

RESTRAINT SYSTEM

SECTION RS

MODIFICATION NOTICE:

- The air bag system with a diagnosis sensor unit located in the steering wheel has been deleted.
- The seat belt pre-tensioner type has been changed from the mechanical type to the electrical type (except on air bag less models).

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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 for certain types of collision. The SRS composition which is available to NISSAN MODEL N15 is as follows (The composition varies according to the destination and optional equipment.):

- For a frontal 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 passenger side), seat belt pre-tensioners, a diagnosis sensor unit, warning lamp, wiring harness and spiral cable.
- For a side collision
The Supplemental Restraint System consists of front side air bag module (located in the outer side of front seat), satellite sensor, diagnosis sensor unit (one of components of air bags for a frontal collision), wiring harness, warning lamp (one of components of air bags for a frontal collision).

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 covered with yellow insulation either just before the harness connectors or for the complete harness are related to the SRS.

SEAT BELTS

CAUTION:

- Before removing the seat belt pre-tensioner assembly, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Do not use electrical test equipment for seat belt pre-tensioner connector.
- After replacing or reinstalling seat belt pre-tensioner assembly, or reconnecting seat belt pre-tensioner connector, check the system function. Refer to “Self-diagnosis” (RS-27) for details.
- 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 any collision, inspect all seat belt assemblies, including retractors and other attached hardwares (i.e., guide rail set).

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SEAT BELTS

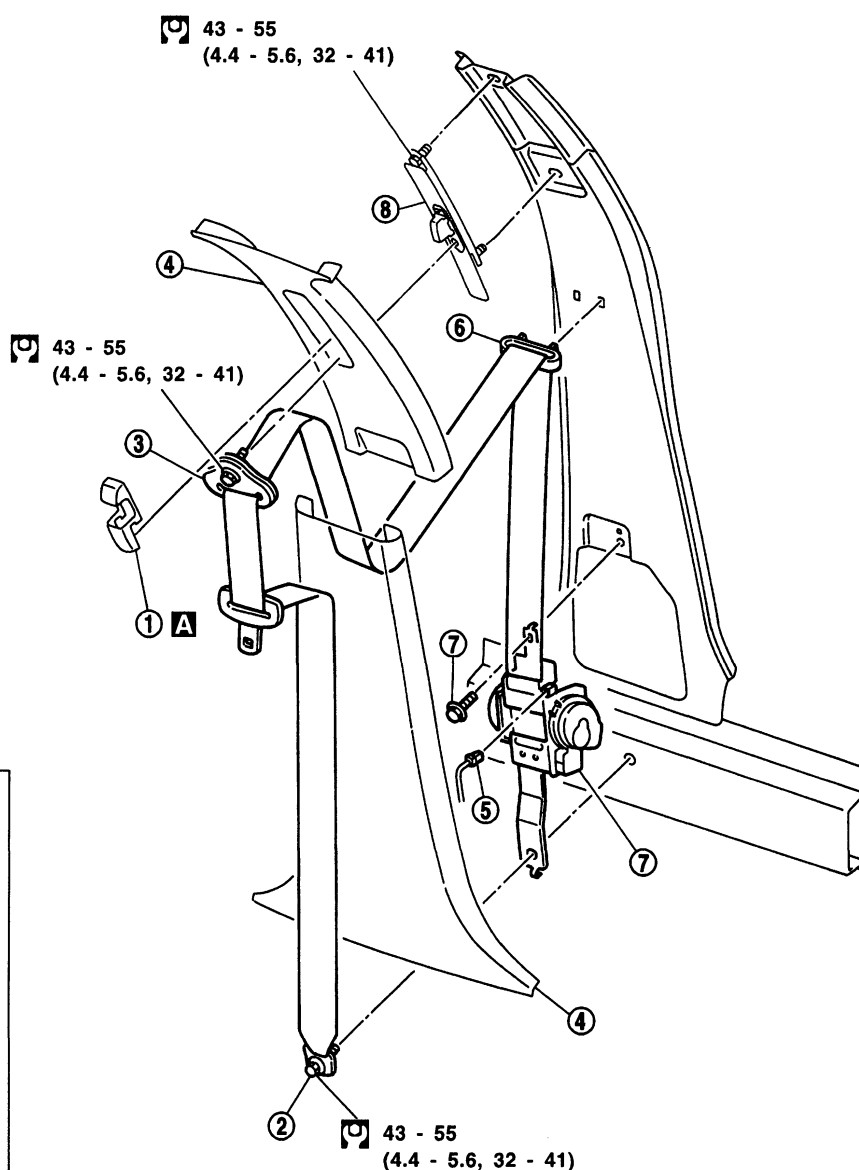
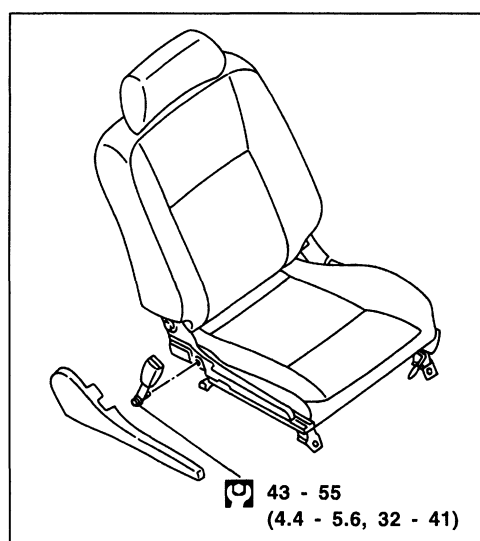
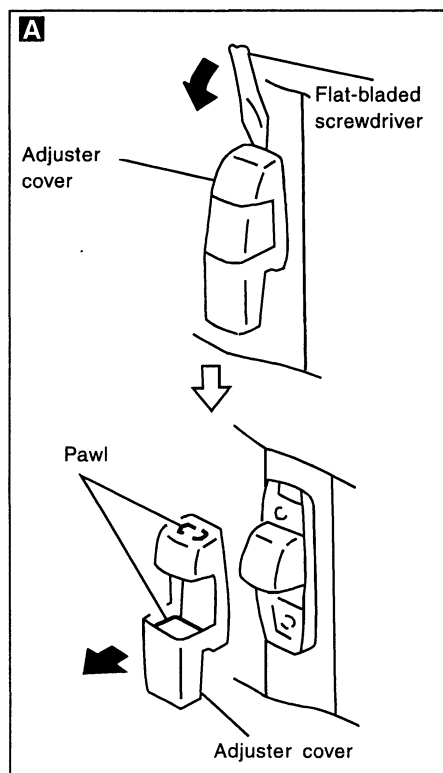
Front Seat Belt

4-DOOR SEDAN AND 5-DOOR HATCHBACK

Remove front seat. Refer to "SEAT" in BT section of Service Manual, Pub. No. SM6E-N15SE0.

- ① Remove adjuster cover. **A**
- ② Remove outer anchor bolt.
- ③ Remove shoulder anchor bolt.
- ④ Remove center pillar trim. Refer to "INTERIOR TRIM" in BT section of Service Manual, Pub. No. SM6E-N15SE0.
- ⑤ Disconnect seat belt pre-tensioner connector.
- ⑥ Remove second sash guide.
- ⑦ Remove the bolt securing seat belt pre-tensioner retractor, then remove seat belt and seat belt pre-tensioner retractor.
- ⑧ Remove bolt securing seat belt adjuster, then remove seat belt adjuster.

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43 - 55 : N·m (kg-m, ft-lb)

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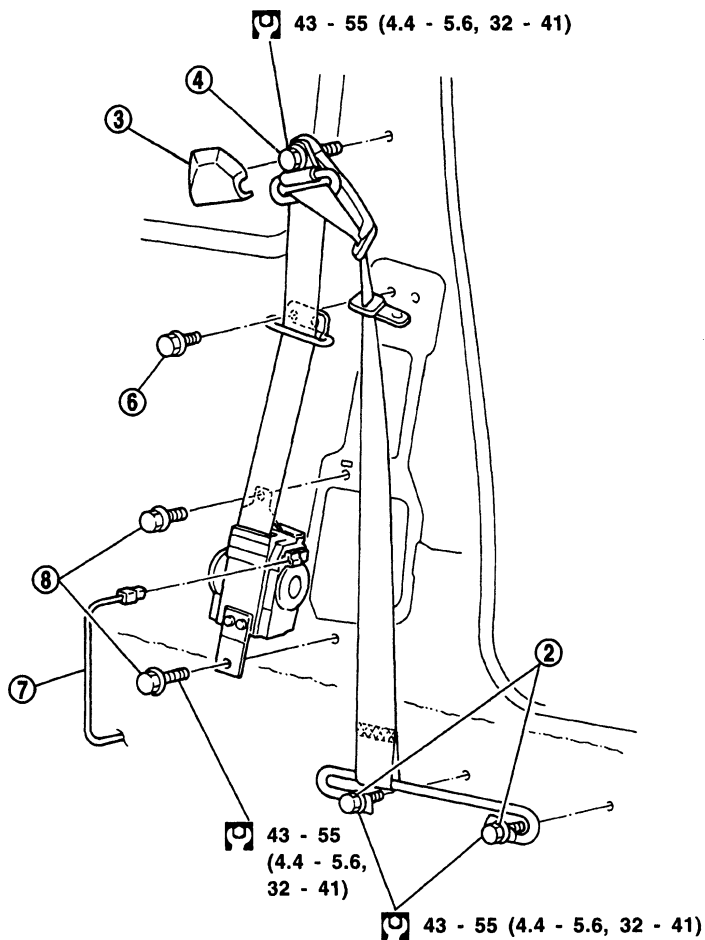
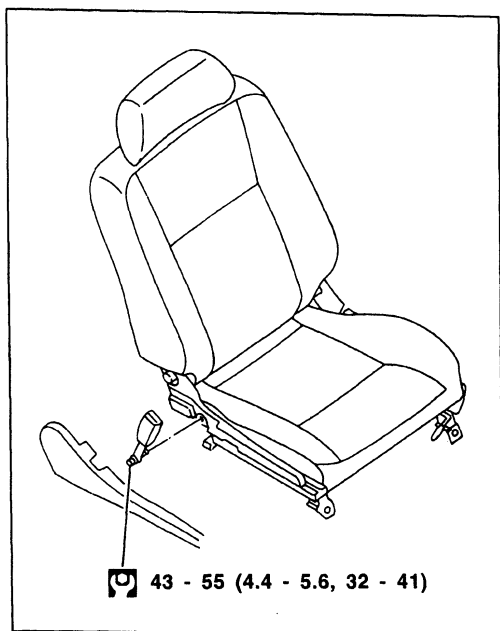
SEAT BELTS

Front Seat Belt (Cont'd)

3-DOOR HATCHBACK

- ① Remove front and rear seats. Refer to "SEAT" in BT section of Service Manual, Pub. No. SM6E-N15SE0.
- ② Remove floor anchor bolts.
- ③ Remove shoulder cover.
- ④ Remove shoulder anchor bolt.
- ⑤ Remove rear side lower garnish. Refer to "INTERIOR TRIM" in BT section of Service Manual, Pub. No. SM6E-N15SE0.
- ⑥ Remove the bolts securing second sash guide.
- ⑦ Disconnect seat belt pre-tensioner connector.
- ⑧ Remove the bolts securing seat belt pre-tensioner retractor, then remove seat belt and seat belt pre-tensioner retractor.

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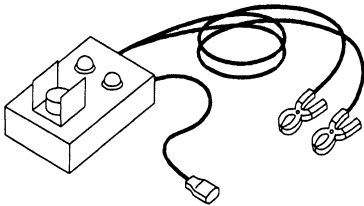
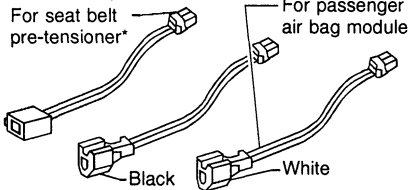
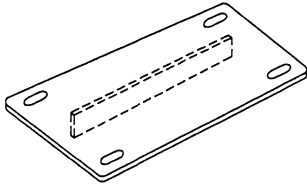
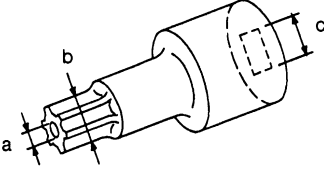
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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Precautions for SRS “AIR BAG” and “SEAT BELT PRE-TENSIONER” Service

- 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 and seat belt pre-tensioner 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 passenger air bag modules with the pad side facing upward and front side air bag modules (built-in type) with the stud bolt side facing down.
- 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.

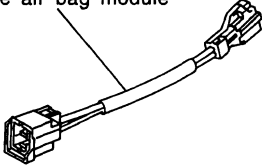
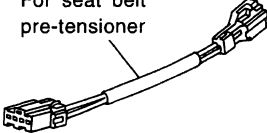
Special Service Tools

Tool number Tool name	Description
KV991072S0 Air bag deployment kit	Disposing of air bag module 
KV99106400 Deployment tool	NT357
KV991065S0 Deployment tool adapters	For seat belt pre-tensioner* For passenger air bag module Black White  *: Use KV99108200 for deployment tool adapters for seat belt pre-tensioner.
KV99105300 Air bag module bracket	Anchoring air bag module 
HT61961000 and HT62152000 combined *Special torx bit	Use for special bolts [TAMPER RESISTANT TORX (Size T50)]  a: 3.5 (0.138) dia. b: 8.5 - 8.6 (0.335 - 0.339) dia. c: approx. 10 (0.39) sq. Unit: mm (in)

*: Special tool or commercial equivalent

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Special Service Tools (Cont'd)

Tool number Tool name	Description
KV99108300 Deployment tool adapters for built-in type side air bag	For built-in type side air bag module  NT769
KV99108200 Deployment tool adapters for seat belt pre-tensioner	For seat belt pre-tensioner  NT721

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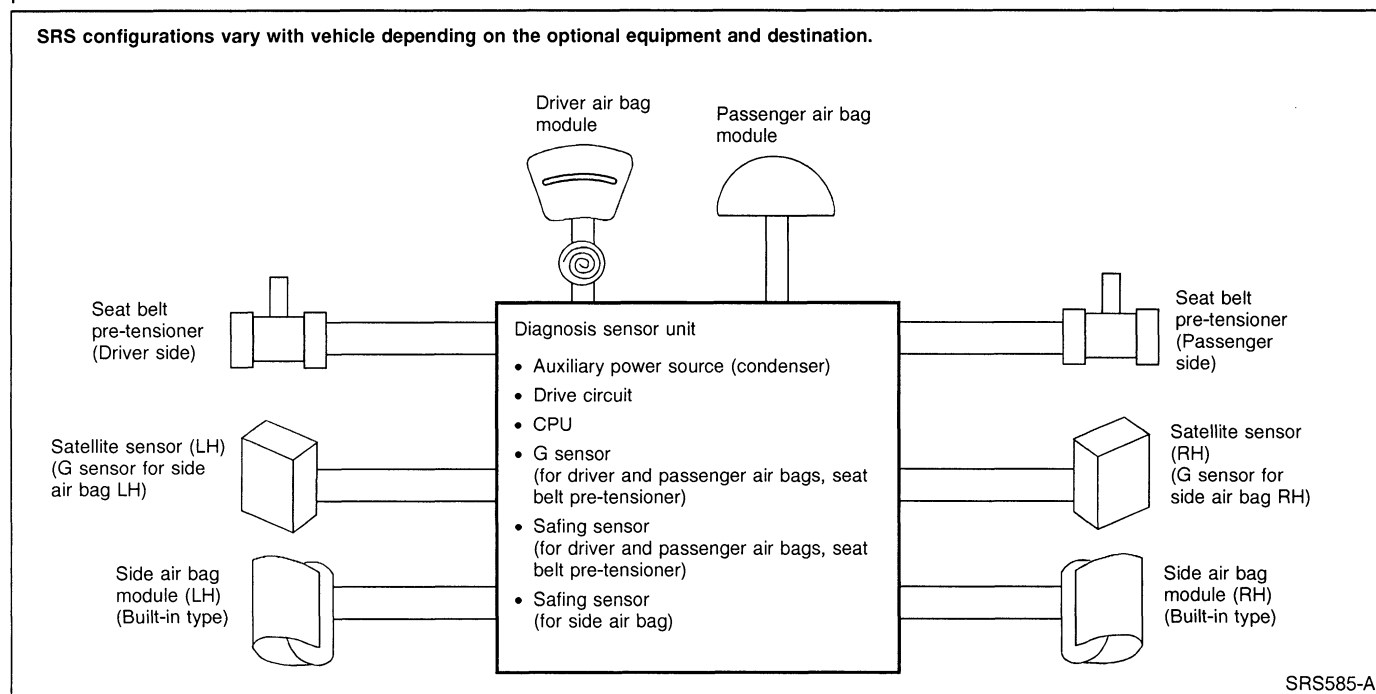
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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Description

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



The collision modes for which supplemental restraint systems are activated are different among the SRS systems. For example, the driver air bag module and passenger air bag module are activated in a frontal collision but not in a side collision.

