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#### **PRECAUTIONS**

PRECAUTIONS PFP:00001

# Precautions for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

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The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual

**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/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harness connectors.

#### Precautions for SRS "AIR BAG" and "SEAT BELT PRE-TENSIONER" Service

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- 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.
- The diagnosis sensor unit must always be installed with the arrow mark "←" pointing toward the front of the vehicle for proper operation. Also check diagnosis sensor unit for cracks, deformities or rust before installation and replace as required.
- The spiral cable must be aligned with the neutral position since its rotations are limited. Do not attempt to turn steering wheel or column after removal of steering gear.
- Handle air bag module carefully. Always place driver and front passenger air bag modules with the pad side facing upward and seat mounted front side air bag module standing with the stud bolt side facing down.
- Conduct self-diagnosis to check entire SRS for proper function after replacing any components.
- After air bag inflates, the front instrument panel assembly should be replaced if damaged.

# **Trouble Diagnosis Precaution**

When you read wiring diagrams, refer to the following:

- GI-12, "How to Read Wiring Diagrams" in GI section
- PG-3, "POWER SUPPLY ROUTING CIRCUIT" in PG section

When you perform trouble diagnosis, refer to the following:

- GI-10, "HOW TO FOLLOW TEST GROUPS IN TROUBLE DIAGNOSES" in GI section
- GI-25, "How to Perform Efficient Diagnosis for an Electrical Incident" in GI section

Check for any service bulletins before servicing the vehicle.

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# **PREPARATION**

PREPARATION PFP:00002

# **Special Service Tool**

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

Tool number (Kent-Moore No.) Tool name		Description
KV99105300 (J41246) Air bag module bracket	S-NT354	Anchoring air bag module
KV99106400 (J38381) Deployment tool	S-NT357	Disposing of air bag modules and front seat belt pre-tensioners
(J38381-80) Deployment tool adapter for front driver air bag module, side curtain air bag module and front seat belt pre-tensioner	WHIA0089E	Connection between the deployment tool and front driver air bag module, side curtain air bag module and front seat belt pre-tensioner
(J38381-65) Deployment tool adapter for front passenger air bag module (service replacement)	SHIA0173E	Connection between the deployment tool and front passenger air bag module (service replacement)
KV99109000 (J44230) Deployment tool adapter for front side air bag module	ZZA1190D	Connection between the deployment tool and front side air bag module
(J44615) Air bag lock master key set		Removing and installing air bag lock

#### SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PFP:28556 **SRS Configuration** EHS000KK Driver air bag Front passenger Crash zone module air bag module sensor Seat belt buckle Seat belt buckle switch RH switch LH Front LH seat belt Front RH seat belt pre-tensioner pre-tensioner Diagnoisis sensor unit LH side air bag RH side air bag Auxiliary power source (condenser) (satellite) sensor (satellite) sensor · Drive circuit (G sensor for front (G sensor for front CPU RH side air bag) LH side air bag) · G sensor (for driver and front passenger air bags, front seat belt pre-tensioner) · Safing sensor Front LH side air bag Front RH side air bag (for driver and front passenger air module module bags, front seat belt pre-tensioner) · Safing sensor (for front side air bag and side curtain air bag module) RH side curtain LH side curtain air bag module air bag module

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 front 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	×	_	_
Front passenger air bag module	×	_	_
Front LH seat belt pre-tensioner	×	_	_
Front RH seat belt pre-tensioner	×	_	_
Front LH side air bag module	_	×	_
Front RH side air bag module	_	_	×
LH side curtain air bag module	_	×	_
RH side curtain air bag module	_	_	×

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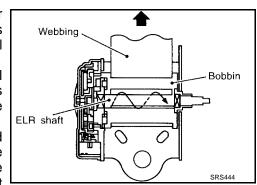
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#### Front Seat Belt Pre-tensioner with Load Limiter

The seat belt pre-tensioner system with load limiter is installed for 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.

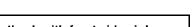
When passengers in a vehicle are thrown forward in a collision and the restraining force of the seat belt exceeds a specified level, the load limiter permits the specified extension of the seat belt by the twisting of the ELR shaft, and a relaxation of the chest-area seat belt web tension while maintaining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

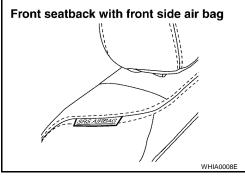


# Front Side Air Bag

Front side air bag is built-in type.

The front seatbacks with built-in type side air bag have the labels as shown.





# Side Curtain Air Bag

The side curtain air bags have the labels as shown.



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# **Direct-connect SRS Component Connectors**

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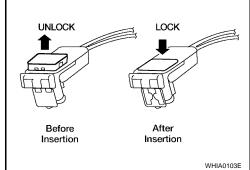
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The following SRS components use direct-connect style harness connectors.

- Driver air bag module
- Front passenger air bag module
- LH side curtain air bag module
- RH side curtain air bag module
- Front LH seat belt pre-tensioner
- Front RH seat belt pre-tensioner

Always pull up to release black locking tab prior to removing connector from SRS component.

Always push down to lock black locking tab after installing connector to SRS component. When locked, the black locking tab is level with the connector housing.



