

# RESTRAINT SYSTEM

## SECTION RS

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# SEAT BELTS

Precautions

## Precautions

### SUPPLEMENTAL RESTRAINT SYSTEM (SRS) "AIR BAG"

The Supplemental Restraint System such as "AIR BAG" used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. The SRS composition which is available to NISSAN MODEL S15 is as follows:

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 passenger side), 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. SRS wiring harnesses can be identified with yellow harness connector.

### PRECAUTION FOR SEAT BELT SERVICE

NMRS0002

#### **CAUTION:**

- Do not use disassemble buckle or seat belt assembly.
- Replace anchor bolts if they are deformed or worn out.
- Never oil tongue and buckle.
- If any component of seat belt assembly is questionable, do not repair. Replace the whole seat belt assembly.
- If webbing is cut, frayed, or damaged, replace seat belt assembly.
- When replacing seat belt assembly, use a genuine seat belt assembly.

### After A Collision

NMRS0002S01

#### **WARNING:**

Inspect all seat belt assemblies including retractors and attaching hardware after any collision.

NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pre-tensioner should be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

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

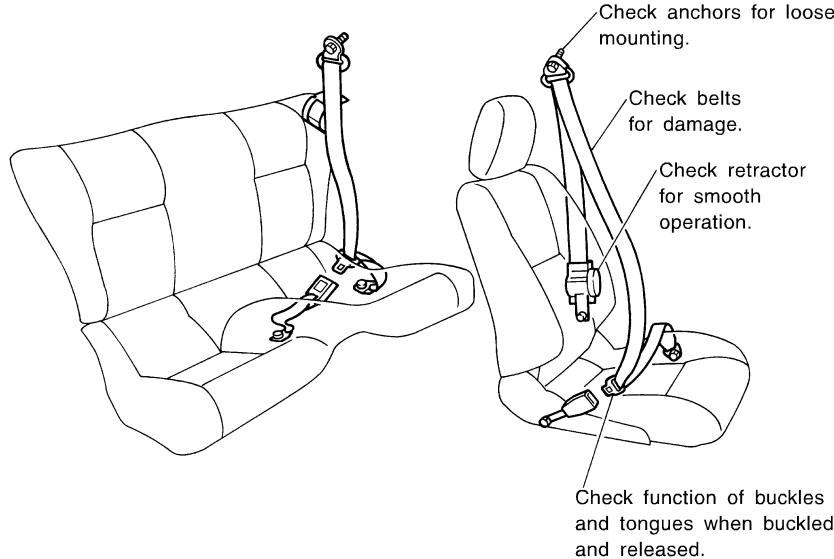
**Maintenance**

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**CAUTION:**

- After any collision, inspect all seat belt assemblies, including retractors and other attached hardwares (i.e. guide rail set). Nissan recommends to replace all seat belt assemblies in use during a collision, unless not damaged and properly operating after minor collision.  
Also inspect seat belt assemblies not in use during a collision, and replace if damaged or improperly operating.
- If any component of seat belt assembly is questionable, do not repair. Replace as seat belt assembly.
- If webbing is cut, frayed, or damaged, replace belt assembly.
- Never oil tongue and buckle.
- Use a genuine seat belt assembly.

**Anchor bolt**

44 - 54 N·m

(4.4 - 5.6 kg·m, 32 - 40 ft-lb)

SRS918

# SEAT BELTS

## Front Seat Belt

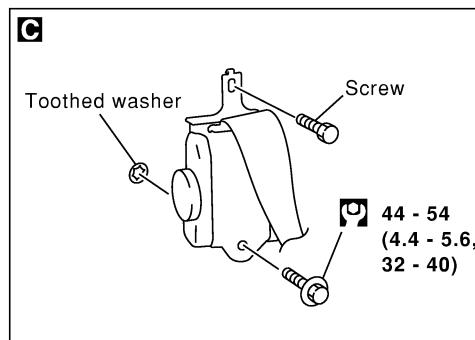
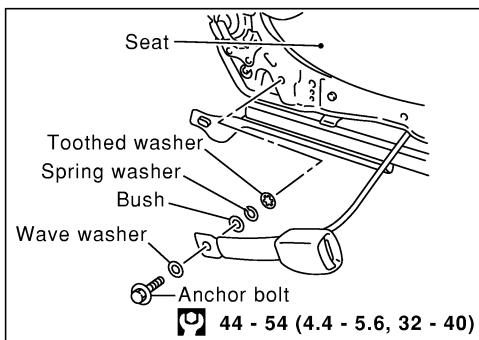
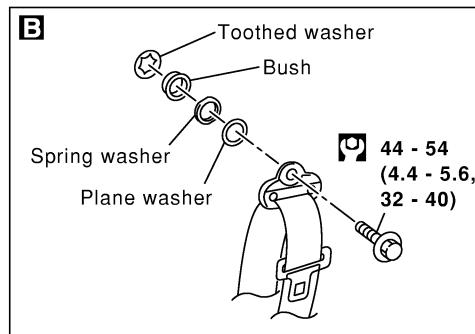
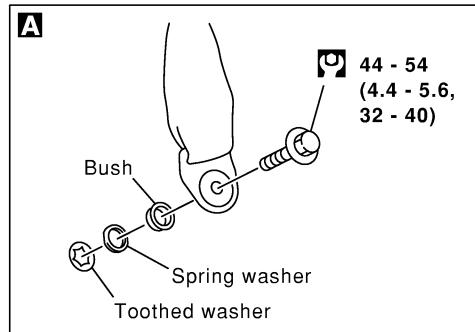
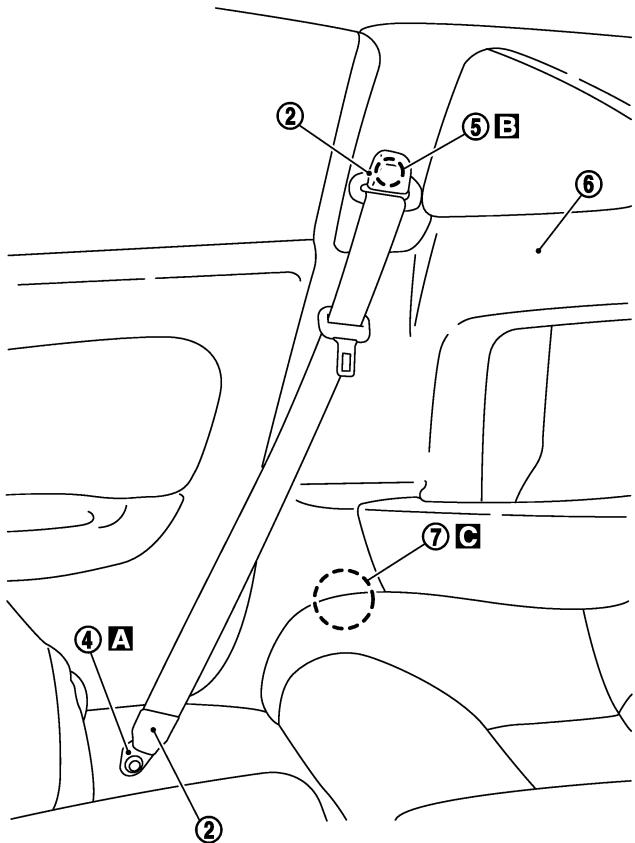
### Front Seat Belt

#### REMOVAL AND INSTALLATION

1. Slide the seat all the way forward and tilt the seatback toward the front.
2. Remove anchor cover.
3. Slide floor anchor cover.
4. Remove floor anchor bolt. **A**
5. Remove shoulder anchor bolt. **B**
6. Remove kicking plate and rear side finisher. Refer to BT-26, "SIDE AND FLOOR TRIM" for details.
7. Remove the screw securing seat belt retractor, then remove seat belt and seat belt retractor. **C**

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#### SEC. 769



■ : N·m (kg-m, ft-lb)

SRS919

## Rear Seat Belt

## REMOVAL AND INSTALLATION

1. Remove rear seat. Refer to BT-39, "REAR SEAT" for details.
2. Remove outer and shoulder anchor bolt. **A** **B**
3. Remove rear side finisher. Refer to BT-26, "SIDE AND FLOOR TRIM" for details.
4. Remove bolts securing rear seat belt retractor, then remove seat belt and seat belt retractor. **C**
5. Remove each anchor bolt. **D**

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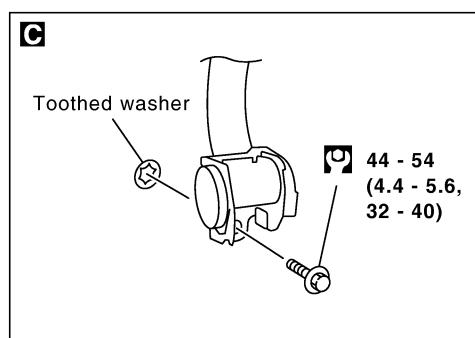
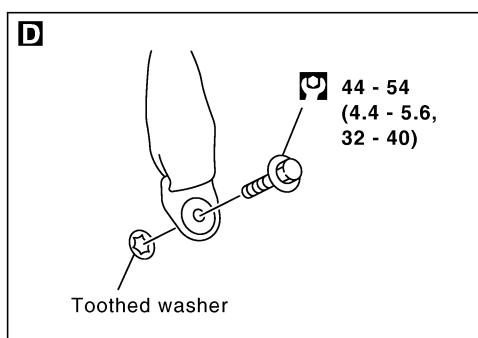
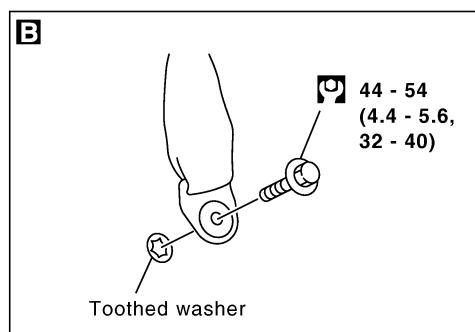
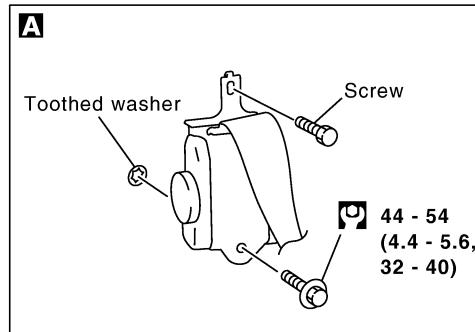
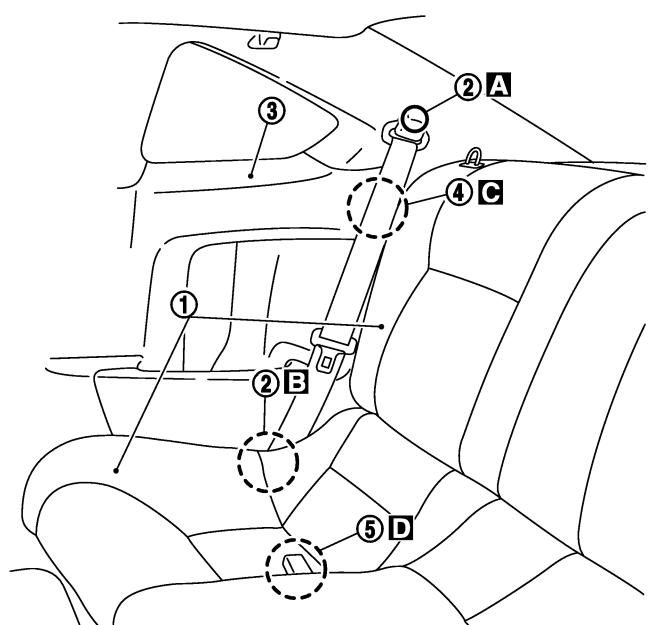
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: N·m (kg·m, ft·lb)

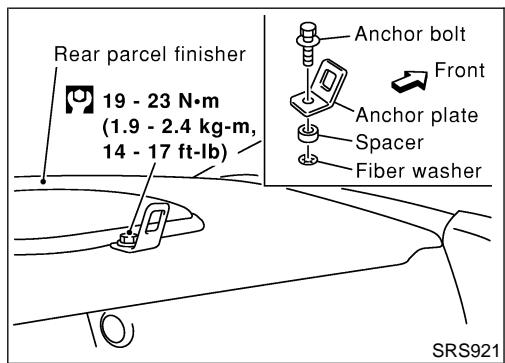
# SEAT BELTS

Tether Anchor Plate

## Tether Anchor Plate REMOVAL AND INSTALLATION

**CAUTION:**

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**Replace anchor bolts if they are deformed or worn out.**

## Precautions

### SUPPLEMENTAL RESTRAINT SYSTEM (SRS) "AIR BAG"

The Supplemental Restraint System such as "AIR BAG" used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. The SRS composition which is available to NISSAN MODEL S15 is as follows:

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 passenger side), 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. SRS wiring harnesses can be identified with yellow harness connector.

### PRECAUTIONS FOR SRS "AIR BAG"

- Do not use electrical test equipment 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. Therefore, do not work on any SRS connectors or wires until at least 3 minutes have passed.
- 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 with the neutral position since its rotations are limited. Do not attempt to turn steering wheel or 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.
- Conduct self-diagnosis to check entire SRS for proper function after replacing any components.
- After air bag inflates, the front instrument panel assembly should be replaced if damaged.