SRS configurations which are activated for some collision modes are as follows;

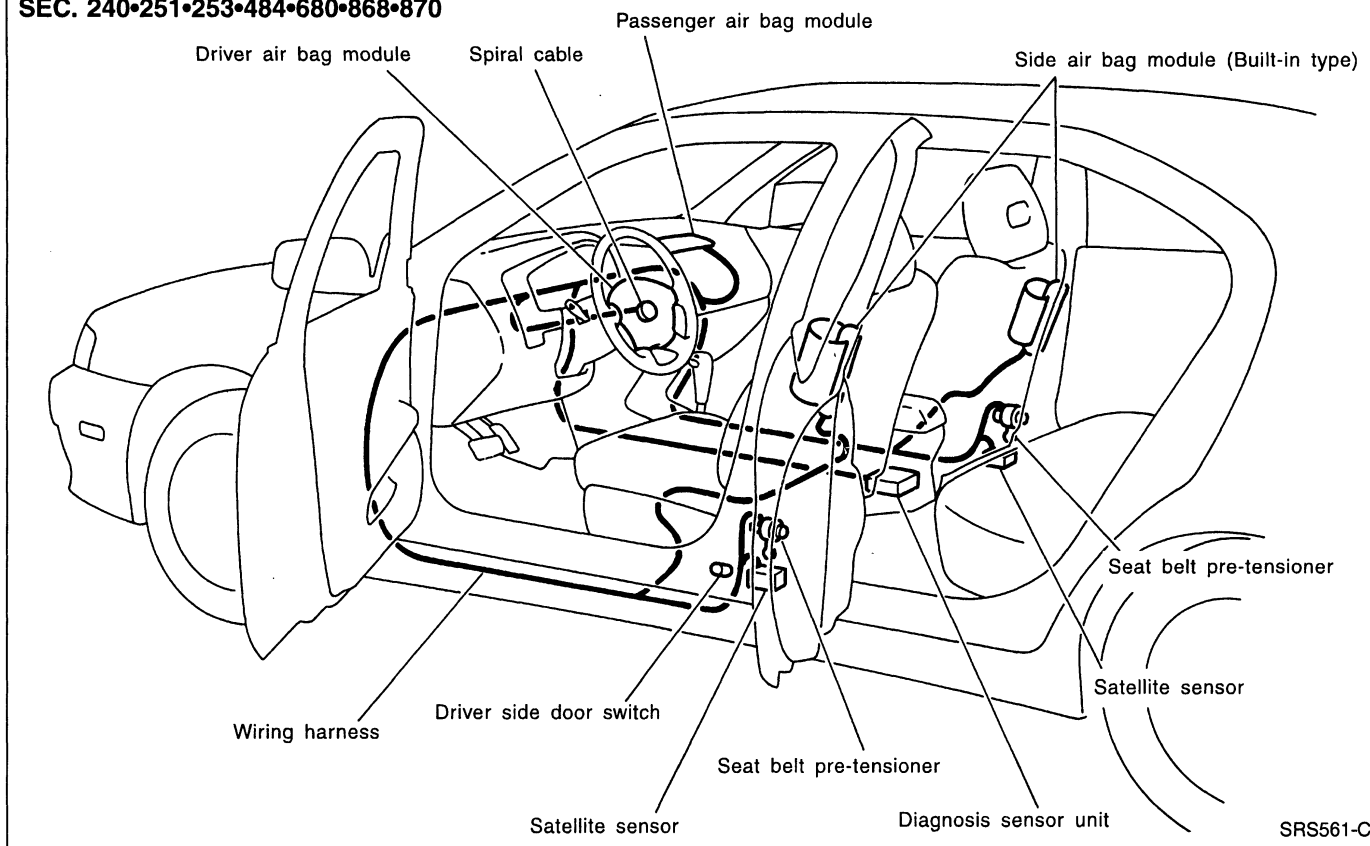
SRS configuration	Frontal collision	Left side collision	Right side collision
Driver air bag module	○	—	—
Passenger air bag module	○	—	—
Seat belt pre-tensioner (Driver side)	○	—	—
Seat belt pre-tensioner (Passenger side)	○	—	—
Side air bag module (LH)	—	○	—
Side air bag module (RH)	—	—	○

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

SRS Component Parts Location

SRS configurations vary with vehicle depending on the optional equipment and destination.

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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

**AIR
BAG**

SRS296

Maintenance Items

CAUTION:

Do not use electrical test equipment to check SRS circuit.

1. Check operation of "AIR BAG" warning lamp. After turning ignition key to "ON" position, the "AIR BAG" 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-26 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 or 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 passenger air bag module to instrument panel to check fit or alignment with the instrument panel.

- Install side air bag module to seatback to check fit and alignment with the seat.

(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 and air bag harness

- Check connectors for poor connections, damage, and terminals for deformities.

- Check harnesses for binding, chafing or cut.

(5) 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.

- Check retractor for smooth operation.

- Perform self-diagnosis for seat belt pre-tensioner using bulb or CONSULT. Refer to "Self-diagnosis" for details. (RS-27)

(6) Satellite sensor

- Check satellite sensor (including bracket portion) for dents, cracks or deformities.

- Check connectors for damage, and terminals for deformities.

CAUTION:

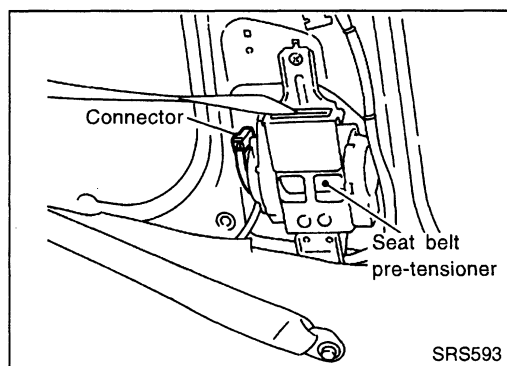
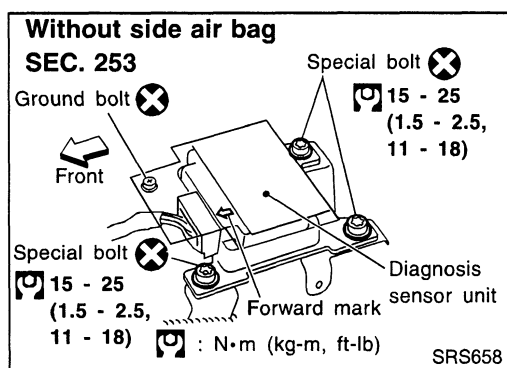
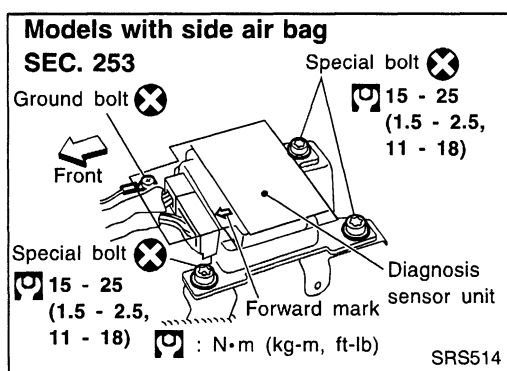
Replace previously used special bolts, ground bolt, nuts coated with bonding agent and anchor bolt with new ones.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Removal and Installation — Diagnosis Sensor Unit, Seat Belt Pre-tensioner and Satellite Sensor

CAUTION:

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Do not use old bolts and nuts coated with bonding agent after removal; replace with new ones.
- Check diagnosis sensor unit, seat belt pre-tensioner and satellite sensor for proper installation.
- Check diagnosis sensor unit and satellite sensor to ensure they are free of deformities, dents, cracks or rust. If they show any visible signs of damage, replace them with new ones.
- Check diagnosis sensor unit brackets to ensure they are free of deformities and rust.
- After replacement of diagnosis sensor unit, seat belt pre-tensioner and satellite sensor, check SRS function and perform self-diagnosis for SRS. Refer to "Self-diagnosis" for details. (RS-26)
- Do not attempt to disassemble diagnosis sensor unit, seat belt pre-tensioner and satellite sensor.
- Replace diagnosis sensor unit, seat belt pre-tensioner and satellite sensor if it has been dropped or sustained an impact.
- Do not expose seat belt pre-tensioner to temperatures exceeding 80°C (176°F).



REMOVAL OF DIAGNOSIS SENSOR UNIT

1. Disconnect driver, passenger and side air bag module connectors. Also, disconnect seat belt pre-tensioner connector.
2. Remove console box. Refer to "INSTRUMENT PANEL" in BT section.
3. Disconnect diagnosis sensor unit connector.
4. Remove ground 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.
- After replacement, perform self-diagnosis for SRS. Refer to "Self-diagnosis" for details (RS-26).

CAUTION:

- Do not use old special bolts and ground bolt coated with bonding agent; replace with new coated special bolts and ground bolt.

REMOVAL OF SEAT BELT PRE-TENSIONER

For removal of seat belt pre-tensioner, refer to "Front Seat Belt" for details. (RS-4)

NOTE:

- To install, reverse the removal procedure sequence.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Removal and Installation — Diagnosis Sensor Unit, Seat Belt Pre-tensioner and Satellite Sensor (Cont'd)

REMOVAL OF SATELLITE SENSOR

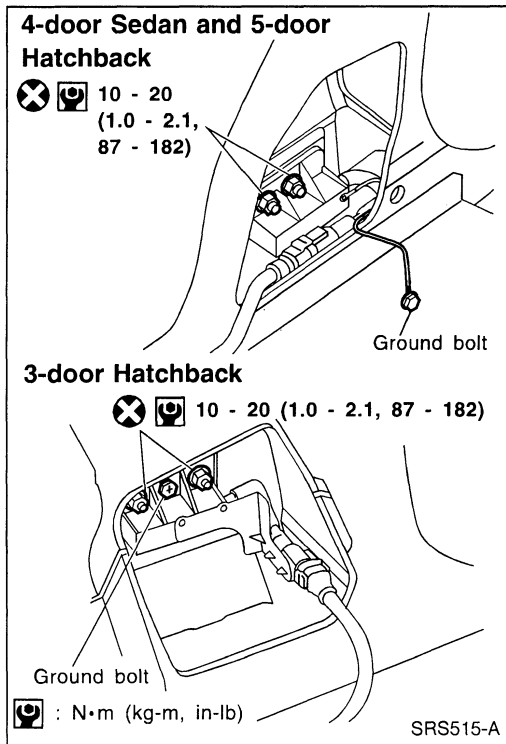
1. Remove seat belt retractor. Refer to "Front Seat Belt" for details. (RS-4)
2. Disconnect satellite sensor connector.
3. Remove bolt and nuts from satellite sensor unit.
Then remove the satellite sensor.

NOTE:

- To install, reverse the removal procedure sequence.

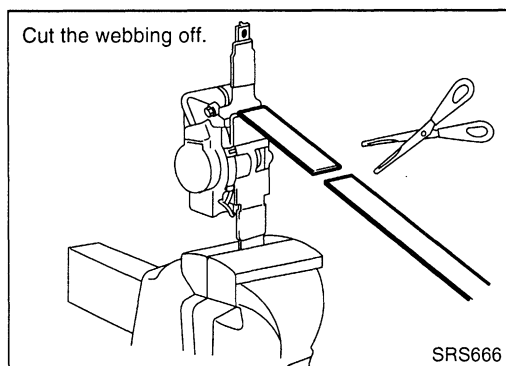
CAUTION:

- Do not use old nuts coated with bonding agent after removal; replace with new coated nuts.



Disposal of Air Bag Module and Seat Belt Pre-tensioner

- Before disposing of air bag module and seat belt pre-tensioner, 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-14).
- When deploying the air bag module and seat belt pre-tensioner, always use the Special Service Tool; Deployment tool KV99106400.
- When deploying the air bag module and seat belt pre-tensioner, 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 activate 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 unattended 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 the deployed air bag module and seat belt 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 un-deployed.

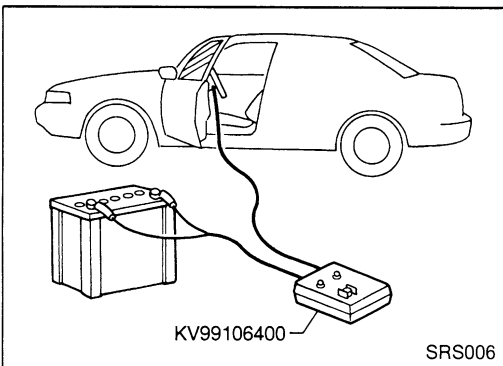
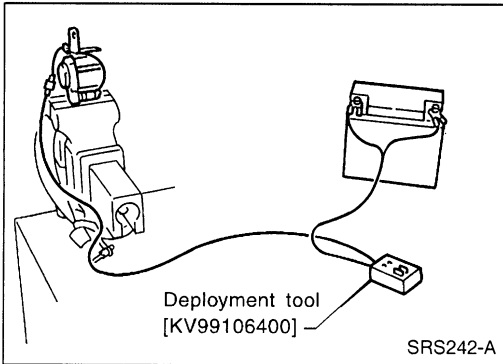
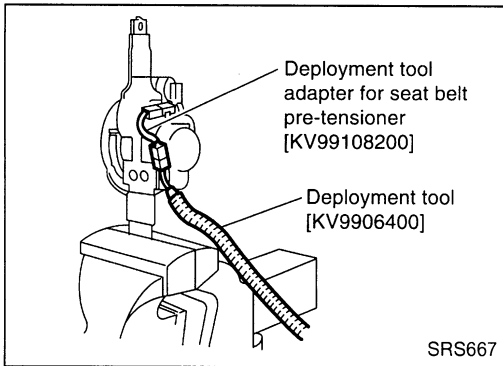


Deployment of seat belt pre-tensioner (outside of vehicle)

1. Firmly grip pre-tensioner in a vise and cut the webbing off.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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



2. Connect deployment tool adapter [SST: KV99108200] to deployment tool [SST: KV9906400] connector and seat belt pre-tensioner connector.

3. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
4. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.
5. Press the button on the deployment tool. The left side lamp on the tool, marked "seat belt pre-tensioner 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.

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

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

CAUTION:

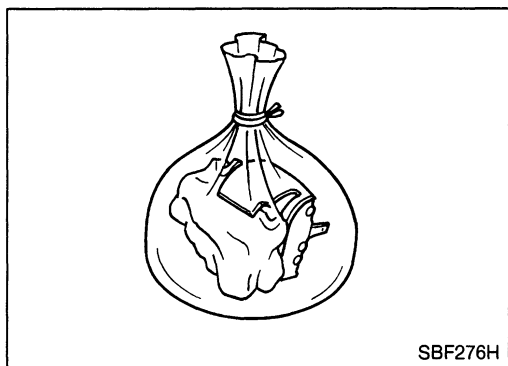
When deploying air bag module or seat belt pre-tensioner, ensure vehicle is empty.

1. Disconnect both vehicle battery cables and wait 3 minutes.
2. Disconnect air bag modules and seat belt pre-tensioners connector.
3. Connect deployment tool [SST: KV9906400] to air bag module or seat belt pre-tensioner.
For front passenger air bag module, attach deployment tool adapter [SST: KV991065S0] to the tool connector. For side air bag module, attach deployment tool adapter [SST: KV99108300] to the tool connector. For seat belt pre-tensioner, attach deployment tool adapter [SST: KV99108200] 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 or seat belt pre-tensioner will deploy.

CAUTION:

Activate only one air bag module or seat belt pre-tensioner at a time.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)



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

DISPOSING OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER

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

CAUTION:

- Never apply water to a deployed air bag module and seat belt pre-tensioner.
- Be sure to wear gloves when handling a deployed air bag module and seat belt pre-tensioner.
- 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 and seat belt pre-tensioner.
- Air bag module and seat belt pre-tensioner cannot be re-used.
- Wash your hands clean after finishing work.

Trouble Diagnoses Introduction

CAUTION:

- Do not use electrical test equipment to check SRS harness connectors unless instructed to in this Service Manual. SRS wiring harnesses can be identified with yellow harness protector or yellow insulation tape before the harness connectors.
- 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. 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.

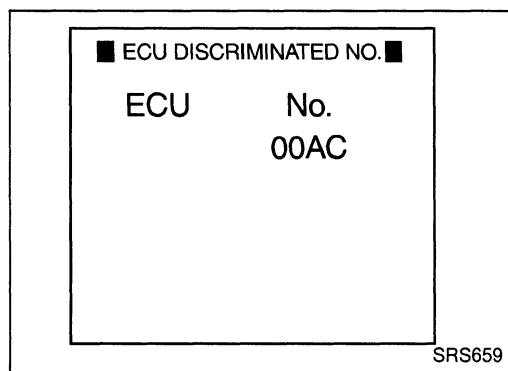
The Diagnosis mode allows the technician to locate and inspect the malfunctioning part.

