new ones
- Check seat belt pre-tensioner for proper installation.
- After replacement of seat belt pre-tensioner, check SRS function and perform self-diagnosis for SRS. Refer to "Checking SRS operation by using "AIR BAG" warning lamp—User mode", RS-37.
- Do not attempt to disassemble air bag diagnosis sensor unit or seat belt pre-tensioner.
- Replace seat belt pre-tensioner if it has been dropped or sustained an impact.
- Do not expose seat belt pre-tensioner to temperatures exceeding 80°C (176°F).

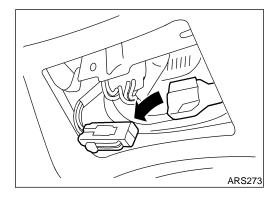
For removal of seat belt pre-tensioner, refer to "Front Seat Belt", AT RS-4.

NOTE:

To install, reverse removal procedure.

Driver Air Bag Module and Spiral Cable





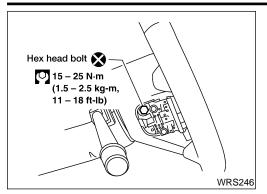
REMOVAL

CAUTION:

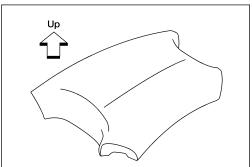
NDRS0014

- Before servicing SRS, turn the ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of air bag module.
- 1. Remove lower lid from steering wheel and disconnect driver air bag module connector.

Driver Air Bag Module and Spiral Cable (Cont'd)



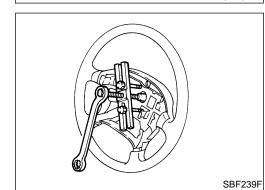
- 2. Remove side lids. Remove left and right hex head bolts.
- 3. Disconnect horn connector. Driver air bag module can then be removed.

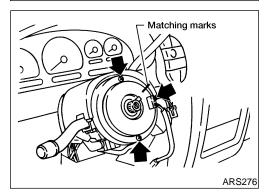


CAUTION:

ARS275

- Always place air bag module with pad side facing upward.
- Do not attempt to disassemble air bag module.
- The hex head bolts are coated with bonding agent. Do not use old bolts after removal; replace with new ones.
- Do not insert any foreign objects (screwdriver, etc.) into air bag module connector.
- Air bag module
- Replace air bag module if it has been dropped or sustained an impact.
 - Do not expose the air bag module to temperatures exceeding 90°C (194°F).
 - Do not allow oil, grease or water to come in contact with the air bag module.





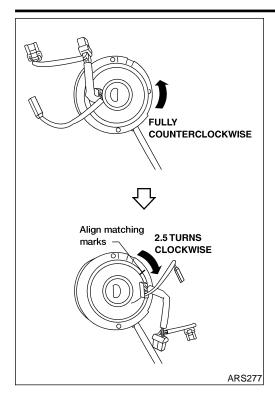
- 4. Set steering wheel in the neutral position.
- 5. Disconnect spiral cable connector from steering wheel subharness and remove nut.
- 6. Using steering wheel puller, remove steering wheel. Be careful not to over-tighten puller bolt on steering wheel.

CAUTION:

- Do not tap or bump the steering wheel.
- 7. Remove steering column cover, instrument panel lower LH and knee protector.
- 8. Disconnect spiral cable connectors from main harness and air bag harness.
- 9. Make matching marks on spiral cable for alignment during installation. Remove the three screws. The spiral cable can then be removed.

CAUTION:

- Do not attempt to disassemble spiral cable.
- Do not apply lubricant to the spiral cable.



INSTALLATION

- Set the front wheels in the straight-ahead position. 1.
- GI Make sure that the spiral cable is in the neutral position. 2. The neutral position is detected by turning right about 2.5 revolutions from the left end position. Align the matching marks MA made during removal.

CAUTION:

6.

- The spiral cable may snap due to steering operation if the cable is installed in an improper position.
- Also, with the steering linkage disconnected, the cable may snap by turning the steering wheel beyond the limited LC number of turns. The spiral cable can be turned to the right about 2.5 turns from the left end position.
- 3. Connect spiral cable connectors to the main harness and the air bag harness and install screws. Install knee protector, instrument panel lower LH and steering column cover.
- FE Install steering wheel, aligning with spiral cable, and pull spiral 4. cable through.
- Connect spiral cable to steering wheel sub-harness. Move air 5. AT bag module connector away from steering wheel lower lid opening.
 - AX

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- Tighten nut. SU [C]: 29.4 - 39.2 N·m (3.0 - 3.9 kg-m, 22 - 28 ft-lb)

ST

RS

- Hex head bolt 🔀 (◯) 15 – 25 N·m (1.5 – 2.5 kg-m, 11 - 18 ft-lb) WRS246
- 7. Connect horn connector, position air bag module and install BT new hex head bolts.
- 8. Connect driver air bag module connector.
- Install all lids. 9.

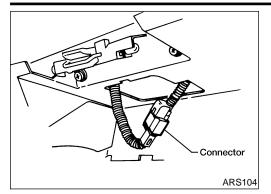
RS-21

- HA 10. Conduct self-diagnosis to ensure entire SRS operates properly. (Use CONSULT-II or warning lamp check.)
- Before performing self-diagnosis, connect both battery cables. SC 11. Turn steering wheel to the left end and then to the right end fully to make sure that spiral cable is set in the neutral posi-
 - EL tion. If air bag warning lamp blinks or stays ON (in User mode), it shows the spiral cable may be snapped due to its improper \mathbb{D}

position. Perform self-diagnosis again (use CONSULT-II or "AIR BAG" warning lamp). If a malfunction is detected, replace the spiral cable with a new one.

12. Perform self-diagnosis again to check that no malfunction is detected.

Front Passenger Air Bag Module



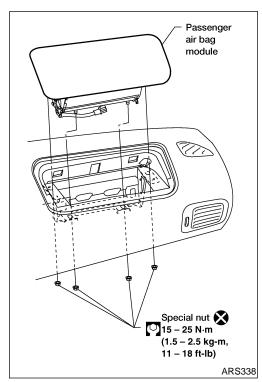
Front Passenger Air Bag Module REMOVAL

CAUTION:

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

NDRS0016

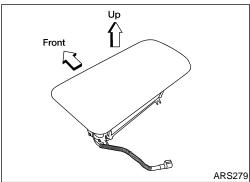
- Always work from the side of or under air bag module.
- 1. Remove access panel in glove box and disconnect passenger air bag module connector.
- 2. Remove glove box assembly. Refer to *BT-23*, "INSTRUMENT PANEL ASSEMBLY".
- 3. Remove instrument panel lower RH. Refer to **BT-23**, "INSTRU-MENT PANEL ASSEMBLY".



- 4. Remove special nuts from passenger air bag module.
- 5. Push up on the bottom of the air bag module between the two lower mounting studs to disengage the lid clips from the instrument panel.

CAUTION:

- Do not strike the air bag module with a tool or use undue force on the air bag module or lid.
- 6. Remove passenger air bag module.
- The air bag module is heavy and should be supported using both hands during removal.



CAUTION:

- Always place air bag module with pad side facing upward.
- Do not attempt to disassemble air bag module.
- The special nuts are coated with bonding agent. Do not use old nuts after removal; replace with new coated nuts.
- Do not insert any foreign objects (screwdriver, etc.) into air bag module connector.

•

Front Passenger Air Bag Module (Cont'd)



- Replace air bag module if it has been dropped or sustained an impact.
 - Do not expose the air bag module to temperatures exceed- Giling 90°C (194°F).
- Do not allow oil, grease or water to come in contact with the air bag module.
- After air bag inflates, the instrument panel assembly should be replaced if damaged.

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Front Passenger Air Bag Module (Cont'd)

INSTALLATION

CAUTION:

Always work from the side of an air bag module. •

=NDRS0017

- Passenger air baq module $\overline{\mathbb{Z}}$ Special nut 🔀 ¹⁵ – 25 N⋅m (1.5 – 2.5 kg-m, 11 - 18 ft-lb) ARS338
- Install passenger air bag module in instrument panel assem-1. bly with new special nuts.
- Ensure harness is not caught between air bag module and steering member.

3. Install glove box assembly. 4. Connect air bag module connector to air bag harness connector and install access panel.

Connector

ARS104

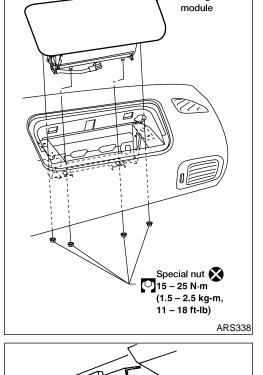
5. Connect both battery cables.