### WIRING DIAGRAMS AND TROUBLE DIAGNOSIS

When you read wiring diagrams, refer to the following:

- GI-11, "HOW TO READ WIRING DIAGRAMS"
- EL-7, "POWER SUPPLY ROUTING" for power distribution circuit

When you perform trouble diagnosis, refer to the following:

- GI-31, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES"
- GI-20, "HOW TO PERFORM EFFICIENT DIAGNOSIS FOR AN ELECTRICAL INCIDENT"

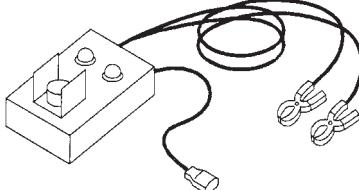
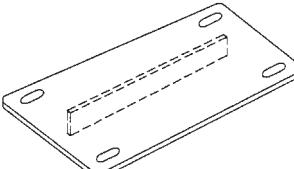
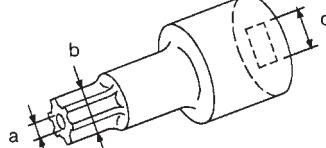
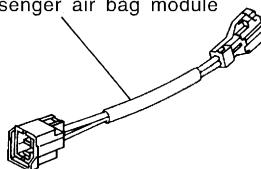
# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

*Preparation*

## Preparation

### SPECIAL SERVICE TOOLS

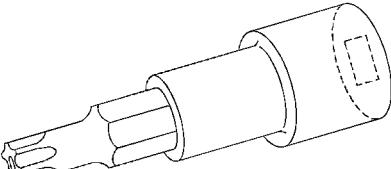
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Tool number Tool name	Description
KV99106400 Deployment tool	 <p>NT357</p> <p>Disposing of air bag module</p>
KV99105300 Air bag module bracket	 <p>NT354</p> <p>Anchoring air bag module</p>
HT61961000 and HT62152000 combined *Special torx bit	 <p>NT361</p> <p>Use for special bolts [TAMPER RESISTANT TORX (Size T50)]  <b>a:</b> 3.5 (0.138) dia.  <b>b:</b> 8.5 - 8.6 (0.335 - 0.339) dia.  <b>c:</b> approx. 10 (0.39) sq.  Unit: mm (in)</p>
KV99108300 Deployment tool adapter for front passenger air bag	 <p>NT836</p> <p>For front passenger air bag module</p>

\*: Special tool or commercial equivalent

### COMMERCIAL SERVICE TOOL

NMRSG0040

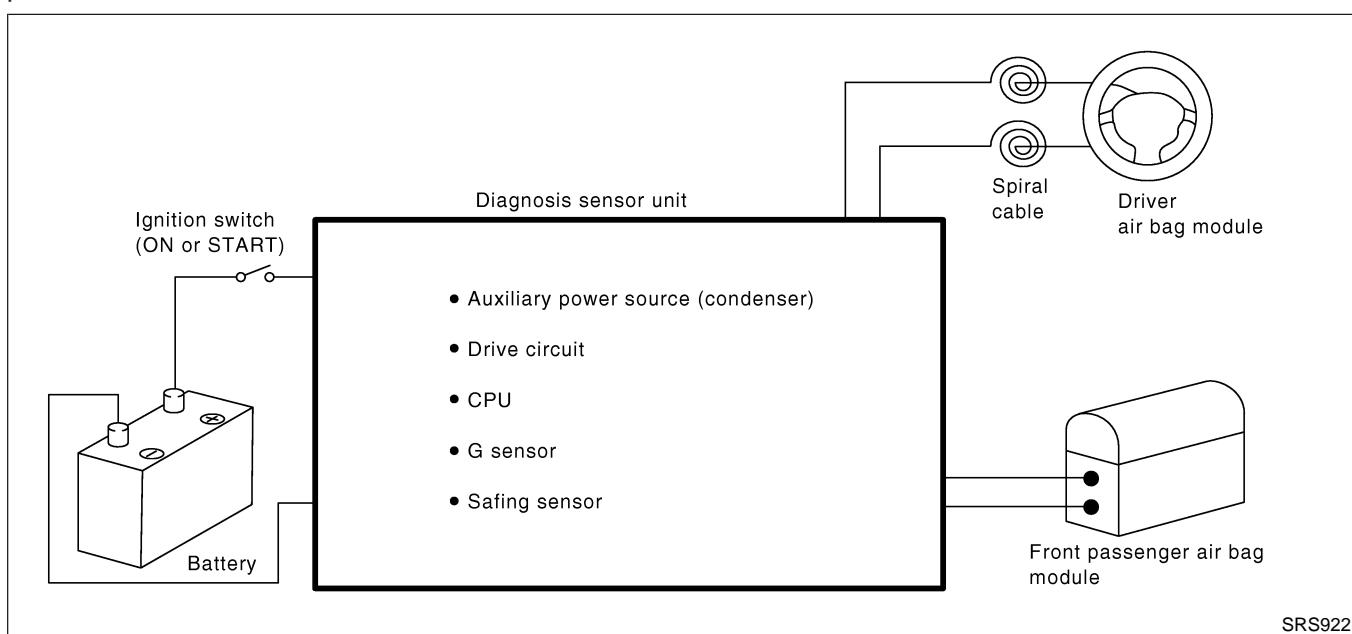
Tool name	Description
Tamper resistant torx socket	 <p>NT757</p> <p>Size: T30</p>

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

SRS Configuration

## SRS Configuration

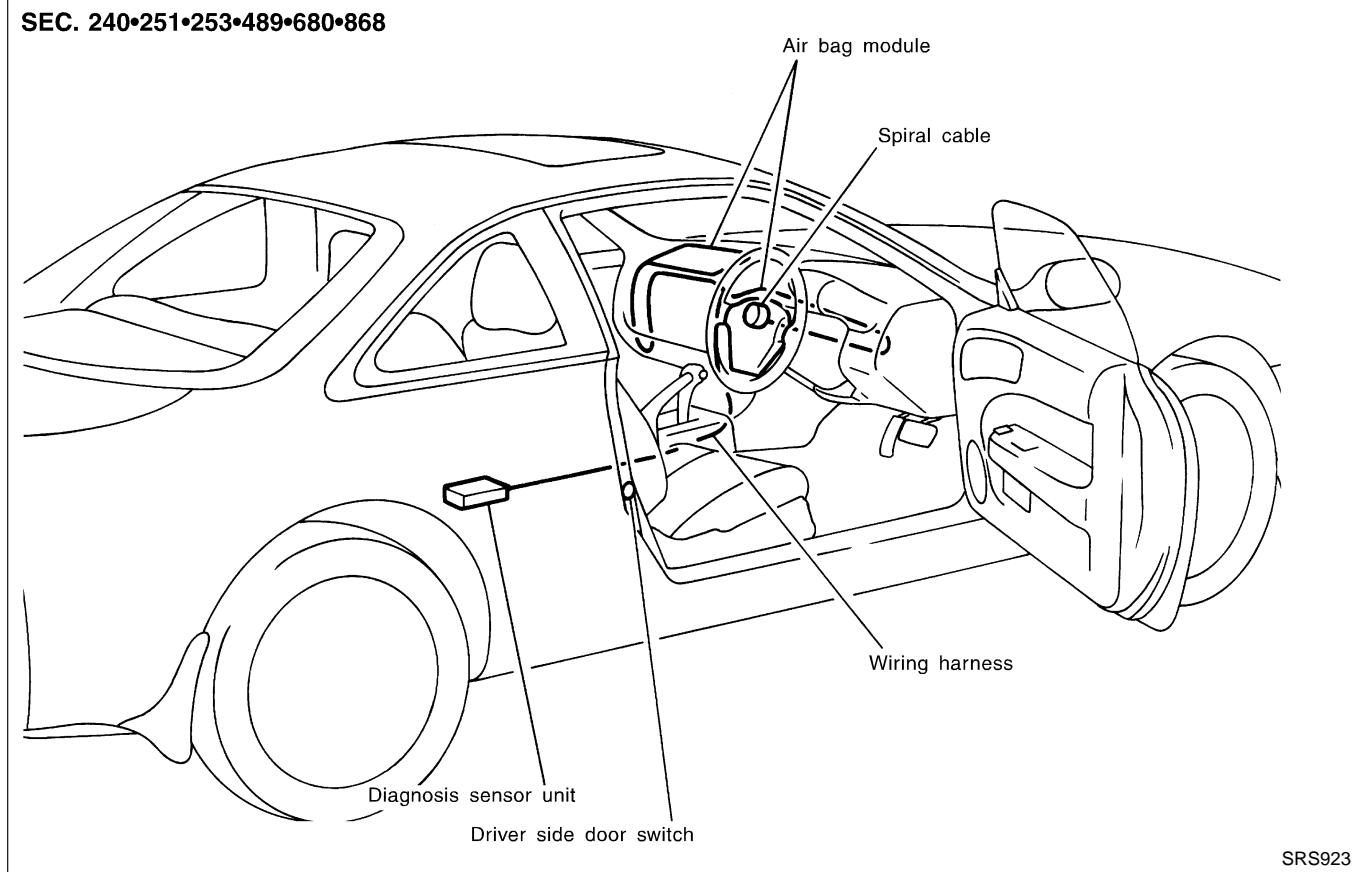
The air bag deploys if the diagnosis sensor unit activates while the ignition switch is in the "ON" or "START" position.



## SRS Component Parts Location

NMRS0011

SEC. 240•251•253•489•680•868



# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Maintenance Items



SRS924

## Maintenance Items

### CAUTION:

**Do not use electrical test equipment to check SRS circuit.**

NMRS0012

1. Check operation of "AIR BAG" warning lamp.  
After turning ignition key to "ON" position, the warning lamp illuminates. The "AIR BAG" warning lamp will go off after about 7 seconds if no malfunction is detected. If any of the following warning lamp conditions occur, immediately check the air bag system. Refer to RS-28 for details.
  - The "AIR BAG" warning lamp does not illuminate when the ignition switch is turned "ON".
  - The "AIR BAG" warning lamp does not go off about 7 seconds after the ignition switch is turned "ON".
  - The "AIR BAG" warning lamp blinks after about 7 seconds after the ignition switch is turned "ON".
2. Visually check SRS components.
  - 1) Diagnosis sensor unit
    - Check diagnosis sensor unit and bracket for dents, cracks and deformities.
    - Check connectors for damage, and terminals for deformities.
  - 2) Air bag module and steering wheel
    - Remove air bag module from steering wheel, instrument panel or seatback. Check 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 alignment with the wheel.
    - Check steering wheel for excessive free play.
    - Install front passenger air bag module to instrument panel to check fit or alignment with the instrument panel.
  - 3) Spiral cable
    - Check spiral cable for dents, cracks, or deformities.
    - Check connectors and protective tape for damage.
    - Check steering wheel for noise, binding or heavy operation.
  - 4) Main harness, body harness
    - Check connectors for poor connections, damage, and terminals for deformities.
    - Check harnesses for binding, chafing or cut.

### CAUTION:

**Replace previously used special bolts and ground bolt with new ones.**

NMRS0013

## Diagnosis Sensor Unit

### REMOVAL AND INSTALLATION

### CAUTION:

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- The special bolts are coated with bonding agent while the other bolt is for ground. Do not use old bolts after removal; replace with new ones.
- Check diagnosis sensor unit for proper installation.
- Check diagnosis sensor unit to ensure it is free of deformities, dents, cracks or rust. If they show any visible

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

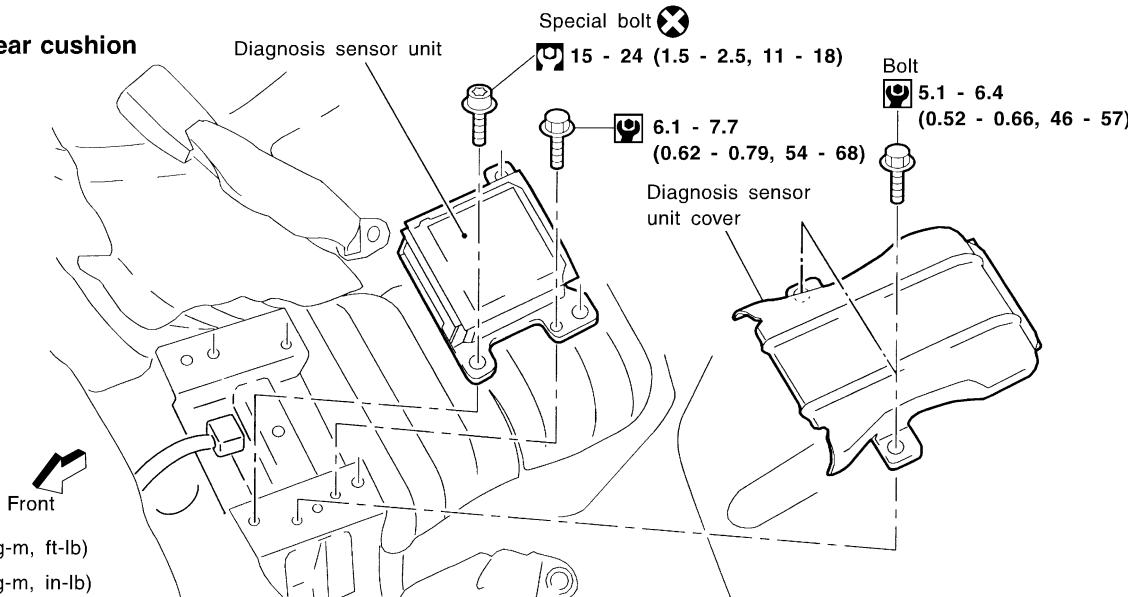
Diagnosis Sensor Unit (Cont'd)

signs of damage, replace them with new ones.

- Check diagnosis sensor unit brackets to ensure they are free of deformities or rust.
- Replace diagnosis sensor unit if it has been dropped or sustained an impact.
- After replacement of diagnosis sensor unit, perform self-diagnosis for SRS. Refer to "SRS Operation Check" for details (RS-28).

## SEC. 253

### Under the rear cushion



JRS925

1. Disconnect driver, front passenger air bag module connectors.
2. Remove rear seat cushion. Refer to BT-39, "REAR SEAT".
3. Remove the air bag sensor cover.
4. Disconnect diagnosis sensor unit connector.
5. Remove earth bolt and also remove special bolts using the TAMPER RESISTANT TORX (Size T50), from diagnosis sensor unit.  
Then remove the diagnosis sensor unit.

#### NOTE:

- To install, reverse the removal procedure sequence.