The mode applications for the “AIR BAG” warning lamp and CONSULT are as follows:

	User mode	Diagnosis mode	Display type
“AIR BAG” warning lamp	X	X	ON-OFF operation
CONSULT	—	X	Monitoring

DIAGNOSIS MODE FOR CONSULT

- “SELF-DIAG [CURRENT]”
A current Self-diagnosis result (also indicated by the warning lamp flashes in the Diagnosis mode) is displayed on the CONSULT screen in real time. This refers to a malfunctioning part requiring repairs.
- “SELF-DIAG [PAST]”
Diagnosis results previously stored in the memory (also indicated by the warning lamp flashes in the Diagnosis mode) are displayed on the CONSULT 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 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 screen, as shown at left. 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 screen.

For NISSAN MODEL N15, the diagnosis sensor unit classification number assigned is 00AC.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Trouble Diagnoses Introduction (Cont'd)

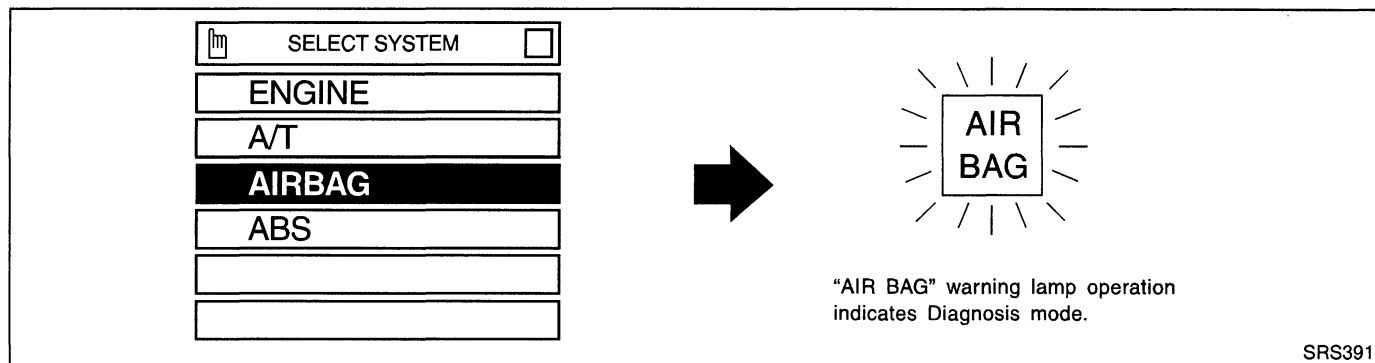
HOW TO CHANGE SELF-DIAGNOSIS MODE



With CONSULT

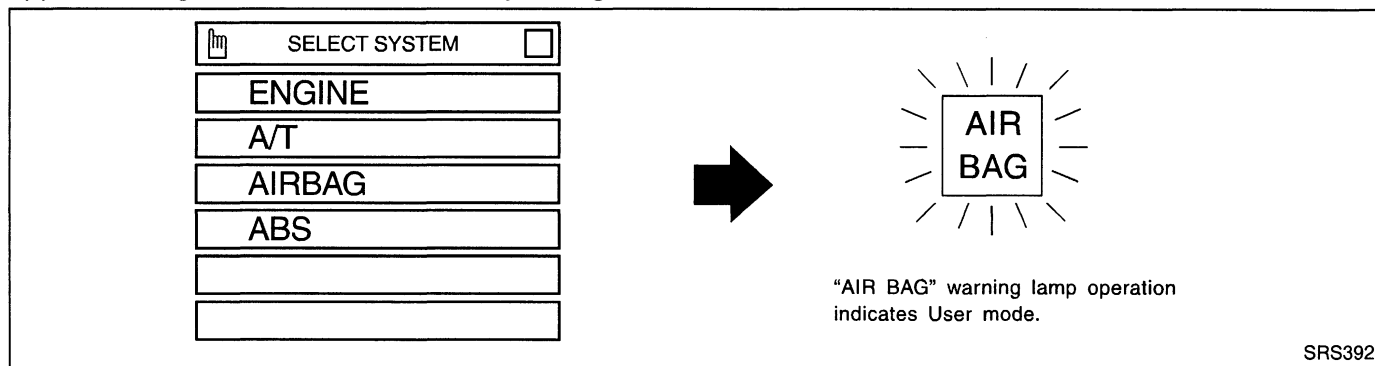
From User mode to Diagnosis mode

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



From Diagnosis mode to User mode

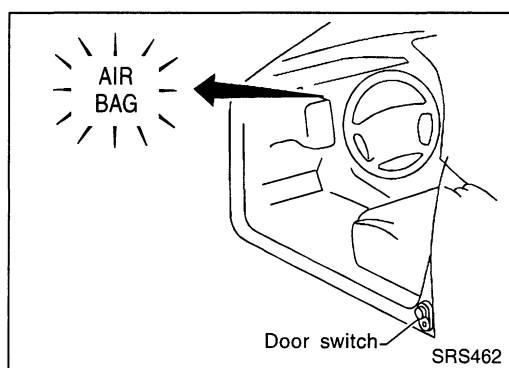
To return to User mode from diagnosis mode, touch "BACK" key of CONSULT until "SELECT SYSTEM" appears. Diagnosis mode automatically changes to User mode.



Without CONSULT

From User mode to Diagnosis mode

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

After a malfunction is repaired, switch the ignition "OFF" for at least 1 second, then back "ON". Diagnosis mode returns to User mode. If switching from 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.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

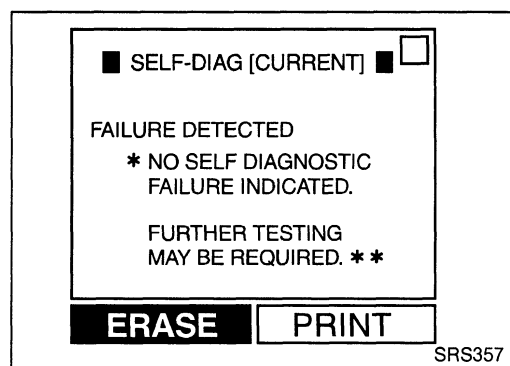
Trouble Diagnoses Introduction (Cont'd)

HOW TO ERASE SELF-DIAGNOSIS RESULTS

With CONSULT

- “SELF-DIAG [CURRENT]”

A current Self-diagnosis result is displayed on the CONSULT 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 screen by pushing “BACK” key of CONSULT 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.

- “TROUBLE DIAG RECORD”

The memory of “TROUBLE DIAG RECORD” cannot be erased.

Without CONSULT

After a malfunction is repaired, return to User mode from Diagnosis mode by switching the ignition “OFF” for at least 1 second, then back “ON”. At that time, the self-diagnosis result is cleared.

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 EL section (“BATTERY”) of Service Manual.]
- Fuse [Refer to EL section (“Fuse”, “POWER SUPPLY ROUTING”) of Service Manual.]
- System component-to-harness connections

GI

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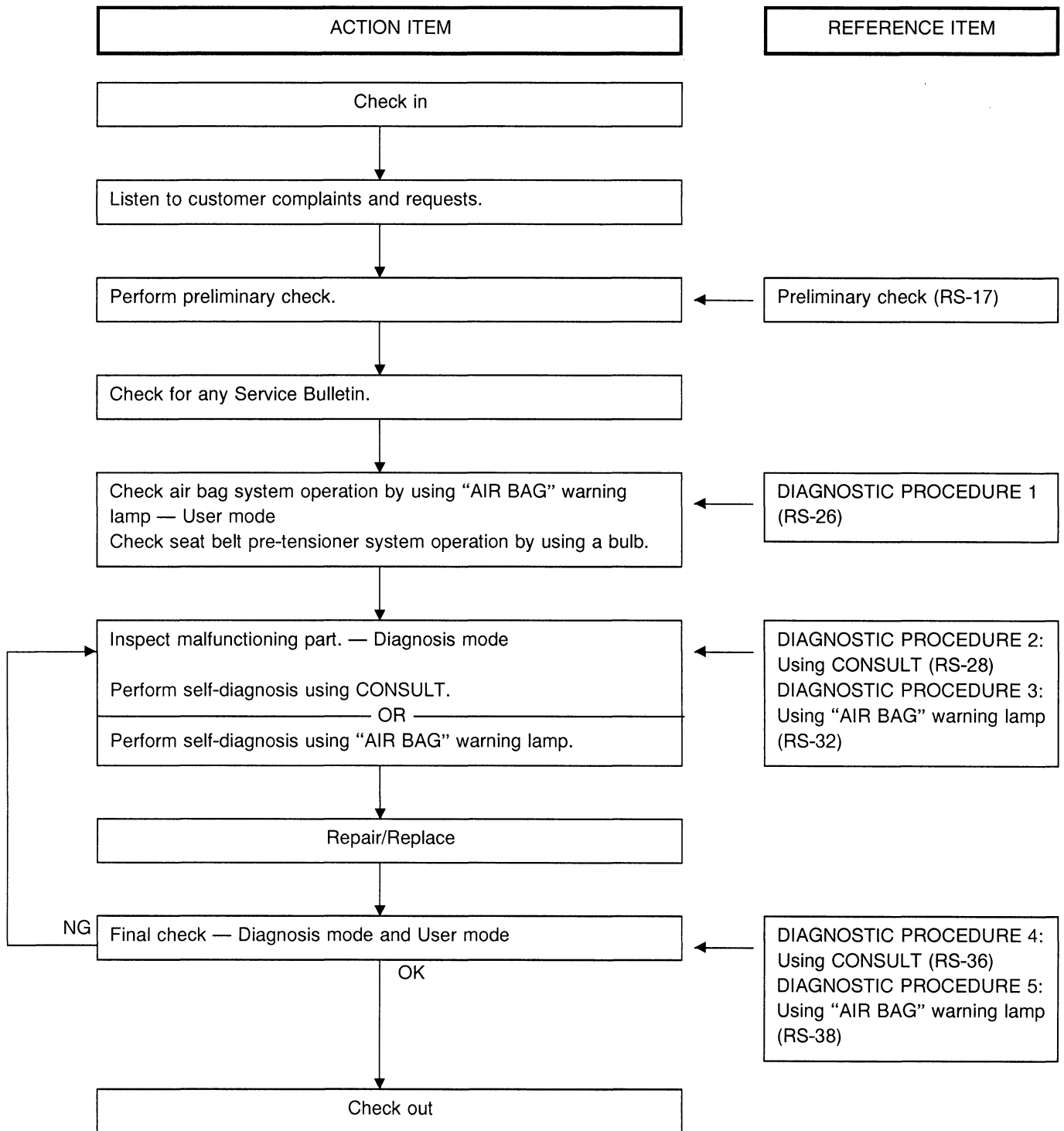
EL

IDX

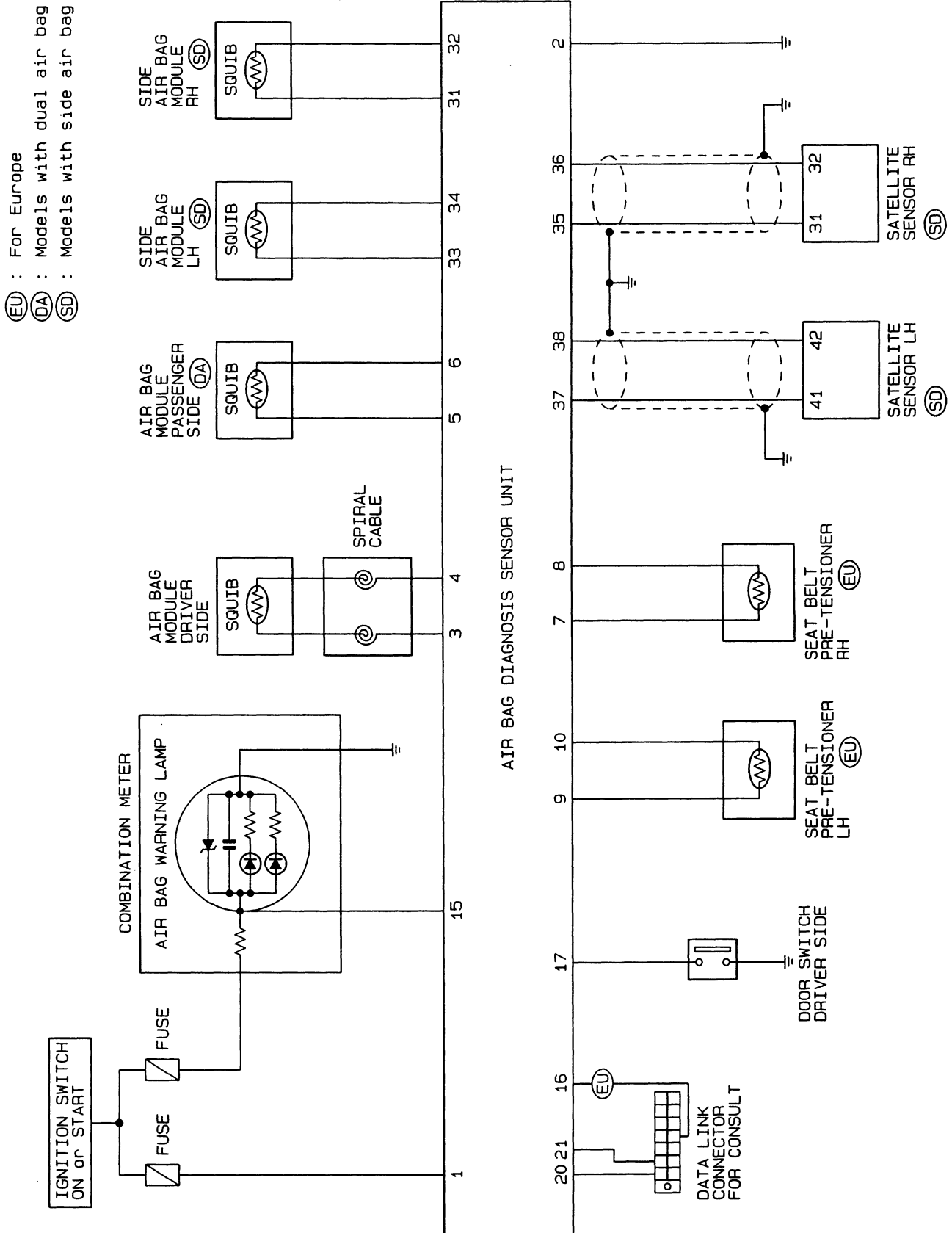
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

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

WORK FLOW



Schematic



GI
 MA
 EM
 LC
 EC
 FE
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 MT
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 BR
 ST
RS
 BT
 HA
 EL
 IDX

Wiring Diagram — SRS —

IGNITION SWITCH ON or START

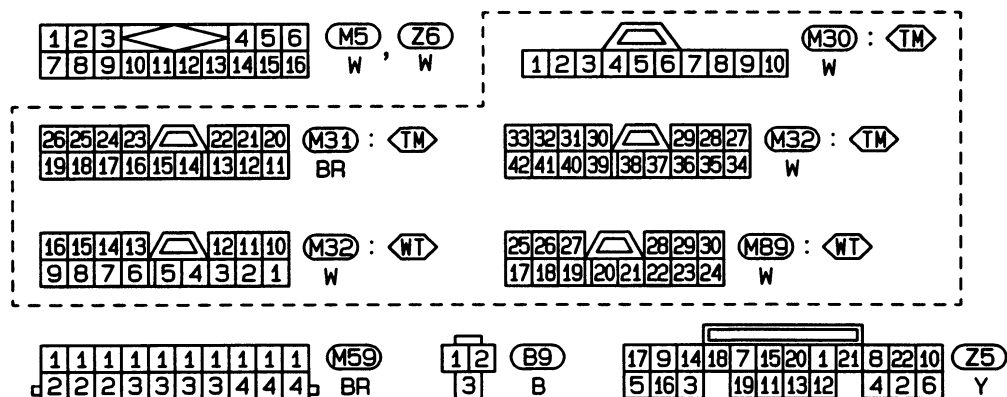
The diagram shows the electrical connections from the ignition switch through various components like fuses, junction boxes, and sensors to ground.

- FUSE BLOCK (J/B) M15:** Contains two 10A fuses. One fuse (N15) connects to terminal Y, which leads to a combination meter (air bag warning lamp). The other fuse (N11) connects to R/W, leading to an airbag diagnosis sensor unit (Z5).
- JUNCTION BOX NO. 2 (JOINT CONNECTORS) M19:** Connects the main power lines to the combination meter and the door switch driver side (B9).
- AIR BAG DIAGNOSIS SENSOR UNIT Z5:** Receives input from the fuse block and provides output to joint connector-3 (M58).
- COMBINATION METER (AIR BAG WARNING LAMP):** Includes terminals *1, *2, and *3, connected to various resistors and ground points (M27, B11, B32).
- DOOR SWITCH DRIVER SIDE B9:** A switch controlled by the ignition system, connected to ground (B11, B32).
- GROUNDING:** Multiple ground points are indicated throughout the circuit, including M27, B11, B32, M28, and M68.