2. Install instrument panel lower RH.

6. Conduct self-diagnosis to ensure entire SRS operates properly. (Use CONSULT-II or warning lamp check.)

Disposal of Air Bag Module and Seat Belt Pretensioner

- Before disposing of air bag modules and seat belt pretensioner, or vehicles equipped with such systems, deploy the systems. If such systems have already been deployed due to an accident, dispose of them as indicated in "DISPOSING OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER", RS-29.
- When deploying the air bag module and seat belt pretensioner, always use the Special Service Tool: Deployment tool KV99106400 (Kent-Moore No. J38381).



Disposal of Air Bag Module and Seat Belt Pre-tensioner (Cont'd)

- When deploying the air bag module and seat belt pretensioner, stand at least 5 m (16 ft) away from the deployment component.
- When deploying air bag module and seat belt pre-tensioner, a fairly loud noise is made, followed by smoke being released. The smoke is not poisonous, however, be careful not to inhale smoke since it irritates the throat and can cause choking.
- Always deploy one air bag module at a time.
- Due to heat, leave air bag module unattended for more than 30 minutes after deployment. Also leave seat belt pre-tensioner for more than 10 minutes after deployment.
- Be sure to wear gloves when handling a deployed air bag module and seat belt pre-tensioner.
- Never apply water to a deployed air bag module and seat belt EC pre-tensioner.
- Wash your hands clean after finishing work.
- Place the vehicle outdoors with an open space of at least 6 m (20 ft) on all sides when deploying air bag module and seat belt pre-tensioner while mounted in vehicle.
- Use a voltmeter to make sure the vehicle battery is fully charged.
- Do not dispose of the air bag module and seat belt pre-tensioner undeployed.

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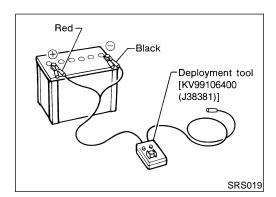
RS

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NDRS0018S0101



CHECKING DEPLOYMENT TOOL Connecting to Battery CAUTION:

The battery must show voltage of 9.6V or more.

Remove the battery from the vehicle and place it on dry wood blocks approximately 5 m (16 ft) away from the vehicle.

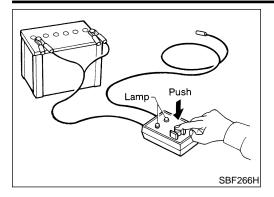
- Wait 3 minutes after the vehicle battery is disconnected before proceeding.
- Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.

CAUTION:

Make sure the polarity is correct. The right side lamp in the IDX tool, marked "DEPLOYMENT TOOL POWER", should glow with a green light. If the right side lamp glows red, reverse the connections to the battery.

RS-25

Disposal of Air Bag Module and Seat Belt Pre-tensioner (Cont'd)



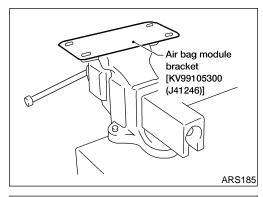
Deployment Tool Check

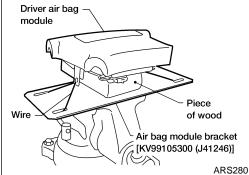
Press the deployment tool switch to the ON position. The left side lamp in the tool, marked "AIR BAG CONNECTOR VOLTAGE" should illuminate. If it does not illuminate, replace the tool.

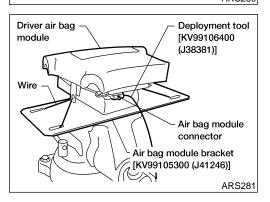
Air Bag Deployment Tool Lamp Illumination Chart (Battery connected)

		NDR3001030103
Switch operation	Left side lamp, green* "AIR BAG CONNECTOR VOLTAGE"	Right side lamp, green* "DEPLOYMENT TOOL POWER"
OFF	OFF	ON
ON	ON	ON

*: If this lamp glows red, the tool is connected to the battery incorrectly. Reverse the connections and make sure the lamp glows green.







DEPLOYMENT PROCEDURES FOR AIR BAG MODULE (OUTSIDE OF VEHICLE)

Unless the vehicle is being scrapped, deploying the air bag in the vehicle is not recommended. This may cause damage to the vehicle interior.

Anchor air bag module bracket [KV99105300 (J41246)] in a vise secured to a firm foundation during deployment.

Deployment of Driver Air Bag Module (Outside of vehicle)

 Using wire, secure air bag module to air bag module bracket [SST: KV99105300 (J41246)] at two places.

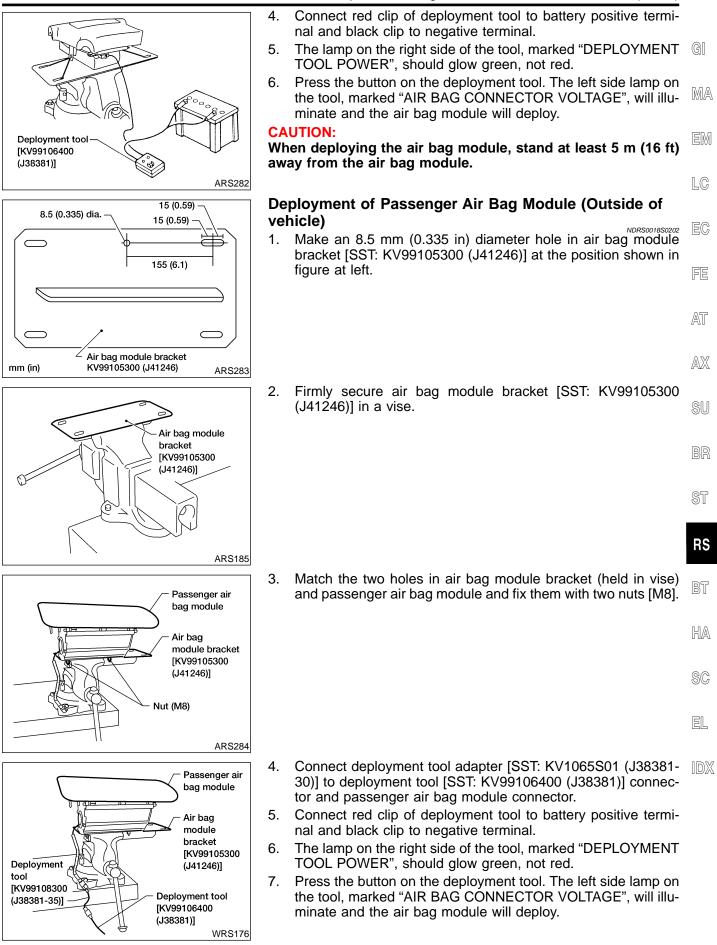
CAUTION:

If a gap exists between driver air bag module and air bag module bracket, use a piece of wood inserted in the gap to stabilize the air bag module.

Use wire of at least 1 mm (0.04 in) diameter.

- 2. Firmly secure air bag module bracket [SST: KV99105300 (J41246)] with air bag module attached, in a vise.
- 3. Connect deployment tool [SST: KV99106400 (J38381)] to air bag module connector.

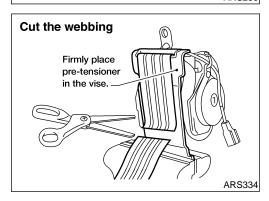
Disposal of Air Bag Module and Seat Belt Pre-tensioner (Cont'd)



Disposal of Air Bag Module and Seat Belt Pre-tensioner (Cont'd)

Deployment tool [KV99106400 (J38381)]

- CAUTION:
 - When deploying the air bag module, stand at least 5 m (16 ft) away from the air bag module.

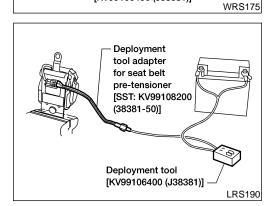


Deployment tool adapter for seat belt pre-tensioner [SST: KV99108200 (38381-50)]

Deployment of Seat Belt Pre-tensioner (Outside of vehicle)

 Firmly anchor seat belt pre-tensioner in a vise, then cut webbing off.

 Connect deployment tool adapter [SST: KV99108200 (J38381-50)] to deployment tool [SST: KV99106400 (J38381)] connector and seat belt pre-tensioner connector.



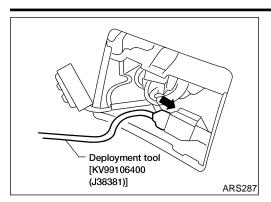
Deployment tool [KV99106400 (J38381)]

- Connect red clip of deployment tool [SST: KV99106400 (J38381)] to battery positive terminal and black clip to negative terminal.
- The right side lamp on the deployment tool [SST: KV99106400 (J38381)], marked "DEPLOYMENT TOOL POWER", should glow green, not red.
- Press the button on the deployment tool [SST: KV99106400 (J38381)]. The left side lamp on the deployment tool [SST: KV99106400 (J38381)], marked "AIR BAG CONNECTOR VOLTAGE", will illuminate and the seat belt pre-tensioner will deploy.

CAUTION:

• When deploying the seat belt pre-tensioner, stand at least 5 m (16 ft) away from the seat belt pre-tensioner.

