

RESTRAINT SYSTEM

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MODIFICATION NOTICE:

- Passenger air bag has been adopted as optional equipment.
- Diagnosis sensor unit has been changed.
- Seat belt pre-tensioner with load limiter has been adopted (For the Middle East).
- The air bag system with a diagnosis sensor unit located in the steering wheel has been deleted.

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PRECAUTION

Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER” used along with a seat belt, helps to reduce the risk or severity of injury to the driver and front passenger in a frontal collision. The SRS composition which is available to NISSAN MODEL D22 is as follows (The composition varies according to the destination and optional equipment.):

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

Precaution for Seat Belt Service

CAUTION:

- Before removing the seat belt pre-tensioner assembly (if equipped), turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- After replacing or reinstalling seat belt pre-tensioner assembly, or reconnecting seat belt pre-tensioner connector, check the system function. Refer to “Self-diagnosis” for details (RS-29).
- Do not disassemble buckle or seat belt assembly.
- Replace anchor bolts if they are deformed or worn out.
- Never oil tongue and buckle.
- If any component of seat belt assembly is questionable, do not repair. Replace the whole seat belt assembly.
- If webbing is cut, frayed, or damaged, replace seat belt assembly.
- When replacing seat belt assembly, use a genuine seat belt assembly.

AFTER A COLLISION

WARNING:

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

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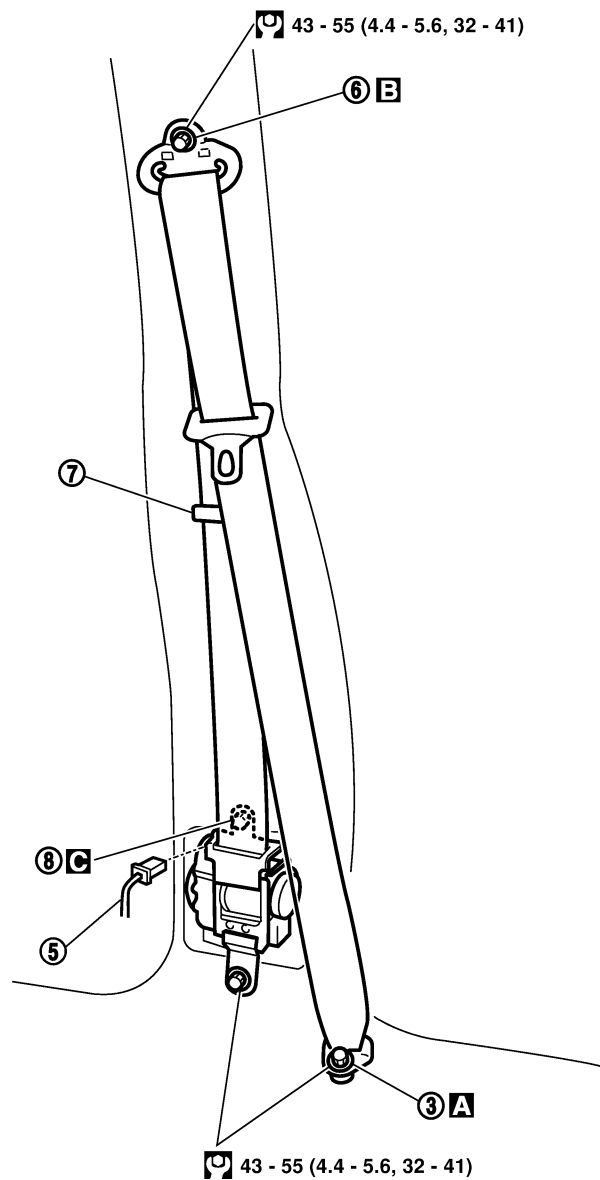
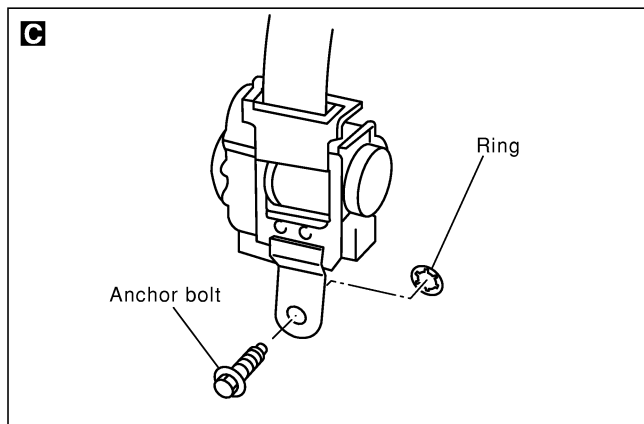
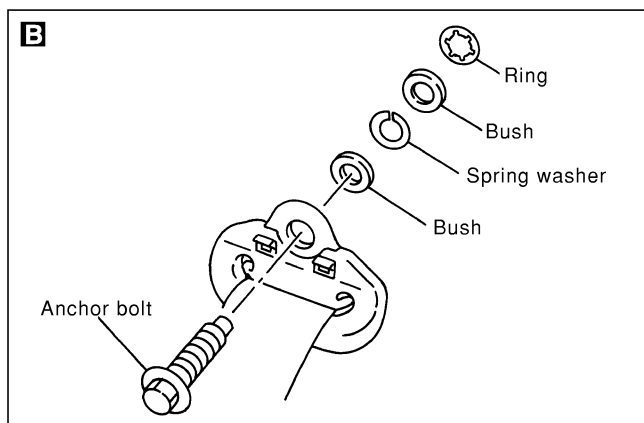
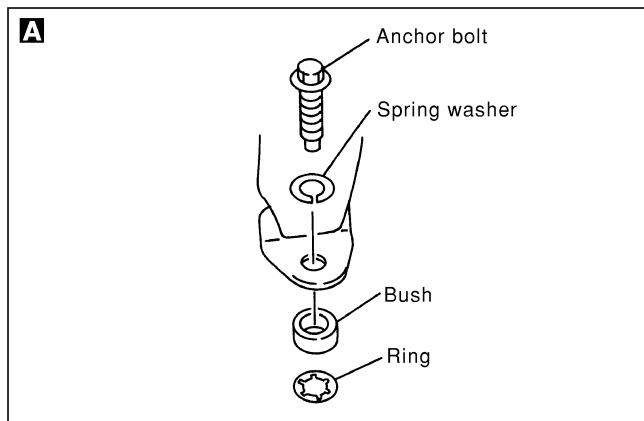
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SEAT BELTS

Front Seat Belt

- ① Remove front seat. Refer to "SEAT" in BT section for details.
- ② Remove anchor bolt cover.
- ③ Remove floor anchor bolt. **A**
- ④ Remove center pillar garnish. Refer to "INTERIOR TRIM" in BT section for details.
- ⑤ Disconnect seat belt pre-tensioner connector.
- ⑥ Remove shoulder anchor bolt. **B**
- ⑦ Remove second sash guide.
- ⑧ Remove bolts securing seat belt retractor, then remove seat belt and seat belt retractor. **C**



: N•m (kg-m, ft-lb)

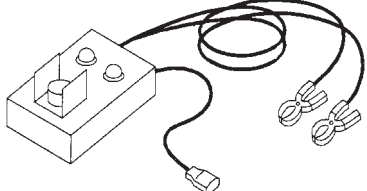
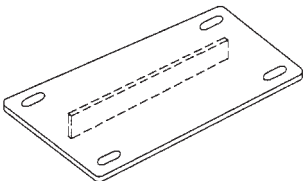
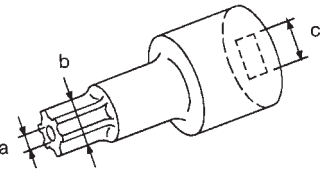
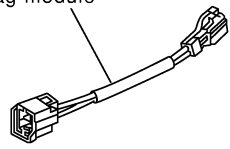
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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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.
- 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.

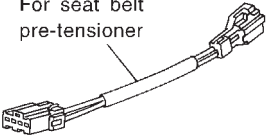
Special Service Tools

Tool number Tool name	Description
KV99106400 Deployment tool	Disposing of air bag module  NT357
KV99105300 Air bag module bracket	Anchoring air bag module  NT354
HT61961000 and HT62152000 combined *Special torx bit	Use for special bolts [TAMPER RESISTANT TORX (Size T50)]  NT361 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)
KV99108300 Deployment tool adapters for passenger air bag	For passenger air bag module  NT776

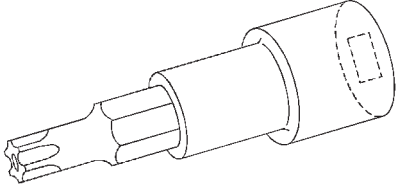
*: Special tool or commercial equivalent

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Special Service Tools (Cont'd)

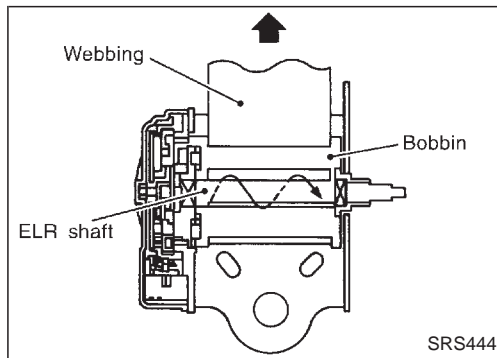
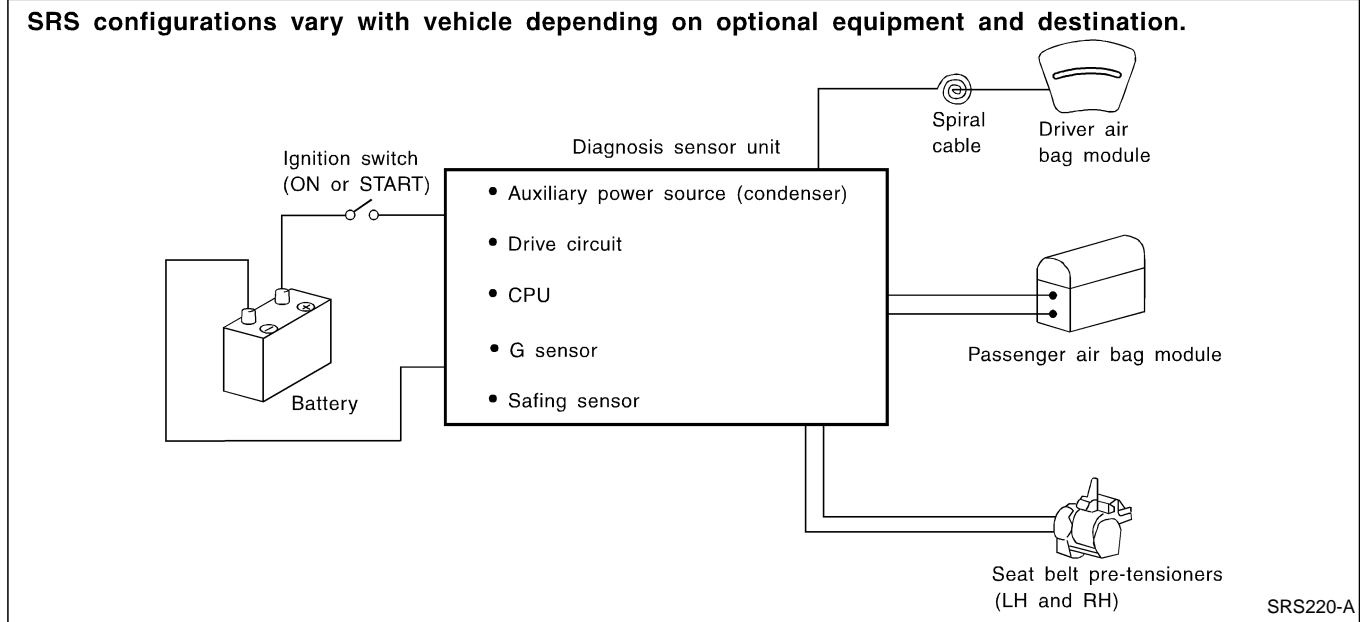
Tool number Tool name	Description
KV99108200 Deployment tool adapters for seat belt pre-tensioner	<p data-bbox="662 254 792 302">For seat belt pre-tensioner</p>  <p data-bbox="488 380 545 401">NT721</p>

Commercial Service Tool

Tool name	Description	Specification
Tamper resistant torx socket	 <p data-bbox="464 842 521 863">NT757</p>	Size: T30

Description

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



Seat Belt Pre-tensioner with Load Limiter

The seat belt pre-tensioner system with load limiter is installed to both the driver's seat and the front passenger's seat. It operates simultaneously with the SRS air bag system in the event of a frontal collision with an impact exceeding a specified level.

When the frontal collision with an impact exceeding a specified level occurs, seat belt slack resulting from clothing or other factors is immediately taken up by the pre-tensioner. Vehicle passengers are securely restrained.

When passengers in a vehicle are thrown forward in a collision and the restraining force of the seat belt exceeds a specified level, the load limiter permits the specified extension of the seat belt by the twisting of the ELR shaft, and a relaxation of the chest-area seat belt web tension while maintaining force.

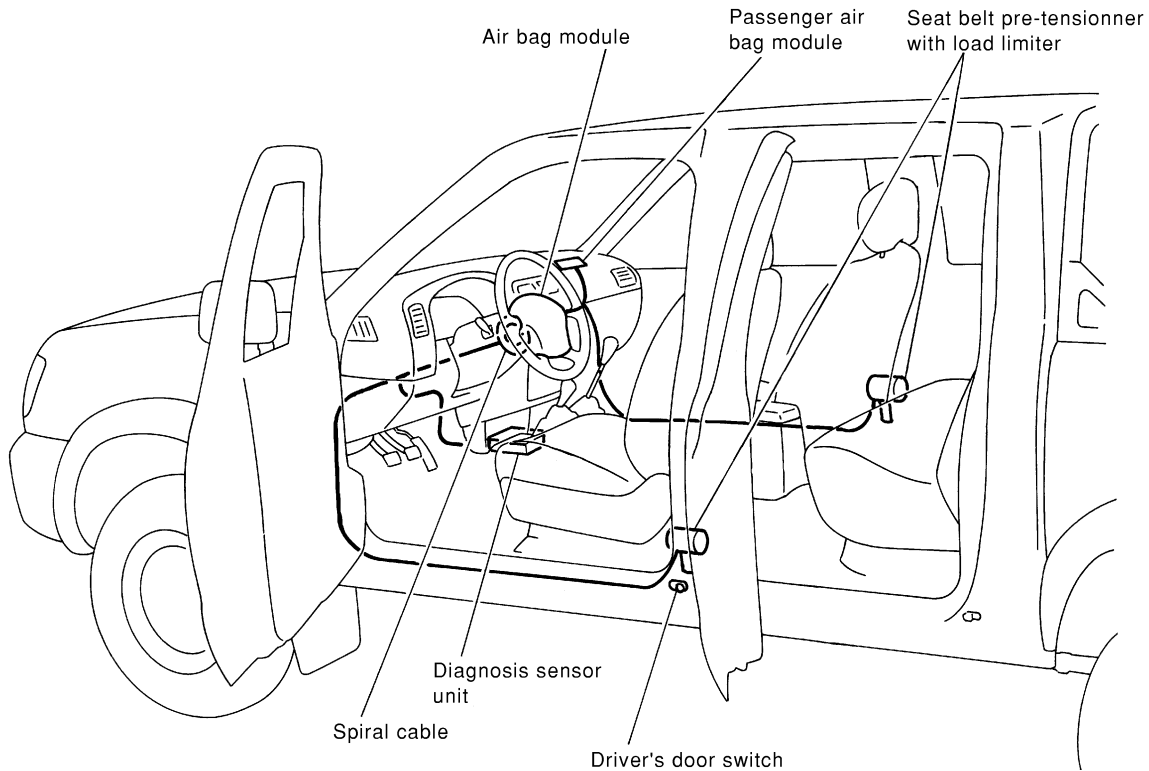
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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

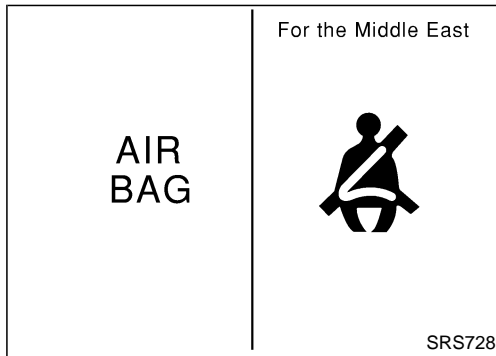
SRS Component Parts Location

SEC. 240•251•253•484•680

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



SRS727



Maintenance Items

CAUTION:

Do not use electrical test equipment to check SRS circuit.

1. Check operation of "AIR BAG" and "SEAT BELT" warning lamps ("SEAT BELT" warning lamp can be used for checking seat belt pre-tensioner only on models for the Middle East.). After turning ignition key to "ON" position, both warning lamps illuminate. The "AIR BAG" warning lamp will go off after about 7 seconds if no malfunction is detected. The "SEAT BELT" warning lamp will also go off after about 7 seconds after seat belt has been fastened and no malfunction is detected. (When seat belt has not been fastened, the warning lamp continues to illuminate until seat belt is fastened.)

If any of the following warning lamp conditions occur, immediately check the air bag or seat belt pre-tensioner system. Refer to RS-29 for details.