Legend:

- (TM) : With tachometer
- (WT) : Without tachometer

Terminal	(TM)	(WT)
*1	1	22
*2	22	26
*3	33	15



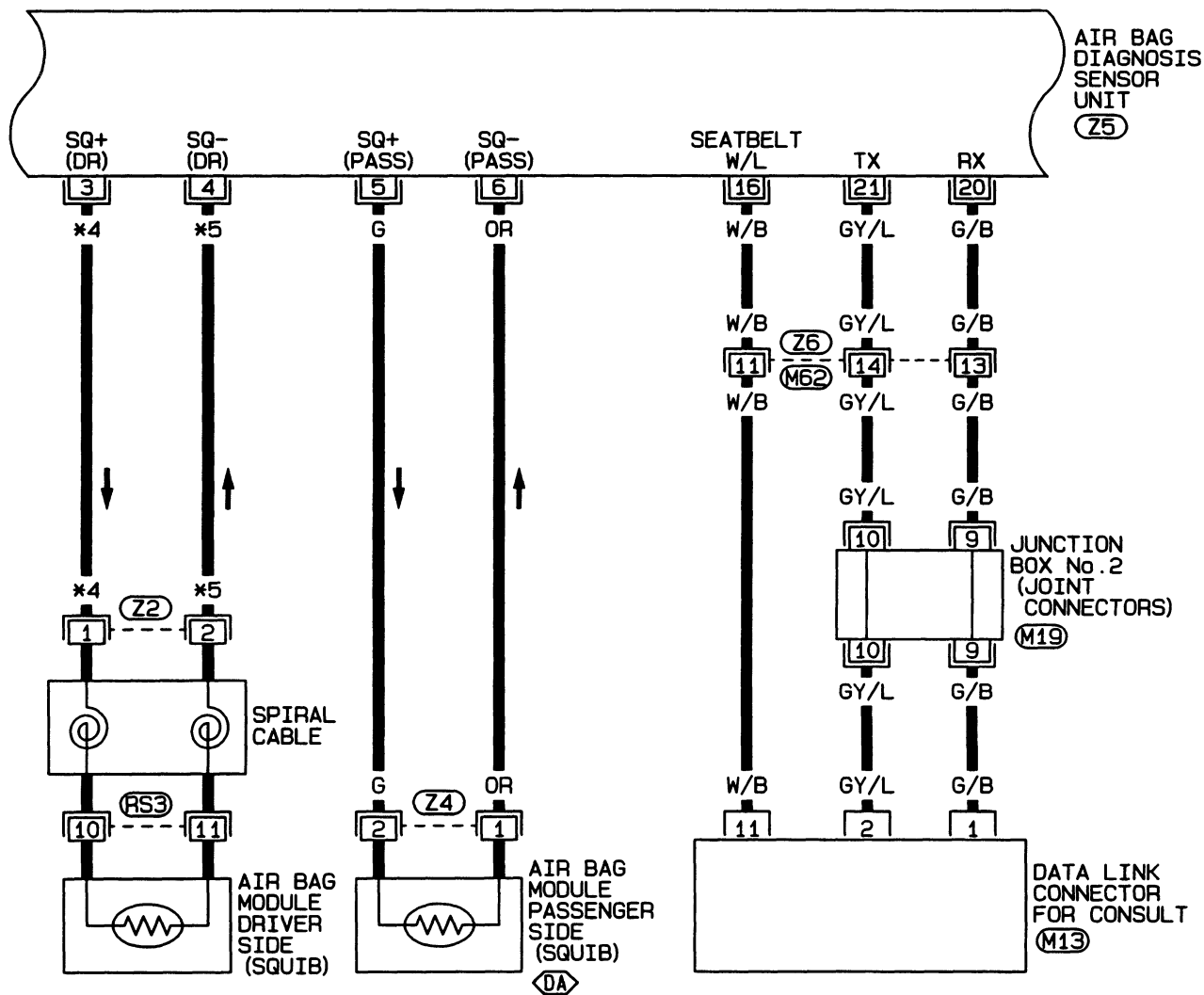
M15

M19

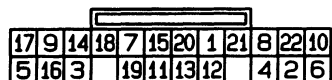
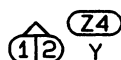
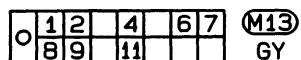
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Wiring Diagram — SRS — (Cont'd)

RS-SRS-02



- (DA): Model with dual air bag system
 (SA): Model with single air bag system
 *4... (DA) W, (SA) Y
 *5... (DA) L, (SA) Y/B



Refer to last page (Foldout page).

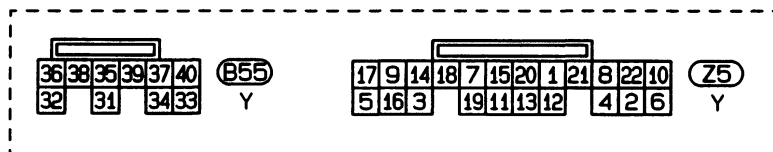
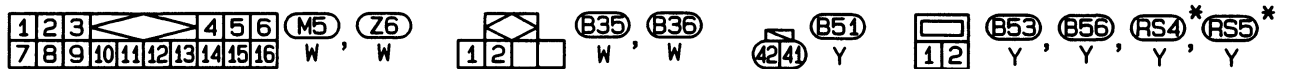
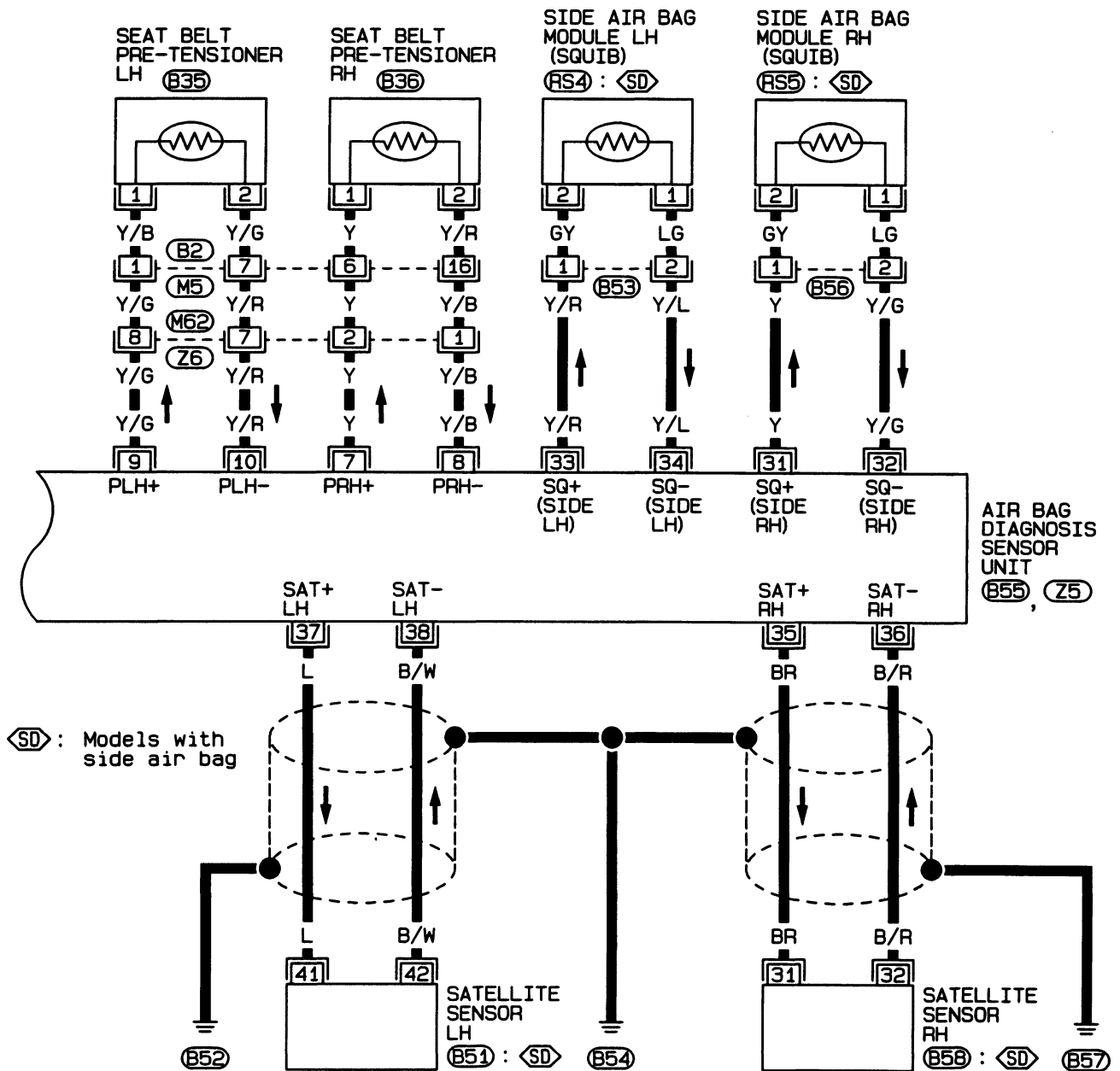
(M19)

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

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Wiring Diagram — SRS — (Cont'd)

RS-SRS-03

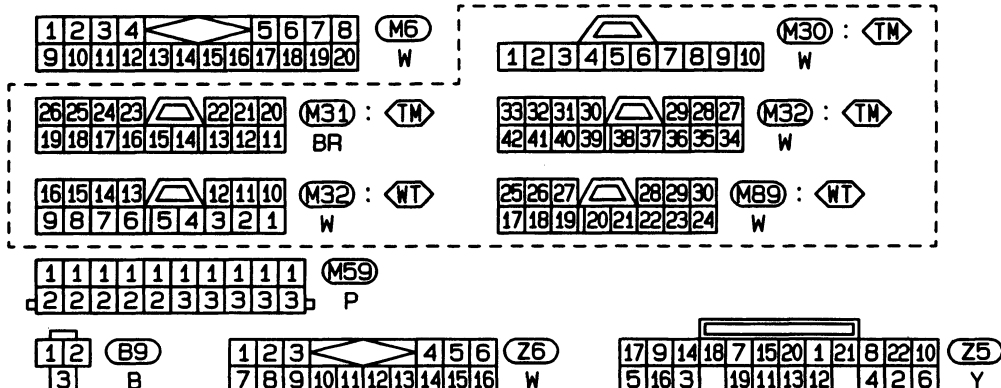
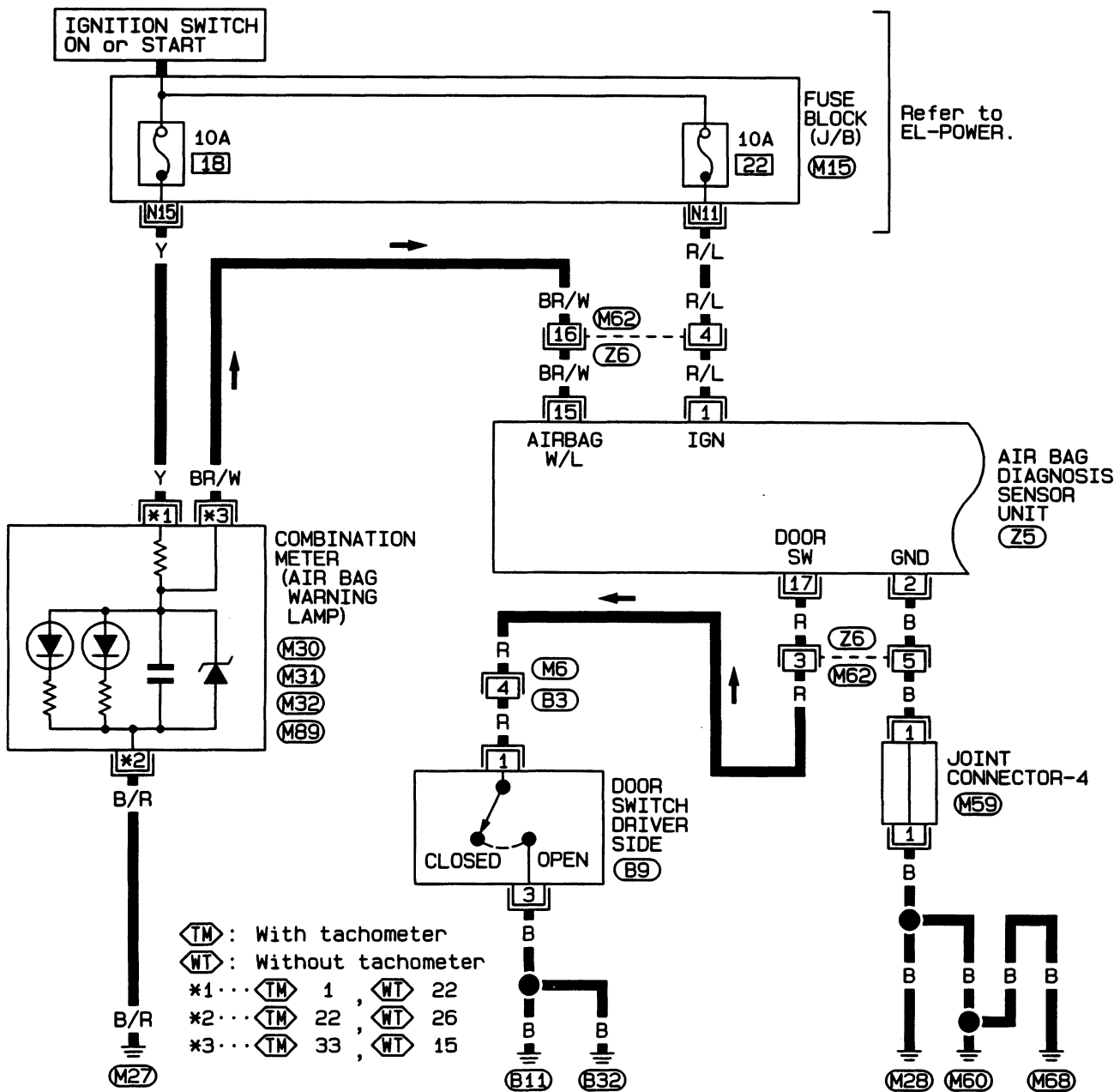


*: This connector is not shown in "HARNESS LAYOUT", EL section.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Wiring Diagram — SRS — (Cont'd)

RS-SRS-04



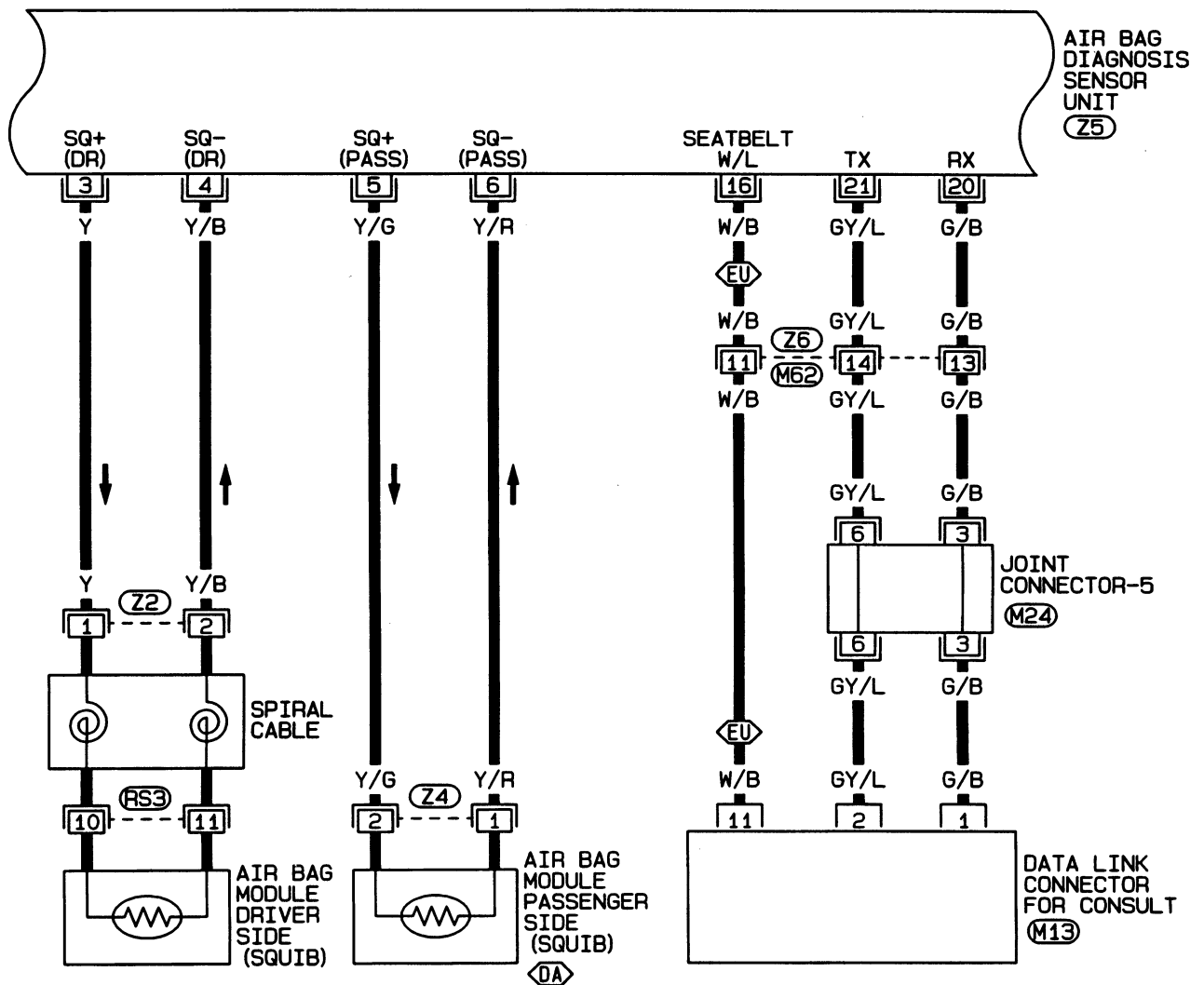
Refer to last page (Foldout page).