Disposal of Air Bag Module and Seat Belt Pre-tensioner (Cont'd)



DEPLOYMENT OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER WHILE MOUNTED IN VEHICLE

-NDRS0018S03 GI When disposing of a vehicle, deploy air bag modules and seat belt pre-tensioners while they are mounted in vehicle.

CAUTION:

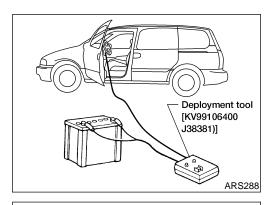
MA When deploying air bag module or seat belt pre-tensioner, ensure vehicle is empty.

- 1. Disconnect both battery cables and wait 3 minutes.
- EM Disconnect air bag module connector or seat belt pre-ten-2. sioner connector.
- LC Connect deployment tool [SST: KV99106400 (SST: J38381)] to 3. air bag module or seat belt pre-tensioner. For passenger air bag module, use deployment tool adapter [SST: KV99108300 (J38381-35)] to attach passenger air bag module, or for pre-tensioner and driver air bag module, use deployment tool adapter [SST: KV99108200 (J38381-50)] to FE

attach seat belt pre-tensioner to deployment tool [SST: KV99106400 (J38381)] connector.

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- Connect red clip of deployment tool [SST: KV99106400 4. (J38381)] to battery positive terminal and black clip to negative SU terminal.
- 5. The right side lamp on the deployment tool [SST: KV99106400 BR (J38381)], marked "DEPLOYMENT TOOL POWER", should glow green, not red.
- Press the button on the deployment tool [SST: KV99106400 6. (J38381)]. The left side lamp on the deployment tool [SST: KV99106400 (J38381)], marked "AIR BAG CONNECTOR VOLTAGE", will illuminate and the air bag module or seat belt RS pre-tensioner will deploy.

DISPOSING OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER

NDRS0018504 Deployed air bag modules and seat belt pre-tensioners are very hot. Before disposing of air bag modules and seat belt pre-HA tensioners, wait at least 30 minutes and 10 minutes, respectively. Seal them in a plastic bag before disposal.

CAUTION:

SBF276H

- Never apply water to a deployed air bag module or seat belt pre-tensioner.
- EL Be sure to wear gloves when handling a deployed air bag module or seat belt pre-tensioner.
- No poisonous gas is produced upon air bag module or \mathbb{D} seat belt pre-tensioner deployment. However, be careful not to inhale gas since it irritates the throat and can cause choking.
- Do not attempt to disassemble air bag module or seat belt pre-tensioner.
- Air bag module or seat belt pre-tensioner cannot be reused.
- Wash your hands clean after finishing work.

BT

SC

Trouble Diagnoses Introduction

Trouble Diagnoses Introduction

CAUTION:

- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. Spiral cable and wiring harnesses (except "SEAT BELT PRE-TENSIONER") covered with yellow insulation either just before the harness connectors or for the complete harness are related to the SRS.
- Do not attempt to repair, splice or modify the SRS wiring harness. If the harness is damaged, replace it with a new one.
- Keep ground portion clean.

DIAGNOSIS FUNCTION

The SRS self-diagnosis results can be read by using "AIR BAG" warning lamp and/or CONSULT-II. The reading of these results is accomplished using one of two modes — "User mode" and "Diagnosis mode".

The User mode is exclusively prepared for the customer (driver). This mode warns the driver of a system malfunction through the operation of the "AIR BAG" warning lamp.

The Diagnosis mode allows the technician to locate and inspect the malfunctioning part.

The mode applications for the "AIR BAG" warning lamp and CONSULT-II are as follows:

	User mode	Diagnosis mode	Display type
"AIR BAG" warning lamp	Х	Х	ON-OFF operation
CONSULT-II	_	Х	Monitoring

NOTE:

Seat belt pre-tensioner malfunction is indicated by air bag warning lamp.

DIAGNOSIS MODE FOR CONSULT-II

NDRS0030S02

=NDRS0030

- "SELF-DIAG [CURRENT]" A current Self-diagnosis result (also indicated by the number of warning lamp flashes in the Diagnosis mode) is displayed on the CONSULT-II screen in real time. This refers to a malfunctioning part requiring repairs.
- "SELF-DIAG [PAST]"

Diagnosis results previously stored in the memory are displayed on the CONSULT-II screen. The stored results are not erased until memory erasing is executed.

- "TROUBLE DIAG RECORD"
 With TROUBLE DIAG RECORD, diagnosis results previously erased by a reset operation can be displayed on the CONSULT-II screen.
- "ECU DISCRIMINATED NO."

The air bag diagnosis sensor unit for each vehicle model is assigned with its own, individual classification number. This number will be displayed on the CONSULT-II screen, as shown below. When replacing the air bag diagnosis sensor unit, refer to the part number for the compatibility. After installation, replacement with a correct unit can be checked by confirming this classification number on the CONSULT-II screen.

ECU DISCF	RIMINATED NO.	
ECU	No. A6A0	
		WRS174

For NISSAN MODEL V41, the air bag diagnosis sensor unit classification number assigned is A6A0.

Trouble Diagnoses Introduction (Cont'd)

=NDRS0030S03

NDRS0030S05

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B HOW TO CHANGE SELF-DIAGNOSIS MODE WITH CONSULT-II From User Mode to Diagnosis Mode

Touch "AIR BAG" on the "SELECT SYSTEM" screen. User mode automatically changes to Diagnosis mode.

SELECT SYSTEM		MA
ENGINE		0000 0
A/T		eM
AIR BAG		EM
	"AIR BAG" warning lamp operation	LC
	indicates Diagnosis mode.	
	SRS803	EC

From Diagnosis Mode to User Mode

Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears. Diagnosis mode automatically changes to User mode.

	SELECT SYSTEM		A
	ENGINE		
	A/T		A
	AIR BAG		
			S
		"AIR BAG" warning lamp operation indicates User mode.	B
		SRS	04
<			S

HOW TO CHANGE SELF-DIAGNOSIS MODE WITHOUT CONSULT-II From User Mode to Diagnosis Mode

Diagnosis mode activates only when a malfunction is detected, by turning ignition switch as follows:

- 1) Turn ignition switch "ON".
- 2) After "AIR BAG" warning lamp lights for 7 seconds, turn ignition switch "OFF" within 1 second.
- 3) Wait more than 3 seconds.
- 4) Repeat steps 1 to 3 three times.
- 5) Turn ignition switch "ON".

SRS will not enter Diagnosis mode if no malfunction is detected.

From Diagnosis Mode to User Mode

After a malfunction is repaired, switch the ignition "OFF" for at least one second, then back "ON". Diagnosis mode is returned to User mode.

If switching Diagnosis mode to User mode is required while malfunction is being detected, do so by turning ignition switch as follows:

- 1) Turn ignition switch "ON".
- 2) After "AIR BAG" warning lamp lights for 7 seconds, turn ignition switch "OFF" within 1 second.
- 3) Wait more than 3 seconds.
- 4) Repeat steps 1 to 3 three times.
- 5) Turn ignition switch "ON".

Trouble Diagnoses Introduction (Cont'd)

HOW TO ERASE SELF-DIAGNOSIS RESULTS

With CONSULT-II

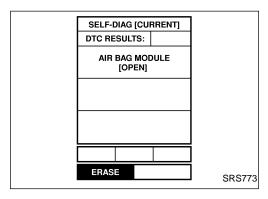
"SELF-DIAG [CURRENT]"
 A current Self-diagnosis result is displayed on the CONSULT-II screen in real time. After the malfunction is repaired completely, no malfunction is detected on "SELF-DIAG [CURRENT]".

"SELF-DIAG [PAST]" Return to the "SELF-DIAG [CURRENT]" CONSULT-II screen by pushing "BACK" key of CONSULT-II and select "SELF-DIAG [CURRENT]" in "SELECT DIAG MODE". Touch "ERASE" in "SELF-DIAG [CURRENT]" mode.

NOTE:

•

If the memory of the malfunction in "SELF-DIAG [PAST]" is not erased, the User mode shows the system malfunction by the operation of the "AIR BAG" warning lamp even if the malfunction is repaired completely.



• "TROUBLE DIAG RECORD" The memory of "TROUBLE DIAG RECORD" cannot be erased.

Without CONSULT-II

After a malfunction is repaired, turn ignition switch OFF for at least one second, then back ON. Diagnosis mode returns to User mode. At that time, the self-diagnosis result is cleared.

=NDRS0030S04

NDRS0030S0401

How to Perform Trouble Diagnoses for Quick and Accurate Repair

*6: RS-48

NDRS0031S01

NDRS0031S02

NDRS0031S03

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How to Perform Trouble Diagnoses for Quick and Accurate Repair

A good understanding of the malfunction conditions can make troubleshooting faster and more accurate. In general, each customer feels differently about a malfunction. It is important to fully understand the symptoms or conditions for a customer complaint.