- The "AIR BAG" or "SEAT BELT" warning lamp does not illuminate when the ignition switch is turned "ON".
- The "AIR BAG" or "SEAT BELT" (with seat belt fastened) warning lamp does not go off about 7 seconds after the ignition switch is turned "ON".
- The "AIR BAG" or "SEAT BELT" (with seat belt fastened) warning lamp blinks after about 7 seconds after the ignition switch is turned "ON".

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Maintenance Items (Cont'd)

2. Visually check SRS components

(1) Diagnosis sensor unit

- Check diagnosis sensor unit and bracket for dents, cracks or deformities. GI
- Check connectors for damage, and terminals for deformities. MA

(2) Air bag module and steering wheel

- Remove air bag module from steering wheel, instrument panel or seat back. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. EM
- Install driver air bag module to steering wheel to check fit or alignment with the wheel. LC
- Check steering wheel for excessive free play.
- Install passenger air bag module to instrument panel to check fit or alignment with the instrument panel. EC

(3) Spiral cable

- Check spiral cable for dents, cracks, or deformities. FE
- Check connectors and protective tape for damage.
- Check steering wheel for noise, binding or heavy operation. CL

(4) Main harness and air bag harness

- Check connectors for poor connections, damage, and terminals for deformities. MT
- Check harnesses for binding, chafing or cut. AT

(5) Seat belt pre-tensioner (Models for the Middle East)

- Check harness cover and connectors for damage, terminals for deformities, and harness for binding. TF
- Check belts for damage and anchors for loose mounting.
- Check retractor for smooth operation.
- Perform self-diagnosis for seat belt pre-tensioner using seat belt warning lamp or CONSULT. Refer to "Self-diagnosis" for details. (RS-30) PD

CAUTION:

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

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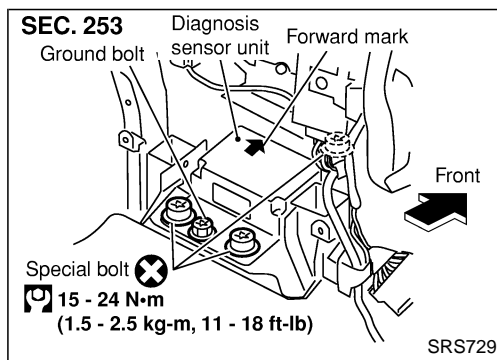
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Removal and Installation — Diagnosis Sensor Unit and Seat Belt Pre-tensioner with Load Limiter

CAUTION:

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Do not use old special bolts and nuts coated with bonding agent after removal; replace with new ones.
- Check diagnosis sensor unit and seat belt pre-tensioner with load limiter for proper installation.
- Check diagnosis sensor unit to ensure it is free of deformities, dents, cracks or rust. If it shows any visible signs of damage, replace it with a new one.
- Check diagnosis sensor unit brackets to ensure they are free of deformities and rust.
- After replacement of diagnosis sensor unit and seat belt pre-tensioner, check SRS function and perform self-diagnosis for SRS. Refer to “Self-diagnosis” for details. (RS-29)
- Do not attempt to disassemble diagnosis sensor unit and seat belt pre-tensioner with load limiter.
- Replace diagnosis sensor unit and seat belt pre-tensioner if it has been dropped or sustained an impact.
- Do not expose seat belt pre-tensioner to temperatures exceeding 80°C (176°F).



REMOVAL OF DIAGNOSIS SENSOR UNIT

1. Disconnect driver and passenger air bag module connectors. Also, disconnect seat belt pre-tensioner connector (Models for the Middle East).
2. Remove instrument panel. Refer to “INSTRUMENT PANEL” in BT section.
3. Remove air duct.
4. Disconnect diagnosis sensor unit connector.
5. Remove ground bolt and also remove special bolts using the TAMPER RESISTANT TORX (Size T50), from diagnosis sensor unit.

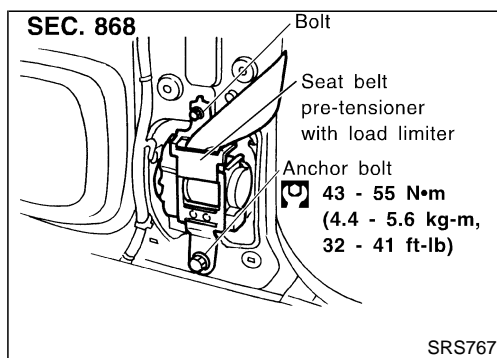
Then remove the diagnosis sensor unit.

NOTE:

- To install, reverse the removal procedure sequence.
- After replacement, perform self-diagnosis for SRS. Refer to “Self-diagnosis” for details (RS-29).

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

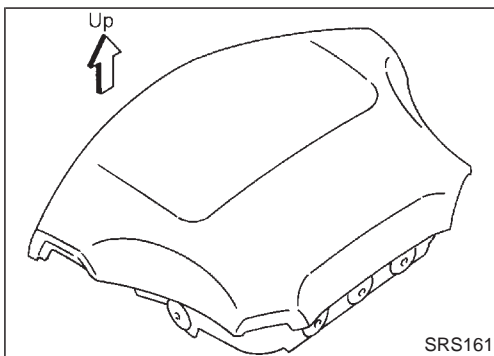
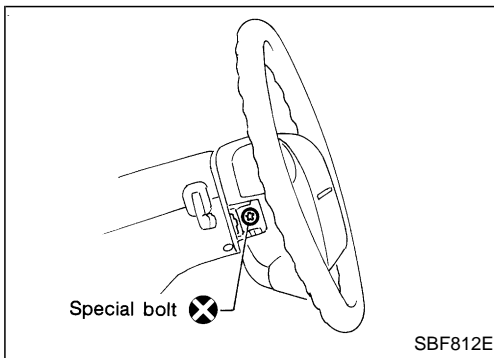
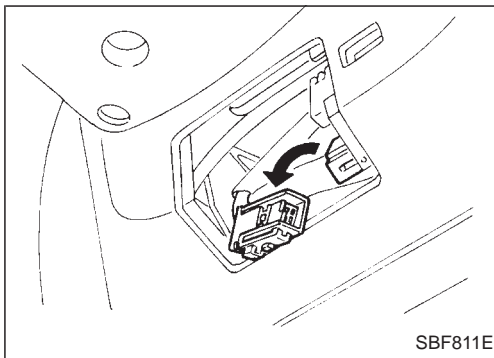
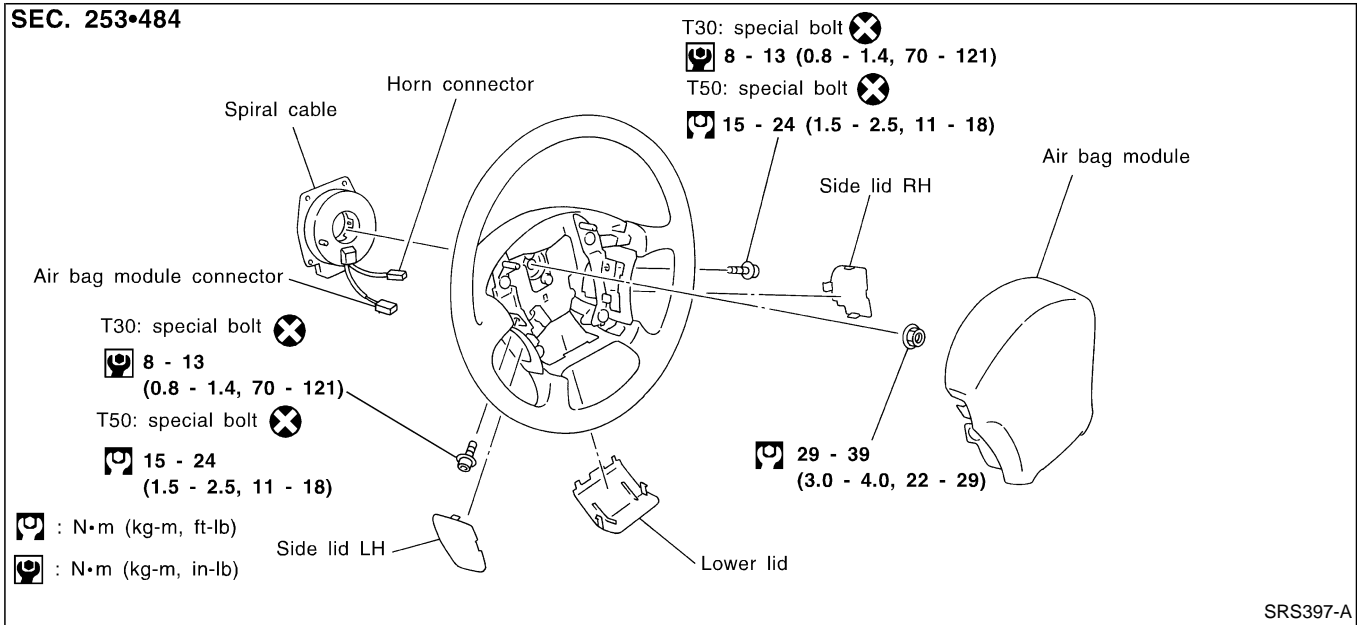
For removal of seat belt pre-tensioner, refer to “Front Seat Belt” for details. (RS-4)

NOTE:

- To install, reverse the removal procedure sequence.

Removal — Driver Air Bag Module and Spiral Cable

SEC. 253•484



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 air bag module.
1. Remove lower lid from steering wheel, and disconnect air bag module connector.

2. Remove side lid. Using the TAMPER RESISTANT TORX (Size T50) or TAMPER RESISTANT TORX SOCKET (T30), remove left and right special bolts. Air bag module can then be removed.

CAUTION:

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

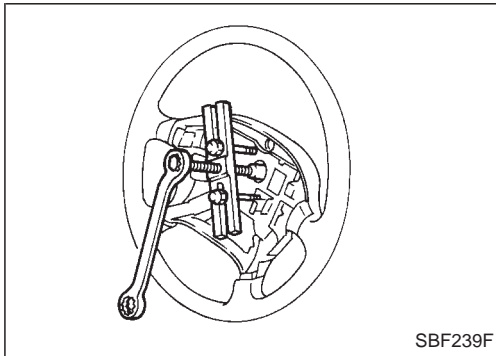
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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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



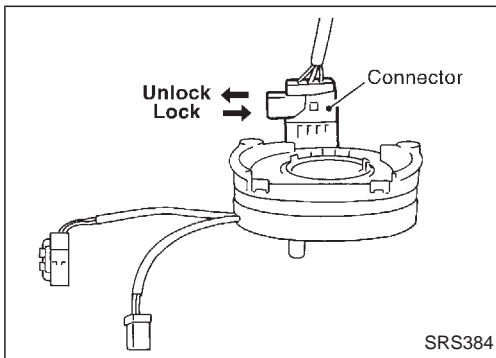
- Replace air bag module if it has been dropped or sustained an impact.
- Do not expose the air bag module to temperatures exceeding 90°C (194°F).
- Do not allow oil, grease or water to come in contact with the air bag module.



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

CAUTION:

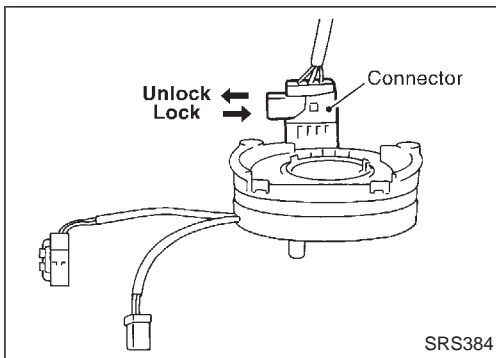
- Do not tap or bump the steering wheel.
6. Remove steering column cover.



7. Remove the four screws. Then unlock the spiral cable connector and disconnect connector. The spiral cable can then be removed.

CAUTION:

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

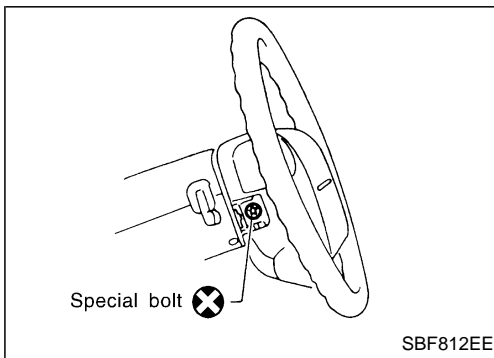
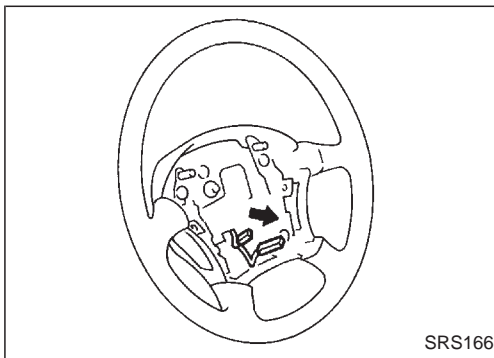
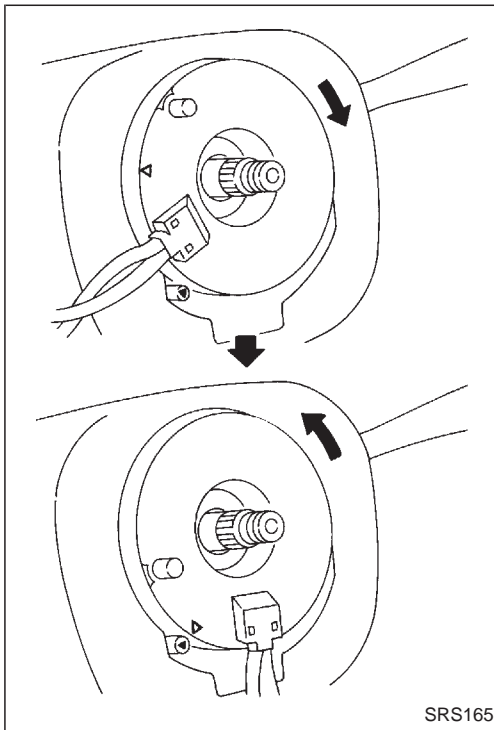


Installation — Driver Air Bag Module and Spiral Cable

1. Set the front wheels in the straight-ahead position.
2. Connect spiral cable connector. Then, lock the connector and tighten with screws. Install steering column cover.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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




3. 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:

- 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 up to about 2.5 turns from the neutral position to both the right and left.
4. Connect spiral cable connector and tighten with screws. Install steering column cover.

5. Install steering, wheel setting spiral cable pin guide, and pull spiral cable through.
6. Connect horn connector and engage spiral cable with pawls in steering wheel. Move air bag module connector away from steering wheel lower lid opening.
7. Tighten nut.

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

8. Position air bag module and tighten with new special bolts.
 - **Always service the air bag module from the side.**
9. Connect air bag module connector.
10. Install all lids.
11. Perform self-diagnosis to ensure entire SRS operates properly. (Use CONSULT or warning lamp check.) Refer to RS-29. Before performing self-diagnosis, connect both battery cables.
12. 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 or warning lamp). If a malfunction is detected, replace the spiral cable with a new one.
13. Perform self-diagnosis again to check that no malfunction is detected.

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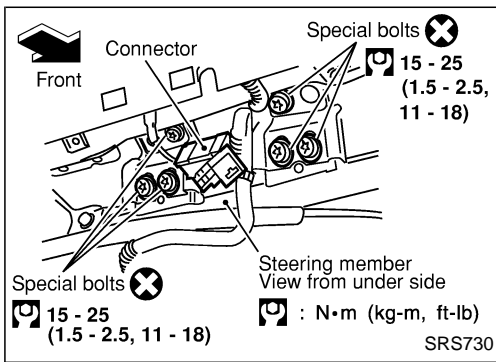
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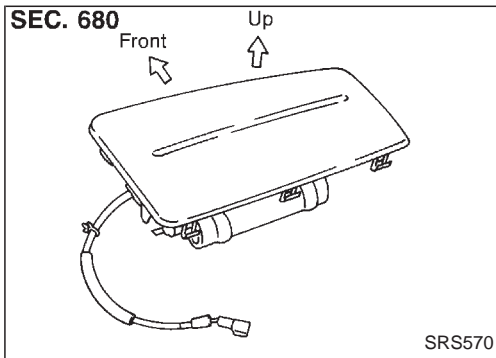
SUPPLEMENTAL RESTRAINT SYSTEM (SRS)



Removal — Front Passenger Air Bag Module

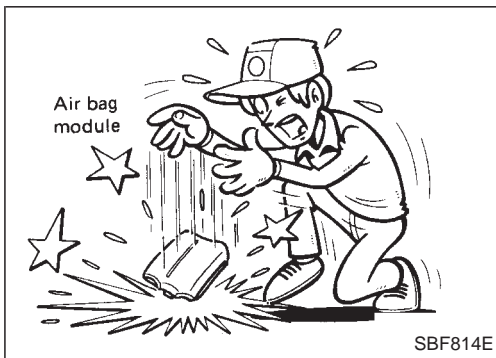
CAUTION:

- 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 glove box assembly. Refer to “INSTRUMENT PANEL” in BT section for details.
 2. Disconnect passenger air bag module connector.
 3. Remove bolts and special bolts using the TAMPER RESISTANT TORX (Size T50) from front passenger air bag module.
 4. Remove instrument panel assembly. Refer to “INSTRUMENT PANEL” in BT section for details.
 5. Remove air duct from instrument panel.
 6. Remove the bolts from left and right sides of front passenger air bag module. Then remove the air bag module from the instrument panel assembly.
- The air bag module is heavy and should be supported using both hands during removal.