(M15)

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

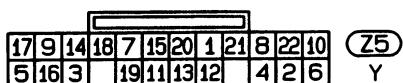
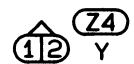
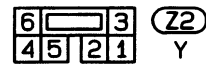
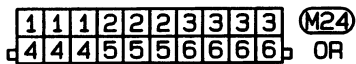
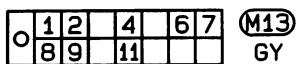
Wiring Diagram — SRS — (Cont'd)

RS-SRS-05



EU : For Europe

DA : Model with dual air bag system

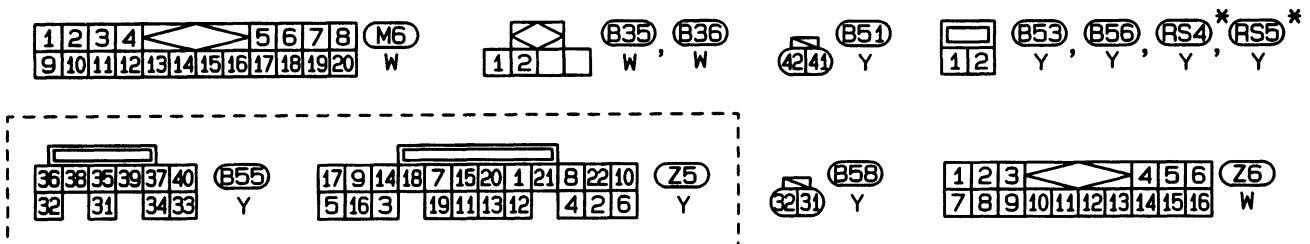
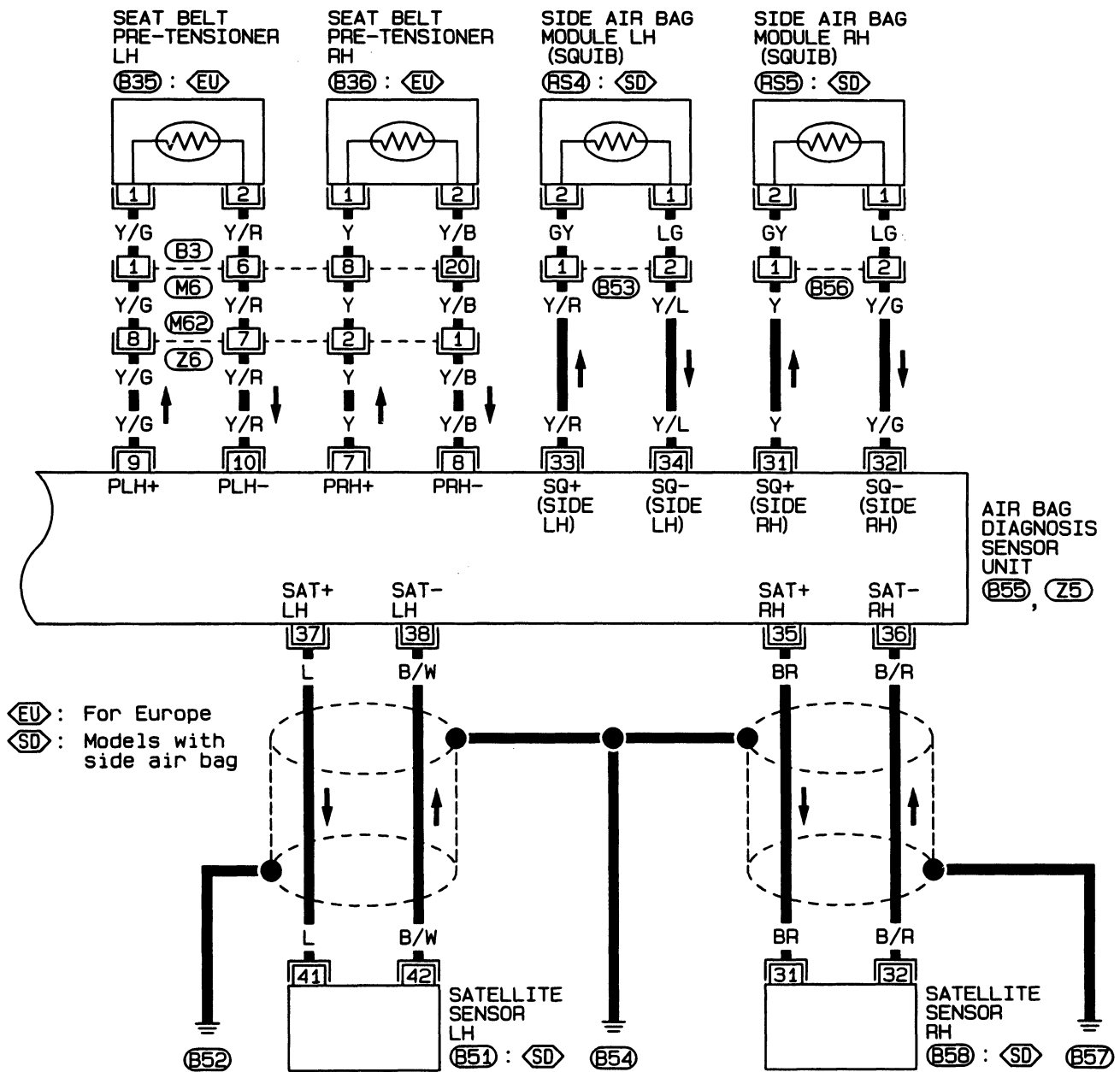


*: This connector is not shown in "HARNESS LAYOUT", EL section.

HRS045

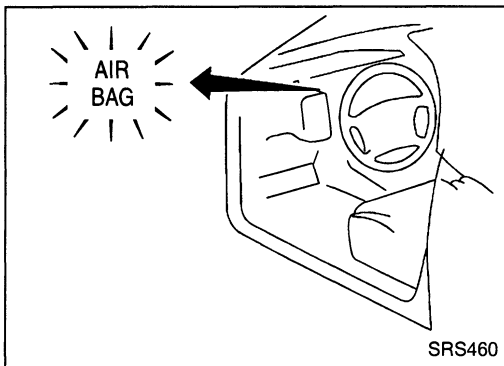
Wiring Diagram — SRS — (Cont'd)

RS-SRS-06



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

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)



Self-diagnosis

DIAGNOSTIC PROCEDURE 1

Checking air bag system operation by using “AIR BAG” warning lamp — User mode

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
MRS095A	No malfunction is detected. No further action is necessary.	—
MRS096A	The system is malfunctioning and needs to be repaired as indicated.	Go to DIAGNOSTIC PROCEDURE 2 or 3 (RS-28 or 32).
MRS097A	Air bag is deployed.	Go to COLLISION DIAGNOSIS (RS-46).
	Air bag fuse, diagnosis sensor unit or harness is malfunctioning and needs to be repaired.	Go to DIAGNOSTIC PROCEDURE 9 (RS-44).
MRS098A	One of the following has occurred and needs to be repaired. ● Meter fuse is blown. ● “AIR BAG” warning lamp circuit has open or short. ● Diagnosis sensor unit is malfunctioning.	Go to DIAGNOSTIC PROCEDURE 10 (RS-44).

NOTE:

If “AIR BAG” warning lamp operates differently from the operations shown above, refer to “AIR BAG” warning lamp operation — Diagnosis mode —, DIAGNOSTIC PROCEDURE 3 (step 4), RS-32.

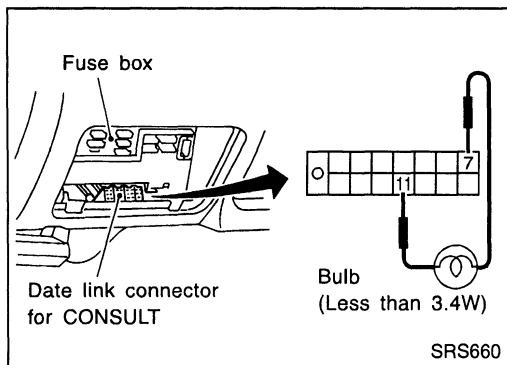
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

Checking seat belt pre-tensioner system operation

Check seat belt pre-tensioner system operation using a bulb as follows:

1. Connect a bulb of less than 3.4W between data link connector terminals ⑦ and ⑪.
2. After turning ignition switch from "OFF" to "ON", the bulb operates.
3. Compare the bulb operation to the chart below.



Lighting condition of the bulb	SRS condition	Reference item
MRS095A	No malfunction is detected. No further action is necessary.	—
MRS096A	● Seat belt pre-tensioner circuit is opened, or ● Seat belt pre-tensioner power supply or ground circuit is shorted.	● If CONSULT is available, go to DIAGNOSTIC PROCEDURE 2 (RS-28). ● If CONSULT is not available, repair the system as follows.* 1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage. 3. Replace driver's and front passenger seat belt assemblies. (Before disposing, they must be deactivated.) 4. Replace diagnosis sensor unit.
MRS097A	Seat belt pre-tensioner (and air bag) is deployed.	Go to COLLISION DIAGNOSIS (RS-46).

* Follow the procedures in numerical order when repairing malfunctioning parts. Confirm whether malfunction is eliminated using a bulb or CONSULT 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.

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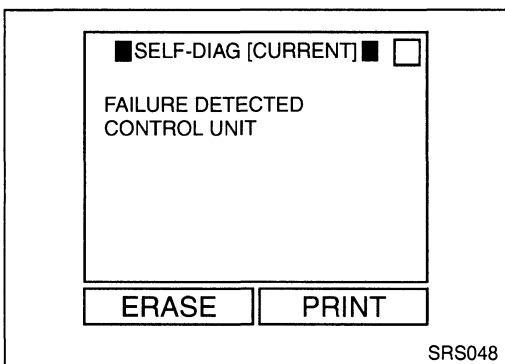
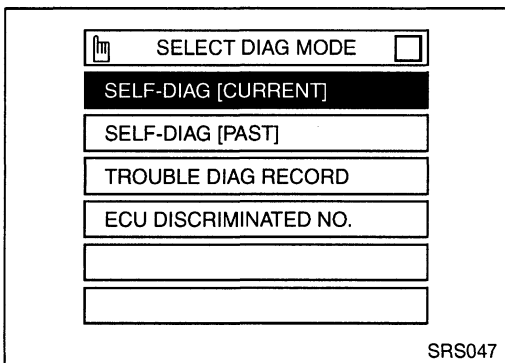
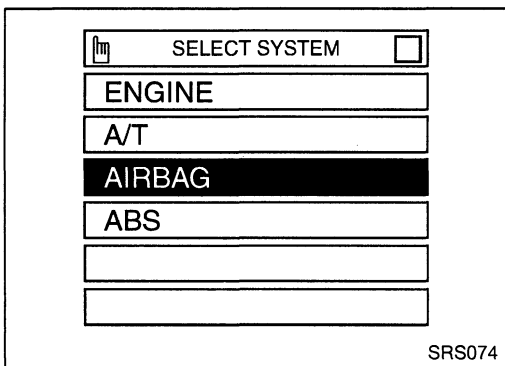
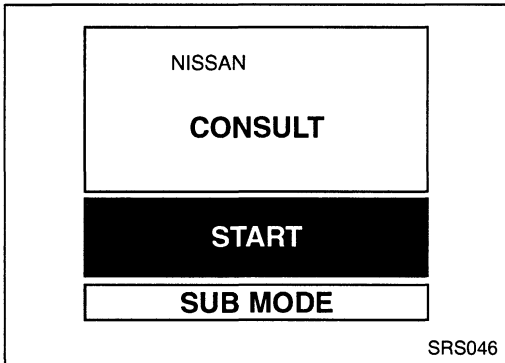
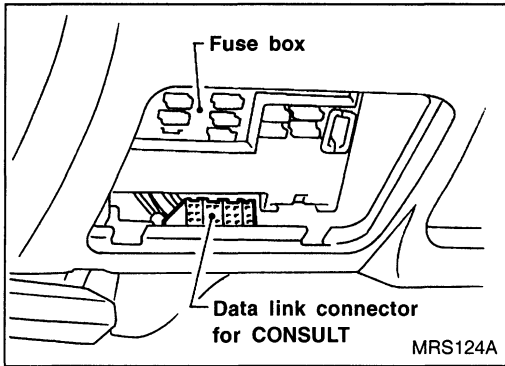
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

DIAGNOSTIC PROCEDURE 2 (CONSULT with CONSULT)

Inspecting SRS malfunctioning parts by using CONSULT — Diagnosis mode

1. Turn ignition switch "OFF".
2. Connect "CONSULT" to Data link connector.



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

5. Touch "AIRBAG".

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

7. Diagnostic codes are displayed on "SELF-DIAG [CURRENT]".

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

If no malfunction is detected on "SELF-DIAG [CURRENT]" even though malfunction is detected by the "AIR BAG" warning lamp, check the battery voltage. If the battery voltage is less than 9V, charge the battery. Then go to DIAGNOSTIC PROCEDURE 4 for final checking, page RS-36. If the battery voltage is OK, go to DIAGNOSTIC PROCEDURE 6, page RS-40, to diagnose the following situations:

- Self-diagnostic result (previously stored in the memory) might not be erased after repair.
- The SRS system malfunctions intermittently.

■ SELF-DIAG [CURRENT] ■ ☐

FAILURE DETECTED

* NO SELF DIAGNOSTIC FAILURE INDICATED.

FURTHER TESTING MAY BE REQUIRED. **

ERASEPRINT

SRS049

8. Touch "PRINT".
9. Compare diagnostic codes to the CONSULT DIAGNOSTIC CODE CHART, page RS-30.
10. Touch "BACK" key of CONSULT until SELECT SYSTEM appears in order to return to User mode from Diagnosis mode, then turn off CONSULT.
11. Turn ignition switch "OFF", then disconnect CONSULT and both battery cables.
12. Repair the system as outlined by the "Repair order" in CONSULT DIAGNOSTIC CODE CHART, that corresponds to the self-diagnostic result. For replacement procedure of component parts, refer to RS-11 and "Removal and Installation" in RS section of N15 Service Manual.
13. After repairing the system, go to DIAGNOSTIC PROCEDURE 4 for final checking, page RS-36.

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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

CONSULT DIAGNOSTIC CODE CHART ("SELF-DIAG [CURRENT]")

Diagnostic item	Explanation		Repair order Recheck SRS at each replacement.
NO SELF DIAGNOSTIC FAILURE INDICATED	When malfunction is indicated by the “AIR BAG” warning lamp in User mode	● Low battery voltage (Less than 9V)	● Go to DIAGNOSTIC PROCEDURE 4 (RS-36) after charging battery.
		● Self-diagnostic result “SELF-DIAG [PAST]” (previously stored in the memory) might not be erased after repair. ● Intermittent malfunction has been detected in the past.	● Go to DIAGNOSTIC PROCEDURE 6 (RS-40).
	● No malfunction is detected.		● Go to DIAGNOSTIC PROCEDURE 4 (RS-36).
AIRBAG MODULE [OPEN]	● Driver's 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. 3. Replace the spiral cable. 4. Replace driver's air bag module. (Before disposal of it, it must be deployed.) 5. Replace the diagnosis sensor unit. 6. Replace the related harness.
AIRBAG MODULE [VB-SHORT]	● Driver's air bag module circuit is shorted to some power supply circuit. (including the spiral cable)		
AIRBAG MODULE [GND-SHORT]	● Driver's air bag module circuit is shorted to ground. (including the spiral cable)		
AIRBAG MODULE [SHORT]	● Driver's 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. 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.		
SIDE MODULE LH [OPEN]	● Side air bag module (LH) circuit is open.		1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace side air bag module (LH). (Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
SIDE MODULE LH [VB-SHORT]	● Side air bag module (LH) circuit is shorted to some power supply circuits.		
SIDE MODULE LH [GND-SHORT]	● Side air bag module (LH) circuit is shorted to ground.		
SIDE MODULE LH [SHORT]	● Side air bag module (LH) circuits are shorted to each other.		
SIDE MODULE RH [OPEN]	● Side air bag module (RH) circuit is open.		1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace side air bag module (RH). (Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
SIDE MODULE RH [VB-SHORT]	● Side air bag module (RH) circuit is shorted to some power supply circuits.		
SIDE MODULE RH [GND-SHORT]	● Side air bag module (RH) circuit is shorted to ground.		
SIDE MODULE RH [SHORT]	● Side air bag module (RH) circuits are shorted to each other.		