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

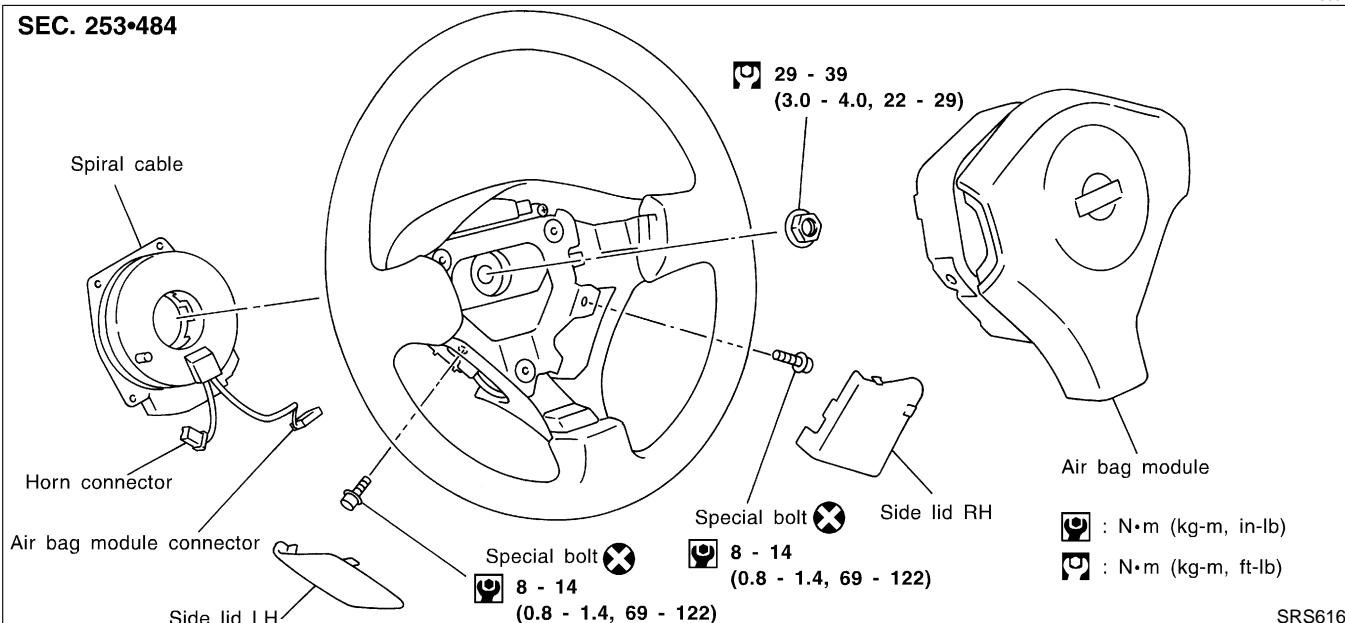
Driver Air Bag Module and Spiral Cable

## Driver Air Bag Module and Spiral Cable

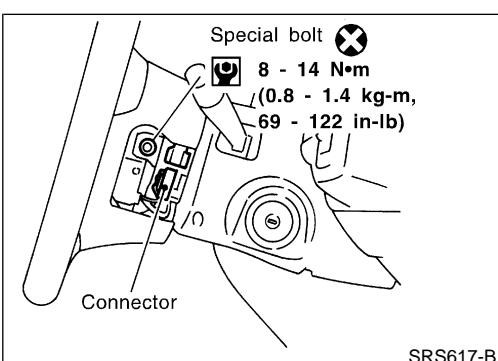
### REMOVAL AND INSTALLATION

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SRS616

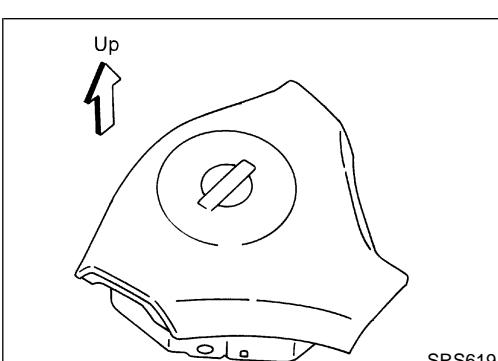
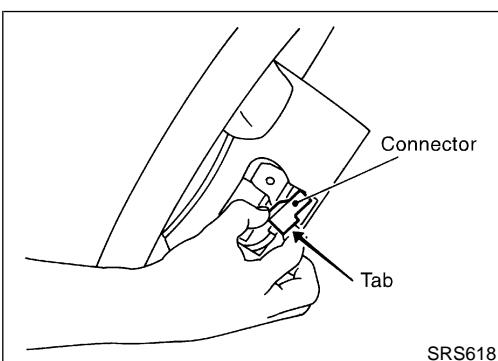


NMRS0044

### REMOVAL

#### CAUTION:

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of driver air bag module.
- Remove side lid from steering wheel, and disconnect driver air bag module connector.
- Using the TAMPER RESISTANT TORX (Size T30), remove left and right special bolts.
- Remove driver air bag module connector by pushing tab. Driver air bag module can then be removed.



#### CAUTION:

- Always place driver air bag module with pad side facing upward.
- Do not attempt to disassemble driver air bag module.
- The special 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 driver air bag module connector.

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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



- Replace driver air bag module if it has been dropped or sustained an impact.
- Do not expose the driver 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.

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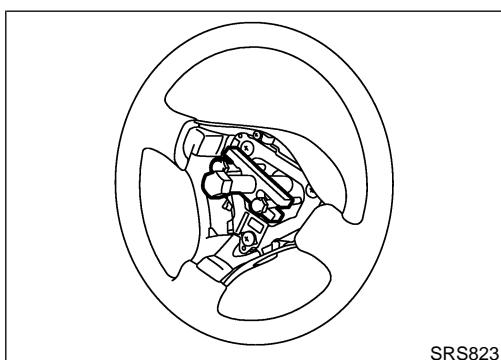
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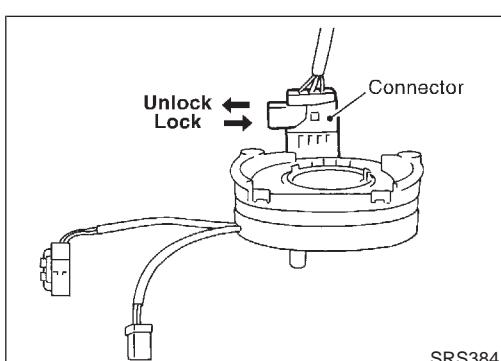


4. Set steering wheel in the neutral position.
5. Disconnect horn connector and remove nuts.
6. Using steering wheel puller, remove steering wheel. Be careful not to over-tighten puller bolt on steering wheel.

**CAUTION:**

- Do not tap or bump the steering wheel.
- 7. Remove steering column cover.

AT

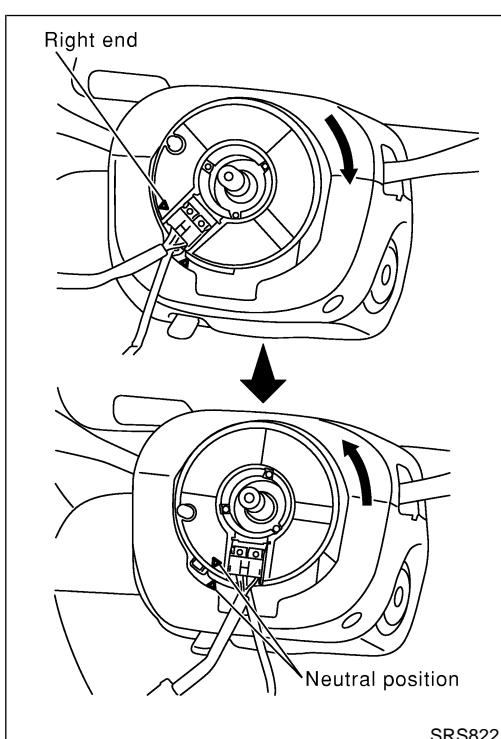


8. Unlock the spiral cable connector. Disconnect connectors and remove the four screws. The spiral cable can then be removed.

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## INSTALLATION

1. Set the front wheels in the straight-ahead position.
2. Make sure that the spiral cable is in the neutral position. The neutral position is detected by turning left about 2.5 revolutions from the right end position. Align the two marks (X).

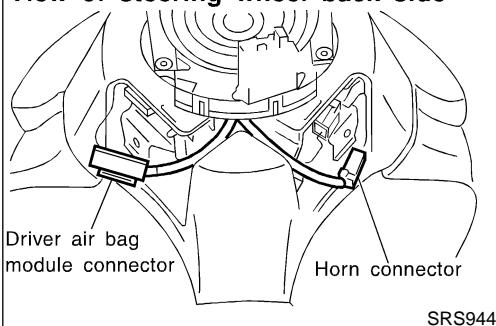
**CAUTION:**

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of driver air bag module.
- 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 number of turns. The spiral cable can be turned left about 2.5 turns from the right end position.
- 3. Connect and lock spiral cable connector and tighten with screws. Install steering column cover.

## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

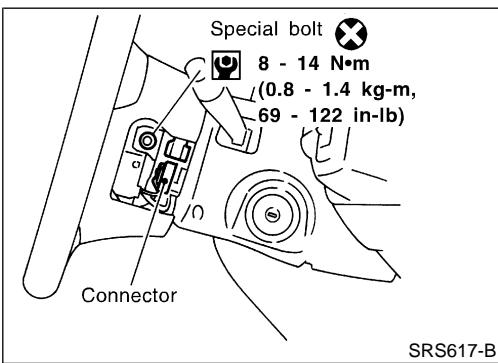
Driver Air Bag Module and Spiral Cable (Cont'd)

### View of steering wheel back side

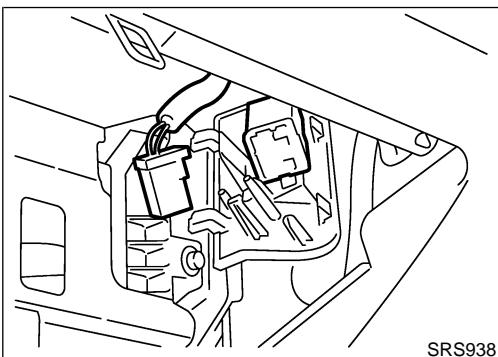


4. Install steering wheel setting spiral cable pin guide, and pull spiral cable through.
5. Connect horn connector and engage spiral cable with pawls in steering wheel.
6. Tighten nut.

: 29 - 39 N·m (3.0 - 4.0 kg·m, 22 - 29 ft-lb)



7. Position driver air bag module and install driver air bag module connector, then tighten driver air bag module with new special bolts.
8. Connect driver air bag module connector.
9. Install all lids.
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.
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 position.  
If "AIR BAG" warning lamp blinks or stays ON (at the user mode), it shows the spiral cable may be snapped due to its improper position. Perform self-diagnosis again (use CONSULT-II or warning lamp). If a malfunction is detected, replace the spiral cable with a new one.
12. Perform self-diagnosis again to make sure that no malfunction is detected.



### Front Passenger Air Bag Module

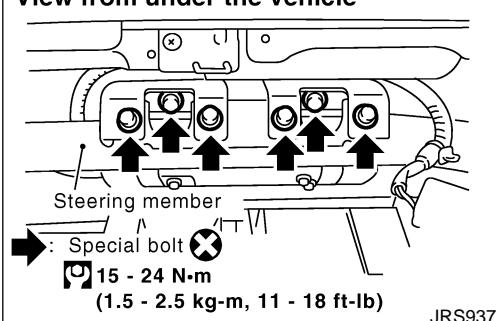
#### REMOVAL

NMRS0018

#### CAUTION:

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait for at least 3 minutes.
  - Always work from the side of or under air bag module.
1. Remove the glove box assembly.
  2. Remove the connector lid.
  3. Disconnect front passenger air bag module connector from air bag harness connector.
  4. Remove glove box assembly. Refer to BT-22, "INSTRUMENT PANEL ASSEMBLY" for details.
  5. Remove the hex bolts or special bolts using the TAMPER RESISTANT TORX (Size T50) from front passenger air bag module.  
Take out the air bag module from the instrument panel.
  - The air bag module is heavy and should be supported using both hands during removal.

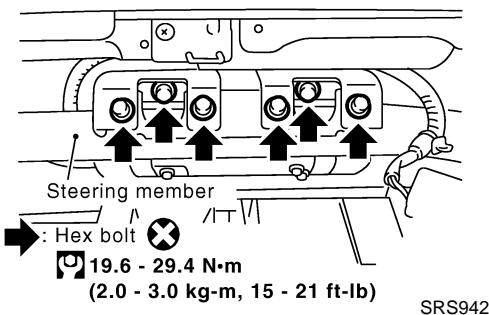
### View from under the vehicle



# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Front Passenger Air Bag Module (Cont'd)

## View from under the vehicle



## CAUTION:

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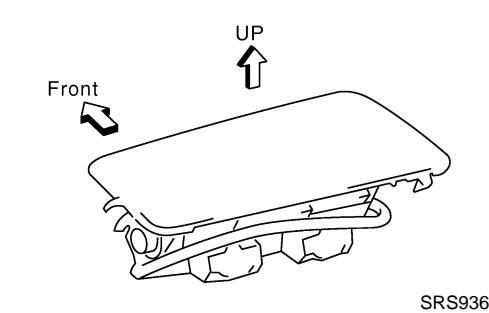
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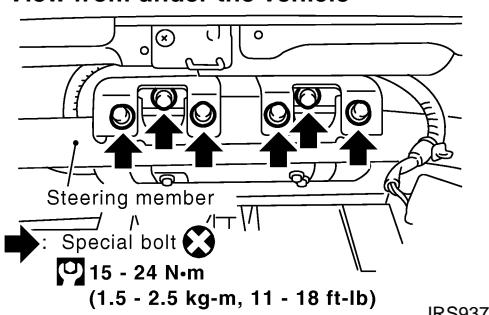
IDX

## SEC. 680



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

## View from under the vehicle



## INSTALLATION

NMRS0019

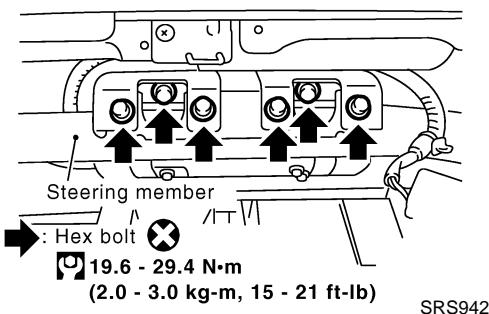
## CAUTION:

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- Always work from the side of or under air bag module.
- Install front passenger air bag module on steering member.
- Ensure harness is not caught between rear of air bag module and steering member.
- Install glove box assembly.