INFORMATION FROM CUSTOMER WHAT Vehicle model WHEN Date, Frequencies WHERE Road conditions HOW Operating conditions, Symptoms

PRELIMINARY CHECK

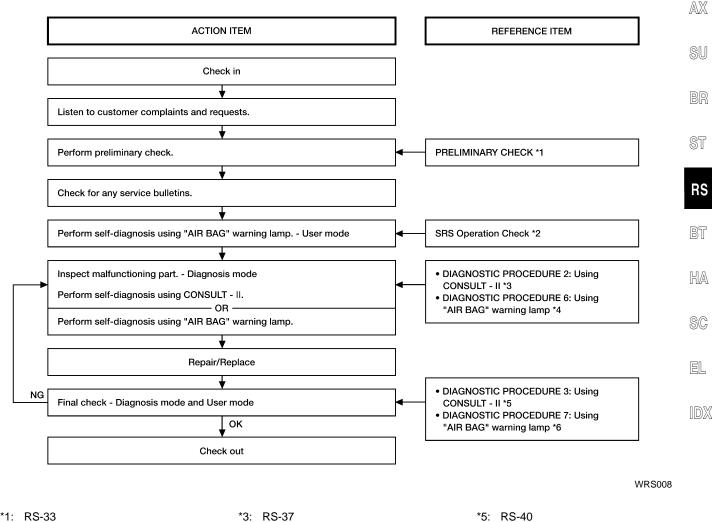
Check that the following parts are in good order.

- Battery [Refer to **SC-4**, "BATTERY".]
- Fuse
- System component-to-harness connections

WORK FLOW

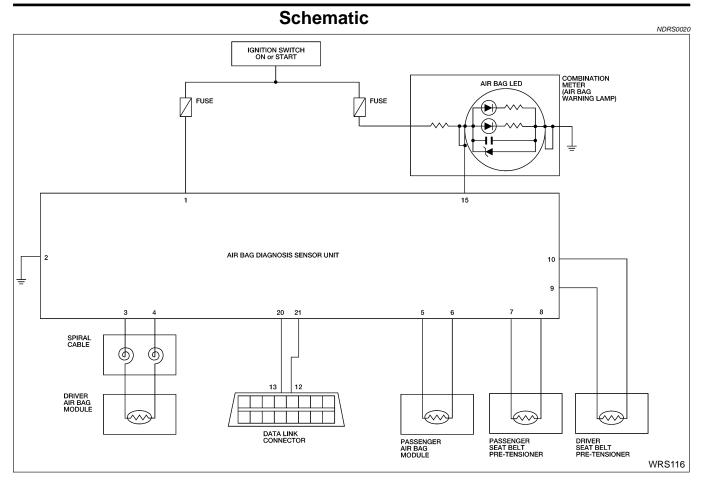
NOTE:

Seat belt pre-tensioner malfunction is indicated by "AIR BAG" warning lamp.

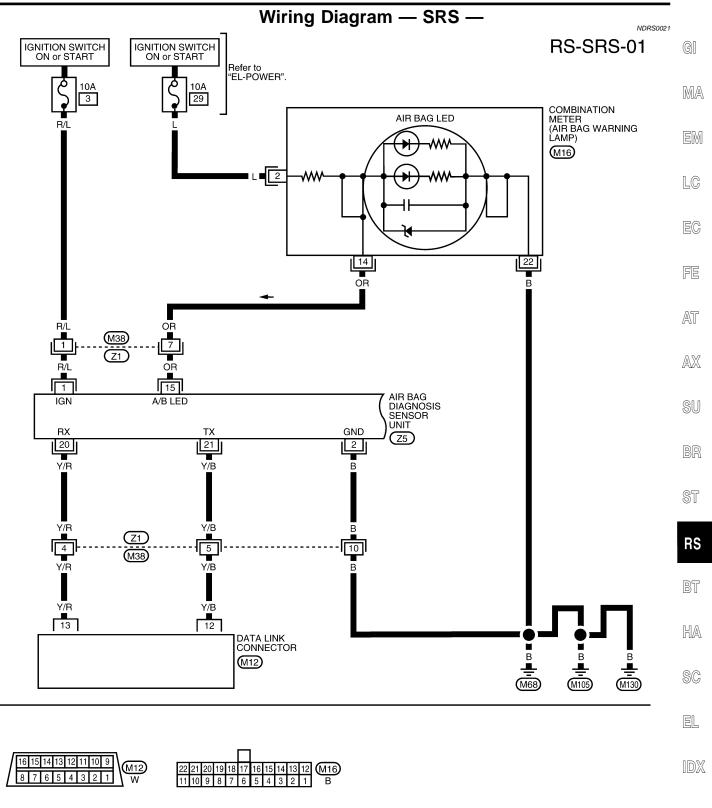


*4: RS-46

Schematic



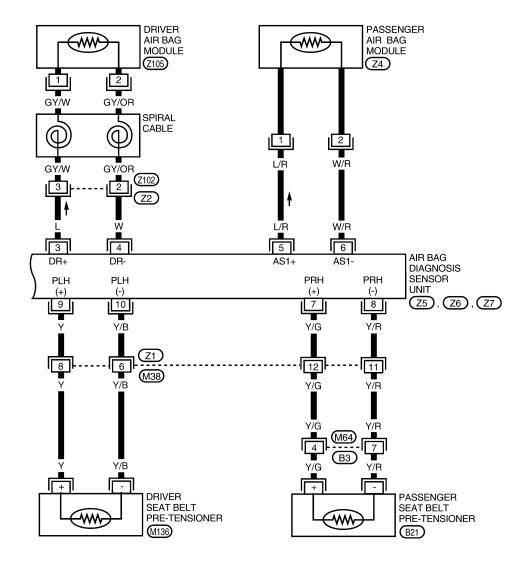
Wiring Diagram - SRS -

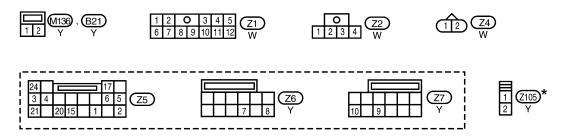




Wiring Diagram — SRS — (Cont'd)

RS-SRS-02

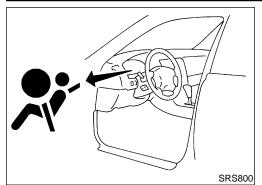




* This connector is not shown in "HARNESS LAYOUT " of EL section.

WRS118

SRS Operation Check



SRS Operation Check DIAGNOSTIC PROCEDURE 1 Checking SRS operation by using "AIR BAG" warning lamp — User mode 1 After turning ignition switch from OEE to ON "AIR BAG" warn-

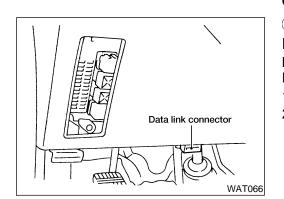
- After turning ignition switch from OFF to ON, "AIR BAG" warning lamp operates.
- 2. Compare "AIR BAG" warning lamp operation to the chart below.

LC

"AIR BAG" warning lamp operation — User mode —	SRS condition	Reference item	
IGN ON ON OFF 7 sec. MRS095A	No malfunction is detected. No further action is necessary.	_	EC FE AT
OFF 0.5 sec. MRS096A	The system is malfunc- tioning and needs to be repaired as indicated.	Go to "DIAGNOSTIC PROCEDURE 2", RS-37 or "DIAGNOSTIC PROCE- DURE 6", RS-46).	AX
IGN ON	Air bag is deployed. Seat belt pre-tensioner is deployed.	Go to "Collision Diagnosis", RS-53.	BP
ON OFF	Air bag fuse, air bag diag- nosis sensor unit or har- ness is malfunctioning and needs to be repaired.	Go to "DIAGNOSTIC PROCEDURE 9", RS-50.	ST
IGN ON	One of the following has occurred and needs to be repaired. • Meter fuse is blown. • "AIR BAG" warning	Go to "DIAGNOSTIC PROCEDURE 10", RS-52.	RS
ON ' OFFMRS098A	lamp circuit has open or short.Air bag diagnosis sen- sor unit is malfunction- ing.		HA

NOTE:

If "AIR BAG" warning lamp operates differently from the operations shown above, refer to "DIAGNOSTIC PROCEDURE 6" (step 4), RS-46. Then repair as necessary.