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#### **TROUBLE DIAGNOSIS**

PFP:00004

# **Trouble Diagnoses Introduction**

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#### **CAUTION:**

- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange 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-II.

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

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

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

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

#### 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 <u>SC-4, "How to Handle Battery"</u>.)
- Fuse (Refer to <u>SRS-11, "Schematic"</u>.)
- System component-to-harness connections

# **WORK FLOW** Α REFERENCE ITEM В **ACTION ITEM** Check in Listen to customer complaints and requests. D Perform preliminary check. Preliminary check \*1 Е Check for any service bulletin. SRS Operation Check \*2 Perform self-diagnosis using "AIR BAG" warning lamp. - User mode • DIAGNOSTIC PROCEDURE Inspect malfunctioning part. - Diagnosis mode 4: Using CONSULT-II \*3 Perform self-diagnosis using CONSULT-II. **SRS** • DIAGNOSTIC PROCEDURE 5: Using "AIR BAG" warning Perform self-diagnosis "AIR BAG" warning lamp. Repair/Replace Final check - Diagnosis User mode SRS Operation Check \*2

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\*1: <u>SRS-8</u>
\*4: <u>SRS-27</u>

\*2: <u>SRS-19</u>

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Check out

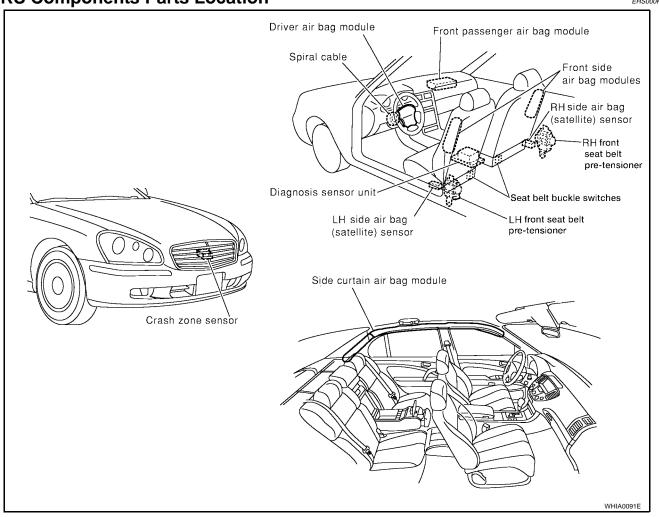
\*3: <u>SRS-27</u>

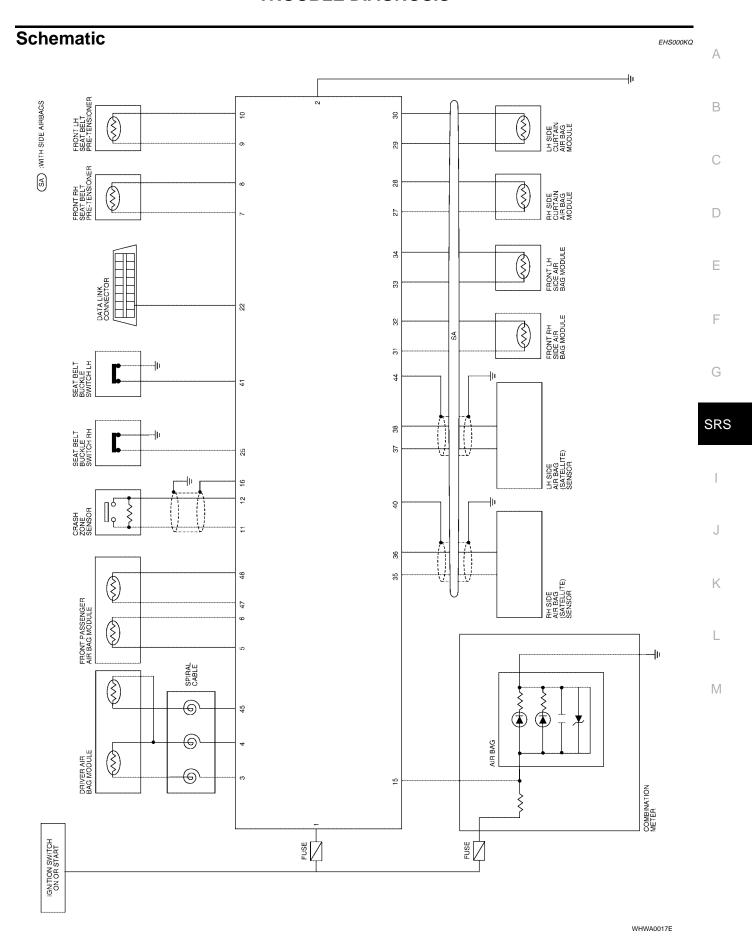
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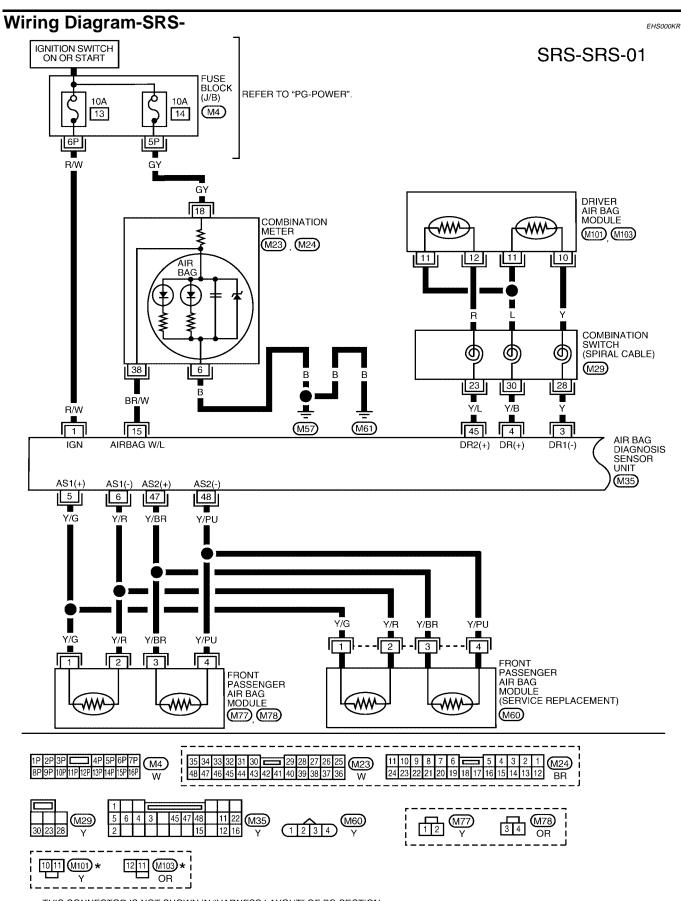
Revision: May 2004 SRS-9 2003 Altima