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

Diagnostic item	Explanation	Repair order *Recheck SRS at each replacement.
SATELLITE SENS LH [UNIT FAIL] SATELLITE SENS LH [COMM FAIL]	● Satellite sensor (LH)	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace the satellite sensor (LH). 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
SATELLITE SENS RH [UNIT FAIL] SATELLITE SENS RH [COMM FAIL]	● Satellite sensor (RH)	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace the satellite sensor (RH). 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
PRE-TEN FRONT LH [OPEN/VB-SHORT]	● The circuit for front LH pre-tensioner is open or shorted to some power supply circuit.	1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage. 3. Replace front LH seat belt. (Before disposing, it must be deactivated.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
PRE-TEN FRONT LH [GND-SHORT]	● The circuit for front LH pre-tensioner is shorted to ground.	
PRE-TEN FRONT RH [OPEN/VB-SHORT]	● The circuit for front RH pre-tensioner is open or shorted to some power supply circuit.	1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage. 3. Replace front RH seat belt. (Before disposing, it must be deactivated.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
PRE-TEN FRONT RH [GND-SHORT]	● The circuit for front RH pre-tensioner is shorted to ground.	
CONTROL UNIT	● Diagnosis sensor unit is malfunctioning.	1. Visually check the wiring harness connections. 2. Replace the diagnosis sensor unit.

* Follow the procedures in numerical order when repairing malfunctioning parts. Confirm whether malfunction is eliminated using the air bag warning lamp or CONSULT 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 — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

DIAGNOSTIC PROCEDURE 3 (without CONSULT)

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

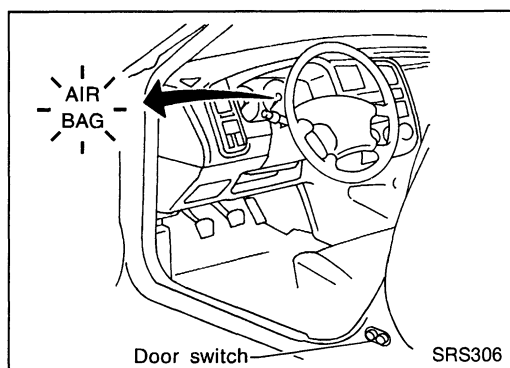
NOTE:

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-45.



No.	“AIR BAG” warning lamp flash pattern — Diagnosis mode —	SRS condition
1	(a) through (b) are repeated. SRS333	● Diagnosis results (previously stored in the memory) might not be erased after repair. ● Intermittent malfunction has been detected in the past. Go to DIAGNOSTIC PROCEDURE 7 (RS-40).
2	(a) through (d) are repeated. (b) — Driver and passenger air bag marker (For identifying driver and/or passenger air bag malfunctioning) (d) — 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.) SRS341	The system is malfunctioning and needs to be repaired.
3	(a) through (f) are repeated. (b), (c), (d) — Side air bag marker (For identifying side air bag malfunctioning) (f) — 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.) SRS342-A	

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

- Malfunctioning part is indicated by the number of flashes (part ④ or ⑤). Compare the number of flashes to AIR BAG WARNING LAMP FLASH CODE CHART, page RS-33, and locate malfunctioning part.
- Turn ignition switch "OFF", and disconnect both battery cables.
- Repair the system as outlined by the "Repair order" in AIR BAG WARNING LAMP FLASH CODE CHART that corresponds to the flash code. For replacement procedure of component parts, refer to RS-11 and "Removal and Installation" in RS section of N15 Service Manual.
- After repairing the system, go to DIAGNOSTIC PROCEDURE 5, page RS-38.

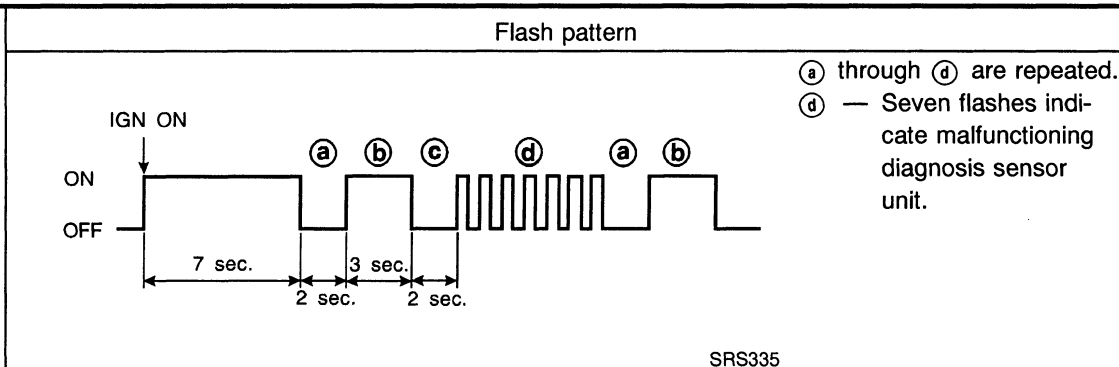
AIR BAG WARNING LAMP FLASH CODE CHART (DIAGNOSIS MODE)

● Diagnosis results (previously stored in the memory) might not be erased after repair. ● Intermittent malfunction has been detected in the past.	Flash pattern
	① through ② are repeated. SRS333
	Repair order ● Go to DIAGNOSTIC PROCEDURE 7 (RS-40).
The driver's air bag module circuit is malfunctioning. (④ : 2 flashes)	Flash pattern
	① through ④ are repeated. ④ — Two flashes indicate malfunctioning driver's air bag module circuit. SRS334
	Repair order ("Recheck SRS at each replacement.") - Visually check the wiring harness connection. - Replace the harness if it has visible damage. - Replace the spiral cable. - Replace driver's air bag module. (Before disposal, it must be deployed.) - Replace the diagnosis sensor unit. - Replace the related harness.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

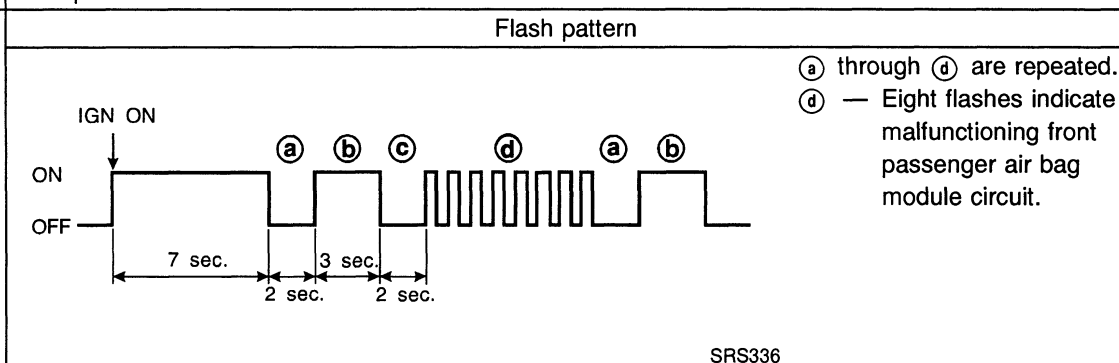
The diagnosis sensor unit is malfunctioning.
(**Ⓐ** : 7 flashes)



Repair order ("Recheck SRS at each replacement.")

1. Visually check the wiring harness connections.
2. Replace the harness if it has visible damage.
3. Replace the diagnosis sensor unit.
4. Replace the related harness.

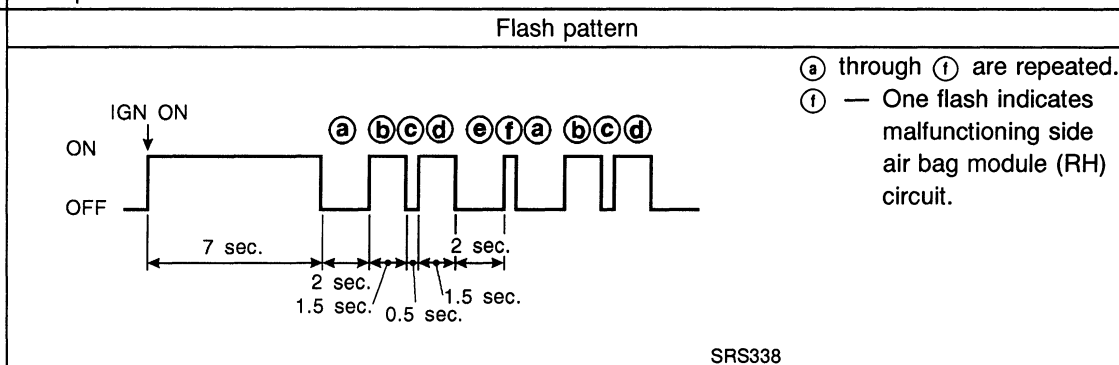
The front passenger air bag module circuit is malfunctioning.
(**Ⓐ** : 8 flashes)



Repair order ("Recheck SRS at each replacement.")

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, it must be deployed.)
4. Replace the diagnosis sensor unit.
5. Replace the related harness.

The side air bag module (RH) circuit is malfunctioning.
(**Ⓘ** : 1 flash)

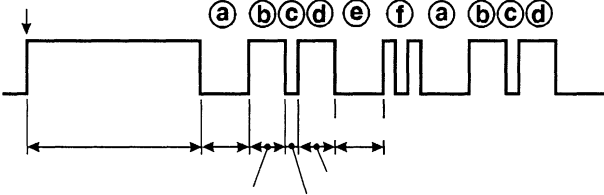
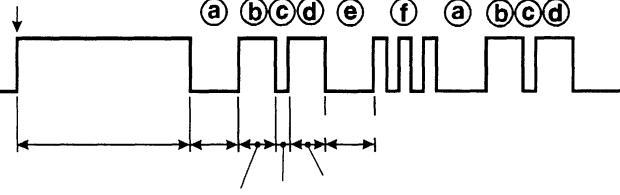
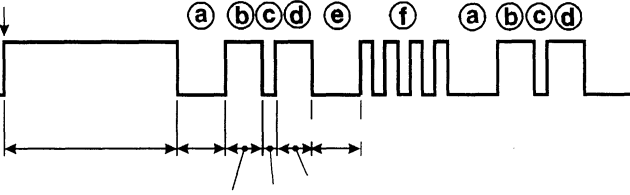


Repair order ("Recheck SRS at each replacement.")

1. Visually check the wiring harness connection.
2. Replace the harness if it has visible damage.
3. Replace side air bag module (RH).
(Before disposal, it must be deployed.)
4. Replace the diagnosis sensor unit.
5. Replace the related harness.

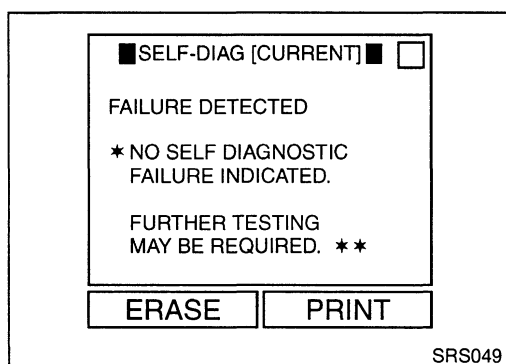
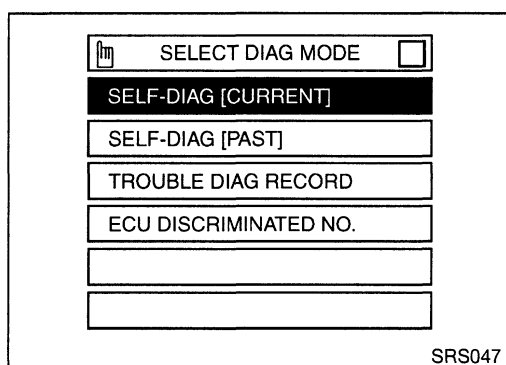
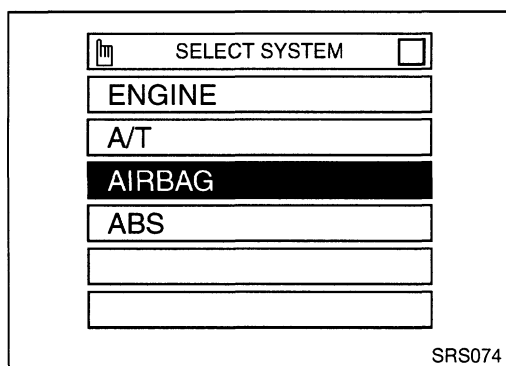
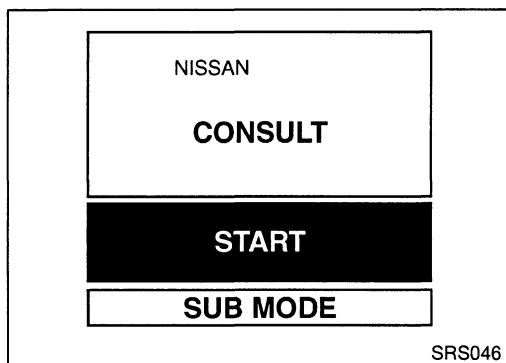
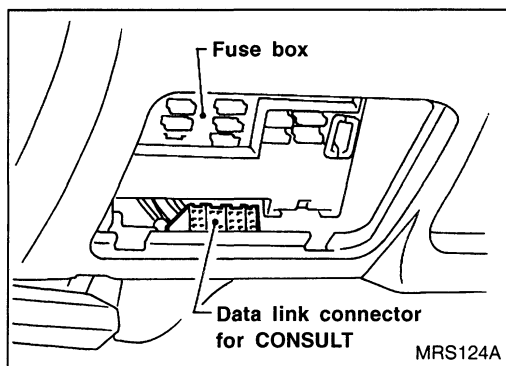
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

The side air bag module (LH) circuit is malfunctioning. (① : 2 flashes)	Flash pattern  a through f are repeated. ① — Two flashes indicate malfunctioning side air bag module (LH) circuit. SRS337	GI MA EM
	Repair order *("Recheck SRS at each replacement.") 1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace side air bag module (LH). (Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.	
The satellite sensor (RH) is malfunctioning. (① : 3 flashes)	Flash pattern  a through f are repeated. ① — Three flashes indicate malfunctioning satellite sensor (RH) circuit. SRS340	CL MT AT FA
	Repair order *("Recheck SRS at each replacement.") 1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace the satellite sensor (RH). 4. Replace the diagnosis sensor unit. 5. Replace the related harness.	
The satellite sensor (LH) is malfunctioning. (① : 4 flashes)	Flash pattern  a through f are repeated. ① — Four flashes indicate malfunctioning satellite sensor (LH) circuit. SRS339-A	ST RS BT HA
	Repair order *("Recheck SRS at each replacement.") 1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace the satellite sensor (LH). 4. Replace the diagnosis sensor unit. 5. 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 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 — Supplemental Restraint System (SRS)



Self-diagnosis (Cont'd)

DIAGNOSTIC PROCEDURE 4 (CONSULT with CONSULT)

Final checking after repairing SRS by using CONSULT — Diagnosis mode

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

4. Touch "START".

5. Touch "AIRBAG".

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

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

- When the malfunction was only in seat belt pre-tensioner system, go to step 11.
- When the malfunction was not only in seat belt pre-tensioner system, go to step 8.

If any malfunction is detected on "SELF-DIAG [CURRENT]", the malfunctioning part has not been repaired completely or another malfunctioning part is detected. Go to DIAGNOSTIC PROCEDURE 2, page RS-28, and repair malfunctioning part completely.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

8. Touch "ERASE".

NOTE:

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

If the memory of the malfunction is "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.

9. Touch "BACK" key of CONSULT to select "SELF-DIAG [PAST]" in the "SELECT DIAG MODE" screen. Touch "SELF-DIAG [PAST]".

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

NOTE:

Past malfunction for seat belt pre-tensioner system will not be displayed on "SELF-DIAG [PAST]".

11. Touch "BACK" key of CONSULT until SELECT SYSTEM appears in order to return to User mode from Diagnosis mode, turn off CONSULT, then disconnect CONSULT.

12. Turn ignition switch "OFF".

13. Go to DIAGNOSTIC PROCEDURE 1, page RS-26 to check SRS operation by using "AIR BAG" warning lamp with User mode.

■ SELF-DIAG [CURRENT] ■

FAILURE DETECTED

* NO SELF DIAGNOSTIC FAILURE INDICATED.

FURTHER TESTING MAY BE REQUIRED. **

ERASE PRINT

SRS357

SELECT DIAG MODE

SELF-DIAG [CURRENT]

SELF-DIAG [PAST]

TROUBLE DIAG RECORD

ECU DISCRIMINATED NO.

SRS050

■ SELF-DIAG [PAST] ■

FAILURE DETECTED

* NO SELF DIAGNOSTIC FAILURE INDICATED.