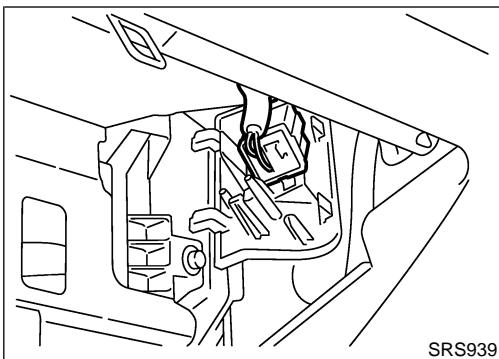
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## View from under the vehicle



# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

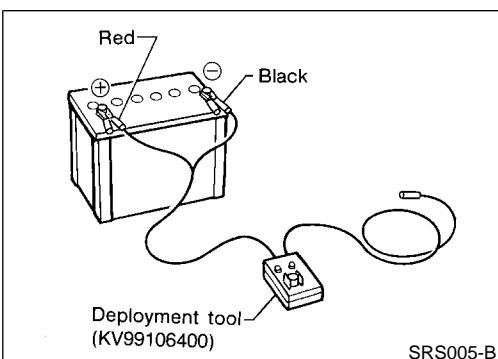
Front Passenger Air Bag Module (Cont'd)



3. Connect air bag module connector to air bag harness connector.
4. Install the connector lid.
5. Connect both battery cable.
6. Conduct self-diagnosis to ensure entire SRS operates properly. (Use CONSULT-II or warning lamp check.)

## Disposal of Air Bag Module

- Before disposing of air bag module 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" (RS-20).
- When deploying the air bag module, always use the Special Service Tool; Deployment tool KV99106400.
- When deploying the air bag module, stand at least 5 m (16 ft) away from the deployment component.
- When deploying air bag module, 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 activate one air bag module at a time.
- Due to heat, leave air bag module unattended for more than 30 minutes after deployment.
- Be sure to wear gloves when handling a deployed air bag module.
- Never apply water to the deployed air bag module.
- 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 while mounted in vehicle.
- Use a voltmeter to make sure the vehicle battery is fully charged.
- Do not dispose of the air bag module un-deployed.



## 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.

NMRS0022S01

NMRS0022S0101

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Disposal of Air Bag Module (Cont'd)

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

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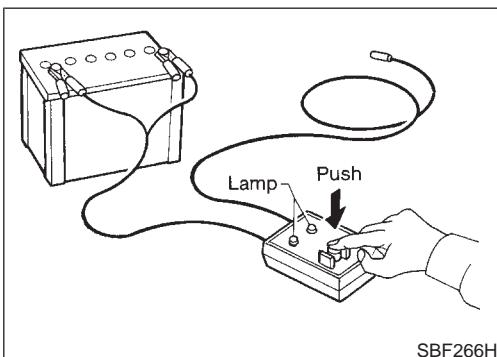
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## Deployment Tool Check

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.

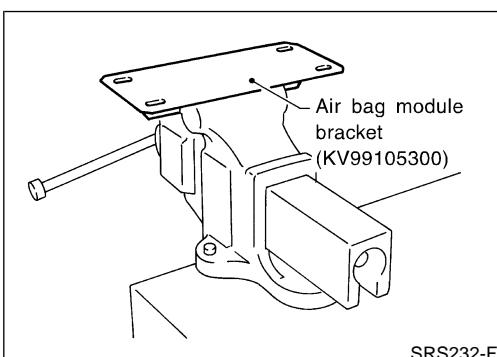
NMRS0022S0102

## Air Bag Deployment Tool Lamp Illumination Chart (Battery connected)

NMRS0022S0103

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)

NMRS0022S02

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) in a vise secured to a firm foundation during deployment.

## Deployment of Driver Air Bag Module (Outside of vehicle)

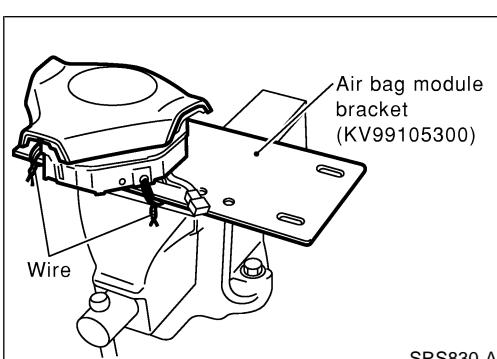
NMRS0022S0201

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

### CAUTION:

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

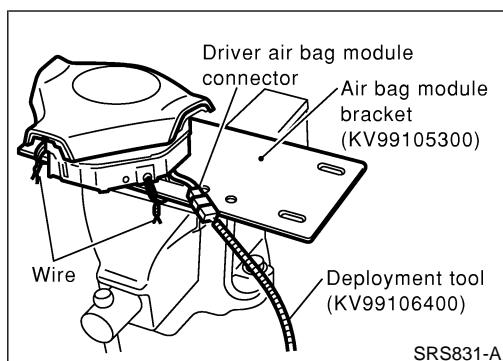
2. Firmly secure air bag module bracket (SST: KV99105300) with air bag module attached, in a vise.



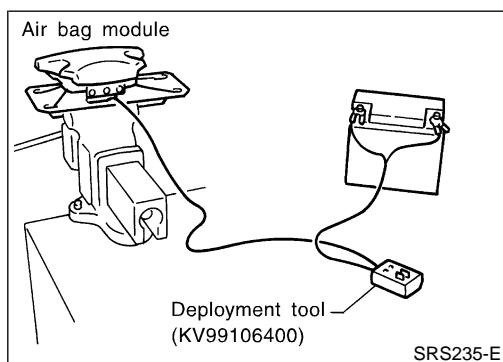
SRS830-A

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Disposal of Air Bag Module (Cont'd)



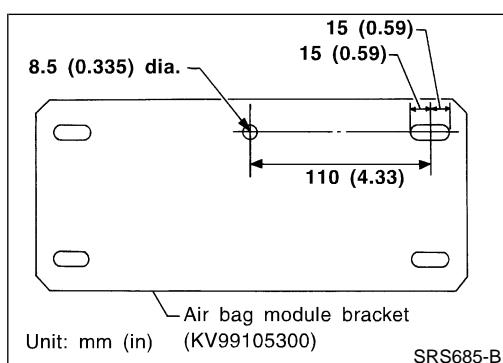
3. Connect deployment tool (SST: KV99106400) to air bag module connector.



4. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
5. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.
6. Press the button on the deployment tool. The left side lamp on the tool, marked "air bag connector voltage", will illuminate and the air bag module will deploy.

**CAUTION:**

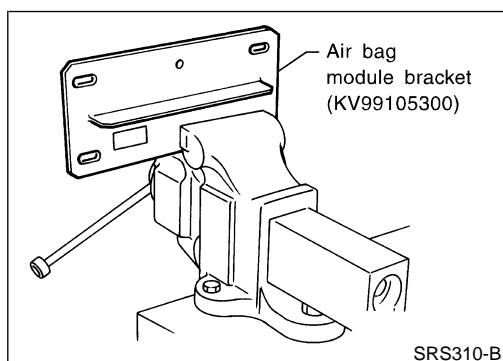
When deploying the air bag module, stand at least 5 m (16 ft) away from the air bag module.



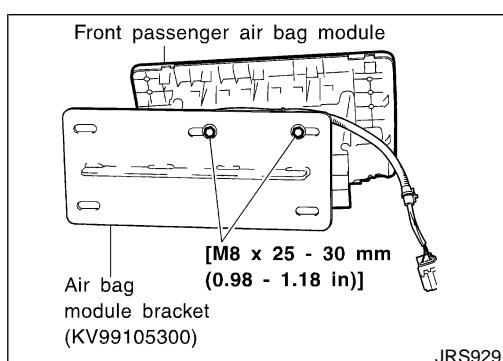
## Deployment of Passenger Air Bag Module (Outside of vehicle)

NMRS0022S0202

1. Make an 8.5 mm (0.335 in) diameter hole in air bag module bracket (SST: KV99105300) at the position shown in figure at left.



2. Firmly secure air bag module bracket (SST: KV99105300) in a vise.



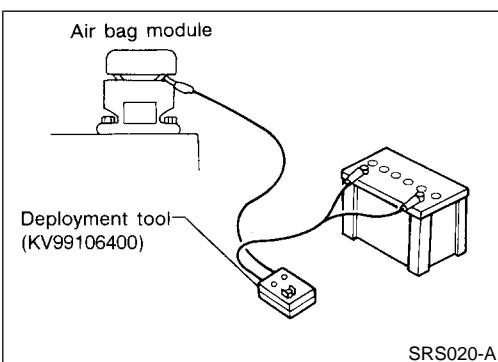
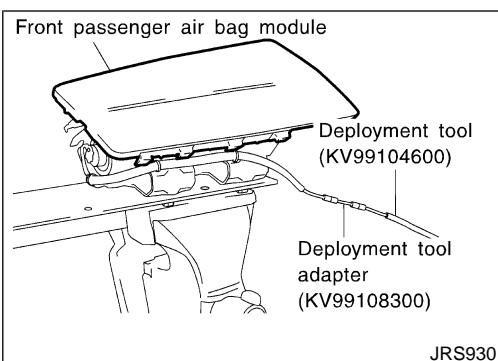
3. Match the two holes in air bag module bracket (held in vise) and passenger air bag module and fix them with two bolts [M8 x 25 - 30 mm (0.98 - 1.18 in)].

**CAUTION:**

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

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Disposal of Air Bag Module (Cont'd)



4. Connect deployment tool adapter (SST: KV99108300) to deployment tool (SST: KV99106400) connector and air bag module connector.
5. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
6. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.
7. Press the button on the deployment tool. The left side lamp on the tool, marked "air bag connector voltage", will illuminate and the air bag module will deploy.

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## CAUTION:

- When deploying the air bag module, do not stand on the deploying side.
- Stand at least 5 m (16 ft) away from the air bag module.

## DEPLOYMENT OF AIR BAG MODULE WHILE MOUNTED IN VEHICLE

NMRS0022S03

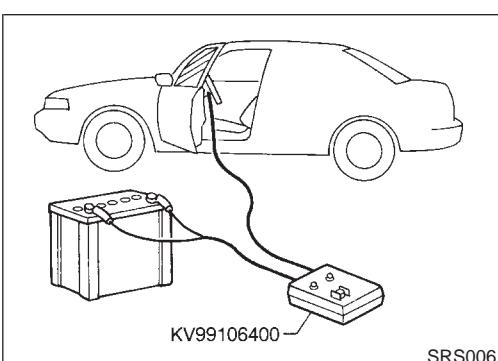
When disposing of a vehicle, deploy air bag module while they are mounted in vehicle.

## CAUTION:

When deploying air bag module ensure vehicle is empty.

1. Disconnect both the vehicle battery cables and wait 3 minutes.
2. Disconnect air bag module connector.
3. Connect deployment tool (SST: KV99106400) to air bag module.

For front passenger air bag module, attach deployment tool adapter (SST: KV99108300) to the tool connector.



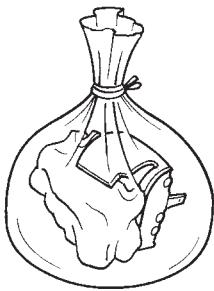
4. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
5. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.
6. Press the button on the deployment tool. The left side lamp on the tool, marked "air bag connector voltage", will illuminate and the air bag module will deploy.

## CAUTION:

Activate only one air bag module at a time.

## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Disposal of Air Bag Module (Cont'd)



SBF276H

### DISPOSING OF AIR BAG MODULE

Deployed air bag module is very hot. Before disposing of air bag module, wait at least 30 minutes, respectively. Seal them in a plastic bag before disposal. NMRS0022S04

#### CAUTION:

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

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Trouble Diagnoses Introduction

## Trouble Diagnoses Introduction

=NMRS0023

### CAUTION:

- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified with yellow harness connector.
- 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.

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### 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	X	X	ON-OFF operation
CONSULT-II	—	X	Monitoring

### DIAGNOSIS MODE FOR CONSULT-II

#### • "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]"

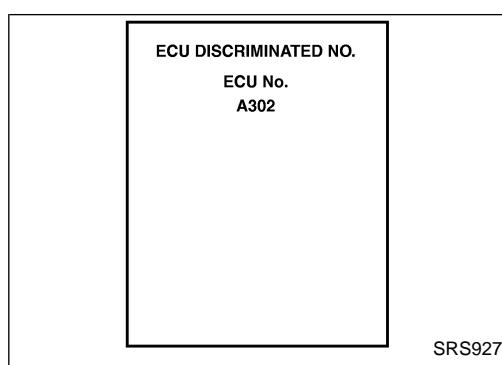
Diagnosis results previously stored in the memory are displayed on the CONSULT-II screen. The stored results are not erased until memory erasing is executed.

#### • "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 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 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.



For NISSAN MODEL S15, the diagnosis sensor unit classification number assigned is A302.

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Trouble Diagnoses Introduction (Cont'd)

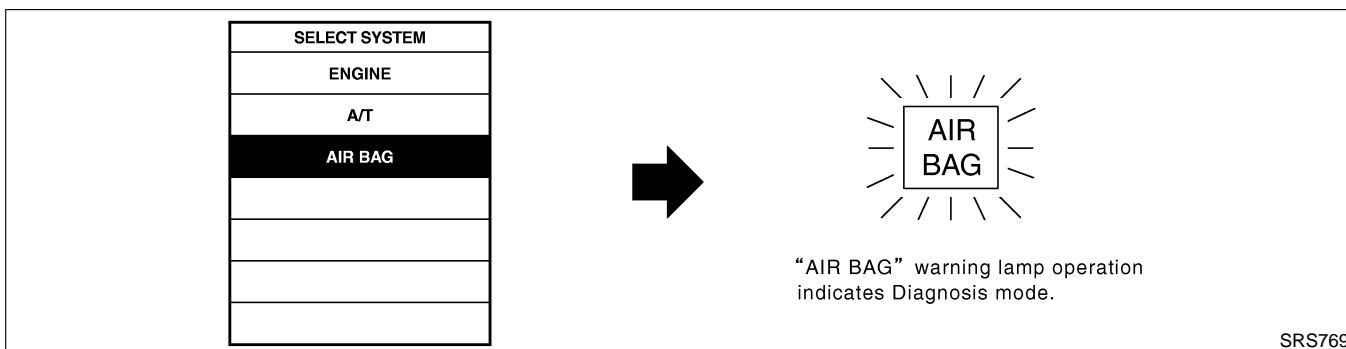
## ④ HOW TO CHANGE SELF-DIAGNOSIS MODE WITH CONSULT-II

=NMRS0023S03

### From User Mode to Diagnosis Mode

NMRS0023S0301

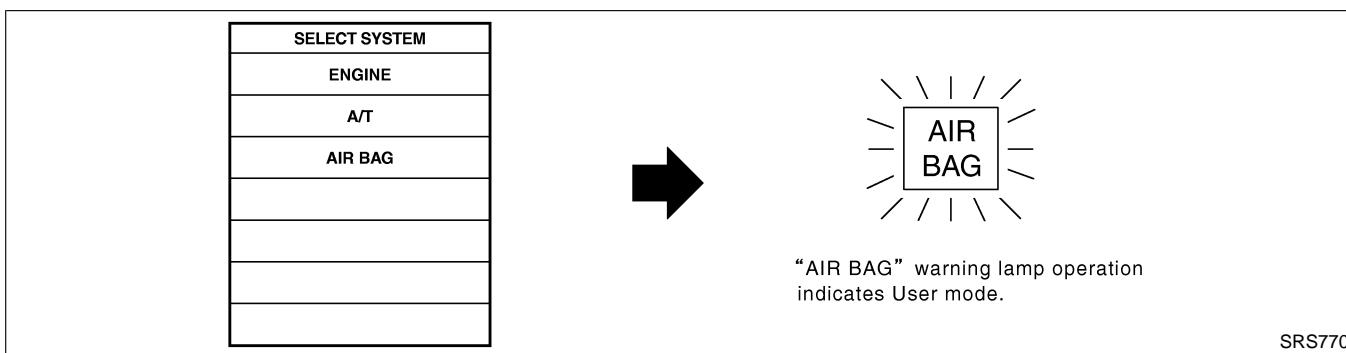
After selecting "AIR BAG" on the "SELECT SYSTEM" screen, User mode automatically changes to Diagnosis mode.