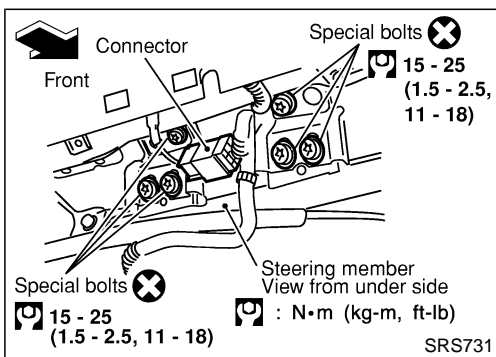


CAUTION:

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



- Replace air bag module if it has been dropped or sustained an impact.
- Do not expose the air bag module to temperatures exceeding 90°C (194°F).
- Do not allow oil, grease or water to come in contact with the air bag module.

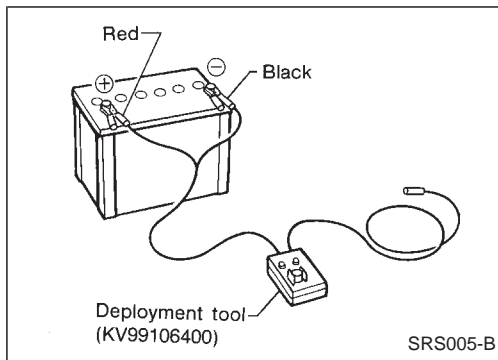


Installation — Front Passenger Air Bag Module

- Always work from the side of or under air bag module.
1. Install front passenger air bag module to instrument panel assembly.
 2. Install air duct to instrument panel.
 3. Install instrument panel.
- Ensure harness is not caught between rear of air bag module and steering member.
4. Install front passenger air bag module to steering member.
 5. Connect air bag module connector.
 6. Install glove box assembly.

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-18).
- 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.



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.

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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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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

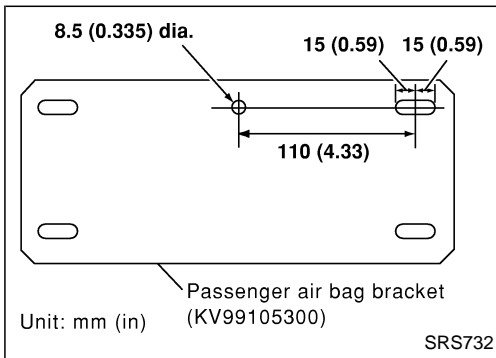
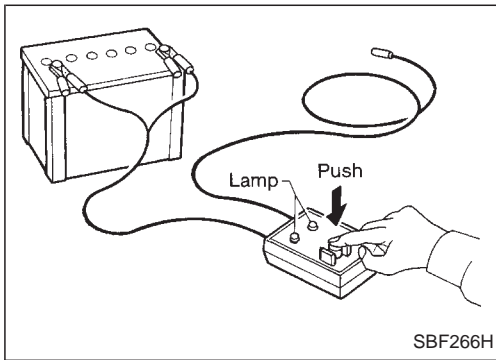
Deployment tool check

Press the deployment tool switch to the "ON" position. The left side lamp in the tool, marked "air bag connector voltage" should illuminate. If it does not illuminate, replace the tool.

Air bag deployment tool lamp illumination chart (Battery connected)

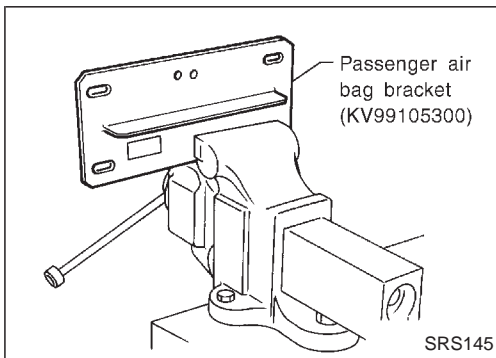
Switch operation	Left side lamp, green* "AIR BAG CONNECTOR VOLTAGE"	Right side lamp, green* "DEPLOYMENT TOOL POWER"
OFF	OFF	ON
ON	ON	ON

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

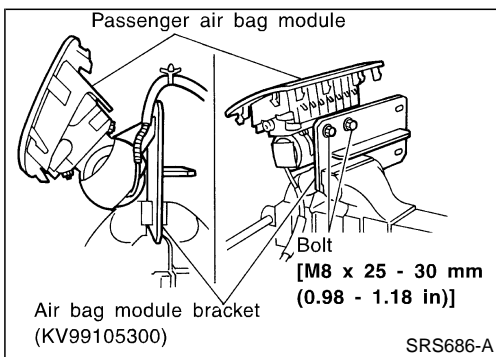


Deployment of passenger air bag module (outside of vehicle)

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



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



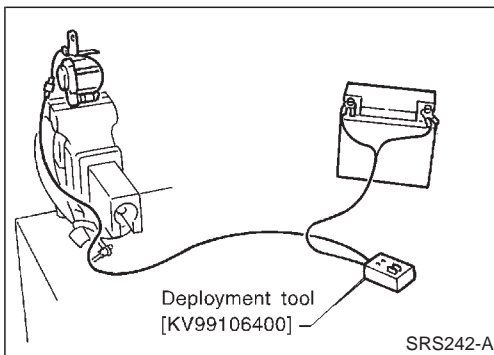
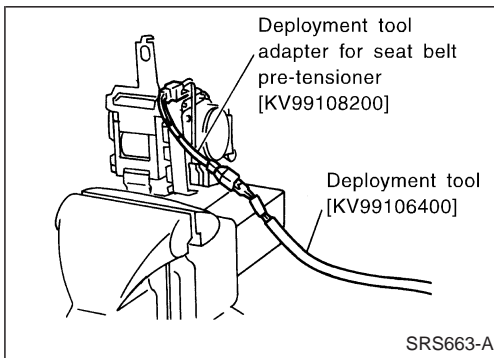
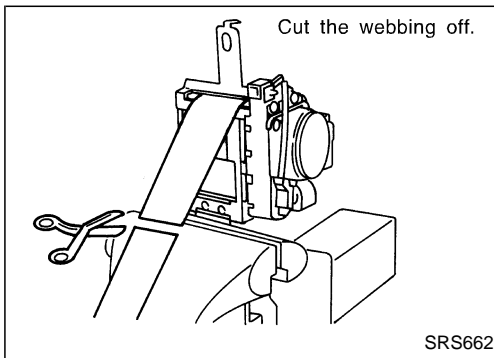
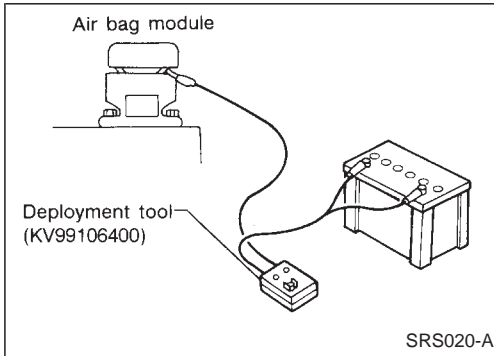
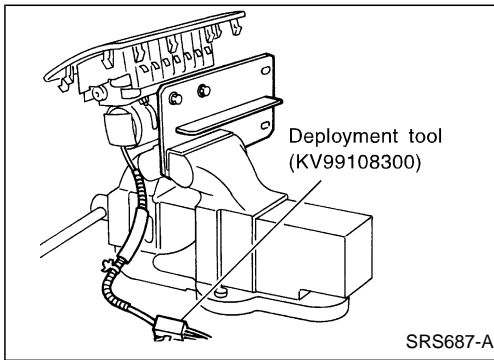
3. Match the two holes in passenger air bag bracket (held in vise) and passenger air bag module and fix them with two bolts [M8 x 25 - 30 mm (0.98 - 1.18 in)].

CAUTION:

If a gap exists between passenger air bag module and passenger air bag 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 and Seat Belt Pre-tensioner (Cont'd)



4. Connect deployment tool adapter (SST: KV99108300) to deployment tool (SST: KV99106400) connector and connector on either side of air bag module.
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.

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 seat belt pre-tensioner (outside of vehicle)

1. Firmly grip pre-tensioner in a vise and cut the webbing off.
2. Connect deployment tool adapter [SST: KV99108200] to deployment tool [SST: KV99106400] 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.

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SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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

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

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

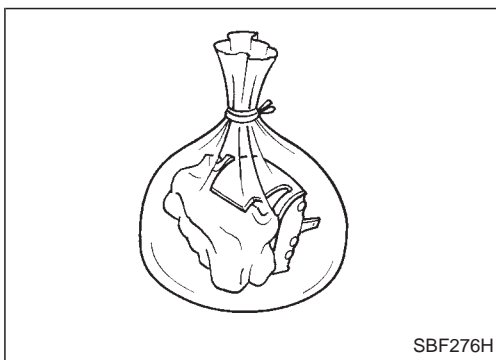
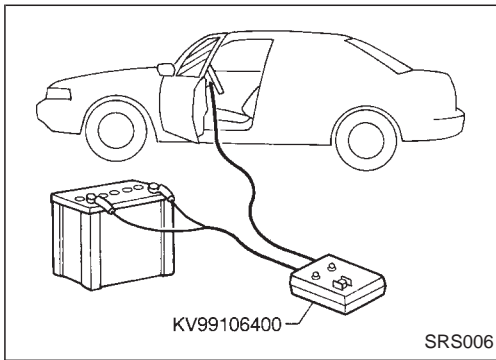
CAUTION:

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

1. Disconnect both the vehicle battery cables and wait 3 minutes.
2. Disconnect air bag modules and seat belt pre-tensioners connector.
3. Connect deployment tool [SST: KV99106400] to air bag module or seat belt pre-tensioner.
For front passenger 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.



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 can not 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 (except “SEAT BELT PRE-TENSIONER”) can be identified by 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, “SEAT BELT” warning lamp (Models for the Middle East) 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 and/or “SEAT BELT” warning lamp (Models for the middle East).

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

The mode applications for the “AIR BAG” warning lamp, “SEAT BELT” warning lamp (Models for the Middle East) and CONSULT are as follows:

	User mode	Diagnosis mode	Display type
“AIR BAG” warning lamp	X	X	ON-OFF operation
“SEAT BELT” warning lamp (Models for the Middle East)	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 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. The diagnosis sensor unit classification number varies depending on SRS configuration.

For NISSAN MODEL D22, the diagnosis sensor unit classification numbers assigned are as follows.

MODEL	ECU DISCRIMINATED NO.
Single air bag	5A0B
Single air bag with seat belt pre-tensioner	5A1E
Dual air bag	5A0A
Dual air bag with seat belt pre-tensioner	5A1D

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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Trouble Diagnoses Introduction (Cont'd)

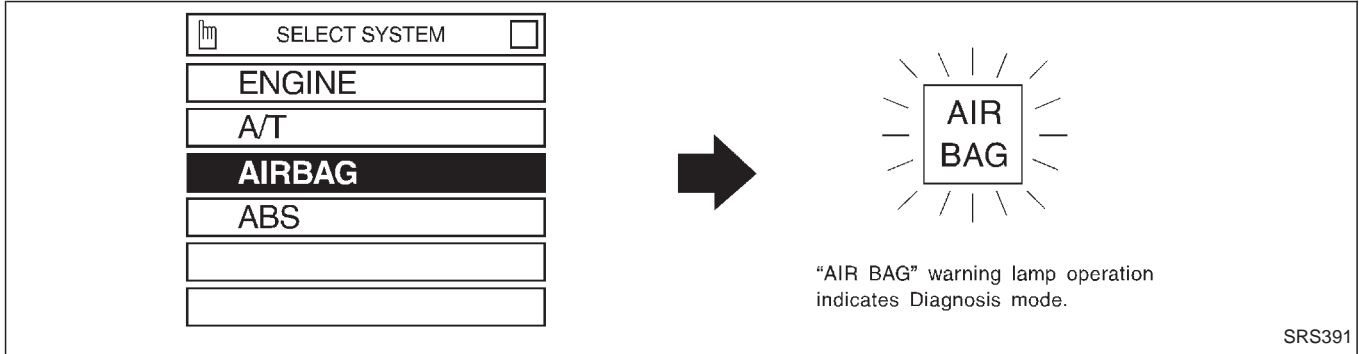
HOW TO CHANGE SELF-DIAGNOSIS MODE



With CONSULT

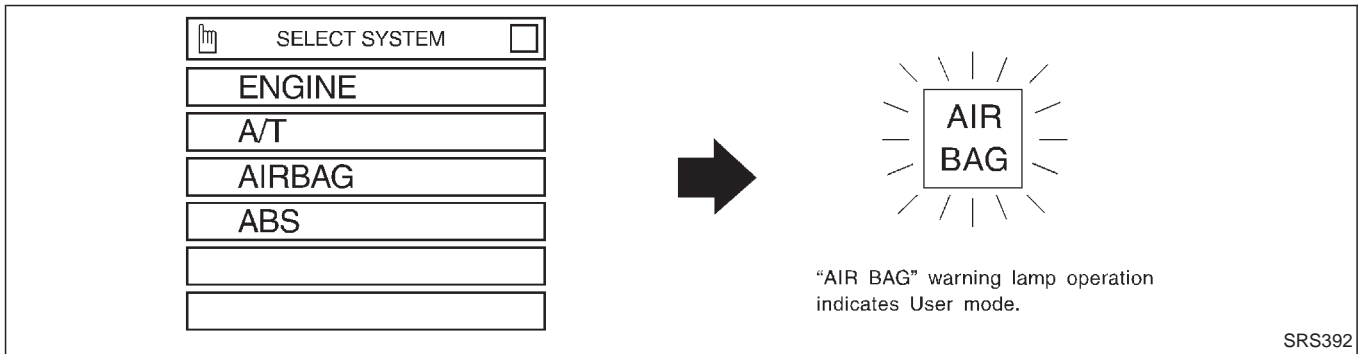
From User mode to Diagnosis mode

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.

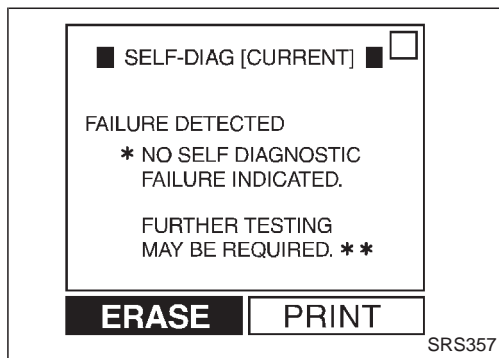
From Diagnosis mode to User mode

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.