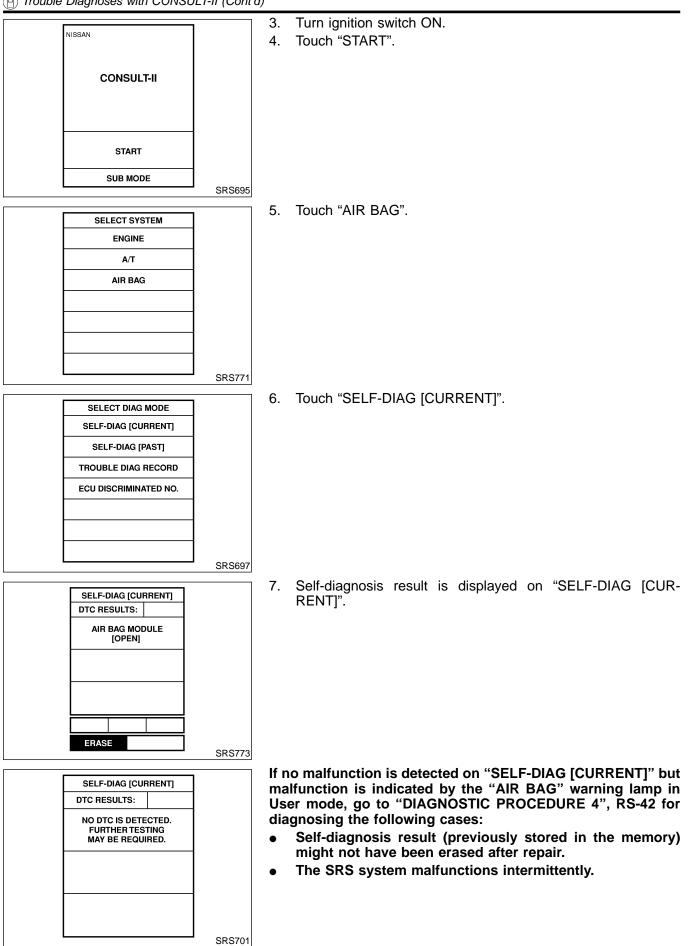
Trouble Diagnoses with CONSULT-II DIAGNOSTIC PROCEDURE 2

IDX NDRS0023

Inspecting SRS malfunctioning parts by using CONSULT-II — Diagnosis mode

- 1. Turn ignition switch OFF.
- 2. Connect CONSULT-II to data link connector.

(P) Trouble Diagnoses with CONSULT-II (Cont'd)



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NDRS0023S0101

- 8. Touch "PRINT".
- 9. Compare diagnostic codes to "CONSULT-II Diagnostic Code Chart", RS-39.
- 10. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears in order to return to User mode from Diagnosis mode, then turn off CONSULT-II.
- 11. Turn ignition switch OFF, then turn off and disconnect CON-SULT-II and disconnect both battery cables.
- 12. Repair the system as outlined by the Repair order in CON-SULT-II Diagnostic Code Chart that corresponds to the self-diagnosis result. For replacement procedure of component parts, refer to "REMOVAL AND INSTALLATION", RS-17.
- 13. After repairing the system, go to "DIAGNOSTIC PROCEDURE 3", RS-40 for final checking.

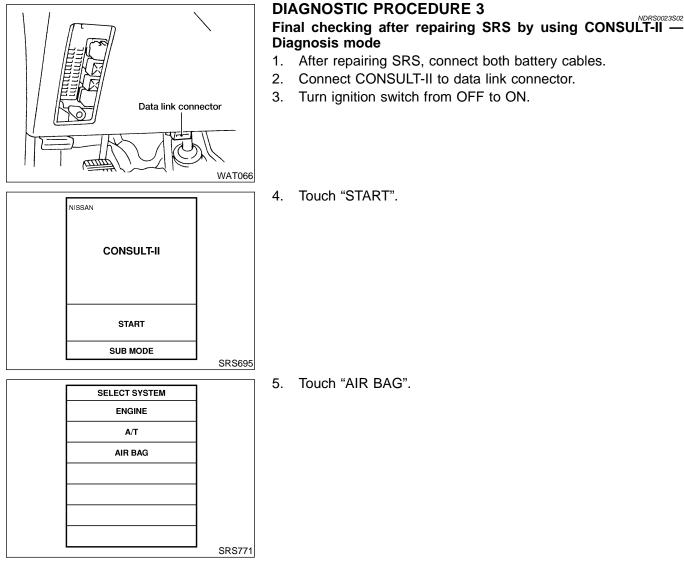
CONSULT-II Diagnostic Code Chart ("SELF-DIAG [CURRENT]")

		NDR3002330101	
Self-diagnosis result	Explanation	Repair order *"Recheck SRS at each replace- ment."	AT
NO DTC IS DETECTED	 When malfunction is indicated by the "AIR BAG" warning lamp in User mode Self-diagnosis result " SELF-DIAG [PAST]" (previously stored in the memory) might not have been erased after repair. Intermittent malfunction has been detected in the past. 	Go to "DIAGNOSTIC PROCEDURE 4", RS-42.	AX SU
	No malfunction is detected.	• Go to "DIAGNOSTIC PROCEDURE 3", RS-40.	BF
AIR BAG MODULE [OPEN]	 Driver air bag module circuit is open. (including the spiral cable) 	1. Visually check wiring harness con- nections.	ST
AIR BAG MODULE [VB-SHORT]	• Driver air bag module circuit is shorted to some power supply circuit. (including the spiral cable)	 Replace harness if it has visible damage. Replace the spiral cable. 	RS
AIR BAG MODULE [GND-SHORT]	• Driver air bag module circuit is shorted to ground. (including the spiral cable)	 Replace driver air bag module. (Before disposing of it, it must be deployed.) 	
AIR BAG MODULE [SHORT]	• Driver air bag module circuits are shorted to each other.	 5. Replace the diagnosis sensor unit. 6. Replace the related harness. 	BŢ
ASSIST A/B MODULE [OPEN]	 Passenger air bag module circuit is open. 	1. Visually check the wiring harness connections.	HÆ
ASSIST A/B MODULE [VB-SHORT]	 Passenger air bag module circuit is shorted to some power supply circuit. 	 Replace the harness if it has visible damage. Replace passenger air bag module. 	SC
ASSIST A/B MODULE [GND-SHORT]	 Passenger air bag module circuit is shorted to ground. 	(Before disposing of it, it must be deployed.)4. Replace the diagnosis sensor unit.	EL
ASSIST A/B MODULE [SHORT]	 Passenger air bag module circuits are shorted to each other. 	5. Replace the related harness.	ID)
PRE-TEN FRONT LH [OPEN/VB-SHORT]	 The circuit for front LH pre-tensioner is open or shorted to some power supply circuit. 	 Visually check the wiring harness connections. Replace the harness if it has visible damage. 	UU
PRE-TEN FRONT LH [GND-SHORT]	• The circuit for front LH pre-tensioner is shorted to ground.	 Replace front LH seat belt. (Before disposing, it must be deactivated.) Replace the diagnosis sensor unit. Replace the related harness. 	

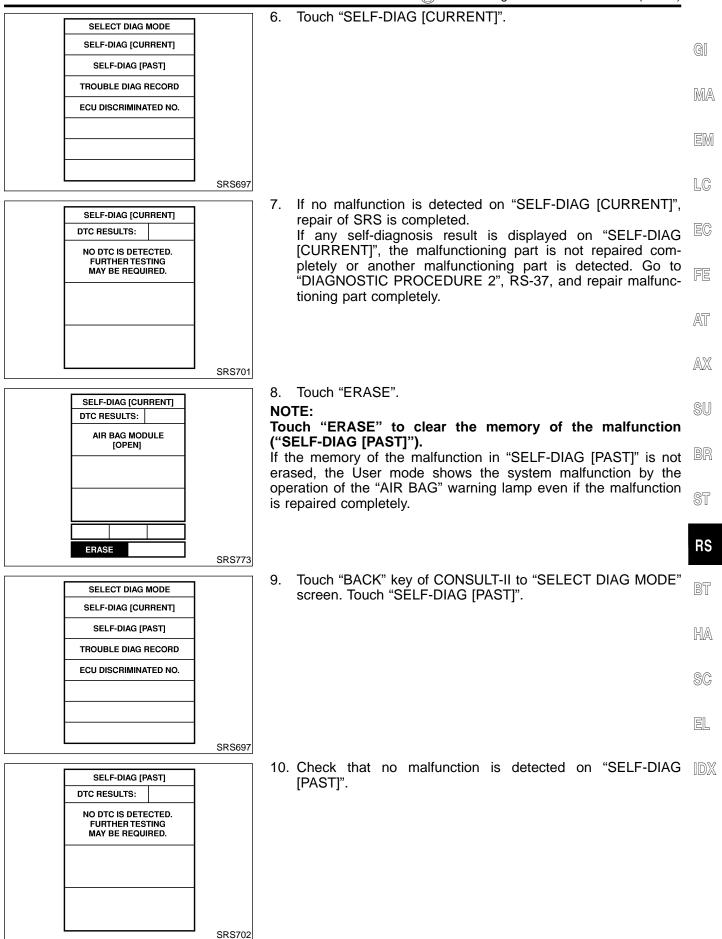
Trouble Diagnoses with CONSULT-II (Cont'd)

Self-diagnosis result	Explanation	Repair order *"Recheck SRS at each replace- ment."
PRE-TEN FRONT RH [OPEN/VB-SHORT]	• The circuit for front RH pre-tensioner is open or shorted to some power supply circuit.	 Visually check the wiring harness connections. Replace the harness if it has visible damage.
PRE-TEN FRONT RH [GND-SHORT]	• The circuit for front RH pre-tensioner is shorted to ground.	 Replace front RH seat belt. (Before disposing, it must be deactivated.) Replace the diagnosis sensor unit. Replace the related harness.
CONTROL UNIT	Low battery voltage (Less than 9V)	Go to "DIAGNOSTIC PROCEDURE 3", RS-40 after charging battery.
	 Air bag diagnosis sensor unit is malfunctioning. 	 Visually check the wiring harness connections. Replace air bag harness if it has visible damage. Replace the diagnosis sensor unit. Replace the related harness.