### From Diagnosis Mode to User Mode

NMRS0023S0302

To return to User mode from Diagnosis mode, touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears, Diagnosis mode automatically changes to User mode.



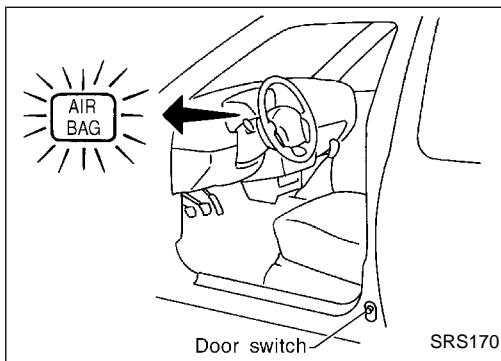
## ⓧ HOW TO CHANGE SELF-DIAGNOSIS MODE WITHOUT CONSULT-II

NMRS0023S04

### From User Mode to Diagnosis Mode

NMRS0023S0401

Diagnosis mode activates only when a malfunction is detected, by pressing the driver's door switch at least 5 times within 7 seconds after turning the ignition "ON". SRS will not enter Diagnosis mode, if no malfunction is detected.



### From Diagnosis Mode to User Mode

NMRS0023S0402

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, switch the ignition "OFF", then back "ON" and press the driver's door switch at least 5 times within 7 seconds.

## HOW TO ERASE SELF-DIAGNOSIS RESULTS

NMRS0023S05

### ⑤ With CONSULT-II

NMRS0023S0501

- "SELF-DIAG [CURRENT]"

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Trouble Diagnoses Introduction (Cont'd)

A current Self-diagnosis result is displayed on the CONSULT-II screen in real time.

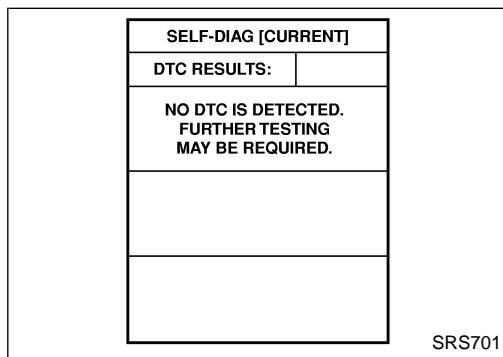
After the malfunction is repaired completely, no malfunction is detected on "SELF-DIAG [CURRENT]".

- "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 warning lamp even if the malfunction is repaired completely.



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- "TROUBLE DIAG RECORD"

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

**Without CONSULT-II**

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

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# **SUPPLEMENTAL RESTRAINT SYSTEM (SRS)**

*How to Perform Trouble Diagnoses for Quick and Accurate Repair*

## **How to Perform Trouble Diagnoses for Quick and Accurate Repair**

=NMRS0024

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**

NMRS0024S01

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-3, "BATTERY".]
- Fuse [Refer to EL-14, "Fuse", "POWER SUPPLY ROUTING".]
- System component-to-harness connections

NMRS0024S02

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

How to Perform Trouble Diagnoses for Quick and Accurate Repair (Cont'd)

## WORK FLOW

NMRS0024S03

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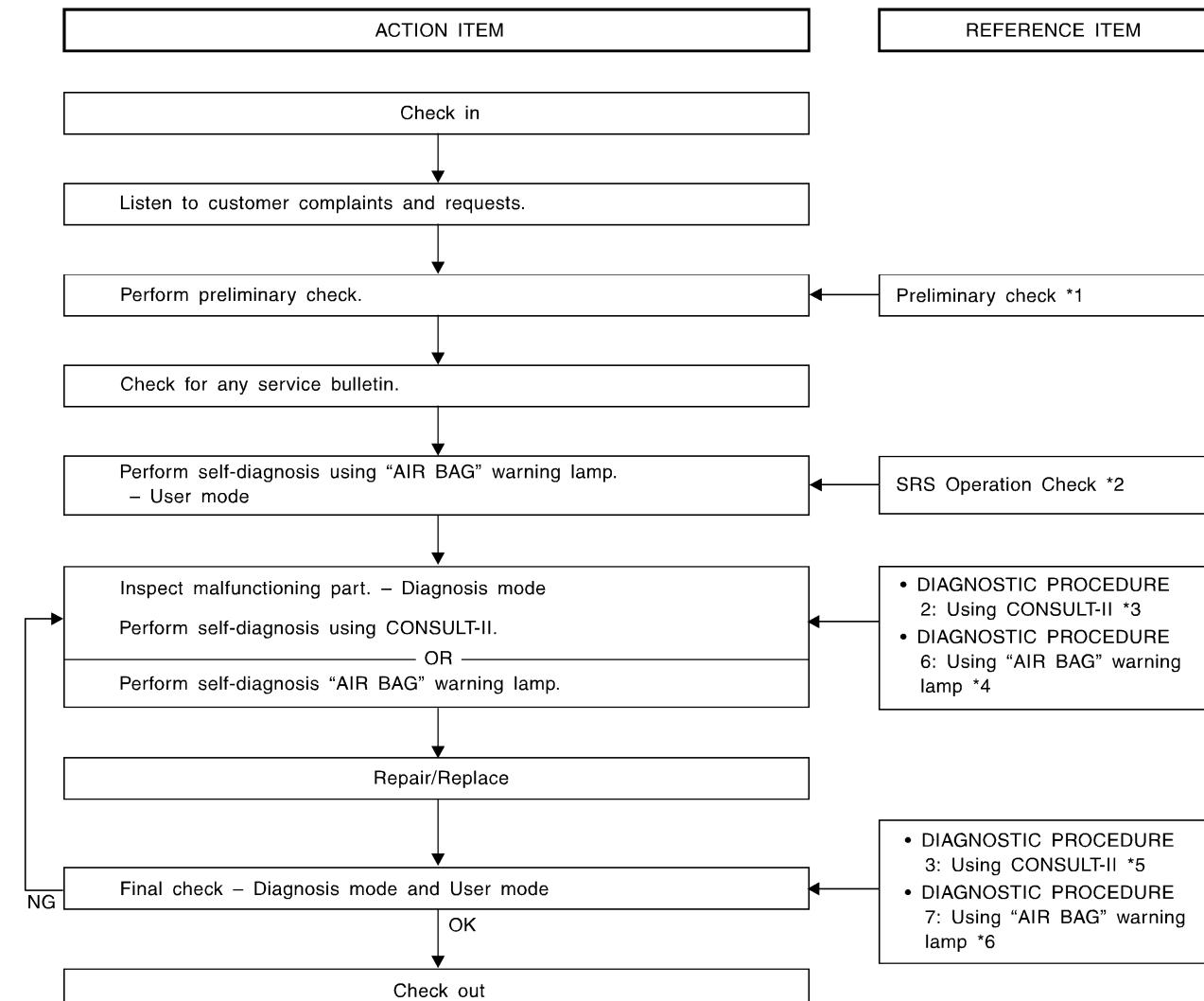
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\*1: RS-24

\*2: RS-28

\*3: RS-29

\*4: RS-36

\*5: RS-31

\*6: RS-38

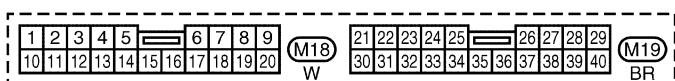
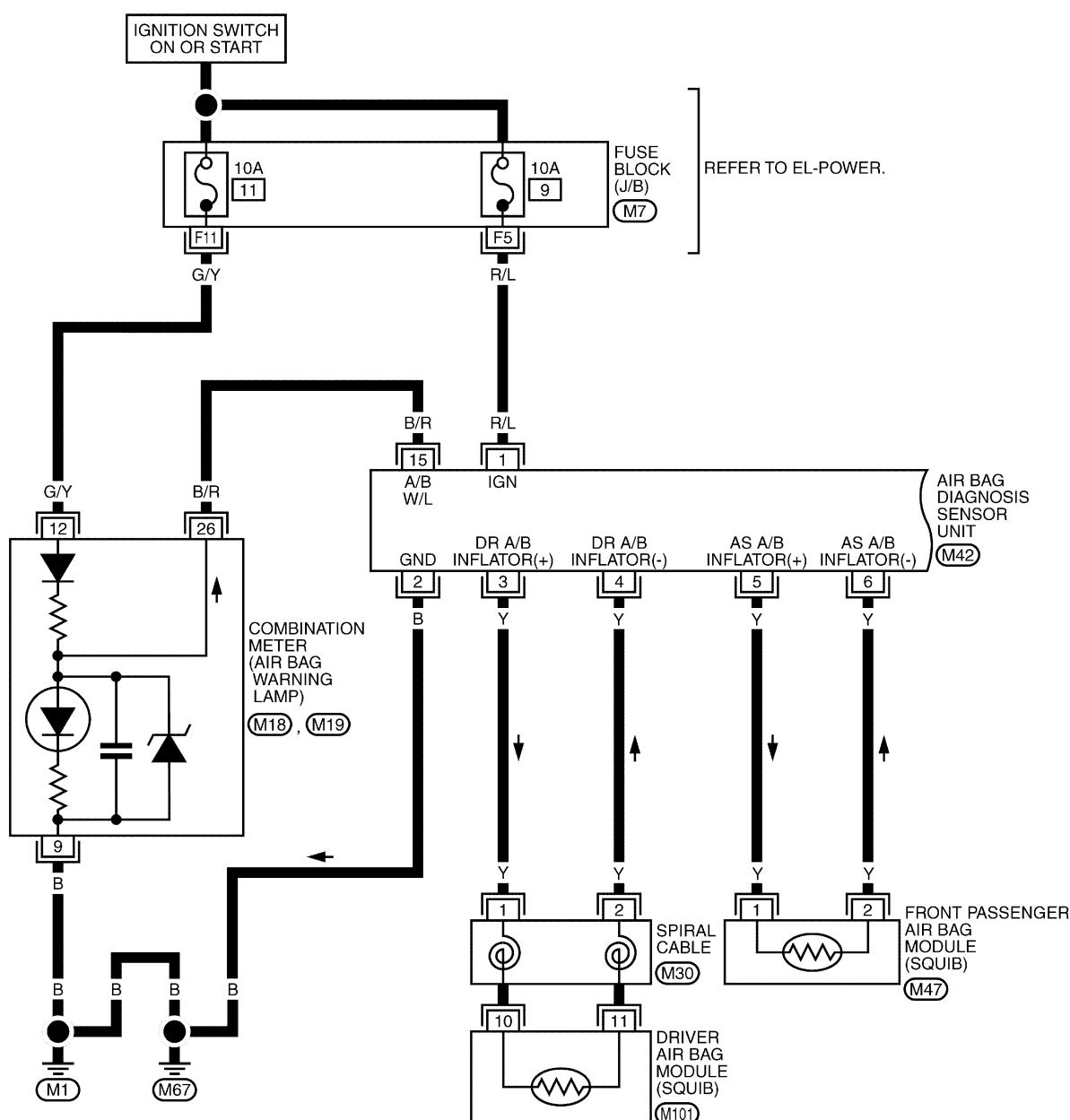
# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Wiring Diagram — SRS —

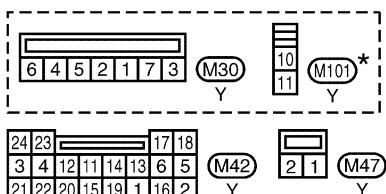
## Wiring Diagram — SRS —

NMRS0026

RS-SRS-01



REFER TO THE FOLLOWING.  
(M7) -FUSE BLOCK-JUNCTION BOX (J/B)

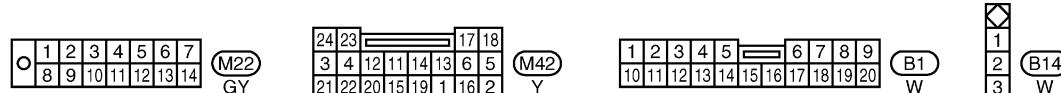
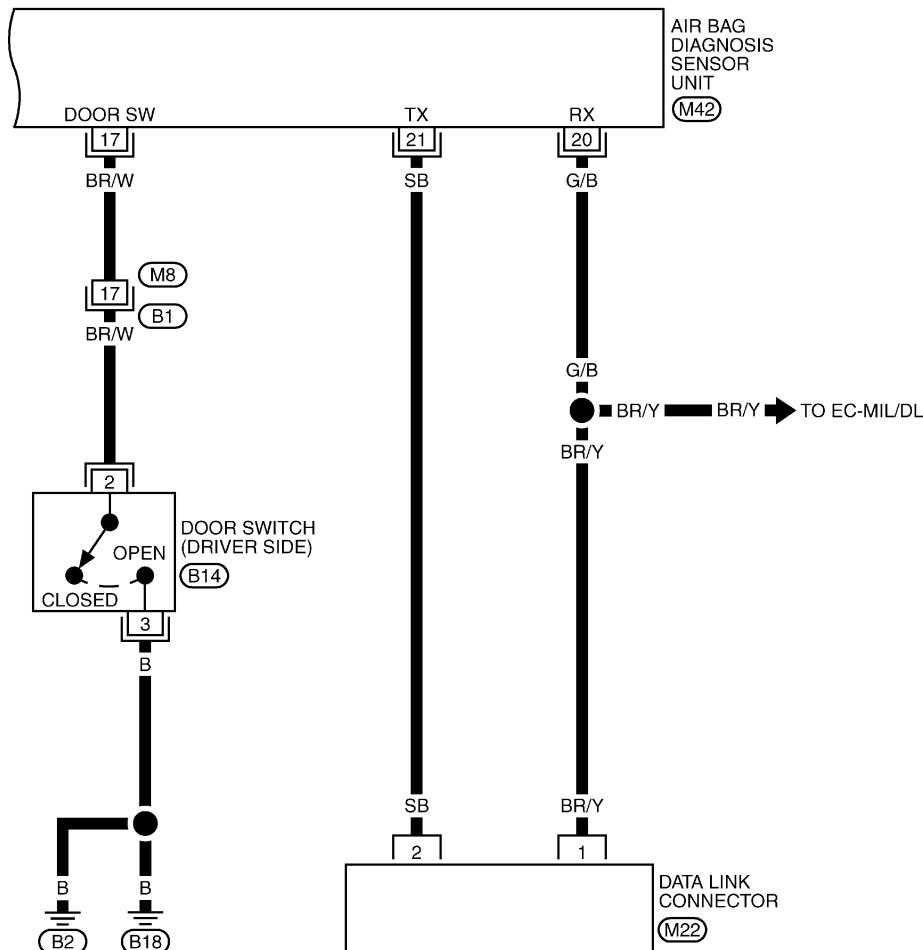


\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", EL SECTION.