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 Diagnosis mode to User mode by switching the ignition “OFF” for at least 1 second, then back “ON”. At that time, the self-diagnostic 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

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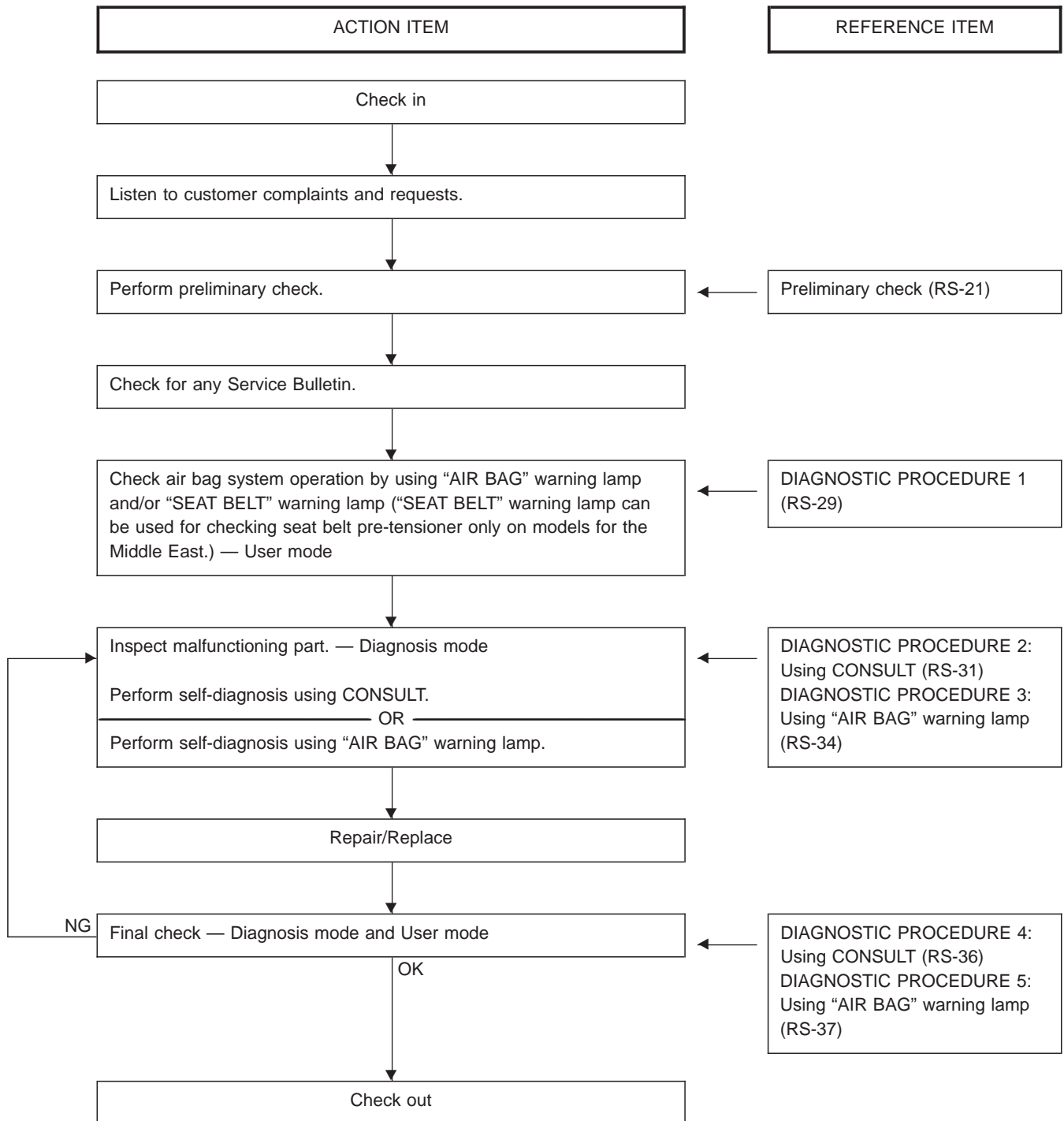
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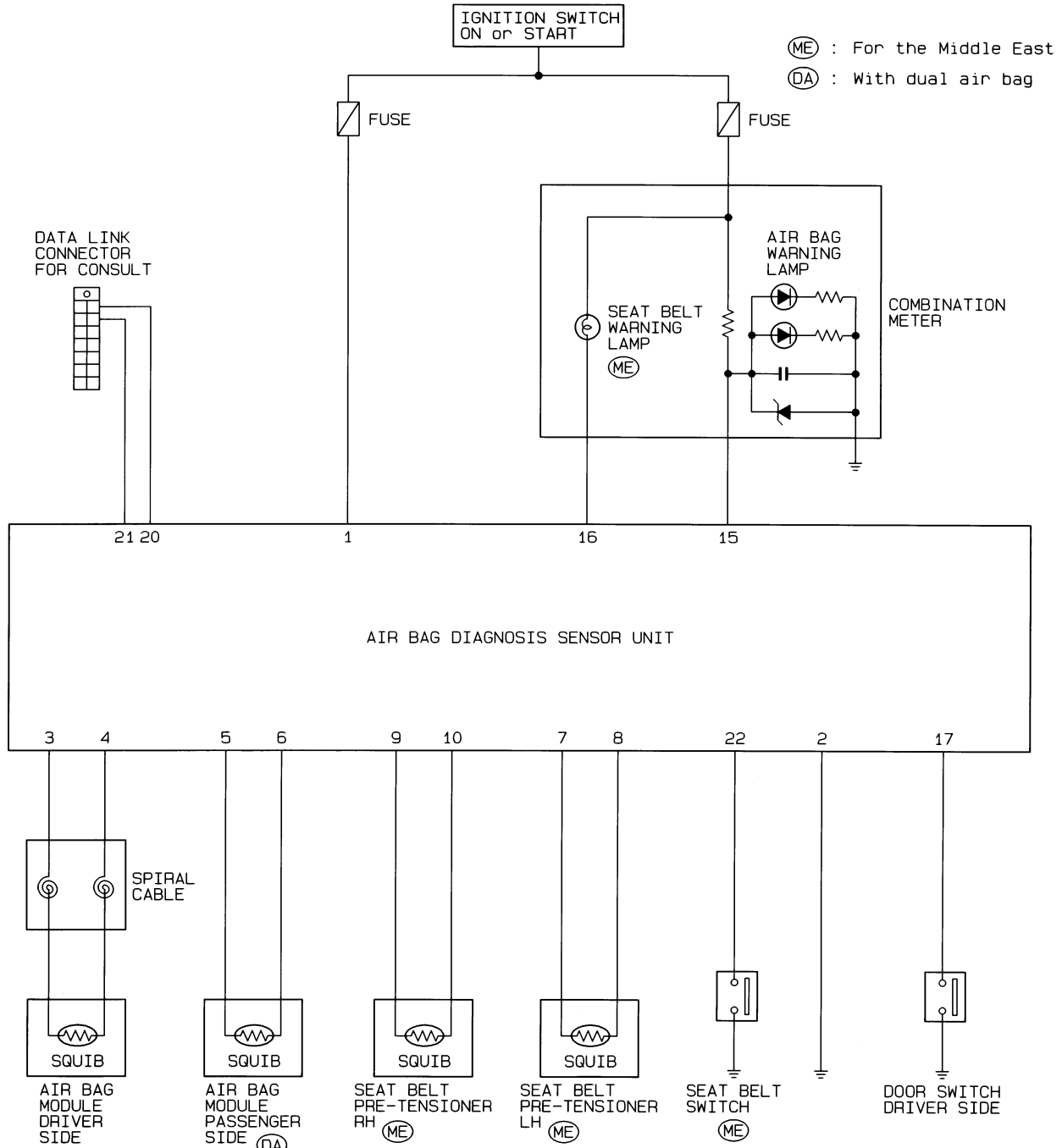
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

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

WORK FLOW



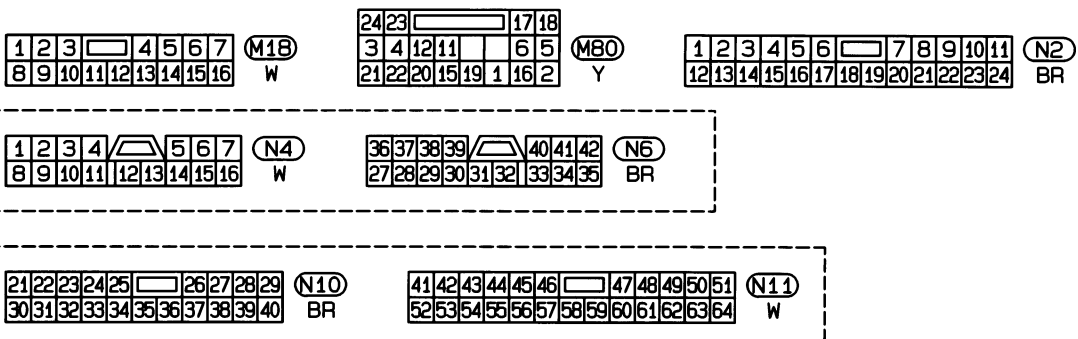
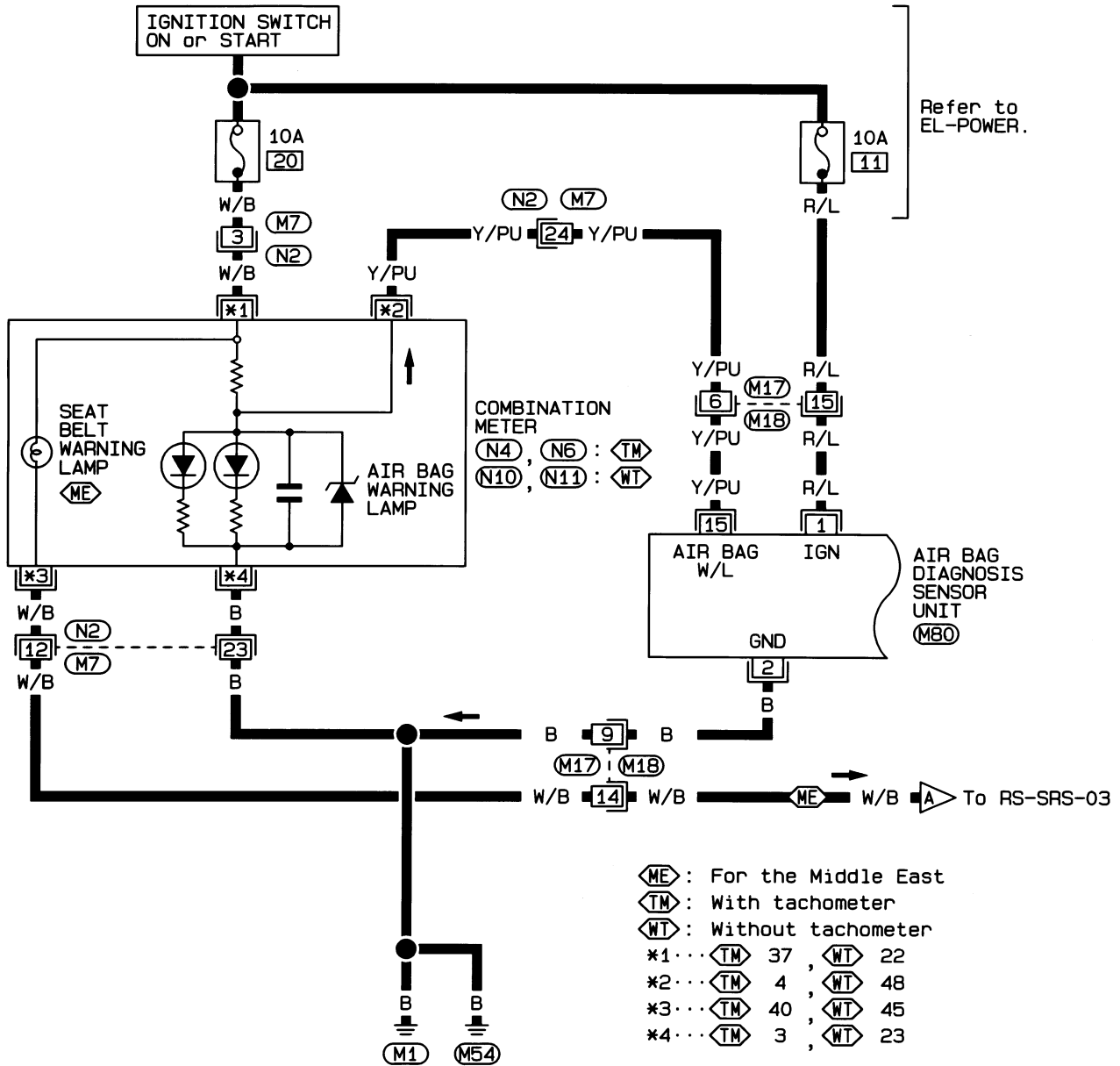
Schematic



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Wiring Diagram — SRS —/LHD Models

RS-SRS-01



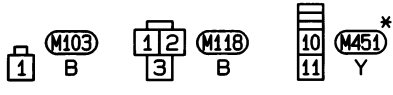
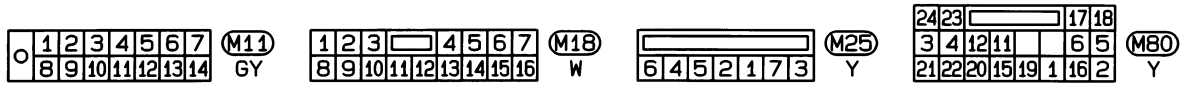
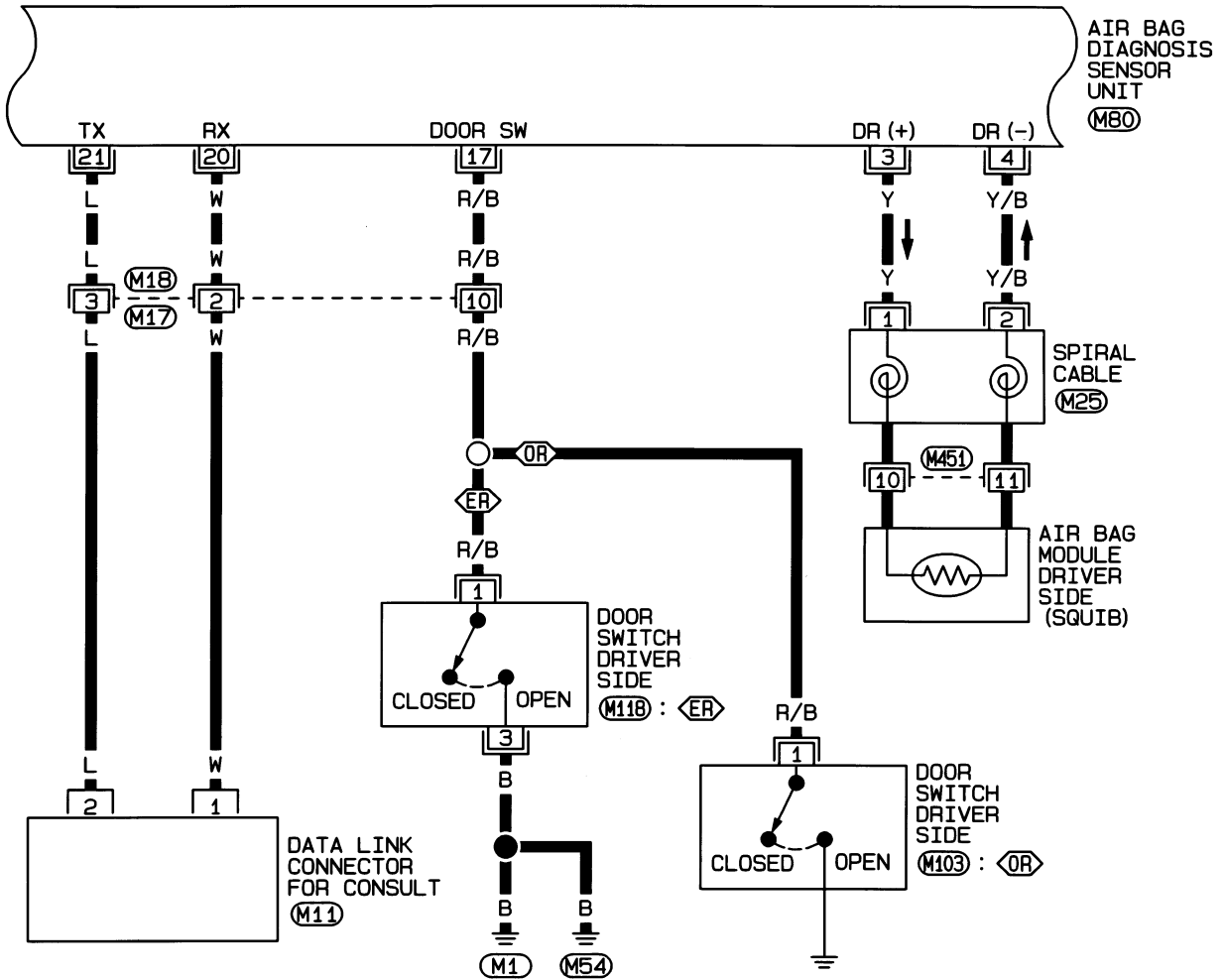
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Wiring Diagram — SRS —/LHD Models (Cont'd)

RS-SRS-02

⊠ER: For Europe and with multi-remote control system

⊠OR: Except ⊠ER



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

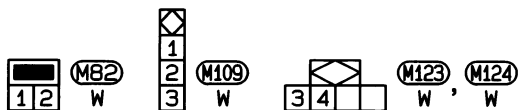
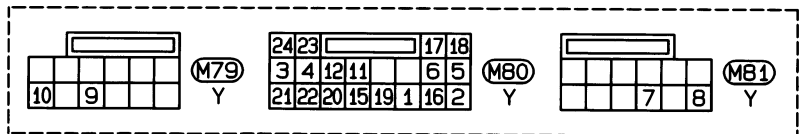
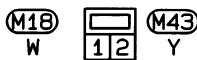
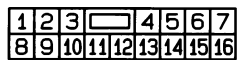
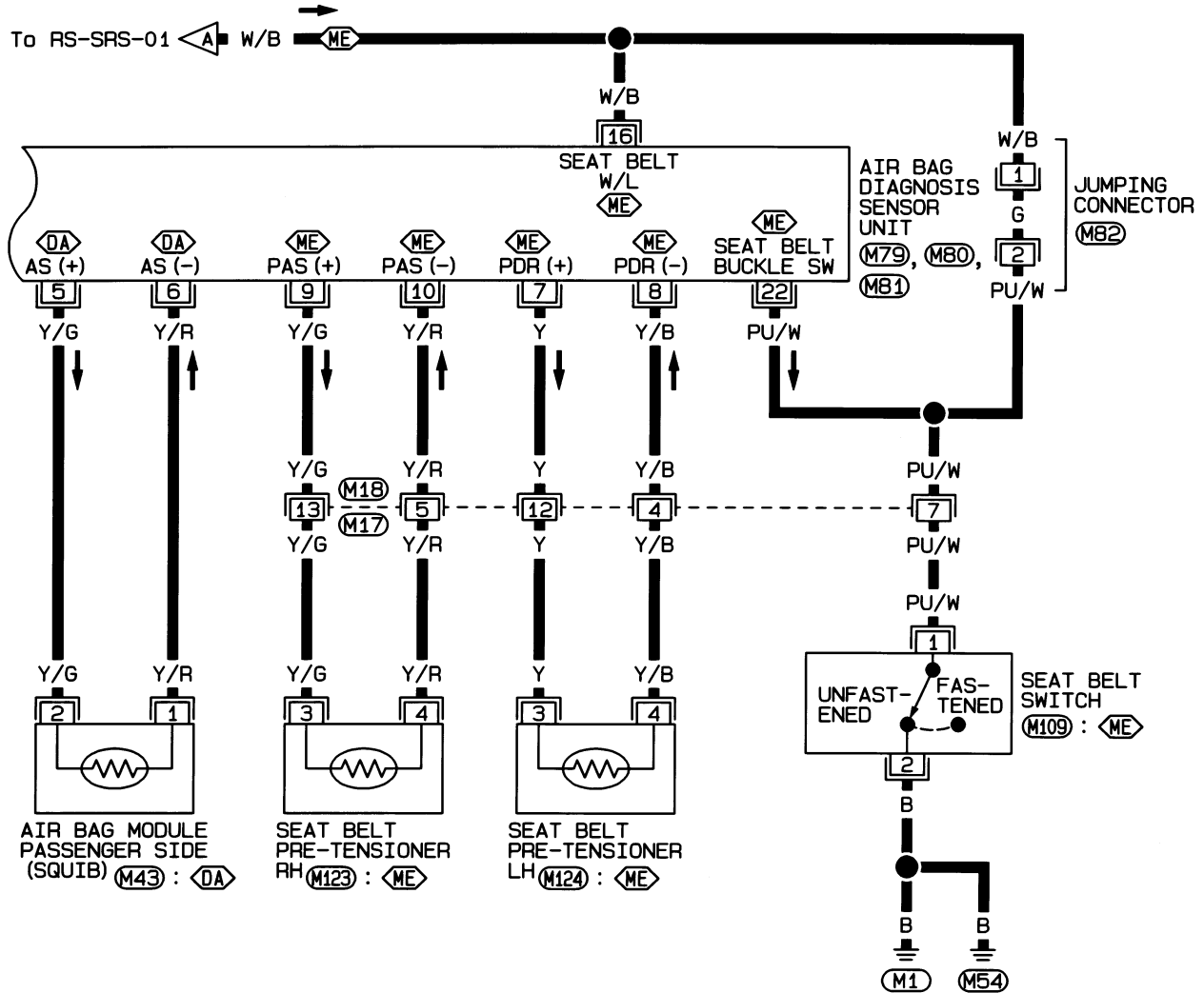
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Wiring Diagram — SRS —/LHD Models (Cont'd)