FURTHER TESTING MAY BE REQUIRED. **

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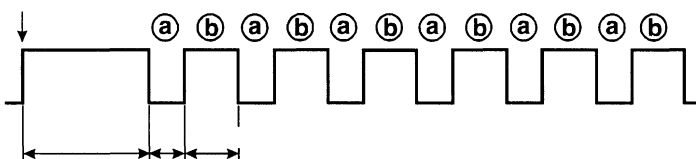
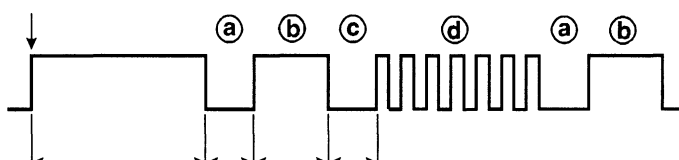
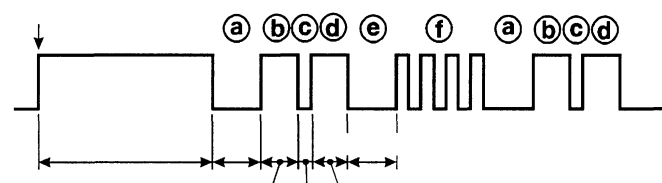
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

DIAGNOSTIC PROCEDURE 5 (without CONSULT)

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	① through ② are repeated.  SRS333	No malfunction is detected or repair is completed. No further action is necessary.
2	① through ④ are repeated. ② — Driver and passenger air bag marker (For identifying driver and/or passenger air bag malfunctioning) ④ — 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.)  SRS341	The system is malfunctioning and needs to be repaired.
3	① through ⑥ are repeated. ②, ③, ④ — Side air bag marker (For identifying side air bag malfunctioning) ⑥ — 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.)  SRS342-A	

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.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

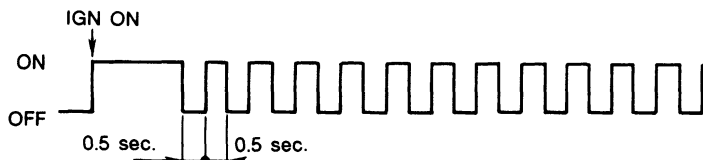
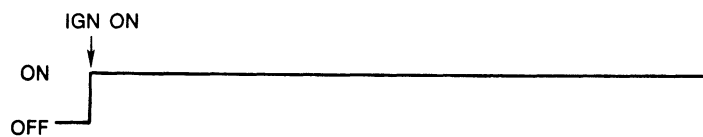
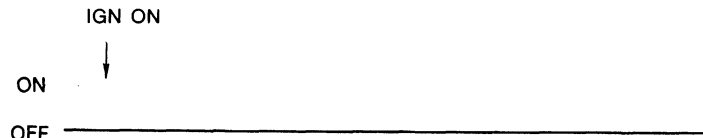
- If "AIR BAG" warning lamp operates as shown in No. 1 in chart above, turn ignition switch "OFF" to reset from Diagnosis mode to User mode and to erase the memory of the malfunction. Then go to step 6.

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 3, page RS-32, and repair malfunctioning part completely.

- 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.

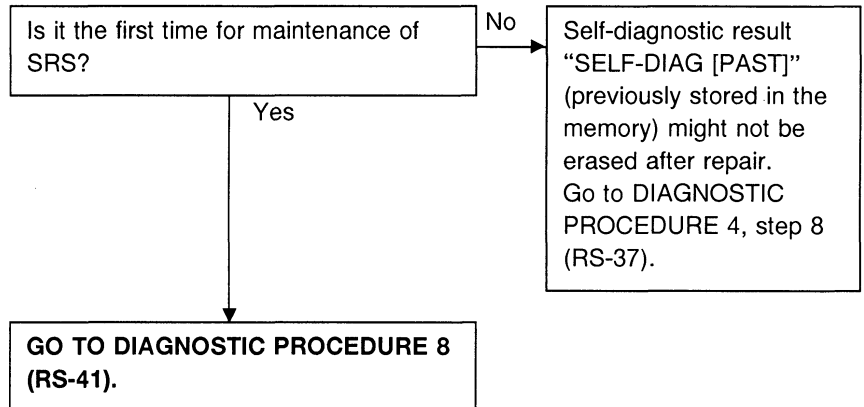
"AIR BAG" warning lamp operation — User mode —	SRS condition	Reference item
 MRS095A	No malfunction is detected. No further action is necessary.	—
 MRS096A	The system is malfunctioning and needs to be repaired as indicated.	Go to DIAGNOSTIC PROCEDURE 2 or 3 (RS-28 or 32).
 MRS097A	Air bag is deployed. 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-44).
 MRS098A	One of the following has occurred and needs to be repaired. ● Meter fuse is blown. ● "AIR BAG" warning lamp circuit has open or short. ● Diagnosis sensor unit is malfunctioning.	Go to DIAGNOSTIC PROCEDURE 10 (RS-44).

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

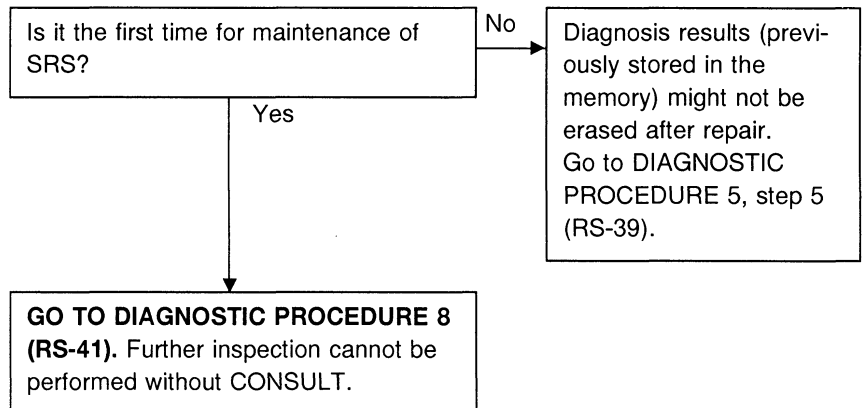
DIAGNOSTIC PROCEDURE 6 (Continued from DIAGNOSTIC PROCEDURE 2) (with CONSULT)

Inspecting SRS malfunctioning record



DIAGNOSTIC PROCEDURE 7 (Continued from DIAGNOSTIC PROCEDURE 3) (without CONSULT)

Inspecting SRS malfunctioning record



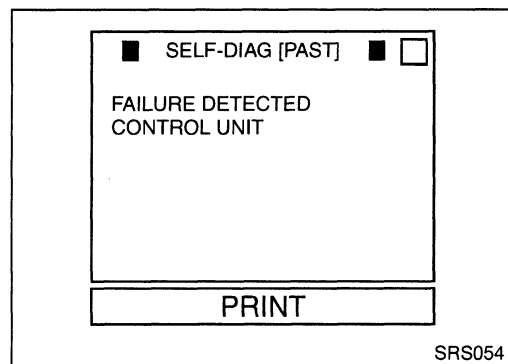
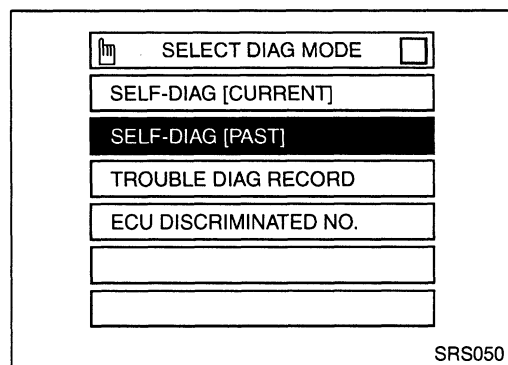
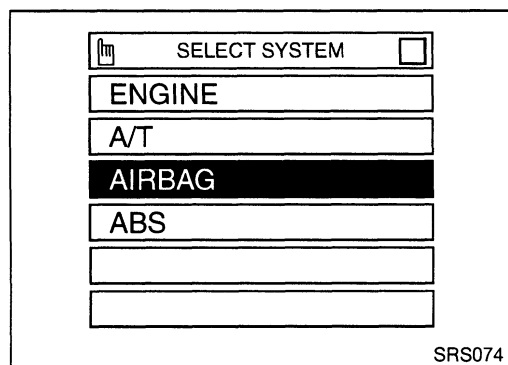
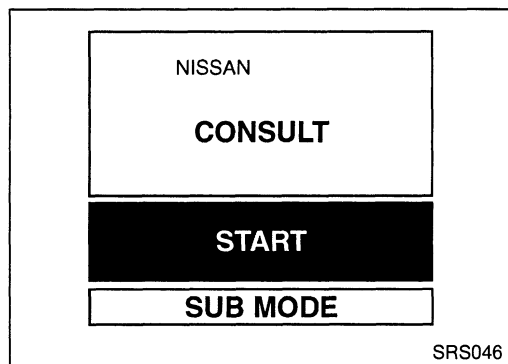
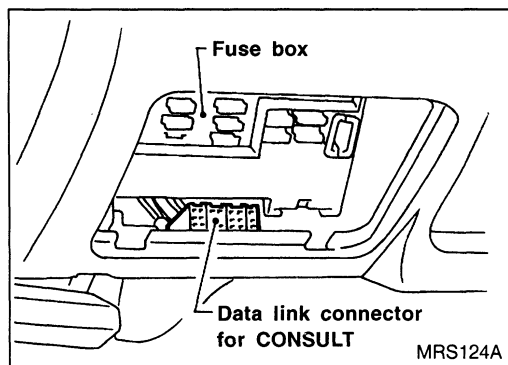
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

DIAGNOSTIC PROCEDURE 8 (CONSULT with CONSULT)

Inspecting SRS intermittent malfunction by using CONSULT — Diagnosis mode

1. Turn ignition switch "OFF".
2. Connect "CONSULT" to Data link connector.



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

5. Touch "AIRBAG".

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

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

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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

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

NOTE:

Past malfunction for seat belt pre-tensioner system will not be displayed on "SELF-DIAG [PAST]".

SELECT DIAG MODE ☐

SELF-DIAG [CURRENT]

SELF-DIAG [PAST]

TROUBLE DIAG RECORD

ECU DISCRIMINATED NO.

SRS055

8. Touch "TROUBLE DIAG RECORD".

NOTE:

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

TROUBLE DIAG RECORD ☐

FAILURE DETECTED

ASSIST A/B MODULE
[OPEN]

PRINT

SRS056

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

10. Touch "PRINT".

11. Compare diagnostic codes to the INTERMITTENT MALFUNCTION DIAGNOSTIC CODE CHART, page RS-43.

12. Touch "BACK" key of CONSULT until SELECT SYSTEM appears, then turn off CONSULT.

13. Turn ignition switch "OFF", then disconnect CONSULT and 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-11 and "Removal and Installation" in RS section of N15 Service Manual.

15. Go to DIAGNOSTIC PROCEDURE 4, page RS-36, for final checking.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

INTERMITTENT MALFUNCTION DIAGNOSTIC CODE CHART (“SELF-DIAG [PAST]” or “TROUBLE DIAG RECORD”)

Diagnostic item	Explanation	Repair order
NO SELF DIAGNOSTIC FAILURE INDICATED.	When malfunction is indicated by the “AIR BAG” warning lamp in User mode ● Low battery voltage (Less than 9V)	● Go to DIAGNOSTIC PROCEDURE 4 (RS-36) after charging battery.
	● No malfunction is detected.	● Go to DIAGNOSTIC PROCEDURE 4 (RS-36).
AIRBAG MODULE [OPEN]	● Driver's 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. 3. If the harness check is OK, replace the spiral cable, diagnosis sensor unit and driver air bag module. (Before disposing the driver air bag module, it must be deployed.)
AIRBAG MODULE [VB-SHORT]	● Driver's air bag module circuit is shorted to some power supply circuit. (including the spiral cable)	
AIRBAG MODULE [GND-SHORT]	● Driver's air bag module circuit is shorted to ground. (including the spiral cable)	
AIRBAG MODULE [SHORT]	● Driver's 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. 3. If the harness check is OK, replace the diagnosis sensor unit and passenger air bag module. (Before disposing the passenger air bag module, it must be deployed.)
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.	
SIDE MODULE LH [OPEN]	● Side air bag module (LH) circuit is open.	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 and front side air bag module (LH). (Before disposing the front side air bag module (LH), it must be deployed.)
SIDE MODULE LH [VB-SHORT]	● Side air bag module (LH) circuit is shorted to some power supply circuits.	
SIDE MODULE LH [GND-SHORT]	● Side air bag module (LH) circuit is shorted to ground.	
SIDE MODULE LH [SHORT]	● Side air bag module (LH) circuits are shorted to each other.	
SIDE MODULE RH [OPEN]	● Side air bag module (RH) circuit is open.	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 and front side air bag module (RH). (Before disposing the front side air bag module (RH), it must be deployed.)
SIDE MODULE RH [VB-SHORT]	● Side air bag module (RH) circuit is shorted to some power supply circuits.	
SIDE MODULE RH [GND-SHORT]	● Side air bag module (RH) circuit is shorted to ground.	
SIDE MODULE RH [SHORT]	● Side air bag module (RH) circuits are shorted to each other.	
SATELLITE SENS LH [UNIT FAIL] SATELLITE SENS LH [COMM FAIL]	● Satellite sensor (LH)	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 and satellite sensor (LH).
SATELLITE SENS RH [UNIT FAIL] SATELLITE SENS RH [COMM FAIL]	● Satellite sensor (RH)	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 and satellite sensor (RH).
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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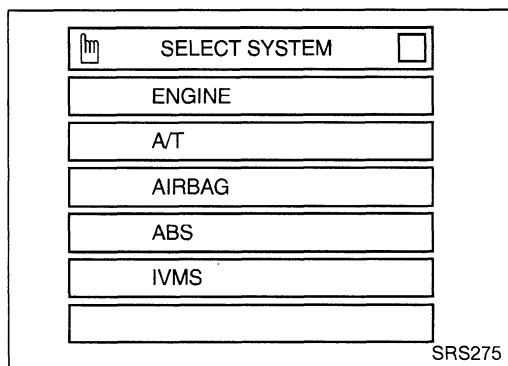
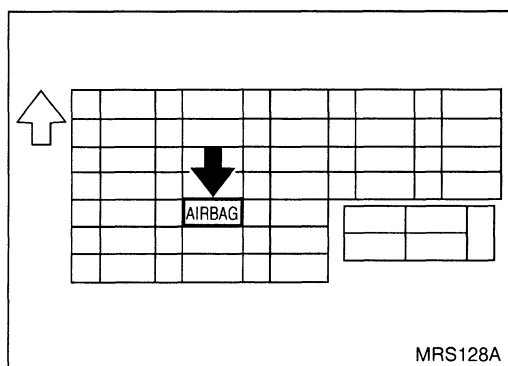
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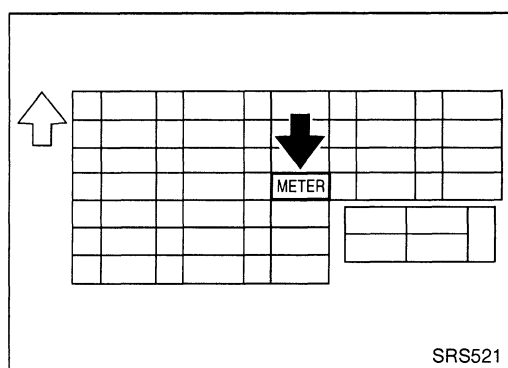
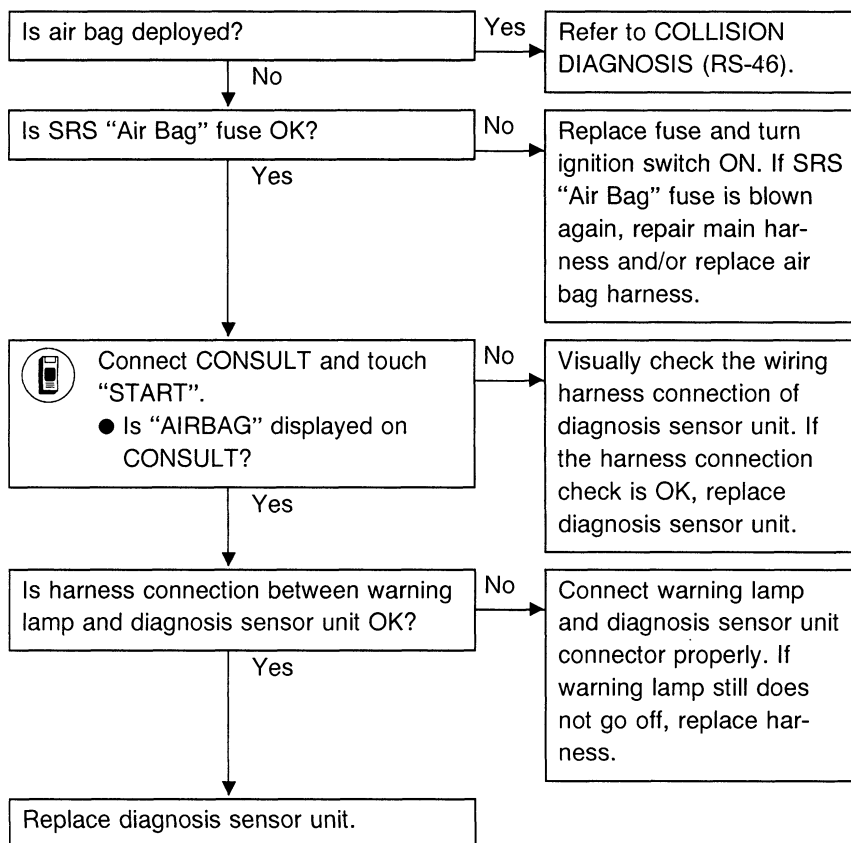
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Trouble Diagnoses for Air Bag Warning Lamp

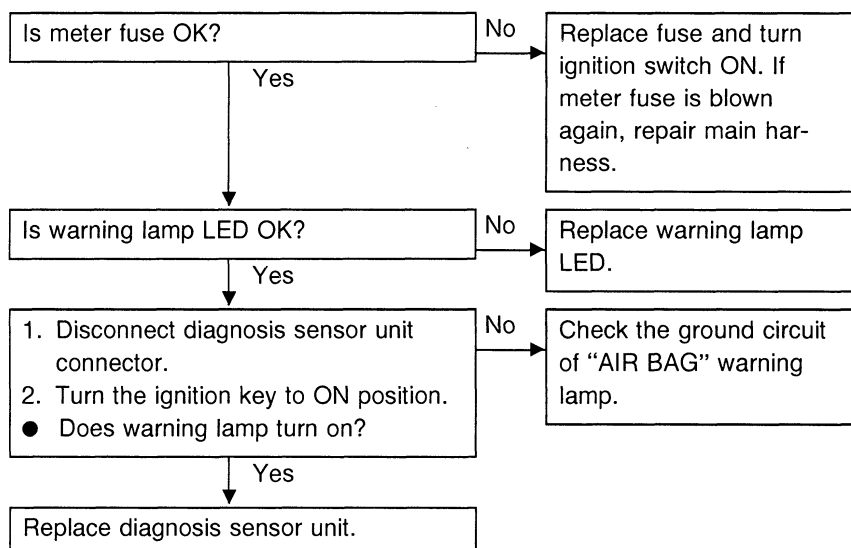
DIAGNOSTIC PROCEDURE 9

SYMPTOM: "AIR BAG" warning lamp does not turn off.