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

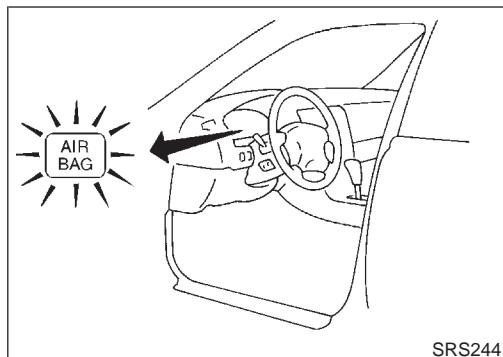
Wiring Diagram — SRS — (Cont'd)

RS-SRS-02



# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

## SRS Operation Check



### SRS Operation Check

#### DIAGNOSTIC PROCEDURE 1

NMRS0027

#### Checking Air Bag Operation by Using "AIR BAG" Warning Lamp — User Mode

NMRS0027S01

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

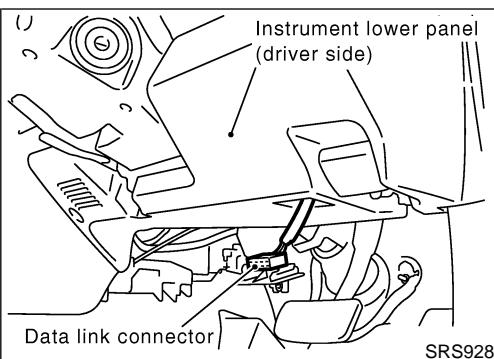
"AIR BAG" warning lamp operation — User mode —	SRS condition	Reference item
 IGN ON ON OFF      7 sec. MRS095A	No malfunction is detected. No further action is necessary.	—
 IGN ON ON OFF      0.5 sec.      0.5 sec. MRS096A	The system is malfunctioning and needs to be repaired as indicated.	Go to DIAGNOSTIC PROCEDURE 2 or 6 (RS-29 or RS-36).
 IGN ON ON OFF MRS097A	Air bag is deployed.  Air bag fuse, diagnosis sensor unit or harness is malfunctioning and needs to be repaired.	Go to COLLISION DIAGNOSIS (RS-46).  Go to DIAGNOSTIC PROCEDURE 9 (RS-41).
 IGN ON ON OFF MRS098A	One of the following has occurred and needs to be repaired. <ul style="list-style-type: none"> <li>● Meter fuse is blown.</li> <li>● "AIR BAG" warning lamp circuit has open or short.</li> <li>● Diagnosis sensor unit is malfunctioning.</li> </ul>	Go to DIAGNOSTIC PROCEDURE 10 (RS-43).

#### NOTE:

If "AIR BAG" warning lamp operates differently from the operations shown above, refer to "AIR BAG" warning lamp operation — Diagnosis mode —, DIAGNOSTIC PROCEDURE 6 (step 4), RS-36.

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses with CONSULT-II



## Trouble Diagnoses with CONSULT-II

### DIAGNOSTIC PROCEDURE 2

=NMRS0028

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

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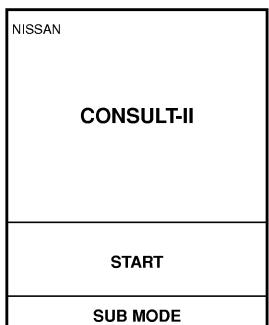
1. Turn ignition switch "OFF".

2. Connect CONSULT-II to data link connector.

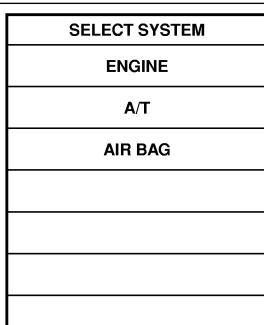
3. Turn ignition switch "ON".

4. Touch "START".

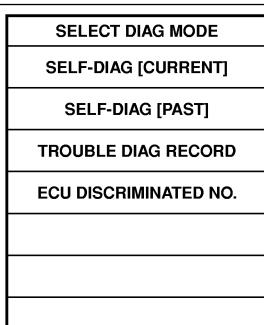
5. Touch "AIR BAG".



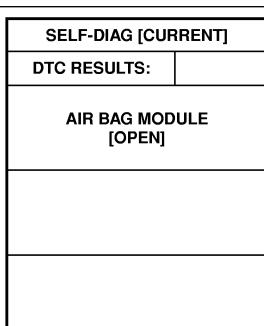
SRS695



SRS771



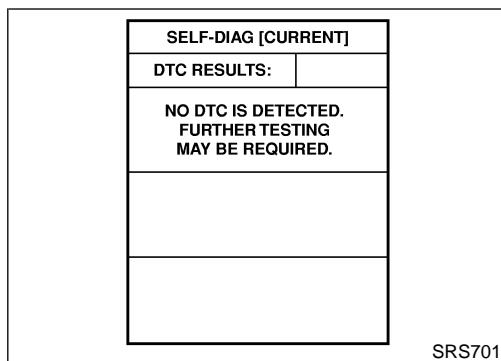
SRS697



SRS772

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses with CONSULT-II (Cont'd)



If no malfunction is detected on "SELF-DIAG [CURRENT]" but malfunction is indicated by the "AIR BAG" warning lamp, go to DIAGNOSTIC PROCEDURE 4, page RS-33 to diagnose the following situations:

- Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair.
- The SRS system malfunctions intermittently.

8. Touch "PRINT".
9. Compare diagnostic codes to "CONSULT-II Diagnostic Code Chart", page RS-30.
10. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears in order to return to User mode from Diagnosis mode.
11. Turn ignition switch "OFF", then turn off and disconnect CONSULT-II, and disconnect both battery cables.
12. Repair the system as outlined by the "Repair order" in "CONSULT-II Diagnostic Code Chart", that corresponds to the self-diagnostic result. For replacement procedure of component parts, refer to RS-10.
13. After repairing the system, go to DIAGNOSTIC PROCEDURE 3, page RS-31 for final checking.

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

NMRS0028S0101

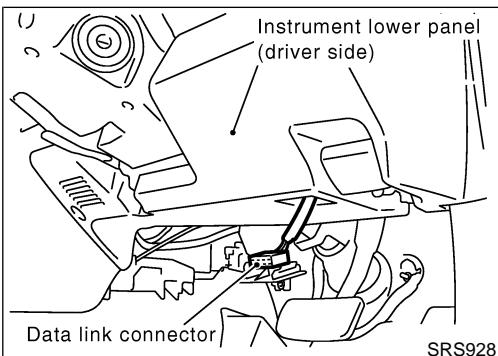
Diagnostic item	Explanation		Repair order "Recheck SRS at each replacement."
NO DTC IS DETECTED.	When malfunction is indicated by the "AIR BAG" warning lamp in User mode	<ul style="list-style-type: none"> <li>● Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair.</li> <li>● Intermittent malfunction has been detected in the past.</li> </ul>	<ul style="list-style-type: none"> <li>● Go to DIAGNOSTIC PROCEDURE 4 (RS-33).</li> </ul>
		<ul style="list-style-type: none"> <li>● No malfunction is detected.</li> </ul>	<ul style="list-style-type: none"> <li>● Go to DIAGNOSTIC PROCEDURE 3 (RS-31).</li> </ul>
AIRBAG MODULE [OPEN]		<ul style="list-style-type: none"> <li>● Driver air bag module circuit is open. (including the spiral cable)</li> </ul>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace driver air bag module. (Before disposal of it, it must be deployed.)</li> <li>4. Replace the spiral cable.</li> <li>5. Replace the diagnosis sensor unit.</li> <li>6. Replace the related harness.</li> </ol>
AIRBAG MODULE [VB-SHORT]		<ul style="list-style-type: none"> <li>● Driver air bag module circuit is shorted to some power supply circuit. (including the spiral cable)</li> </ul>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace the spiral cable.</li> <li>4. Replace driver air bag module. (Before disposal of it, it must be deployed.)</li> <li>5. Replace the diagnosis sensor unit.</li> <li>6. Replace the related harness.</li> </ol>
AIRBAG MODULE [GND-SHORT]		<ul style="list-style-type: none"> <li>● Driver air bag module circuit is shorted to ground. (including the spiral cable)</li> </ul>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace the spiral cable.</li> <li>4. Replace driver air bag module. (Before disposal of it, it must be deployed.)</li> <li>5. Replace the diagnosis sensor unit.</li> <li>6. Replace the related harness.</li> </ol>
AIRBAG MODULE [SHORT]		<ul style="list-style-type: none"> <li>● Driver air bag module circuits are shorted to each other.</li> </ul>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace the spiral cable.</li> <li>4. Replace driver air bag module. (Before disposal of it, it must be deployed.)</li> <li>5. Replace the diagnosis sensor unit.</li> <li>6. Replace the related harness.</li> </ol>

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses with CONSULT-II (Cont'd)

Diagnostic item	Explanation	Repair order “Recheck SRS at each replacement.”
ASSIST A/B MODULE [VB-SHORT]	• Front passenger air bag module circuit is shorted to some power supply circuit.	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace front passenger air bag module. (Before disposal of it, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
ASSIST A/B MODULE [OPEN]	• Front passenger air bag module circuit is open.	
ASSIST A/B MODULE [GND-SHORT]	• Front passenger air bag module circuit is shorted to ground.	
ASSIST A/B MODULE [SHORT]	• Front passenger air bag module circuits are shorted to each other.	
CONTROL UNIT	• Diagnosis sensor unit is malfunctioning.	1. Visually check the wiring harness connection. 2. Replace the diagnosis sensor unit.
	• Low battery voltage (Less than 9V)	• Go to DIAGNOSTIC PROCEDURE 3 (RS-31) after charging battery.

\* Follow the procedures in numerical order when repairing malfunctioning parts. Confirm whether malfunction is eliminated using the air bag warning lamp 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.

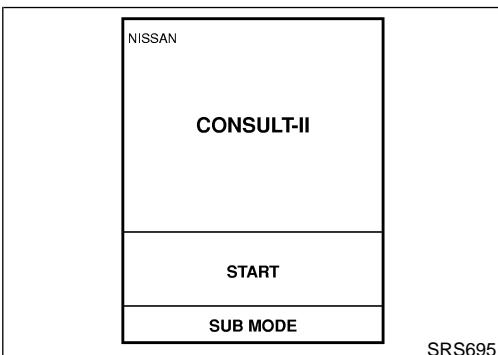


## DIAGNOSTIC PROCEDURE 3

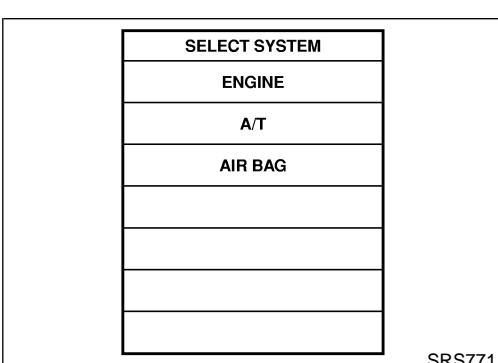
NMRS0028S02  
Final checking after repairing SRS by using CONSULT-II — Diagnosis mode

1. After repairing SRS, connect both battery cables.
2. Connect CONSULT-II to Data link connector.
3. Turn ignition switch from “OFF” to “ON”.

4. Touch “START”.



5. Touch “AIR BAG”.



## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses with CONSULT-II (Cont'd)

SELECT DIAG MODE
SELF-DIAG [CURRENT]
SELF-DIAG [PAST]
TROUBLE DIAG RECORD
ECU DISCRIMINATED NO.

SRS697

6. Touch "SELF-DIAG [CURRENT]".

SELF-DIAG [CURRENT]
DTC RESULTS:
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.

SRS701

7. If no malfunction is detected on "SELF-DIAG [CURRENT]", repair of SRS is completed. Go to step 8.

If any malfunction is displayed on "SELF-DIAG [CURRENT]", the malfunctioning part is not repaired completely or another malfunctioning part is detected. Go to DIAGNOSTIC PROCEDURE 2, page RS-29, and repair malfunctioning part completely.

SELF-DIAG [CURRENT]
DTC RESULTS:
AIR BAG MODULE [OPEN]

SRS772

8. Touch "ERASE".

**NOTE:**

Touch "ERASE" to clear the memory of the malfunction ("SELF-DIAG [PAST]").

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 warning lamp even if the malfunction is repaired completely.