RS-SRS-03

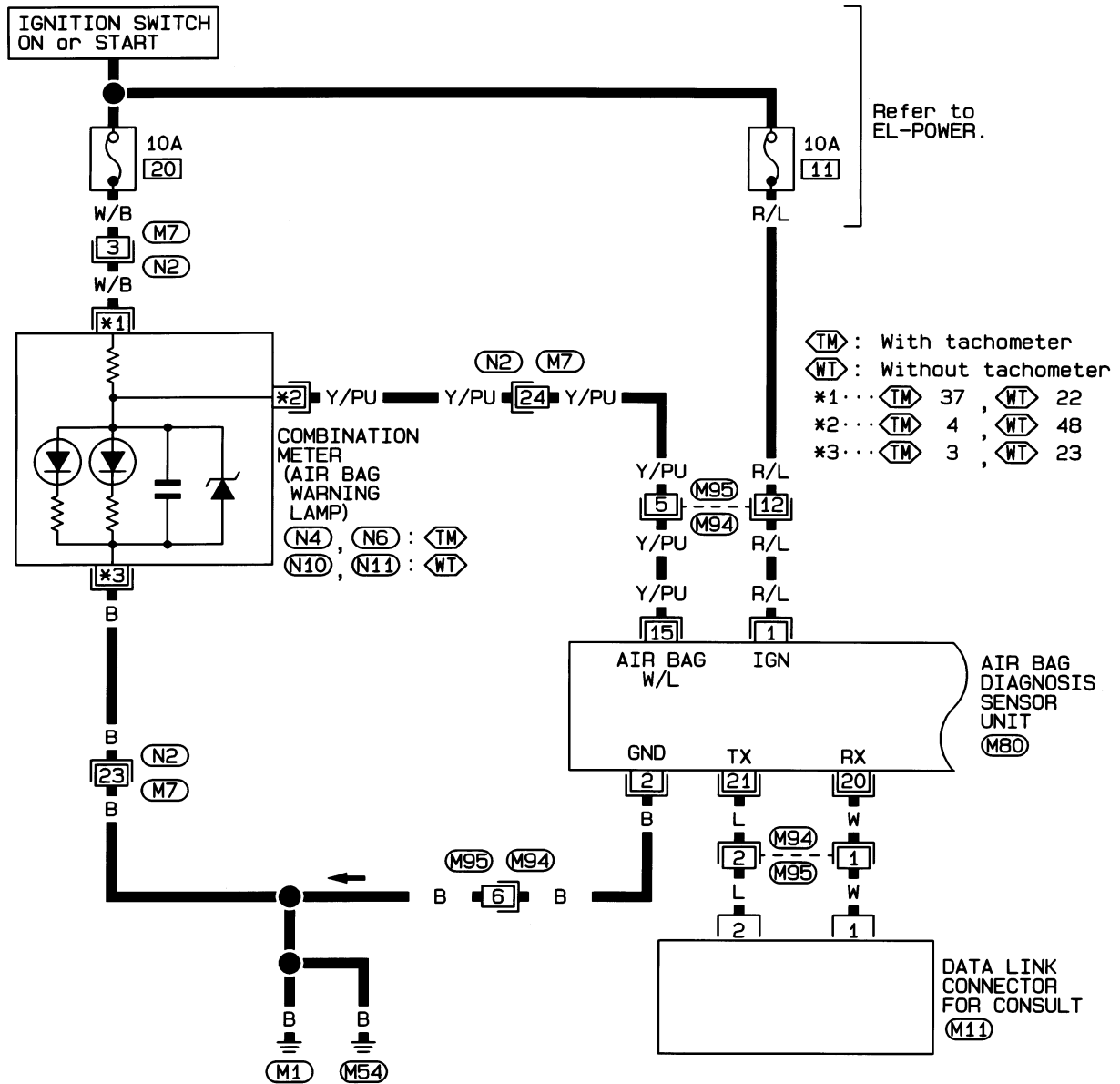
ME : For the Middle East

DA : With dual air bag



Wiring Diagram — SRS —/RHD Models

RS-SRS-04



1	2	3	4	5	6	7	(M11)	24	23	17	18	1	2	3	4	5	(M94)	1	2	3	4	5	6	7	8	9	10	11	(N2)						
8	9	10	11	12	13	14	GY	3	4	12	11	6	5	6	7	8	9	10	11	12	W	12	13	14	15	16	17	18	19	20	21	22	23	24	BR
								21	22	20	15	19	1	16	2	Y																			

1	2	3	4	5	6	7	(N4)	36	37	38	39	40	41	42	(N6)				
8	9	10	11	12	13	14	15	16	W	27	28	29	30	31	32	33	34	35	BR

21	22	23	24	25	26	27	28	29	(N10)	41	42	43	44	45	46	47	48	49	50	51	(N11)				
30	31	32	33	34	35	36	37	38	39	40	BR	52	53	54	55	56	57	58	59	60	61	62	63	64	W

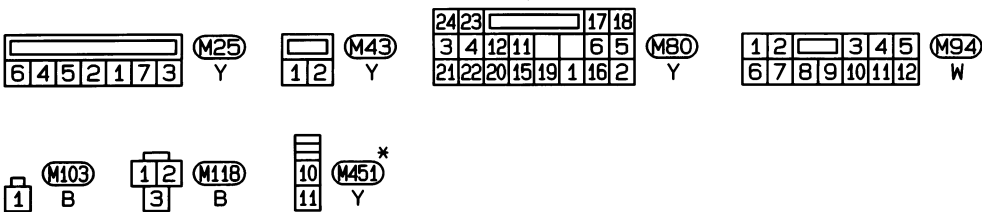
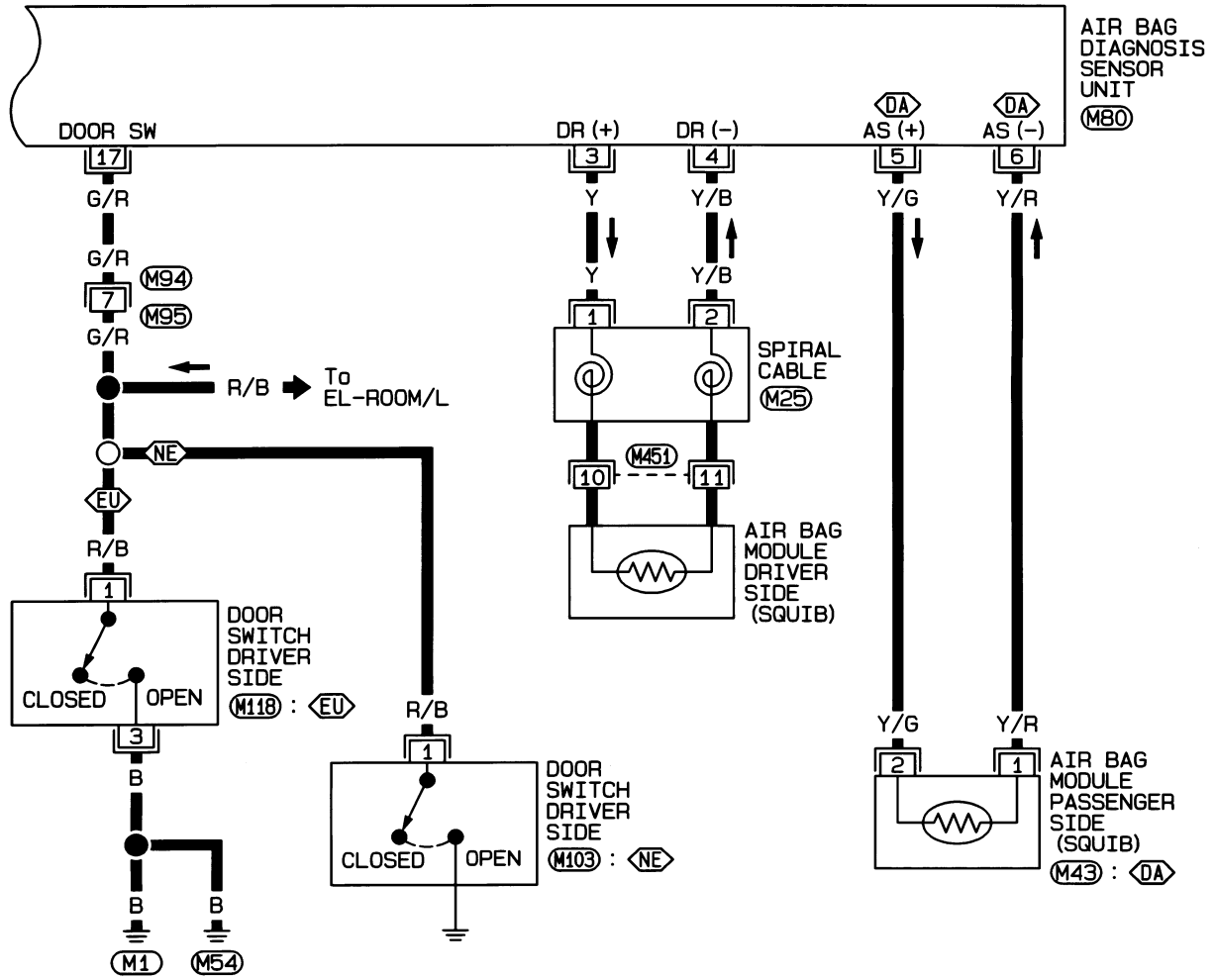
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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

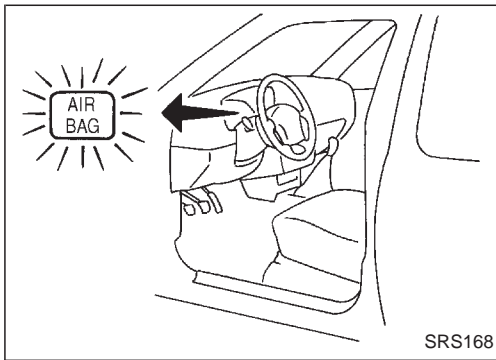
Wiring Diagram — SRS —/RHD Models (Cont'd)

RS-SRS-05

- $\langle \text{EU} \rangle$: For Europe
- $\langle \text{NE} \rangle$: Except for Europe
- $\langle \text{DA} \rangle$: With dual air bag system



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



Self-diagnosis

DIAGNOSTIC PROCEDURE 1 (⊘ without CONSULT)

Checking SRS 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
<p>MRS095A</p>	No malfunction is detected. No further action is necessary.	—
<p>MRS096A</p>	The system is malfunctioning and needs to be repaired as indicated.	Go to DIAGNOSTIC PROCEDURE 2, or 3 (RS-31 or 34).
<p>MRS097A</p>	Air bag is deployed. Air bag fuse, diagnosis sensor unit or harness is malfunctioning and needs to be repaired.	Go to COLLISION DIAGNOSIS (RS-47). Go to DIAGNOSTIC PROCEDURE 9 (RS-43).
<p>MRS098A</p>	One of the following has occurred and needs to be repaired. <ul style="list-style-type: none"> • Meter fuse is blown. • "AIR BAG" warning lamp circuit has open or short. • Diagnosis sensor unit is malfunctioning. 	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 3 (step 4), RS-34.

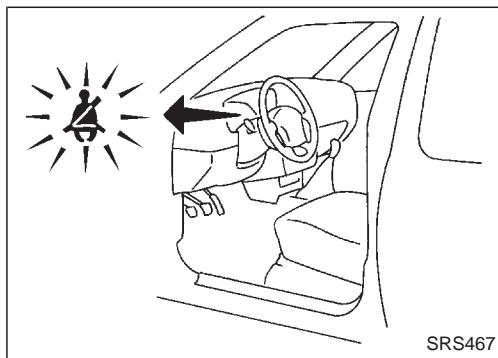
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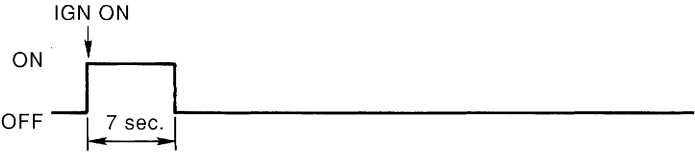
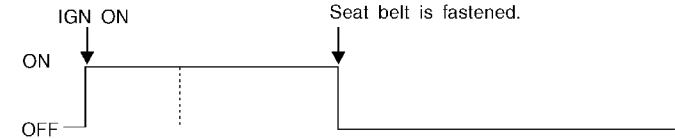
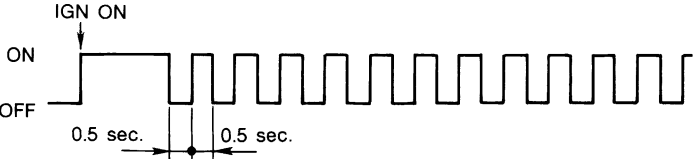
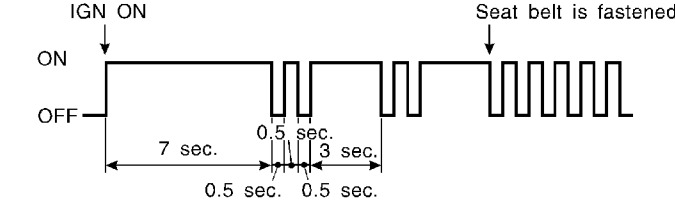
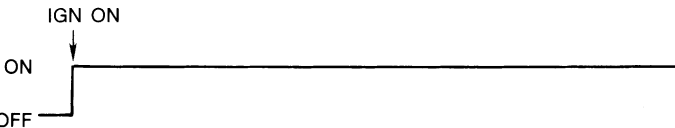
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

Checking seat belt pre-tensioner operation by using “SEAT BELT” warning lamp — User mode (Models for the Middle East)


1. After turning ignition switch from “OFF” to “ON”, “SEAT BELT” warning lamp operates.
2. Compare “SEAT BELT” warning lamp operation to the chart below.



“SEAT BELT” warning lamp operation	SRS condition	Reference item
<ul style="list-style-type: none"> ● After driver's seat belt has been fastened.  <p style="text-align: right;">MRS095A</p>	No malfunction is detected. No further action is necessary.	—
<ul style="list-style-type: none"> ● When driver's seat belt has not been fastened.  <p style="text-align: right;">SRS086</p>		
<ul style="list-style-type: none"> ● After driver's seat belt has been fastened.  <p style="text-align: right;">MRS096A</p>	<ul style="list-style-type: none"> ● Seat belt pre-tensioner circuit is opened, or ● Seat belt pre-tensioner power supply or ground circuit is shorted. 	<ul style="list-style-type: none"> ● If CONSULT is available, go to DIAGNOSTIC PROCEDURE 2 (RS-31). ● If CONSULT is not available, repair the system as follows.* <ol style="list-style-type: none"> 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. 5. Replace the related harness.
<ul style="list-style-type: none"> ● When driver's seat belt has not been fastened.  <p style="text-align: right;">SRS344</p>		
<ul style="list-style-type: none"> ● When driver's seat belt is fastened.  <p style="text-align: right;">MRS097A</p>	Seat belt pre-tensioner (and air bag) is deployed. Seat belt buckle switch, harness, combination meter assembly, diagnosis sensor unit are malfunctioning and need to be repaired.	Go to COLLISION DIAGNOSIS (RS-47). Go to DIAGNOSTIC PROCEDURE 12 (RS-45).