*: Follow the procedures in numerical order when repairing malfunctioning parts. Confirm whether malfunction is eliminated using the "AIR BAG" warning lamp (in User mode) or CONSULT-II each time repair is finished. If malfunction is still observed, proceed to the next step. When malfunction is eliminated, further repair work is not required.



() Trouble Diagnoses with CONSULT-II (Cont'd)



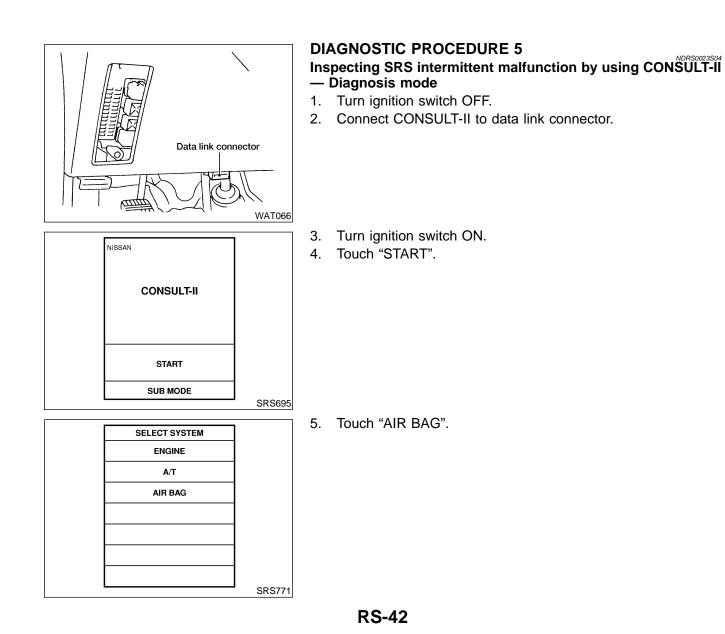
() Trouble Diagnoses with CONSULT-II (Cont'd)

- 11. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears in order to return to User mode from Diagnosis mode, turn off CONSULT-II, then disconnect CONSULT-II.
- 12. Turn ignition switch OFF.
- 13. Go to "SRS Operation Check", RS-37 to check SRS operation by using "AIR BAG" warning lamp with User mode.

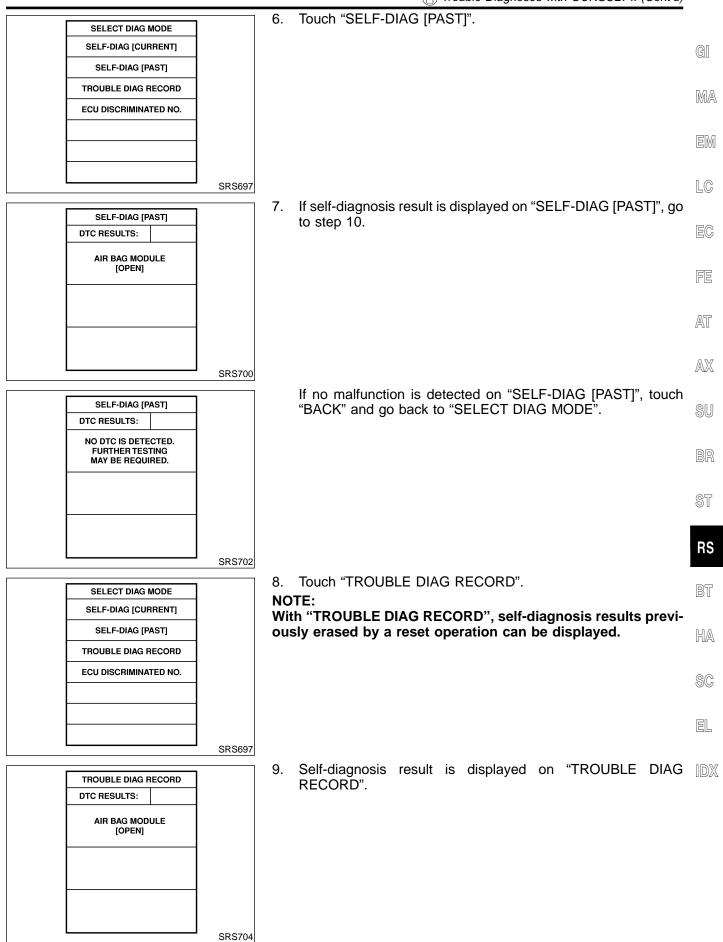
DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2) Inspecting SRS malfunction record

NDRS0023S03

1	CHECK FOR PROBLEM	M CODE THAT MIGHT NOT HAVE BEEN ERASED AFTER PREVIOUS REPAIR	
Is it th	Is it the first time for maintenance of SRS?		
	Yes or No		
Yes	►	Go to "DIAGNOSTIC PROCEDURE 5", RS-42.	
No	►	Self-diagnosis result "SELF-DIAG [PAST]" (previously stored in the memory) might not have been erased after repair. Go to "DIAGNOSTIC PROCEDURE 3", step 8, RS-40.	



(E) Trouble Diagnoses with CONSULT-II (Cont'd)



Trouble Diagnoses with CONSULT-II (Cont'd)

- 10. Touch "PRINT".
- 11. Compare self-diagnosis result to "Intermittent Malfunction Diagnostic Code Chart", RS-45.
- 12. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears, then turn off CONSULT-II.
- 13. Turn ignition switch OFF, then turn off and disconnect CON-SULT-II and disconnect both battery cables.
- 14. Repair the system as outlined by the Repair order that corresponds to the self-diagnosis result in "Intermittent Malfunction Diagnostic Code Chart", RS-45. For replacement procedure of component parts, refer to "REMOVAL AND INSTALLATION", RS-17.
- 15. Go to "DIAGNOSTIC PROCEDURE 3", RS-40, for final checking.

Trouble Diagnoses with CONSULT-II (Cont'd)

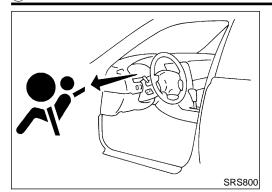
Intermittent Malfunction Diagnostic Code Chart (SELF-DIAG [PAST] or TROUBLE DIAG RECORD)

DIAG [PASI] OF IROUBLE DIAG RECORD)				
Self-diagnosis result	Explanation	Repair order*		
NO DTC IS DETECTED.	No malfunction is detected.	• Go to "DIAGNOSTIC PROCEDURE 3", RS-40.		
AIR BAG MODULE [OPEN]	• Driver air bag module circuit is open. (including the spiral cable)	1. Visually check the wiring harness connection.		
AIR BAG MODULE [VB-SHORT]	• Driver air bag module circuit is shorted to some power supply circuit. (including the spiral cable)	 Replace air bag harness if it has visible damage. If the harness check result is OK, 		
AIR BAG MODULE [GND-SHORT]	• Driver air bag module circuit is shorted to ground. (including the spiral cable)	replace driver air bag module (Before disposal of it, it must be deployed.), air bag diagnosis sensor		
AIR BAG MODULE [SHORT]	• Driver air bag module circuits are shorted to each other.	unit and spiral cable.		
ASSIST A/B MODULE [OPEN]	Passenger air bag module circuit is open.	1. Visually check the wiring harness connection.		
ASSIST A/B MODULE [VB-SHORT]	• Passenger air bag module circuit is shorted to some power supply circuit.	 Replace the harness if it has visible damage. If the harness check result is OK, 		
ASSIST A/B MODULE [GND-SHORT]	• Passenger air bag module circuit is shorted to ground.	replace passenger air bag module (Before disposal of it, it must be deployed.), and the diagnosis sen-		
ASSIST A/B MODULE [SHORT]	• Passenger air bag module circuits are shorted to each other.	sor unit.		
PRE-TEN FRONT LH [OPEN/VB-SHORT]	• The circuit for front LH pre-tensioner is open or shorted to some power supply circuit.	 Visually check the wiring harness connections. Replace the harness if it has visible damage. If the harness check is OK, replace 		
PRE-TEN FRONT LH [GND-SHORT]	• The circuit for front LH pre-tensioner is shorted to ground.	the diagnosis sensor unit and front LH seat belt. (Before disposing the front LH seat belt pre-tensioner, it must be deployed.)		
PRE-TEN FRONT RH [OPEN/VB-SHORT]	The circuit for front RH pre-tensioner is open or shorted to some power supply circuit.	 Visually check the wiring harness connections. Replace the harness if it has visible damage. If the harness check is OK, replace 		
PRE-TEN FRONT RH [GND-SHORT]	• The circuit for front RH pre-tensioner is shorted to ground.	The names check is OK, replace the diagnosis sensor unit and front RH seat belt. (Before disposing the front RH seat belt pre-tensioner, it must be deployed.)		
CONTROL UNIT	Air bag diagnosis sensor unit is malfunctioning.	Replace the diagnosis sensor unit.		