DIAGNOSTIC PROCEDURE 10

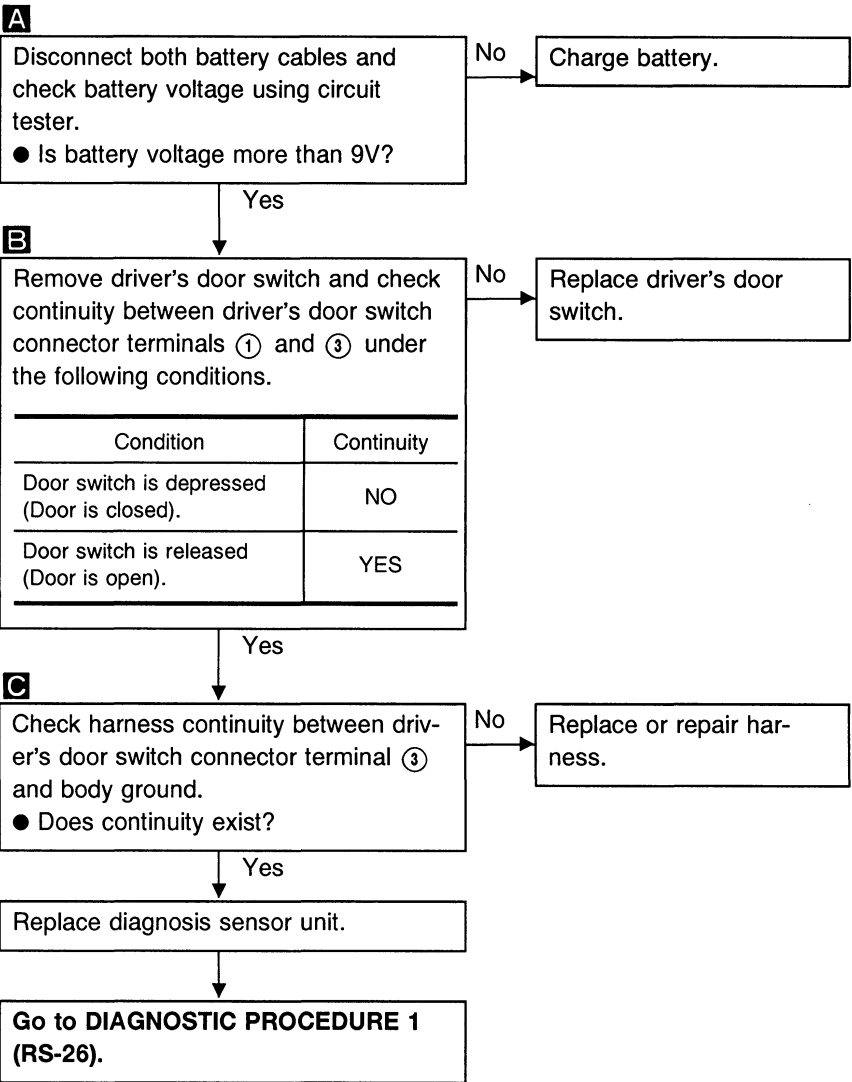
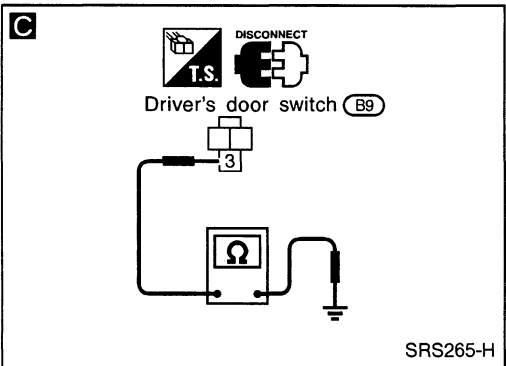
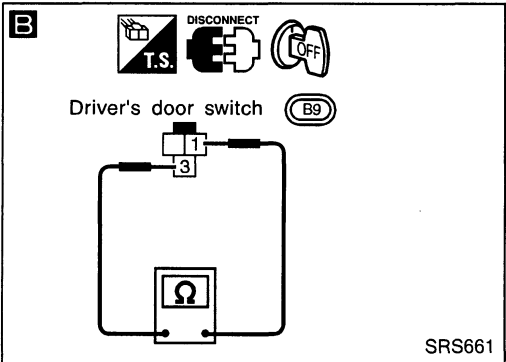
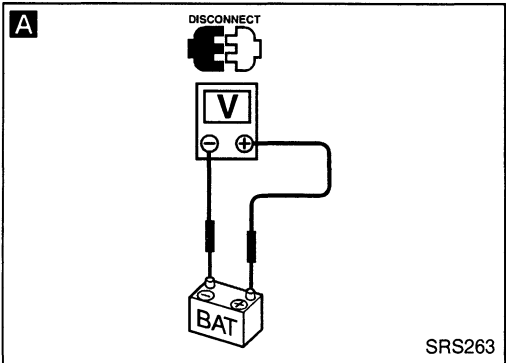
SYMPTOM: "AIR BAG" warning lamp does not turn on.



TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Trouble Diagnoses for Air Bag Warning Lamp (Cont'd)
 DIAGNOSTIC PROCEDURE 11

SYMPTOM: SRS does not enter Diagnosis mode using door switch.



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COLLISION DIAGNOSIS

FOR FRONTAL COLLISION

To repair the SRS for a frontal collision, perform the following steps.

When SRS (except the side air bag) is activated in a collision:

- ① Replace the diagnosis sensor unit.
- ② Remove the air bag modules (except the side air bag module) and seat belt pre-tensioner assemblies.
- ③ Check the SRS components using the table shown below:
 - Replace any SRS components showing visible signs of damage (dents, cracks, deformation).
- ④ Install new air bag modules (except the side air bag module) and seat belt pre-tensioner assemblies.
- ⑤ Conduct self-diagnosis using CONSULT, and "AIR BAG" warning lamps. Refer to "Self-diagnosis" for details (RS-26). Ensure entire SRS operates properly.

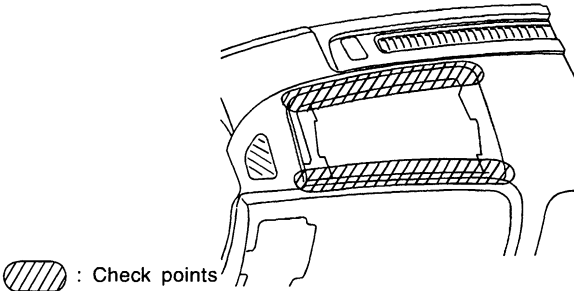
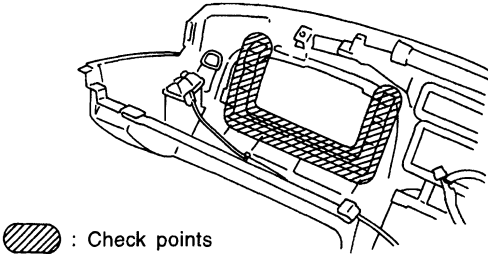
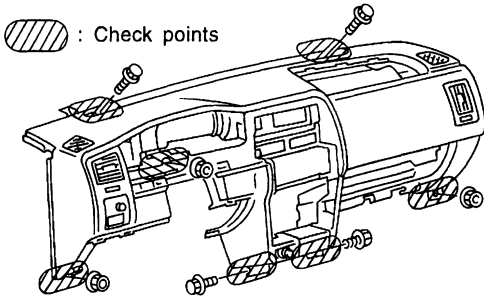
When SRS is not activated in a collision:

- ① Check the SRS components using the table shown below:
 - Replace any SRS components showing visible signs of damage (dents, cracks, deformation).
- ② Conduct self-diagnosis using CONSULT, and "AIR BAG" warning lamps. Refer to "Self-diagnosis" for details (RS-26). Ensure entire SRS operates properly.

SRS inspection

Part	SRS (except the side air bag) is activated	SRS is NOT activated
Air bag module (driver and passenger side)	REPLACE Install air bag module with new bolts.	1. Remove air bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. 2-1. Install driver air bag module into the steering wheel to check fit and alignment with the wheel. 2-2. Install passenger air bag module into the instrument panel to check fit with the instrument panel. 3. No damage found, reinstall with new bolts coated with bonding agent. 4. If damaged—REPLACE. Air bag must be deployed before discarding.
Seat belt pre-tensioner assembly	REPLACE Install seat belt pre-tensioner with new bolts.	1. Remove seat belt pre-tensioners. 2. Check belts for damage and anchors for loose mounting. 3. Check retractor for smooth operation. 4. If no damage is found, reinstall with new bolts coated with bonding agent. 5. If damaged—REPLACE. Install the seat belt pre-tensioners with new bolts coated with bonding agent. Seat belt pre-tensioners must be deployed before discarding.
Diagnosis sensor unit	REPLACE Install diagnosis sensor unit with new bolts.	1. Check case and bracket for dents, cracks or deformities. 2. Check connectors for damage, and terminals for deformities. 3. If no damage is found, reinstall with new bolts. 4. If damaged—REPLACE. Install diagnosis sensor unit with new bolts coated with bonding agent.
Steering wheel	1. Visually check steering wheel for deformities. 2. Check harness (built into steering wheel) and connectors for damage, and terminals for deformities. 3. Install air bag module to check fit or alignment with steering wheel. 4. Check steering wheel for excessive free play. 5. If no damage is found, reinstall the steering wheel. 6. If damaged—REPLACE.	
Spiral cable	1. Visually check spiral cable and combination switch for damage. 2. Check connectors, flat cable and protective tape for damage. 3. Check steering wheel for noise, binding or heavy operation. 4. If no damage is found, reinstall the spiral cable. 5. If damaged—REPLACE.	
Harness and Connectors	1. Check connectors for poor connection, damage, and terminals for deformities. 2. Check harness for binding, chafing, cuts, or deformities. 3. If no damage is found, reinstall harness and connectors. 4. Damaged—REPLACE damaged section of harness. Do not attempt to repair, splice or modify any SRS harness.	
Instrument panel	Refer to the table on the next page.	

COLLISION DIAGNOSIS

Part	SRS (except the side air bag) is activated	SRS is NOT activated
Instrument panel	1. When passenger air bag inflates, check the following points for bending, deformities or cracks. ● Opening portion for passenger air bag  : Check points ● Passenger air bag module brackets Back face of instrument panel  : Check points ● The portions securing the instrument panel  : Check points 2. If no damage is found, reinstall the instrument panel. 3. If damaged—REPLACE the instrument panel with bolts.	SRS522 SRS415 SRS523

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COLLISION DIAGNOSIS

FOR SIDE COLLISION

To repair the SRS for a side collision, perform the following steps.

When the side air bag is activated in the side collision:

- ① Replace the following components:
 - All parts of seat back with side air bag module (on the side on which side air bag is activated)
 - Diagnosis sensor unit
 - Satellite sensor (on the side on which side air bag is activated)
- ② Check the SRS components and the related parts using the table shown below.
 - Replace any SRS components and the related parts showing visible signs of damage (dents, cracks, deformation).
- ③ Conduct self-diagnosis using CONSULT, and "AIR BAG" warning lamp. Refer to "Self-diagnosis" for details (RS-26). Ensure entire SRS operates properly.

When SRS is not activated in the side collision:

- ① Check the SRS components and the related parts using the table shown below.
 - Replace any SRS components and the related parts showing visible signs of damage (dents, cracks, deformation).
- ② Conduct self-diagnosis using CONSULT, and "AIR BAG" warning lamp. Refer to "Self-diagnosis" for details (RS-26). Ensure entire SRS operates properly.

In the case of the side collision

Part	Side air bag is activated	SRS is NOT activated
Side air bag module (LH or RH)	REPLACE all parts of seat back with deployed side air bag module.	1. Check for visible signs of damage (dents, tears, deformation) of the seat back on the collision side. 2. If damaged—REPLACE the damaged seat parts with new bolts and remove the side air bag module. 3. Check for visible signs of damage (tears etc.) of the side air bag module. 4. Check harness and connectors for damage, and terminals for deformities. 5. If no damage is found, reinstall the side air bag module with new torx nuts coated with bonding agent. 6. If damaged—REPLACE the side air bag module with new torx nuts coated with bonding agent. Air bag must be deployed before disposing of it.
Satellite sensor (LH or RH)	REPLACE the satellite sensor on the collision side with new nuts. (Repair the center pillar inner, etc. before installing new one if damaged.)	1. Remove the satellite sensor on the collision side. Check harness connectors for damage, terminals for deformities, and harness for binding. 2. Check for visible signs of damage (dents, cracks, deformation) of the satellite sensor. 3. Install the satellite sensor to check fit. 4. If no damage is found, reinstall the satellite sensor with new nuts coated with bonding agent. 5. If damaged—REPLACE the satellite sensor with new nuts coated with bonding agent.
Diagnosis sensor unit	REPLACE the diagnosis sensor unit with the new bolts.	1. Check case and bracket for dents, cracks or deformities. 2. Check connectors for damage, and terminals for deformities. 3. If no damage is found, reinstall the diagnosis sensor unit with new special bolts and ground bolt coated with bonding agent. 4. If damaged—REPLACE the diagnosis sensor unit with new special bolts and ground bolt coated with bonding agent.
Seat belt pre-tensioner assembly	1. Check if the seat belt can be extended smoothly. If the seat belt cannot be extended smoothly. - Check for deformities of the center pillar inner. - If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly. 2. Remove the seat belt pre-tensioner assembly on the collision side. 3. Check for visible signs of damage (dents, cracks, deformation) of the seat belt pre-tensioner assembly. 4. If no damage is found, reinstall the seat belt pre-tensioner assembly with new bolts coated with bonding agent. 5. If damaged—REPLACE the seat belt pre-tensioner assembly with new bolts coated with bonding agent. The seat belt pre-tensioner assembly must be deployed before disposing of it.	

COLLISION DIAGNOSIS

Part	Side air bag is activated	SRS is NOT activated
Seat with side air bag	REPLACE all parts of seat back (including seat back frame)	1. Visually check the seat on the collision side. 2. Remove the seat on the collision side and check the following for damage and deformities. ● Harness, connectors and terminals ● Frame and recliner, and also adjuster and slides 3. If no damage is found, reinstall the seat. 4. If damaged—REPLACE the damaged seat parts with new bolts.
Center pillar inner	1. Check the center pillar inner on the collision side for damage (dents, cracks, deformation). 2. If damaged—REPAIR the center pillar inner.	
Trim	1. Check for visible signs of damage (dents, cracks, deformation) of the interior trim on the collision side. 2. If damaged—REPLACE the damaged trim parts.	

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