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

“SEAT BELT” warning lamp operation	SRS condition	Reference item
 <p style="text-align: center;">MRS098A</p>	Meter fuse, diagnosis sensor unit or “SEAT BELT” warning lamp circuit is shorted or open and needs to be repaired.	Go to DIAGNOSTIC PROCEDURE 13 (RS-46).

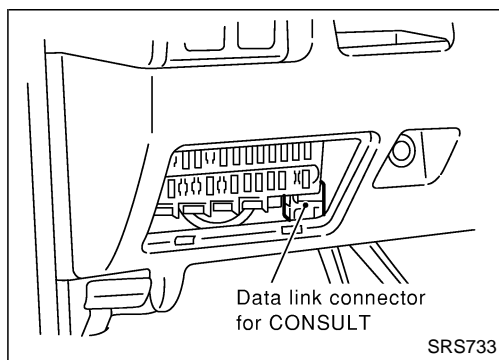
GI

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

LC



DIAGNOSTIC PROCEDURE 2 (CONSULT) with CONSULT

Inspecting SRS malfunctioning parts by using CONSULT — Diagnosis mode

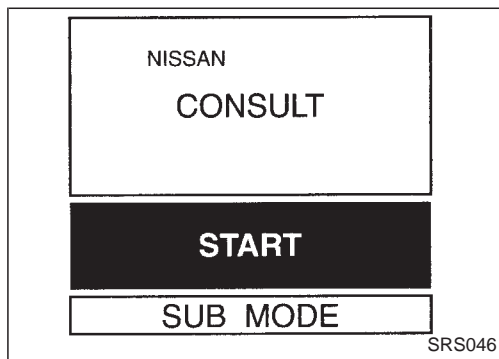
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1. Turn ignition switch “OFF”.
2. Connect “CONSULT” to Data link connector.

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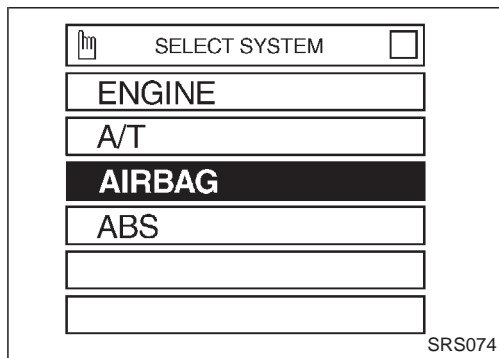
3. Turn ignition switch “ON”.
4. Touch “START”.

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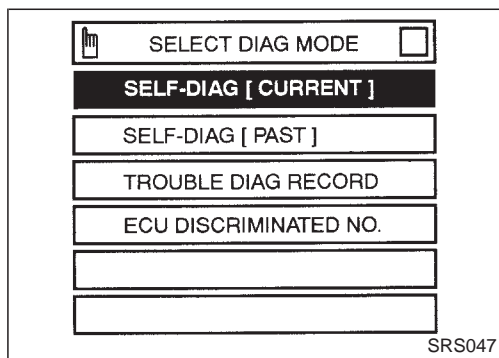
5. Touch “AIRBAG”.

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6. Touch “SELF-DIAG [CURRENT]”.

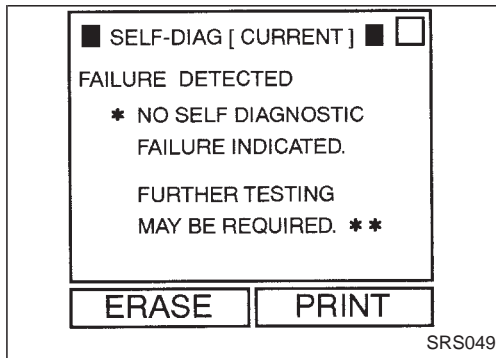
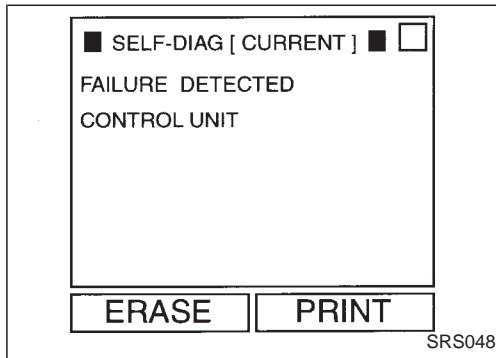
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Self-diagnosis (Cont'd)



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

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.

8. Touch “PRINT”.
9. Compare diagnostic codes to the CONSULT DIAGNOSTIC CODE CHART, page RS-33.
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-10.
13. After repairing the system, go to DIAGNOSTIC PROCEDURE 4 for final checking, page RS-36.

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 <ul style="list-style-type: none"> ● Low battery voltage (Less than 9V) ● 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. 	<ul style="list-style-type: none"> ● Go to DIAGNOSTIC PROCEDURE 4 (RS-36) after charging battery.
		<ul style="list-style-type: none"> ● Go to DIAGNOSTIC PROCEDURE 6 (RS-40).
	<ul style="list-style-type: none"> ● No malfunction is detected. 	<ul style="list-style-type: none"> ● Go to DIAGNOSTIC PROCEDURE 4 (RS-36).
AIRBAG MODULE [OPEN]	<ul style="list-style-type: none"> ● Driver’s air bag module circuit is open. (including the spiral cable) 	<ol style="list-style-type: none"> 1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage.
AIRBAG MODULE [VB-SHORT]	<ul style="list-style-type: none"> ● Driver’s air bag module circuit is shorted to some power supply circuit. (including the spiral cable) 	<ol style="list-style-type: none"> 3. Replace the spiral cable. 4. Replace driver’s air bag module.
AIRBAG MODULE [GND-SHORT]	<ul style="list-style-type: none"> ● Driver’s air bag module circuit is shorted to ground. (including the spiral cable) 	<ol style="list-style-type: none"> 5. Replace the diagnosis sensor unit. (Before disposal of it, it must be deployed.)
AIRBAG MODULE [SHORT]	<ul style="list-style-type: none"> ● Driver’s air bag module circuits are shorted to each other. 	<ol style="list-style-type: none"> 6. Replace the related harness.
ASSIST A/B MODULE [VB-SHORT]	<ul style="list-style-type: none"> ● Front passenger air bag module circuit is shorted to some power supply circuit. 	<ol style="list-style-type: none"> 1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage.
ASSIST A/B MODULE [OPEN]	<ul style="list-style-type: none"> ● Front passenger air bag module circuit is open. 	<ol style="list-style-type: none"> 3. Replace front passenger air bag module.
ASSIST A/B MODULE [GND-SHORT]	<ul style="list-style-type: none"> ● Front passenger air bag module circuit is shorted to ground. 	<ol style="list-style-type: none"> 4. Replace the diagnosis sensor unit. (Before disposal of it, it must be deployed.)
ASSIST A/B MODULE [SHORT]	<ul style="list-style-type: none"> ● Front passenger air bag module circuits are shorted to each other. 	<ol style="list-style-type: none"> 5. Replace the related harness.
PRE-TEN FRONT LH [OPEN/VB-SHORT]	<ul style="list-style-type: none"> ● The circuit for front LH pre-tensioner is open or shorted to some power supply circuit. 	<ol style="list-style-type: none"> 1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage.
PRE-TEN FRONT LH [GND-SHORT]	<ul style="list-style-type: none"> ● The circuit for front LH pre-tensioner is shorted to ground. 	<ol style="list-style-type: none"> 3. Replace front LH seat belt. (Before disposing, it must be deactivated.) 4. Replace the diagnosis sensor unit.
PRE-TEN FRONT RH [OPEN/VB-SHORT]	<ul style="list-style-type: none"> ● The circuit for front RH pre-tensioner is open or shorted to some power supply circuit. 	<ol style="list-style-type: none"> 5. Replace the related harness. 1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage.
PRE-TEN FRONT RH [GND-SHORT]	<ul style="list-style-type: none"> ● The circuit for front RH pre-tensioner is shorted to ground. 	<ol style="list-style-type: none"> 3. Replace front RH seat belt. (Before disposing, it must be deactivated.) 4. Replace the diagnosis sensor unit.
CONTROL UNIT	<ul style="list-style-type: none"> ● Diagnosis sensor unit is malfunctioning. 	<ol style="list-style-type: none"> 5. Replace the related harness. 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.

* 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.

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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

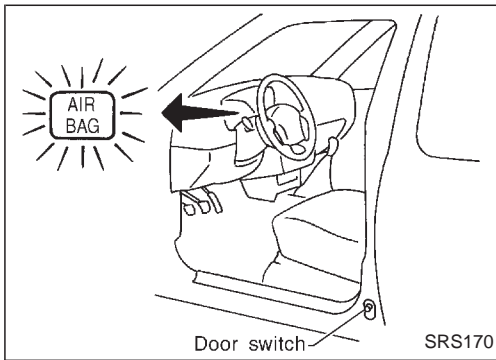
NOTE:

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-44.



No.	“AIR BAG” warning lamp flash pattern — Diagnosis mode —	SRS condition
1	<p style="text-align: right;">Ⓐ through Ⓑ are repeated.</p> <p style="text-align: right;">SRS333</p>	<ul style="list-style-type: none"> • Diagnosis results (previously stored in the memory) might not be erased after repair. • Intermittent malfunction has been detected in the past. <p>Go to DIAGNOSTIC PROCEDURE 7 (RS-40).</p>
2	<p style="text-align: right;">Ⓐ through Ⓓ are repeated.</p> <p style="text-align: right;">Ⓑ — Driver and passenger air bag marker (For identifying driver and/or passenger air bag malfunctioning)</p> <p style="text-align: right;">Ⓓ — 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 style="text-align: right;">SRS341</p>	<p>The system is malfunctioning and needs to be repaired.</p>

5. Malfunctioning part is indicated by the number of flashes (part Ⓓ). Compare the number of flashes to AIR BAG WARNING LAMP FLASH CODE CHART, page RS-35, 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 AIR BAG 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 5, page RS-37.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

AIR BAG WARNING LAMP FLASH CODE CHART (DIAGNOSIS MODE)

Warning lamp	Flash code ④ (# of flashes)	Explanation	Repair order "Recheck SRS at each replacement."
"AIR BAG" warning lamp	0	<ul style="list-style-type: none"> ● 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	The driver's air bag module circuit is malfunctioning.	<ol style="list-style-type: none"> 1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage. 3. Replace the spiral cable. 4. Replace the driver's air bag module. (Before disposing of it, it must be deployed.) 5. Replace the diagnosis sensor unit. 6. Replace the related harness.
	7	The diagnosis sensor unit is malfunctioning.	<ol style="list-style-type: none"> 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.
	8	The front passenger air bag module circuit is malfunctioning.	<ol style="list-style-type: none"> 1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage. 3. Replace the front passenger air bag module. (Before disposing of it, it must be deployed.) 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 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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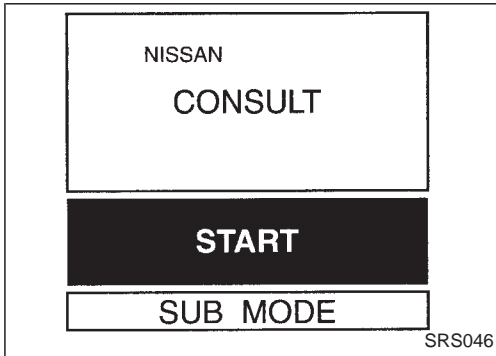
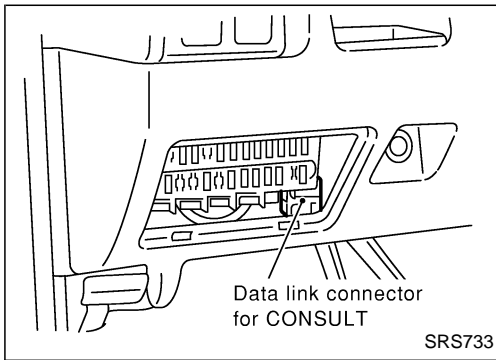
TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

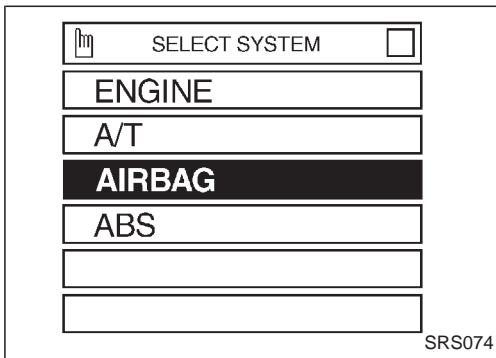
DIAGNOSTIC PROCEDURE 4 (CONSULT with CONSULT)

Final checking after repairing SRS by using CONSULT — Diagnosis mode

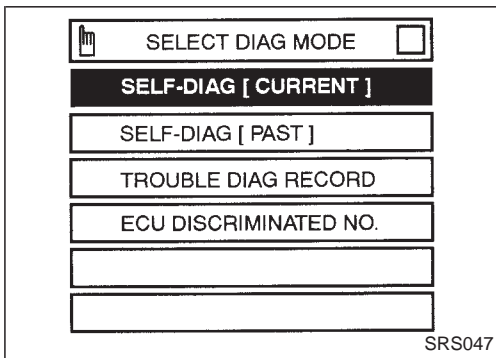
1. After repairing SRS, connect both battery cables.
2. Connect CONSULT to Data link connector.
3. Turn ignition switch from "OFF" to "ON".



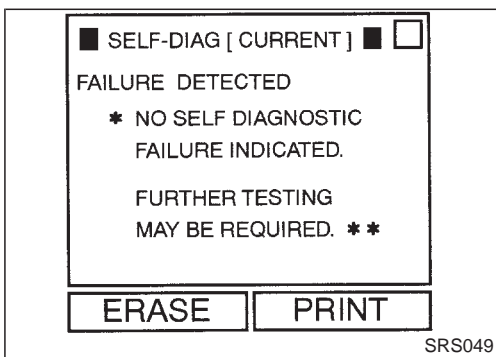
4. Touch "START".



5. Touch "AIRBAG".



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

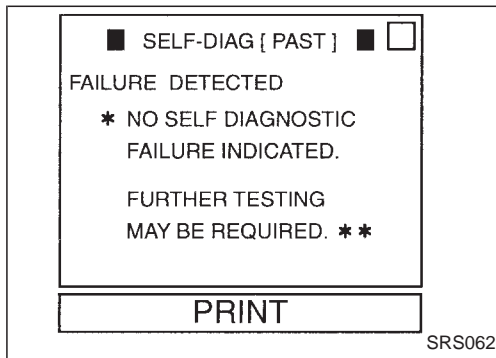
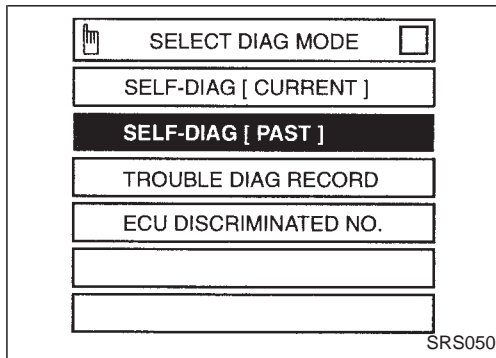
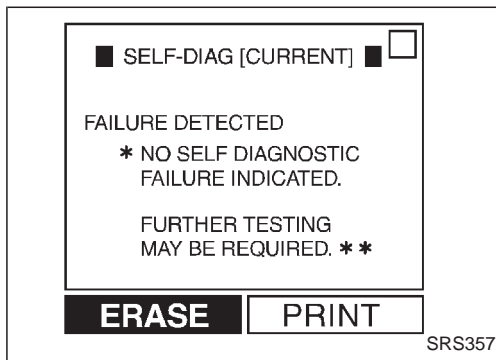


7. If no malfunction is detected on "SELF-DIAG [CURRENT]", repair of SRS is completed. Go to step 8. (When the malfunction was only in seat belt pre-tensioner system, go to step 11.)

If any malfunction is detected on "SELF-DIAG [CURRENT]", the malfunctioning part is not repaired completely or another malfunctioning part is detected. Go to DIAGNOSTIC PROCEDURE 2, page RS-31, 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]".

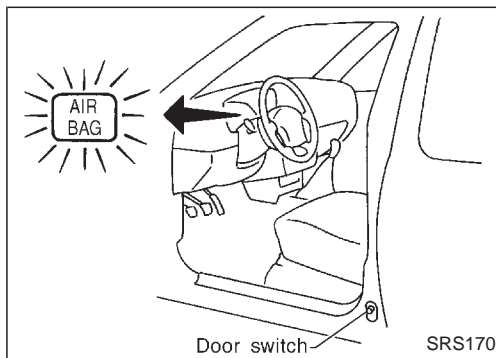
NOTE:

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, turn off CONSULT, then disconnect CONSULT.