*: Intermittent malfunction areas cannot be easily located. For this reason, perform the procedures outlined under the repair order, then make the final system check.

IDX

Trouble Diagnoses without CONSULT-II



Trouble Diagnoses without CONSULT-II DIAGNOSTIC PROCEDURE 6

Inspecting SRS malfunctioning parts by using "AIR BAG" warning lamp — Diagnosis mode

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NOTE:

SRS will not enter Diagnosis mode if no malfunction is detected in User mode.

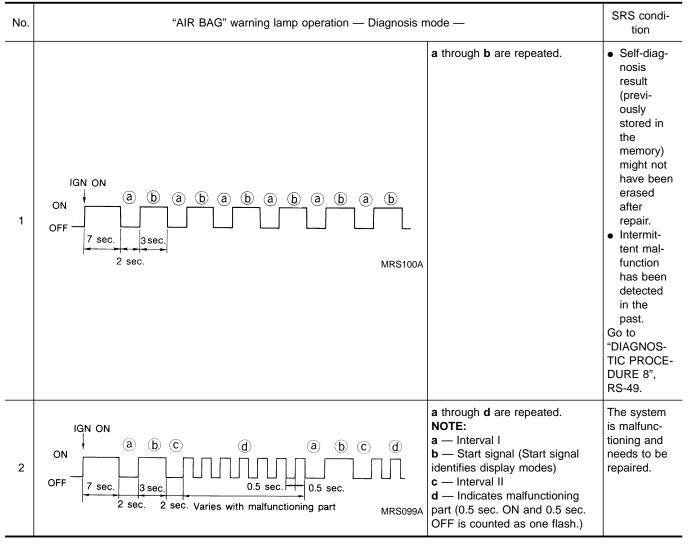
- 1. Turn ignition switch "ON".
- 2. After "AIR BAG" warning lamp lights for 7 seconds, turn ignition switch "OFF" within 1 second.
- 3. Wait more than 3 seconds.
- 4. Repeat steps 1 to 3 three times.
- Turn ignition switch "ON". SRS is now in Diagnosis mode.
- 6. "AIR BAG" warning lamp operates in Diagnosis mode as follows:

NOTE:

If SRS does not enter Diagnosis mode even though malfunction is detected in User mode, check the battery voltage.

If the battery voltage is less than 9V, charge the battery, then go to "DIAGNOSTIC PROCEDURE 7", RS-48.

If the battery voltage is OK, replace the diagnosis sensor unit.



7. Malfunctioning part is indicated by the number of flashes (part

RS-46

d). Compare the number of flashes to "Warning Lamp Flash Code Chart", RS-47, and locate malfunctioning part.

- Turn ignition switch OFF and disconnect both battery cables. GI 8.
- Repair the system as outlined by the Repair order in Warning 9. Lamp Flash Code Chart that corresponds to the flash code. MA For replacement procedure of component parts, refer to "REMOVAL AND INSTALLATION", RS-17.
- 10. After repairing the system, go to "DIAGNOSTIC PROCEDURE EM 7", RS-48.

Warning	Lamp Fla	ash Code	Chart

NDRS0024S0101 LC

Warning Iamp	Flash code d (# of flashes)	Explanation	Repair order *Recheck SRS at each replacement.
	0	 Self-diagnosis result (previously stored in the memory) might not have been erased after repair. Intermittent malfunction has been detected in the past. 	Go to "DIAGNOSTIC PROCEDURE 8", RS-49.
	1	The front RH seat belt pre-tensioner circuit is malfunctioning.	 Visually check wiring harness connections. Replace harness if it has visible damage. Replace spiral cable. Replace driver air bag module. (Before disposing of it, it must be deployed.) Replace the diagnosis sensor unit. Replace the related harness.
"AIR BAG" warning lamp	2	The driver air bag module circuit is malfunction- ing.	 Visually check wiring harness connections. Replace harness if it has visible damage. Replace spiral cable. Replace driver air bag module. (Before disposing of it, it must be deployed.) Replace the diagnosis sensor unit. Replace the related harness.
"AIR BAG" w	3	The front LH seat belt pre-tensioner circuit is malfunctioning	 Visually check wiring harness connections. Replace harness if it has visible damage. Replace spiral cable. Replace driver air bag module. (Before disposing of it, it must be deployed.) Replace the diagnosis sensor unit. Replace the related harness.
	7	The air bag diagnosis sensor unit is malfunc- tioning.	 Visually check wiring harness connections. Replace harness if it has visible damage. Replace the diagnosis sensor unit. Replace the related harness.
	8	The passenger air bag module circuit is mal- functioning.	 Visually check wiring harness connections. Replace harness if it has visible damage. Replace passenger air bag module. (Before disposing of it, it must be deployed.) Replace the diagnosis sensor unit. Replace the related harness.

* Follow the procedures in numerical order when repairing malfunctioning parts. Confirm whether malfunction is eliminated using the "AIR BAG" warning lamp (in User mode) or CONSULT-II each time repair is finished. If malfunction is still observed, proceed to the next step. When malfunction is eliminated, further repair work is not required.

Trouble Diagnoses without CONSULT-II (Cont'd)



DIAGNOSTIC PROCEDURE 7

Final checking after repairing SRS by using "AIR BAG" warning lamp — Diagnosis mode and user mode

- 1. After repairing SRS, connect both battery cables.
- 2. Open front door LH.
- 3. Turn ignition switch from OFF to ON.
- "AIR BAG" warning lamp operates in Diagnosis mode as follows:

No.	"AIR BAG" warning lamp operation — Diagnosis mode —			
1	IGN ON ON OFF 7 sec. 2 sec. MRS100A	a through b are repeated.	No malfunc- tion is detected or repair is completed. No further action is necessary.	
2	IGN ON ON OFF 7 sec. 3 sec. 0.5 sec. 0.5 sec. 2 sec. 2 sec. Varies with malfunctioning part MRS099A	 a through d are repeated. NOTE: a — Interval I b — Start signal (Start signal identifies display modes) c — Interval II d — Indicates malfunctioning part (0.5 sec. ON and 0.5 sec. OFF is counted as one flash.) 	The system is malfunc- tioning and needs to be repaired.	

NOTE:

When air bag diagnosis sensor unit is replaced with new one, "AIR BAG" warning lamp will operate in User mode. Checking "AIR BAG" warning lamp operation in Diagnosis mode is not required. Go to step 6.

5. If "AIR BAG" warning lamp operates as shown in No. 1 in chart above, turn ignition switch OFF to reset from Diagnosis mode to User mode and to erase the memory of the malfunction. Then go to step 6.

If "AIR BAG" warning lamp operates as shown in No. 2 in chart above, the malfunctioning part is not repaired completely or another malfunctioning part is detected. Go to "DIAGNOSTIC PROCEDURE 6", RS-46, and repair malfunctioning part completely.

6. Turn ignition switch ON. "AIR BAG" warning lamp operates in User mode. Compare "AIR BAG" warning lamp operation to the chart below.

NOTE:

If switching from Diagnosis mode to User mode is required while malfunction is being detected, do so by turning ignition switch as follows:

- 1) Turn ignition switch "ON".
- 2) After "AIR BAG" warning lamp lights for 7 seconds, turn ignition switch "OFF" within 1 second.
- 3) Wait more than 3 seconds.
- 4) Turn ignition switch "ON".

SRS is now in User mode.