SELECT DIAG MODE
SELF-DIAG [CURRENT]
SELF-DIAG [PAST]
TROUBLE DIAG RECORD
ECU DISCRIMINATED NO.

SRS697

9. Touch "BACK" key of CONSULT-II to "SELECT SYSTEM" screen. Touch "SELF-DIAG [PAST]".

SELF-DIAG [PAST]
DTC RESULTS:
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.

SRS702

10. Check that no malfunction is detected on "SELF-DIAG [PAST]".

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 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.
12. Turn ignition switch "OFF", then turn off and disconnect CONSULT-II.
13. Go to "SRS Operation Check", page RS-28 to check SRS operation by using "AIR BAG" warning lamp with User mode.

GI

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## DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)

NMRS0028S03

### Inspecting SRS malfunctioning record

1	CONSIDER POSSIBILITY OF NOT ERASING SELF-DIAGNOSTIC RESULT AFTER REPAIRING	
Is it the first time for maintenance of SRS?		
Yes	►	Go to DIAGNOSTIC PROCEDURE 5 (RS-33).
No	►	Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair. Go to DIAGNOSTIC PROCEDURE 3, step 8 (RS-31).

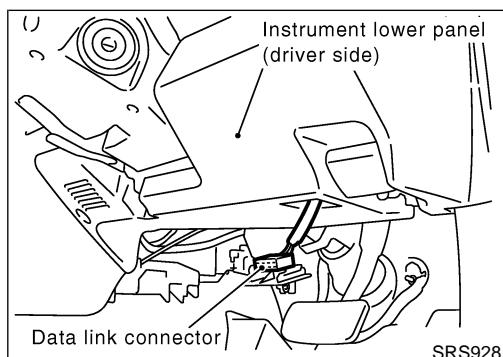
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## DIAGNOSTIC PROCEDURE 5

NMRS0028S04

AT

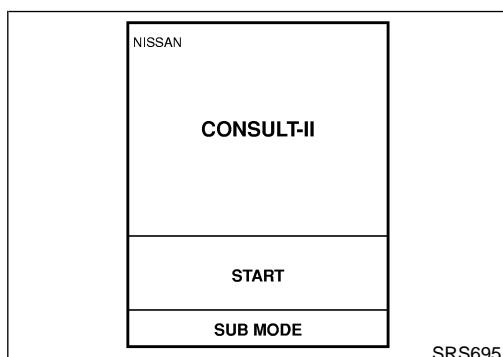
### Inspecting SRS intermittent malfunction by using CONSULT-II — Diagnosis mode

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

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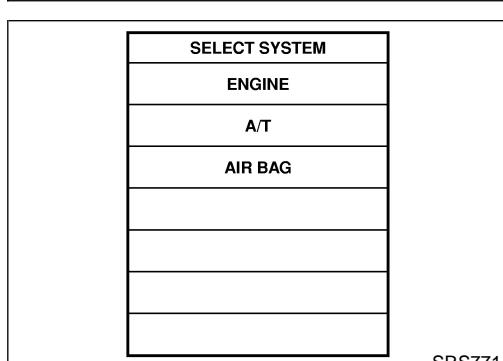


3. Turn ignition switch "ON".
4. Touch "START".

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5. Touch "AIR BAG".

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## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses with CONSULT-II (Cont'd)

SELECT DIAG MODE
SELF-DIAG [CURRENT]
SELF-DIAG [PAST]
TROUBLE DIAG RECORD
ECU DISCRIMINATED NO.

SRS697

6. Touch "SELF-DIAG [PAST]".

SELF-DIAG [PAST]
DTC RESULTS:
AIR BAG MODULE [OPEN]

SRS700

7. If diagnostic codes are displayed on "SELF-DIAG [PAST]", go to step 10.

SELF-DIAG [PAST]
DTC RESULTS:
NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED.

SRS702

If no malfunction is detected on "SELF-DIAG [PAST]", touch "BACK" and go back to "SELECT DIAG MODE".

SELECT DIAG MODE
SELF-DIAG [CURRENT]
SELF-DIAG [PAST]
TROUBLE DIAG RECORD
ECU DISCRIMINATED NO.

SRS697

8. Touch "TROUBLE DIAG RECORD".

**NOTE:**

With "TROUBLE DIAG RECORD", diagnosis results previously erased by a reset operation can be displayed.

TROUBLE DIAG RECORD
DTC RESULTS:
AIR BAG MODULE [OPEN]

SRS704

9. Diagnostic code is displayed on "TROUBLE DIAG RECORD".

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses with CONSULT-II (Cont'd)

10. Touch "PRINT".
11. Compare diagnostic codes to "Intermittent Malfunction Diagnostic Code Chart", page RS-35.
12. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears.
13. Turn ignition switch "OFF", then turn off and disconnect CONSULT-II, and disconnect both battery cables.
14. Repair the system as outlined by the "Repair order" in "Intermittent Malfunction Diagnostic Code Chart", that corresponds to the self-diagnostic result. For replacement procedure of component parts, refer to RS-10.
15. Go to DIAGNOSTIC PROCEDURE 3, page RS-31, for final checking.

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

NMRS0028S0401

Diagnostic item	Explanation	Repair order
NO DTC IS DETECTED.	● No malfunction is detected.	● Go to DIAGNOSTIC PROCEDURE 3 (RS-31).
AIRBAG MODULE [OPEN]	● Driver air bag module circuit is open. (including the spiral cable)	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage.
AIRBAG MODULE [VB-SHORT]	● Driver air bag module circuit is shorted to some power supply circuit. (including the spiral cable)	3. If the harness check result is OK, replace driver air bag module (Before disposal of it, it must be deployed.), diagnosis sensor unit and spiral cable.
AIRBAG MODULE [GND-SHORT]	● Driver air bag module circuit is shorted to ground. (including the spiral cable)	
AIRBAG MODULE [SHORT]	● Driver air bag module circuits are shorted to each other.	
ASSIST A/B MODULE [VB-SHORT]	● Front passenger air bag module circuit is shorted to some power supply circuit.	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage.
ASSIST A/B MODULE [OPEN]	● Front passenger air bag module circuit is open.	3. If the harness check result is OK, replace front air bag module (Before disposal of it, it must be deployed.), and diagnosis sensor unit.
ASSIST A/B MODULE [GND-SHORT]	● Front passenger air bag module circuit is shorted to ground.	
ASSIST A/B MODULE [SHORT]	● Front passenger air bag module circuits are shorted to each other.	
CONTROL UNIT	● Diagnosis sensor unit is malfunctioning.	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. If the harness check is OK, replace the diagnosis sensor unit.

\* Follow the procedures in numerical order when repairing malfunctioning parts, then make the final system check.

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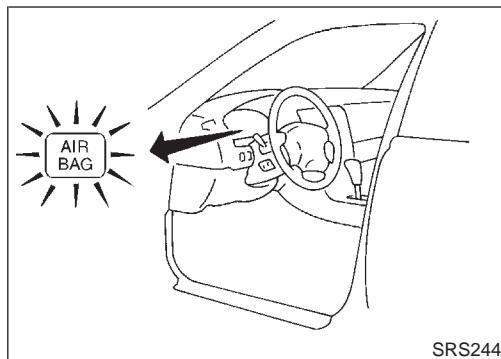
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# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses without CONSULT-II



## Trouble Diagnoses without CONSULT-II

=NMRS0029

### DIAGNOSTIC PROCEDURE 6

=NMRS0029S01

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

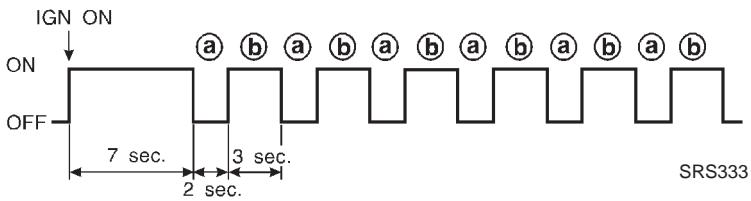
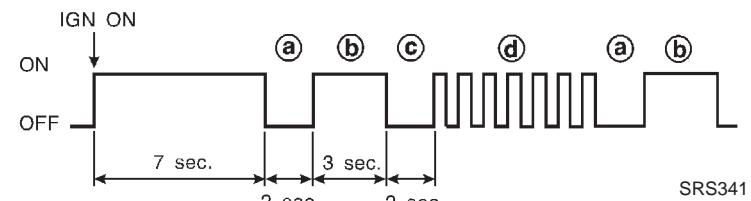
##### NOTE:

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

1. Open driver's door.
2. Turn ignition switch from "OFF" to "ON".
3. Press driver's door switch at least 5 times within 7 seconds after turning ignition switch "ON".  
SRS is now in Diagnosis mode.
4. "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, go to DIAGNOSTIC PROCEDURE 11, page RS-44.

No.	"AIR BAG" warning lamp flash pattern — Diagnosis mode —	SRS condition
1		<p><b>a</b> through <b>b</b> are repeated.</p> <ul style="list-style-type: none"> <li>● Diagnosis results (previously stored in the memory) might not be erased after repair.</li> <li>● Intermittent malfunction has been detected in the past. Go to DIAGNOSTIC PROCEDURE 8 (RS-40).</li> </ul>
2		<p><b>a</b> through <b>d</b> are repeated.</p> <p><b>b</b> — Driver and passenger air bag marker (For identifying driver and/or passenger air bag malfunctioning)</p> <p><b>d</b> — Indicates malfunctioning part. The number of flash varies with malfunctioning part (0.5 sec. ON and 0.5 sec. OFF is counted as one flash.)</p> <p>The system is malfunctioning and needs to be repaired.</p>

5. Malfunctioning part is indicated by the number of flashes (part **d**). Compare the number of flashes to "Air Bag Warning Lamp Flash Code Chart", page RS-37, and locate malfunctioning part.
6. Turn ignition switch "OFF", and disconnect both battery cables.
7. Repair the system as outlined by the "Repair order" in "Warning Lamp Flash Code Chart" that corresponds to the flash code. For replacement procedure of component parts, refer to RS-10.
8. After repairing the system, go to DIAGNOSTIC PROCEDURE 7, page RS-38.

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Trouble Diagnoses without CONSULT-II (Cont'd)

## Air Bag Warning Lamp Flash Code Chart (Diagnosis mode)

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- Diagnosis results (previously stored in the memory) might not be erased after repair.
- Intermittent malfunction has been detected in the past.

	Flash pattern	
		<b>a</b> through <b>b</b> are repeated.  SRS333
	Repair order	<ul style="list-style-type: none"> <li>• Go to DIAGNOSTIC PROCEDURE 8 (RS-40).</li> </ul>

The driver air bag module circuit is malfunctioning.  
(d: 2 flashes)

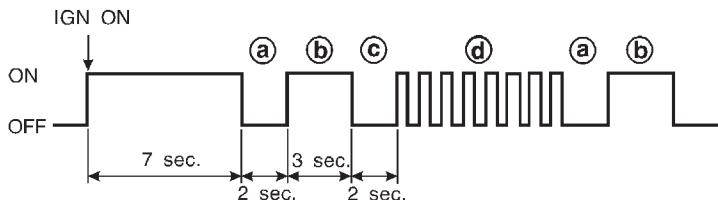
	Flash pattern	
		<b>a</b> through <b>d</b> are repeated. <b>d</b> — Two flashes indicate malfunctioning driver air bag module circuit.
	Repair order ("Recheck SRS at each replacement.")	<ul style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace the spiral cable.</li> <li>4. Replace driver air bag module. (Before disposal, it must be deployed.)</li> <li>5. Replace the diagnosis sensor unit.</li> <li>6. Replace the related harness.</li> </ul>

The diagnosis sensor unit is malfunctioning.  
(d: 7 flashes)

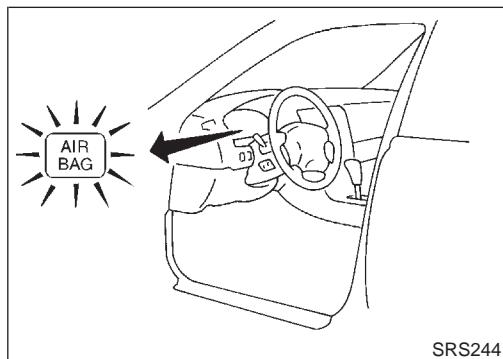
	Flash pattern	
		<b>a</b> through <b>d</b> are repeated. <b>d</b> — Seven flashes indicate malfunctioning diagnosis sensor unit.
	Repair order ("Recheck SRS at each replacement.")	<ul style="list-style-type: none"> <li>1. Visually check the wiring harness connections.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace the diagnosis sensor unit.</li> <li>4. Replace the related harness.</li> </ul>

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses without CONSULT-II (Cont'd)

	Flash pattern	
The front passenger air bag module circuit is malfunctioning. (d: 8 flashes)		<b>a</b> through <b>d</b> are repeated. <b>d</b> — Eight flashes indicate malfunctioning front passenger air bag module circuit.
	Repair order ("Recheck SRS at each replacement.")	
	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace front passenger air bag module. (Before disposal, it must be deployed.)</li> <li>4. Replace the diagnosis sensor unit.</li> <li>5. Replace the related harness.</li> </ol>	

\* Follow the procedures in numerical order when repairing malfunctioning parts. Confirm whether malfunction is eliminated using the air bag warning lamp 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.

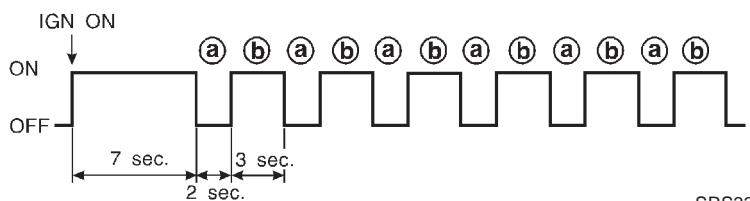
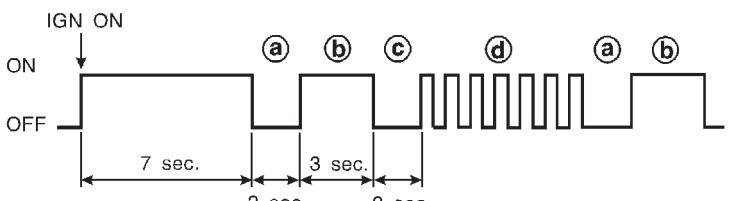


## DIAGNOSTIC PROCEDURE 7

NMRS0029S02

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 driver's door.
3. Turn ignition switch from "OFF" to "ON".
4. "AIR BAG" warning lamp operates in Diagnosis mode as follows:

No.	"AIR BAG" warning lamp flash pattern — Diagnosis mode —	SRS condition
1		<b>a</b> through <b>b</b> are repeated. No malfunction is detected or repair is completed. No further action is necessary.
2		<b>a</b> through <b>d</b> are repeated. <b>b</b> — Driver and passenger air bag marker (For identifying driver and/or passenger air bag malfunctioning) <b>d</b> — Indicates malfunctioning part. The number of flashes varies with malfunctioning part (0.5 sec. ON and 0.5 sec. OFF is counted as one flash.)