12. Turn ignition switch "OFF".

13. Go to DIAGNOSTIC PROCEDURE 1, page RS-29 to check-SRS operation by using "AIR BAG" warning lamp with User mode.



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:

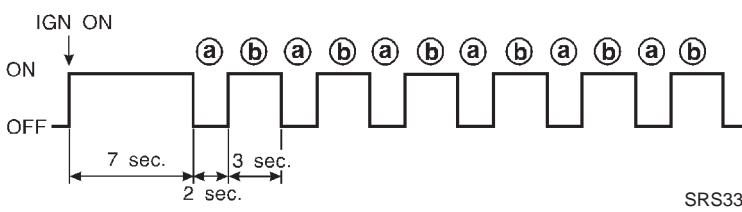
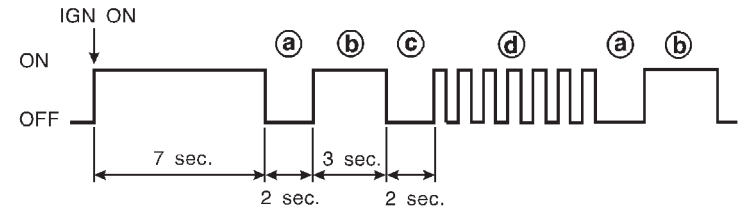
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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

No.	“AIR BAG” warning lamp flash pattern — Diagnosis mode —	SRS condition
1	 <p style="text-align: right;">SRS333</p>	<p>Ⓐ through Ⓑ are repeated.</p> <p>No malfunction is detected or repair is completed. No further action is necessary.</p>
2	 <p style="text-align: right;">SRS341</p>	<p>Ⓐ through Ⓓ are repeated.</p> <p>Ⓑ — Driver and passenger air bag marker (For identifying driver and/or passenger air bag malfunctioning)</p> <p>Ⓓ — 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.)</p> <p>The system is malfunctioning and needs to be repaired.</p>

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 in chart above, the malfunctioning part is not repaired completely, or another malfunctioning part is detected. Go to DIAGNOSTIC PROCEDURE 3, page RS-34, and repair malfunctioning part completely.

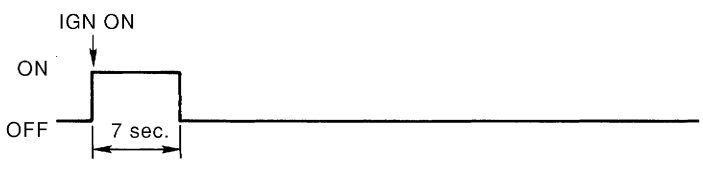
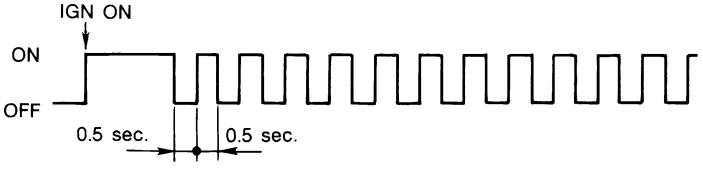
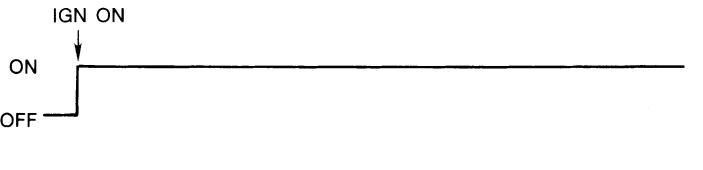
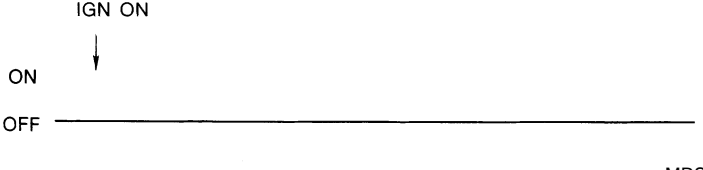
6. Turn ignition switch “ON”. “AIR BAG” warning lamp operates in User mode. Compare “AIR BAG” warning lamp operation to the chart below.

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.

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

“AIR BAG” warning lamp operation — User mode —	SRS condition	Reference item
 <p style="text-align: right;">MRS095A</p>	<p>No malfunction is detected. No further action is necessary.</p>	—
 <p style="text-align: right;">MRS096A</p>	<p>The system is malfunctioning and needs to be repaired as indicated.</p>	<p>Go to DIAGNOSTIC PROCEDURE 2 or 3 (RS-31 or 34).</p>
 <p style="text-align: right;">MRS097A</p>	<p>Air bag is deployed.</p> <p>Air bag fuse diagnosis sensor unit or harness is malfunctioning and needs to be repaired.</p>	<p>Go to COLLISION DIAGNOSIS (RS-47).</p> <p>Go to DIAGNOSTIC PROCEDURE 9 (RS-43).</p>
 <p style="text-align: right;">MRS098A</p>	<p>One of the following has occurred and needs to be repaired.</p> <ul style="list-style-type: none"> ● Meter fuse is blown. ● “AIR BAG” warning lamp circuit has open or short. ● Diagnosis sensor unit is malfunctioning. 	<p>Go to DIAGNOSTIC PROCEDURE 10 (RS-43).</p>

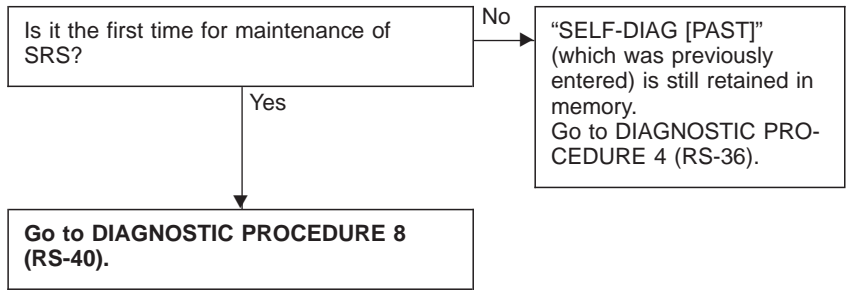
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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

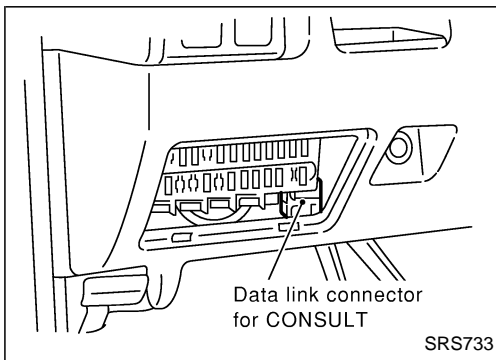
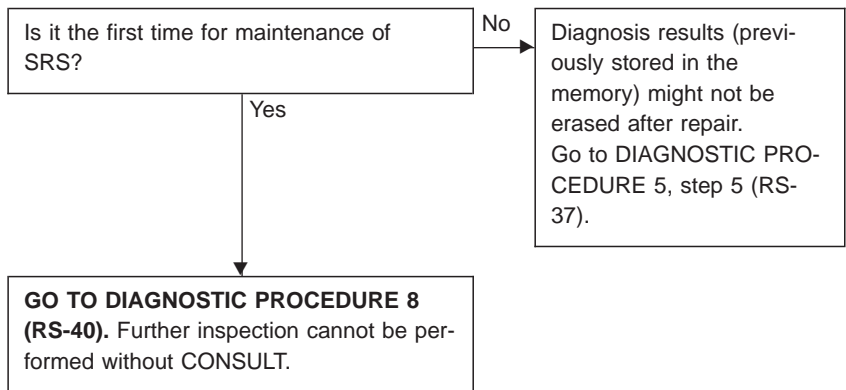
DIAGNOSTIC PROCEDURE 6 (Continued from DIAGNOSTIC PROCEDURE 2)

Inspecting SRS malfunctioning record



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

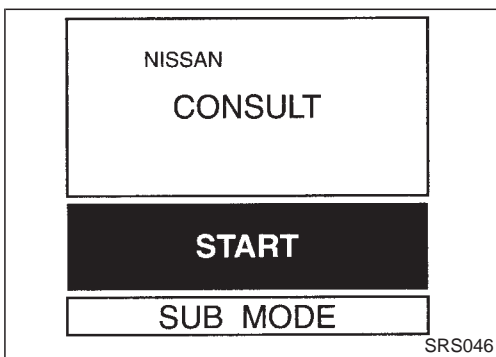
Inspecting SRS malfunctioning record



DIAGNOSTIC PROCEDURE 8 (📱 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".

TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)

SELECT SYSTEM

ENGINE

A/T

AIRBAG

ABS

SRS074

5. Touch "AIRBAG".

GI
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SELECT DIAG MODE

SELF-DIAG [CURRENT]

SELF-DIAG [PAST]

TROUBLE DIAG RECORD

ECU DISCRIMINATED NO.

SRS050

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

EC
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MT

■ SELF-DIAG [PAST] ■

FAILURE DETECTED
CONTROL UNIT

PRINT

SRS054

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

AT
TF
PD
FA

■ SELF-DIAG [PAST] ■

FAILURE DETECTED
* NO SELF DIAGNOSTIC
FAILURE INDICATED.
FURTHER TESTING
MAY BE REQUIRED. **

PRINT

SRS062

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]".

RA
BR
ST

RS

SELECT DIAG MODE

SELF-DIAG [CURRENT]

SELF-DIAG [PAST]

TROUBLE DIAG RECORD

ECU DISCRIMINATED NO.

SRS055

8. Touch "TROUBLE DIAG RECORD".

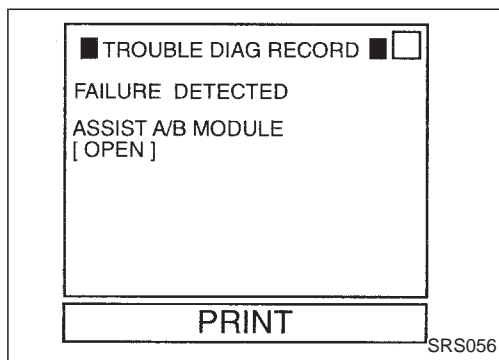
NOTE:

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

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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Self-diagnosis (Cont'd)



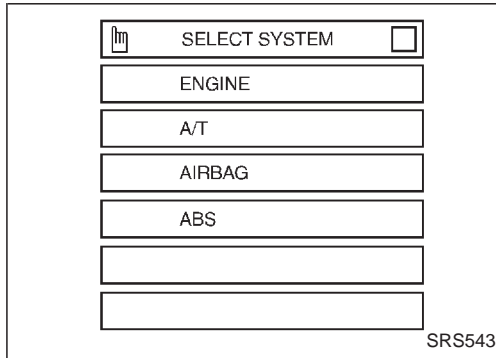
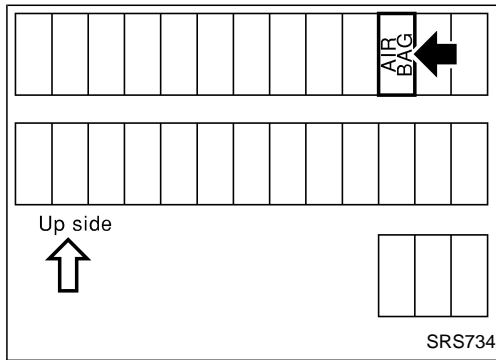
9. Diagnostic code is displayed on "TROUBLE DIAG RECORD".

10. Touch "PRINT".
11. Compare diagnostic codes to the INTERMITTENT MALFUNCTION DIAGNOSTIC CODE CHART, page RS-42.
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-diagnosis result. For replacement procedure of component parts, refer to RS-10.
15. Go to DIAGNOSTIC PROCEDURE 4, page RS-36.

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 <ul style="list-style-type: none"> ● Low battery voltage (Less than 9V) 	● Go to DIAGNOSTIC PROCEDURE 4 (RS-36) after charging battery.
	<ul style="list-style-type: none"> ● No malfunction is detected. 	● Go to DIAGNOSTIC PROCEDURE 4 (RS-36).
AIRBAG MODULE [OPEN]	<ul style="list-style-type: none"> ● Driver's air bag module circuit is open. (including the spiral cable) 	<ol style="list-style-type: none"> 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]	<ul style="list-style-type: none"> ● Driver's air bag module circuit is shorted to some power supply circuit. (including the spiral cable) 	
AIRBAG MODULE [GND-SHORT]	<ul style="list-style-type: none"> ● Driver's air bag module circuit is shorted to ground. (including the spiral cable) 	
AIRBAG MODULE [SHORT]	<ul style="list-style-type: none"> ● Driver's air bag module circuits are shorted to each other. 	
ASSIST A/B MODULE [VB-SHORT]	<ul style="list-style-type: none"> ● Front passenger air bag module circuit is shorted to some power supply circuit. 	<ol style="list-style-type: none"> 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]	<ul style="list-style-type: none"> ● Front passenger air bag module circuit is open. 	
ASSIST A/B MODULE [GND-SHORT]	<ul style="list-style-type: none"> ● Front passenger air bag module circuit is shorted to ground. 	
ASSIST A/B MODULE [SHORT]	<ul style="list-style-type: none"> ● Front passenger air bag module circuits are shorted to each other. 	
CONTROL UNIT	<ul style="list-style-type: none"> ● Diagnosis sensor unit is malfunctioning. 	<ol style="list-style-type: none"> 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.

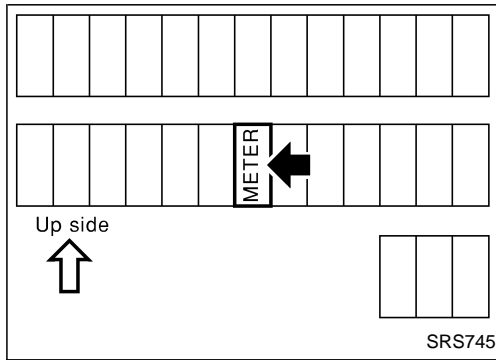
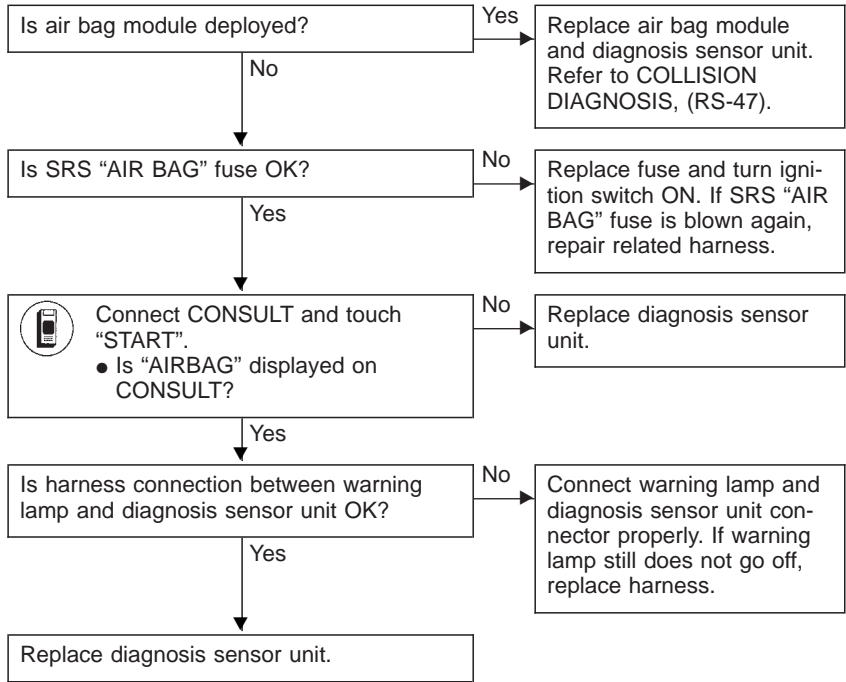
* Follow the procedures in numerical order when repairing malfunctioning parts, then make the final system check.