RS-48

Trouble Diagnoses without CONSULT-II (Cont'd)

"AIR BAG" warning lar	np operation — User mode —	SRS condition	Reference item	
		No malfunction is detected. No further action is nec- essary.	_	GI MA
OFF 7 sec.	 MRS095A			EM
	MMMM	The system is malfunc- tioning and needs to be repaired.	Go to "DIAGNOSTIC PROCEDURE 2", RS-37 or "DIAGNOSTIC PRO- CEDURE 6", RS-46.	LC
0.5 sec. 0.5 sec.	MRS096A			EC
IGN ON		Air bag is deployed. Seat belt pre-tensioner is deployed.	Go to "COLLISION DIAGNOSIS", RS-53.	FE
ON OFF	MRS097A	Air bag fuse, air bag diagnosis sensor unit or harness is malfunctioning and needs to be repaired.	Go to "DIAGNOSTIC PROCEDURE 9", RS-50.	AT AX
IGN ON		One of the following has occurred and needs to be repaired. • Meter fuse is blown. • "AIR BAG" warning	Go to "DIAGNOSTIC PROCEDURE 10", RS-52.	SU BR
ON '	MRS098A	lamp circuit has open or short.Air bag diagnosis sen-		ST
	DIAGNOSTIC PRO DIAGNOSTIC PRO	CEDURE 8 (CONTI CEDURE 6)		RS
	Inspecting SRS mal	function record		BT
	M CODE THAT MIGHT NOT HAVE B	EEN ERASED AFTER P	REVIOUS REPAIR	ΠΛ
Is it the first time for maintenanc	e of SRS? Yes or No			HA
Yes 🕨	Yes Go to "DIAGNOSTIC PROCEDURE 5", RS-42. (Further inspection cannot be performed without CONSULT-II.)		on cannot be performed	SC
No	Self-diagnosis result (previously stored repair. Go to "DIAGNOSTIC PROCEDU		have been erased after	EL

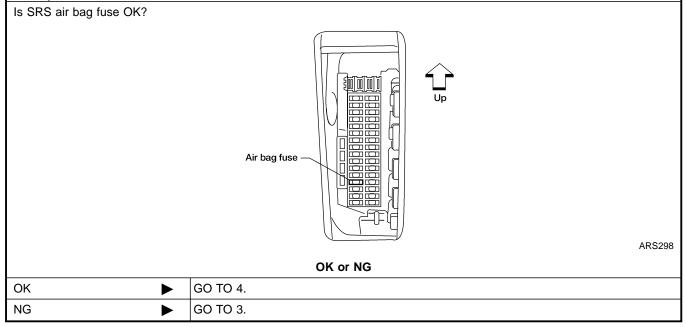
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Trouble Diagnoses: "AIR BAG" Warning Lamp Does Not Turn Off

Trouble Diagnoses: "AIR BAG" Warning Lamp Does Not Turn Off DIAGNOSTIC PROCEDURE 9

1	CHECK FOR DEPLOYN	IENT OF AIR BAG MODULE	
Is air bag module deployed?			
	Yes or No		
Yes	►	Refer to "COLLISION DIAGNOSIS", RS-53.	
No	•	GO TO 2.	

2 CHECK AIR BAG FUSE



3			
Replac	Replace air bag fuse and turn ignition switch ON.		
	Does air bag fuse blow again?		
Yes	Yes Repair main harness and/or replace air bag harness.		
No	•	GO TO 4.	

Trouble Diagnoses: "AIR BAG" Warning Lamp Does Not Turn Off (Cont'd)

4	CHECK AIR BAG DIA	GNOSIS SENSOR UNIT		
	ect CONSULT-II and touch			GI
		SELECT SYSTEM		MA
		ENGINE		
		A/T		EM
		AIR BAG		
				LC
				EC
			SRS771	
		Yes or No		FE
Yes	►	GO TO 5.		
No	►	Visually check wiring harness connection of air bar connection check result is OK, replace air bag diag		AT
L		1		AX
5	CHECK HARNESS CO	NNECTION		

Is harness connection between "AIR BAG" warning lamp and air bag diagnosis sensor unit OK?		
OK or NG		SU
►	Replace air bag diagnosis sensor unit.	
	If "AIR BAG" warning lamp still does not go off, repair main harness and/or replace air	BR
	► ►	

-

BT

HA

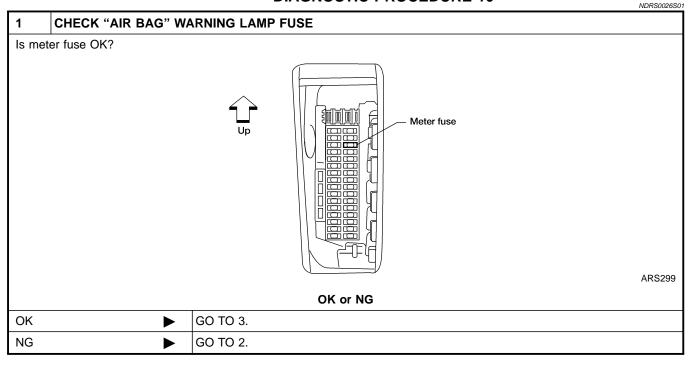
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Trouble Diagnoses: "AIR BAG" Warning Lamp Does Not Turn On

Trouble Diagnoses: "AIR BAG" Warning Lamp Does Not Turn On DIAGNOSTIC PROCEDURE 10



2	2 CHECK "AIR BAG" WARNING LAMP FUSE AGAIN		
Replace meter fuse and turn ignition switch ON.			
Does meter fuse blow again?			
Yes	►	Repair main harness.	
No		GO TO 3.	

CHECK AIR BAG WARNING LAMP LED			
Is "AIR BAG" warning lamp LED OK?			
OK or NG			
	GO TO 4.		
NG Replace "AIR BAG" warning lamp LED.			
_	BAG" warning lamp LED		

	CHECK HARNESS CONNECTION BETWEEN AIR BAG DIAGNOSIS SENSOR UNIT AND "AIR BAG" WARNING LAMP		
Disconnect air bag diagnosis sensor unit connector and turn ignition switch ON.			
Does "AIR BAG" warning lamp turn on?			
Yes	•	Replace air bag diagnosis sensor unit.	
No Check the ground circuit of "AIR BAG" warning lamp.			

Collision Diagnosis

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Collision Diagnosis

To repair the SRS, perform the following steps.

When SRS is activated in a collision:

- 1) Replace the air bag diagnosis sensor unit.
- 2) Remove the air bag modules.
- 3) Check the SRS components using the table shown below:
- Replace any SRS components showing visible signs of damage (dents, cracks and deformation).
- 4) Install new air bag modules.
- Conduct Self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to "SRS Operation Check", RS-37 for details. Ensure entire SRS operates properly.

When SRS is not activated in a collision:

- 1) Check the SRS components using the table shown below:
- Replace any SRS components showing visible signs of damage (dents, cracks and deformation).
- Conduct Self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to "SRS Operation Check", RS-37 for details. Ensure entire SRS operates properly.

SRS INSPECTION

Part	SRS is activated	SRS is NOT activated	AT
Air bag module (driver and passenger side)	REPLACE Install with new fas- teners.	 Remove air bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. 2. 	AX
		a. Install driver air bag module into the steering wheel to check fit and alignment with the wheel.b. Install passenger air bag module into the instrument panel to check fit with the	SU
		install passenger all bag module into the instrument panel to check it with the instrument panel.3. No damage found, reinstall with new bolts.	00
		4. If damaged — REPLACE. Air bag must be deployed before discarding.	BR
Seat belt pre-tensioner assembly	REPLACE Install seat belt pre- tensioner with new bolts.	 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. 	ST
		 Check retractor for smooth operation. If no damage is found, reinstall the seat belt pre-tensioner assembly. If damage—REPLACE. Install the seat belt pre-tensioners with new bolts 	RS
		coated with bonding agent. Seat belt pre-tensioners must be deployed before discarding.	BT
Air bag diagnosis sen- sor unit	REPLACE Install with new fas-	 Check case for dents, cracks and deformities. Check connectors for damage, and terminals for deformities. 	HA
	teners.	 If no damage is found, reinstall with new fasteners. If damaged — REPLACE. Install new air bag diagnosis sensor unit with new fasteners. 	. SC
Steering wheel	 Visually check steering wheel for deformities. Check harness (built into steering wheel) and connectors for damage, and terminals for deformities. Install air bag module to check fit or alignment with steering wheel. Check steering wheel for excessive free play. Install air bag damage is found, reinstall the steering wheel 		. 96
			EL
	 If no damage is found, reinstall the steering wheel. If damaged — REPLACE. 		. IDX
Spiral cable	 Visually check spiral cable and combination switch for damage. Check connectors, flat cable and protective tape for damage. Check steering wheel for noise, binding and heavy operation. 		
	 If no damage is found, reinstall the spiral cable. If damaged — REPLACE. 		
Harness and connec- tors	 Check connectors for poor connection, damage, and terminals for deformities. Check harness for binding, chafing, cuts, and deformities. If no damage is found, reinstall. 		
	4. Damaged — REPLA SRS harness.	ACE damaged section of harness. Do not attempt to repair, splice or modify any	

Collision Diagnosis (Cont'd)

Passenger air bag module brackets	Part	SRS is activated	SRS is NOT activated	
 Passenger air bag module brackets Passenger air bag module brackets ARS3 The portions securing the instrument panel 	Instrument panel			
 Passenger air bag module brackets The portions securing the instrument panel 				
• The portions securing the instrument panel		 Passenger air bag m 		ARS303
		• The portions securing	: Check points	ARS304
2. If no damage is found, reinstall the instrument panel.				ARS302