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses without CONSULT-II (Cont'd)

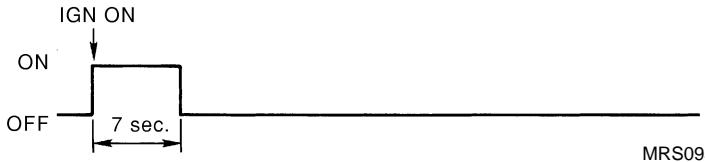
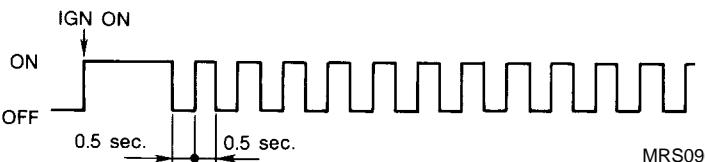
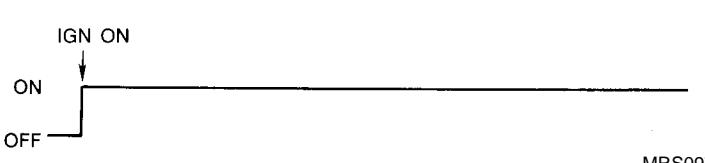
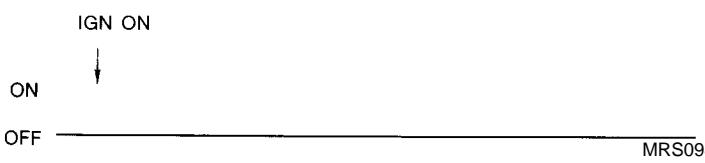
## NOTE:

When 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 or No. 3 in chart above, the malfunctioning part is not repaired completely, or another malfunctioning part is detected. Go to DIAGNOSTIC PROCEDURE 6, page RS-36, 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 Diagnosis mode to User mode is required while malfunction is being detected, turn ignition switch from "OFF" to "ON". Then press driver's door switch at least 5 times within 7 seconds after turning ignition switch "ON". SRS is now in User mode.

"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.	—
 IGN ON ON OFF 0.5 sec. 0.5 sec.  MRS096A	The system is malfunctioning and needs to be repaired as indicated.	Go to DIAGNOSTIC PROCEDURE 6 (RS-36).
 IGN ON ON OFF  MRS097A	Air bag is deployed.  Air bag fuse, diagnosis sensor unit or harness is malfunctioning and needs to be repaired.	Go to COLLISION DIAGNOSIS (RS-46).  Go to DIAGNOSTIC PROCEDURE 9 (RS-41).
 IGN ON ON OFF  MRS098A	One of the following has occurred and needs to be repaired. <ul style="list-style-type: none"> <li>● Meter fuse is blown.</li> <li>● "AIR BAG" warning lamp circuit has open or short.</li> <li>● Diagnosis sensor unit is malfunctioning.</li> </ul>	Go to DIAGNOSTIC PROCEDURE 10 (RS-43).

## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

 Trouble Diagnoses without CONSULT-II (Cont'd)

### DIAGNOSTIC PROCEDURE 8 (CONTINUED FROM DIAGNOSTIC PROCEDURE 6) Inspecting SRS malfunctioning record

=NMRS0029S03

1	CONSIDER POSSIBILITY OF NOT ERASING SELF-DIAGNOSTIC RESULT AFTER REPAIRING			
Is it the first time for maintenance of SRS?				
Yes or No				
Yes	►	Go to DIAGNOSTIC PROCEDURE 5 (RS-33). (Further inspection cannot be performed without CONSULT-II.)		
No	►	Diagnosis results (previously stored in the memory) might not be erased after repair. Go to DIAGNOSTIC PROCEDURE 7, step 5 (RS-38).		

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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

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

=NMRS0030

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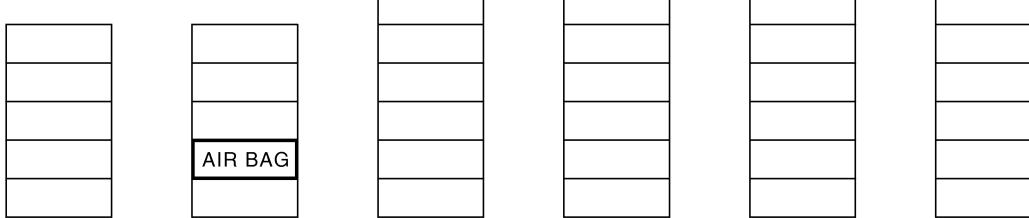
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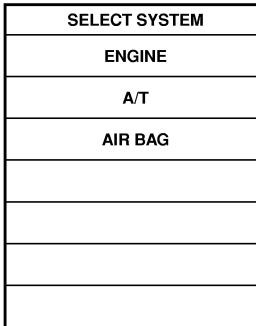
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### DIAGNOSTIC PROCEDURE 9

1	CHECK THE DEPLOYMENT OF AIR BAG MODULE
Is air bag module deployed?	
Yes or No	
Yes	► Refer to COLLISION DIAGNOSIS (RS-46).
No	► GO TO 2.

2	CHECK AIR BAG FUSE
Is SRS "Air Bag" fuse OK?	
 UP ←	
OK or NG	
OK	► GO TO 4.
NG	► GO TO 3.

3	CHECK AIR BAG FUSE AGAIN
Replace "AIR BAG" fuse and turn ignition switch ON.	
Is "Air Bag" fuse blown again?	
Yes	► Repair main harness.
No	► INSPECTION END

4	CHECK DIAGNOSIS SENSOR UNIT
Connect CONSULT-II and touch "START". "AIR BAG" should be displayed.	
	
OK or NG	
OK	► GO TO 5.
NG	► Visually check the wiring harness connection of diagnosis sensor unit. If harness connection check is OK, replace diagnosis sensor unit.

## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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

5 CHECK HARNESS CONNECTION	
Is harness connection between warning lamp and diagnosis sensor unit OK?	
OK or NG	
OK	► Replace diagnosis sensor unit.
NG	► Connect "AIR BAG" warning lamp and diagnosis sensor unit connector properly. If "AIR BAG" warning lamp still does not go off, replace the related harness.

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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

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

=NMRS0031

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NMRS0031S01

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### DIAGNOSTIC PROCEDURE 10

1	CHECK "AIR BAG" WARNING LAMP FUSE	
Is meter fuse OK?		
	UP SIDE ←	
		OK or NG
OK	►	GO TO 3.
NG	►	GO TO 2.

2	CHECK "AIR BAG" WARNING LAMP FUSE AGAIN			
Replace meter fuse and turn ignition switch ON.				
Is meter fuse blown again?				
Yes	►	Repair main harness.		
No	►	INSPECTION END		

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

4	CHECK HARNESS CONNECTION			
Disconnect diagnosis sensor unit connector and turn ignition switch ON. ● "AIR BAG" warning lamp should be turned on.				
OK or NG				
OK	►	Replace diagnosis sensor unit.		
NG	►	Check the ground circuit of "AIR BAG" warning lamp.		

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

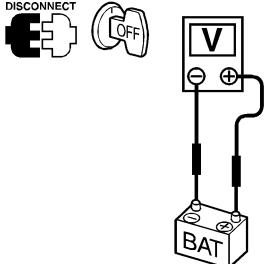
Trouble Diagnoses: SRS Does Not Enter Diagnosis Mode Using Door Switch

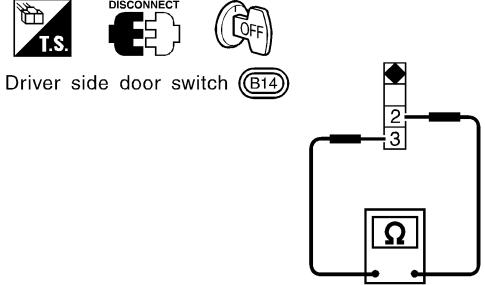
## Trouble Diagnoses: SRS Does Not Enter Diagnosis Mode Using Door Switch

=NMRS0032

NMRS0032S01

### DIAGNOSTIC PROCEDURE 11

1 CHECK BATTERY VOLTAGE		
Disconnect both battery cables and check battery voltage using circuit tester.		
 <p>Battery voltage: More than 9V</p>		
OK	►	GO TO 2.
NG	►	Charge battery.

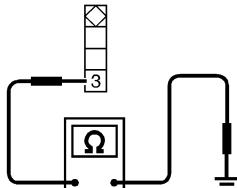
2 CHECK FRONT LH DOOR SWITCH		
Remove front RH door switch and check continuity between driver's door switch connector terminals 2 and 3 under following conditions.		
 <p>Continuity: Door switch is depressed (Door is closed). NO Door switch is released (Door is open). YES</p>		
OK	►	GO TO 3.
NG	►	Replace front RH door switch.

## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Trouble Diagnoses: SRS Does Not Enter Diagnosis Mode Using Door Switch (Cont'd)

### 3 CHECK GROUND CIRCUIT FOR FRONT LH DOOR SWITCH

Check harness continuity between front RH door switch connector terminal 3 and body ground.



SRS722-A

OK or NG

OK	►	Replace diagnosis sensor unit. Go to "SRS Operation Check" (RS-28).
NG	►	Replace or repair harness.

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# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Collision Diagnosis

## Collision Diagnosis

=NMRS0042

To repair the SRS, perform the following steps.

### When SRS is activated in a collision:

- 1) Replace the 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.
- 5) Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to "SRS Operation Check" for details (RS-28). 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).
- 2) Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to "SRS Operation Check" for details (RS-28). Ensure entire SRS operates properly.

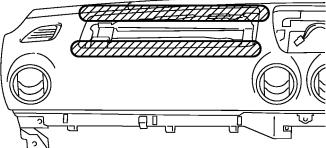
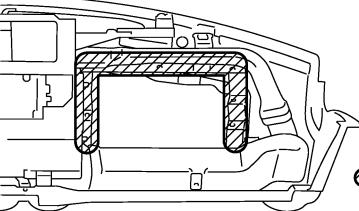
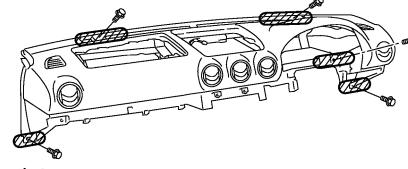
## SRS INSPECTION

NMRS0042S09

Part	SRS is activated	SRS is NOT activated
Air bag module (driver and front passenger side)	REPLACE Install with new hex bolts or special bolts coated with bonding agent.	<ol style="list-style-type: none"><li>1. Remove air bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.</li><li>2.<ol style="list-style-type: none"><li>a. Install driver air bag module into the steering wheel to check fit and alignment with the wheel.</li><li>b. Install passenger air bag module into the instrument panel to check fit with the instrument panel.</li></ol></li><li>3. No damage found, reinstall with new hex bolts or bolts coated with bonding agent.</li><li>4. If damaged—REPLACE. Install air bag modules with new special bolts coated with bonding agent. Air bag must be deployed before discarding.</li></ol>
Diagnosis sensor unit	REPLACE Install with new bolts coated with bonding agent.	<ol style="list-style-type: none"><li>1. Check case for dents, cracks or deformities.</li><li>2. Check connectors for damage, and terminals for deformities.</li><li>3. If no damage is found, reinstall with new special bolts and ground bolt coated with bonding agent.</li><li>4. If damaged—REPLACE. Install diagnosis sensor unit with new special bolts and ground bolt coated with bonding agent.</li></ol>
Steering wheel		<ol style="list-style-type: none"><li>1. Visually check steering wheel for deformities.</li><li>2. Check harness (built into steering wheel) and connectors for damage, and terminals for deformities.</li><li>3. Install driver air bag module to check fit or alignment with steering wheel.</li><li>4. Check steering wheel for excessive free play.</li><li>5. If no damage is found, reinstall with bolts.</li><li>6. If damaged—REPLACE.</li></ol>
Spiral cable		<ol style="list-style-type: none"><li>1. Visually check spiral cable and combination switch for damage.</li><li>2. Check connectors and protective tape for damage.</li><li>3. Check steering wheel for noise, binding or heavy operation.</li><li>4. If no damage is found, reinstall with bolts.</li><li>5. If damaged—REPLACE.</li></ol>
Harness and Connectors		<ol style="list-style-type: none"><li>1. Check connectors for poor connection, damage, and terminals for deformities.</li><li>2. Check harness for binding, chafing, cuts, or deformities.</li><li>3. If no damage is found, reinstall the harness and connectors.</li><li>4. Damaged—REPLACE damaged section of harness. Do not attempt to repair, splice or modify any SRS harness.</li></ol>

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

*Collision Diagnosis (Cont'd)*

Part	SRS is activated	SRS is NOT activated	
Instrument panel	<p>1. When front passenger air bag inflates, check the following points for bending, deformities or cracks.</p> <ul style="list-style-type: none"> <li>● Opening portion for front passenger air bag</li> </ul>	 <p>︓ Check point</p>	GI MA EM LC
	<ul style="list-style-type: none"> <li>● Front passenger air bag module brackets</li> </ul> <p><b>Back face of instrumental panel</b></p>  <p>︓ Check point</p>		SRS933 EC FE CL
	<ul style="list-style-type: none"> <li>● The portions securing the instrument panel</li> </ul>  <p>︓ Check point</p>		MT SRS934 AT PD AX
	<p>2. If no damage is found, reinstall the instrument panel.</p> <p>3. If damaged—REPLACE the instrument panel with bolts.</p>		SU BR ST RS BT HA SC EL IDX

## **NOTES**