Trouble Diagnoses for Air Bag Warning Lamp

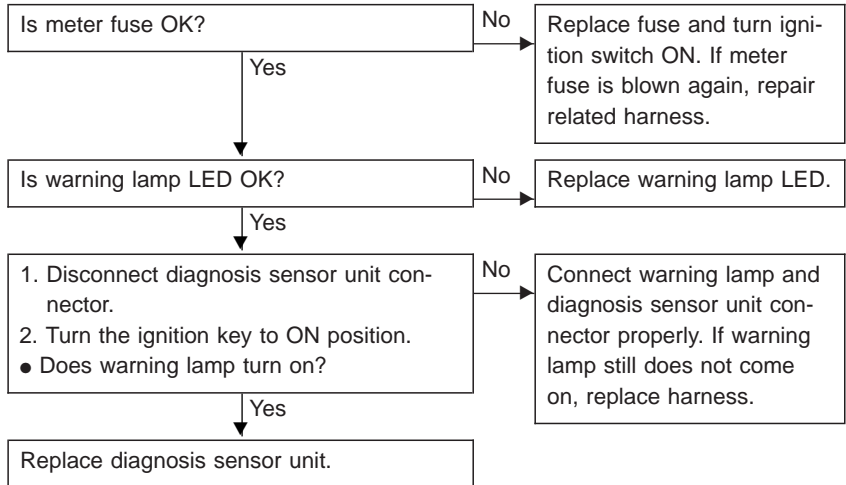
DIAGNOSTIC PROCEDURE 9

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



DIAGNOSTIC PROCEDURE 10

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



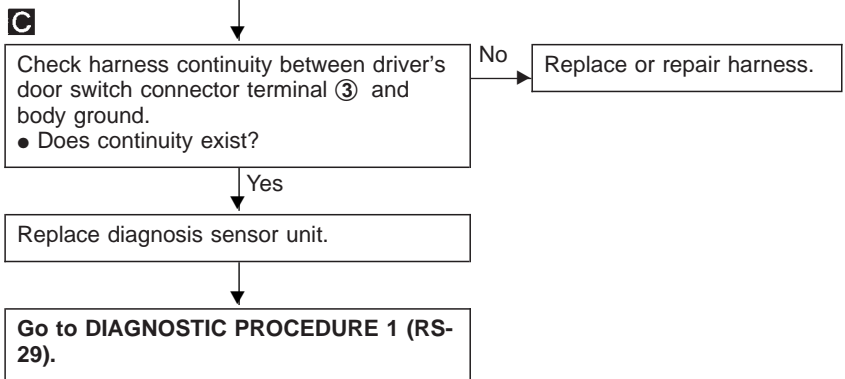
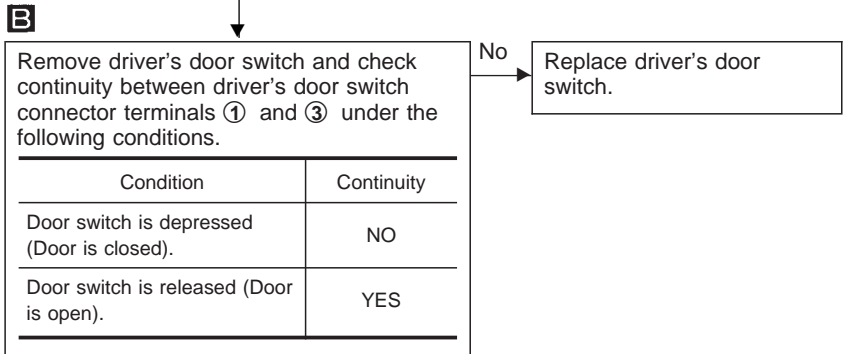
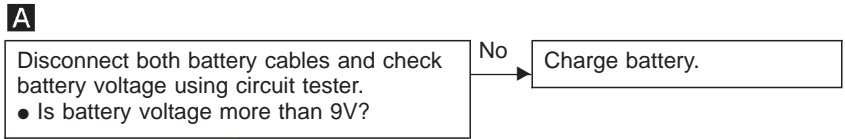
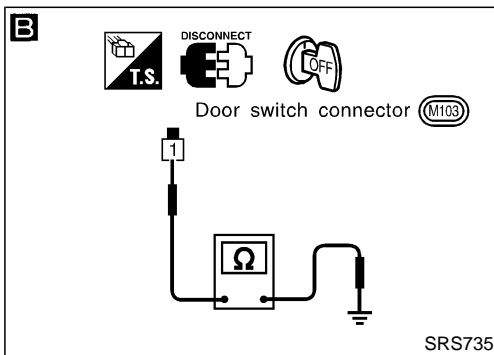
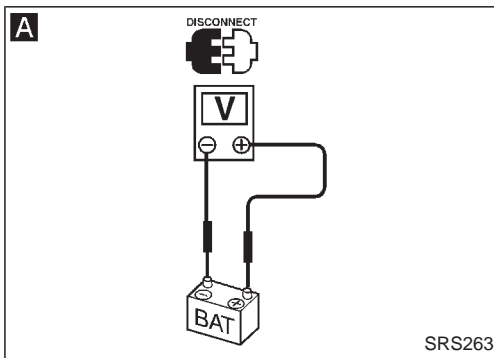
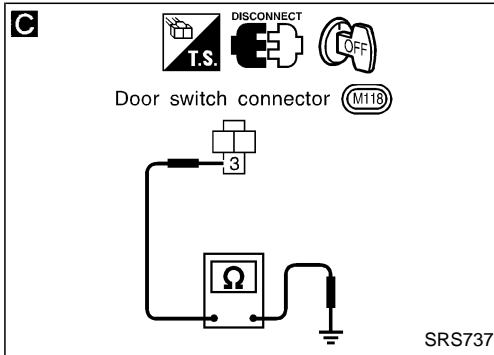
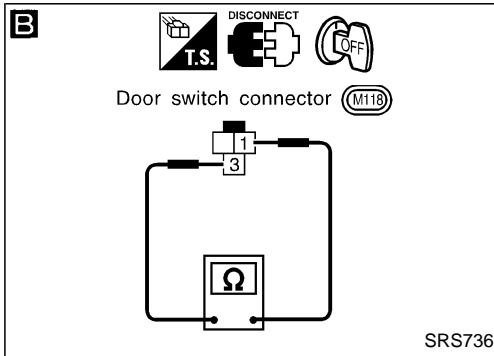
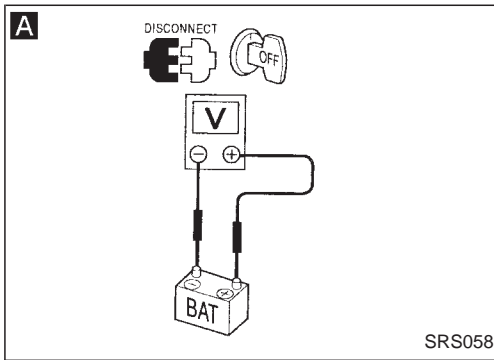
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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

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

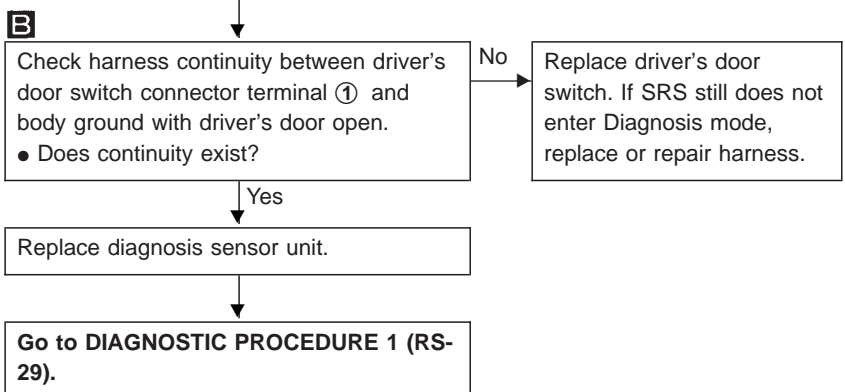
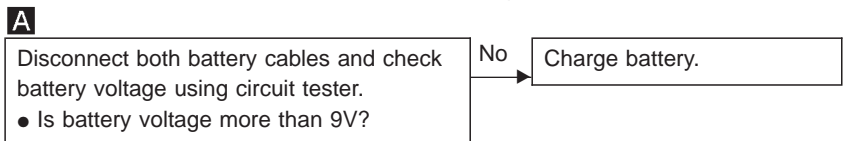
DIAGNOSTIC PROCEDURE 11 (Models for Europe and with multi-remote control system)

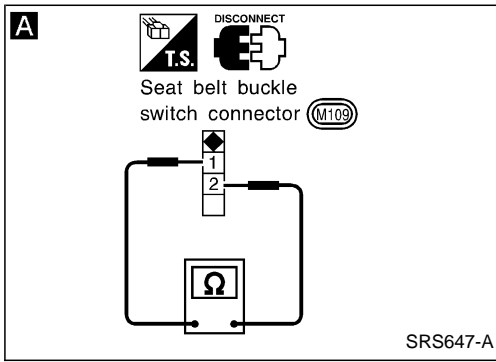
SYMPTOM: SRS does not enter Diagnostic mode.



DIAGNOSTIC PROCEDURE 11 (Models except for Europe and with multi-remote control system)

SYMPTOM: SRS does not enter Diagnosis mode.

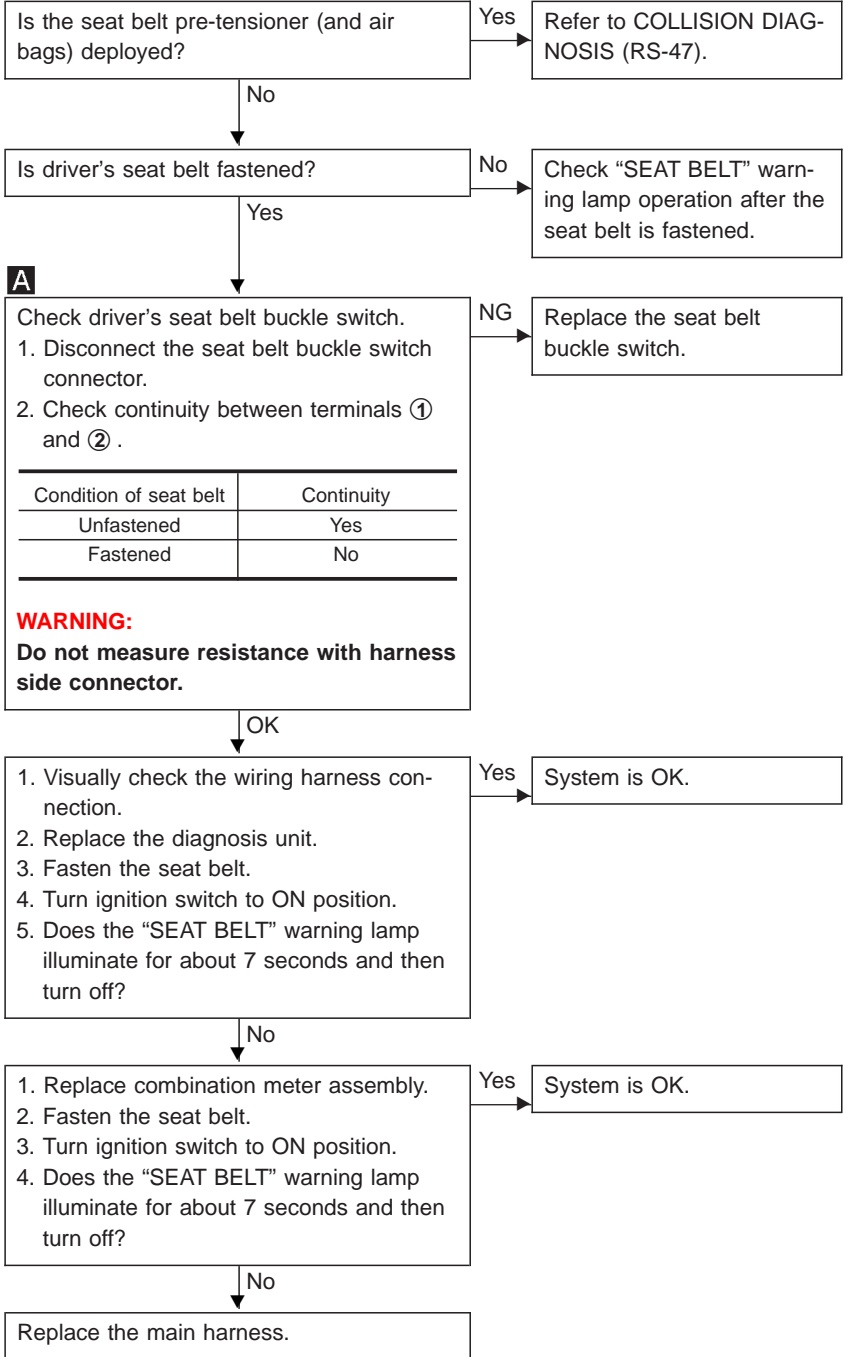




Trouble Diagnoses for Seat Belt Pre-tensioner Warning Lamp (Models for the Middle East)

DIAGNOSTIC PROCEDURE 12

SYMPTOM: "SEAT BELT" warning lamp does not turn off.



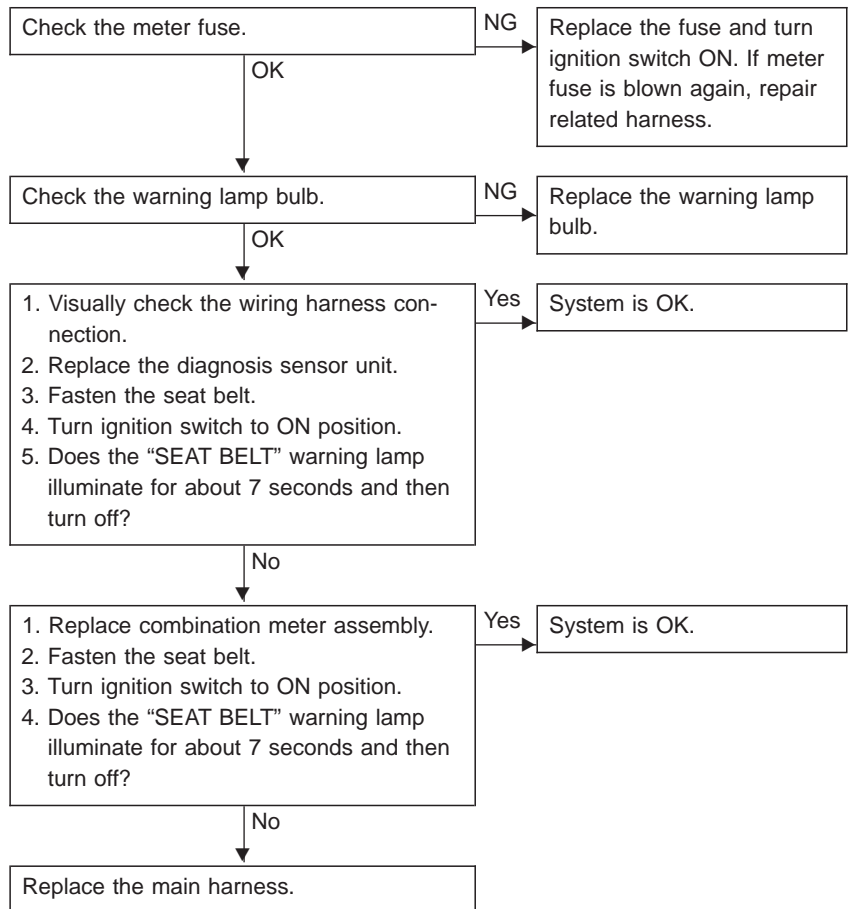
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TROUBLE DIAGNOSES — Supplemental Restraint System (SRS)

Trouble Diagnoses for Seat Belt Pre-tensioner Warning Lamp (Models for the Middle East) (Cont'd)

DIAGNOSTIC PROCEDURE 13

SYMPTOM: "SEAT BELT" warning lamp does not turn on.



COLLISION DIAGNOSIS

FOR FRONTAL COLLISION

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

When SRS is activated in a collision:

- ① Replace the diagnosis sensor unit.
- ② Remove the air bag modules 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 and seat belt pre-tensioner assemblies.
- ⑤ Conduct self-diagnosis using CONSULT, and “AIR BAG” and “SEAT BELT” warning lamps (Models for the Middle East). Refer to “Self-diagnosis” for details (RS-29). Ensure entire SRS operates properly.


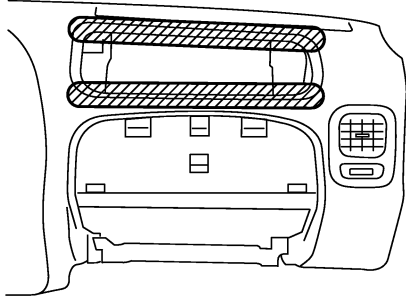

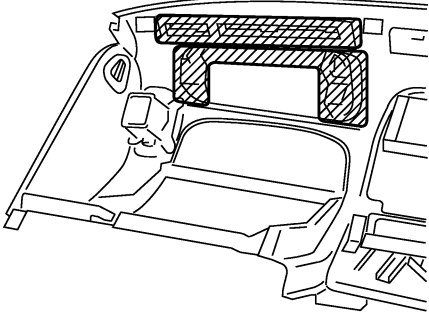

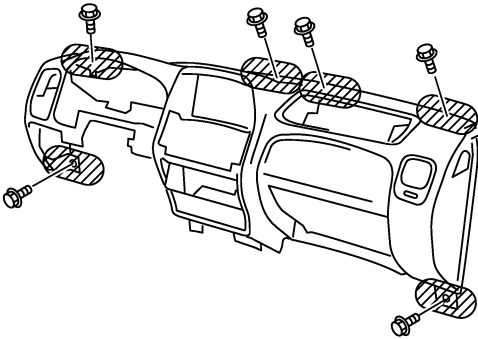
When SRS is not activated in a collision:

- 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” and “SEAT BELT” warning lamps (Models for the Middle East). Refer to “Self-diagnosis” for details (RS-29). Ensure entire SRS operates properly.

SRS inspection

Part	SRS is activated	SRS is NOT activated
Air bag module (driver and passenger side)	REPLACE Install air bag module with new bolts.	<ol style="list-style-type: none"> 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.	<ol style="list-style-type: none"> 1. Remove seat belt pre-tensioners. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. 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.	<ol style="list-style-type: none"> 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		<ol style="list-style-type: none"> 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		<ol style="list-style-type: none"> 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		<ol style="list-style-type: none"> 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	Side 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	
	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  : Check points </div> <div style="text-align: center;">  </div> <div style="text-align: right;">SRS738</div> </div>	
	● Passenger air bag module brackets	
	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p>Back face of instrument panel</p>  : Check points </div> <div style="text-align: center;">  </div> <div style="text-align: right;">SRS739</div> </div>	
● The portions securing the instrument panel		
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  : Check points </div> <div style="text-align: center;">  </div> <div style="text-align: right;">SRS740</div> </div>		
2. If no damage is found, reinstall the instrument panel. 3. If damaged—REPLACE the instrument panel with bolts.		