# **SRS Components Parts Location**

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 $\star$ : THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

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# SRS-SRS-02

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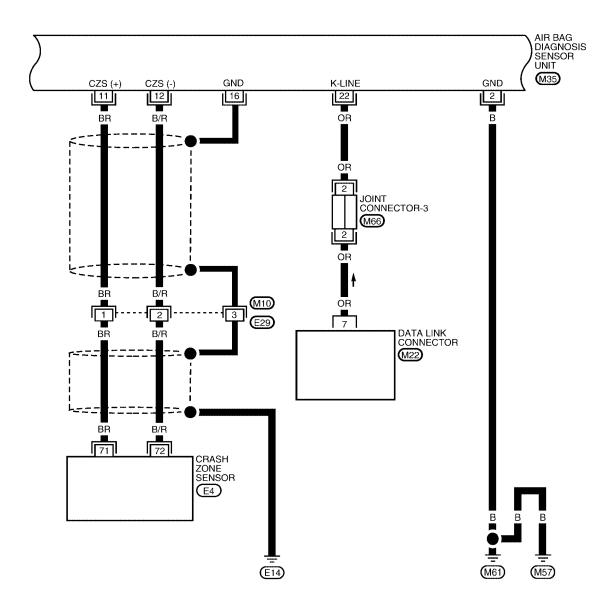
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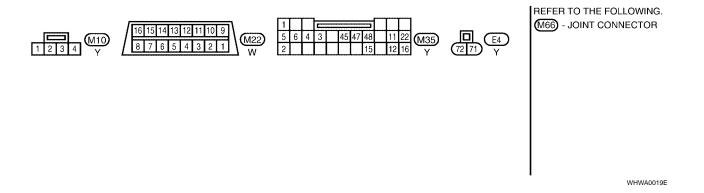
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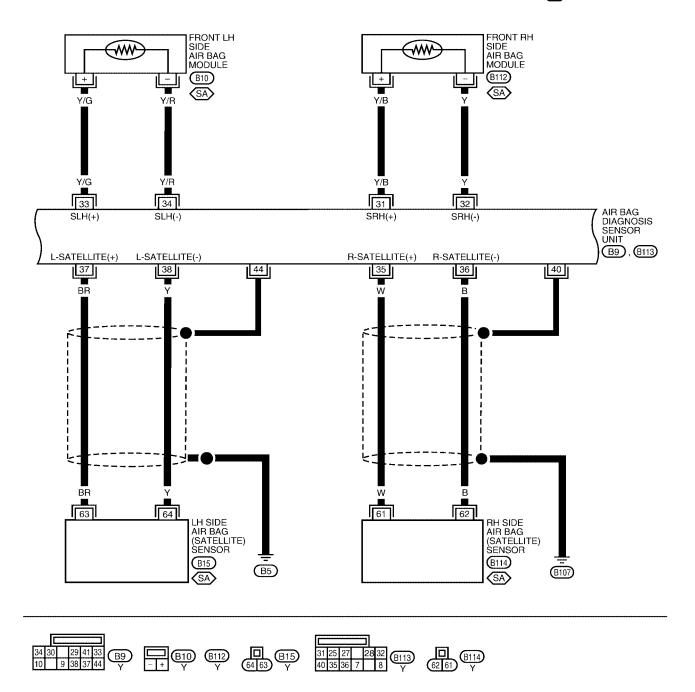
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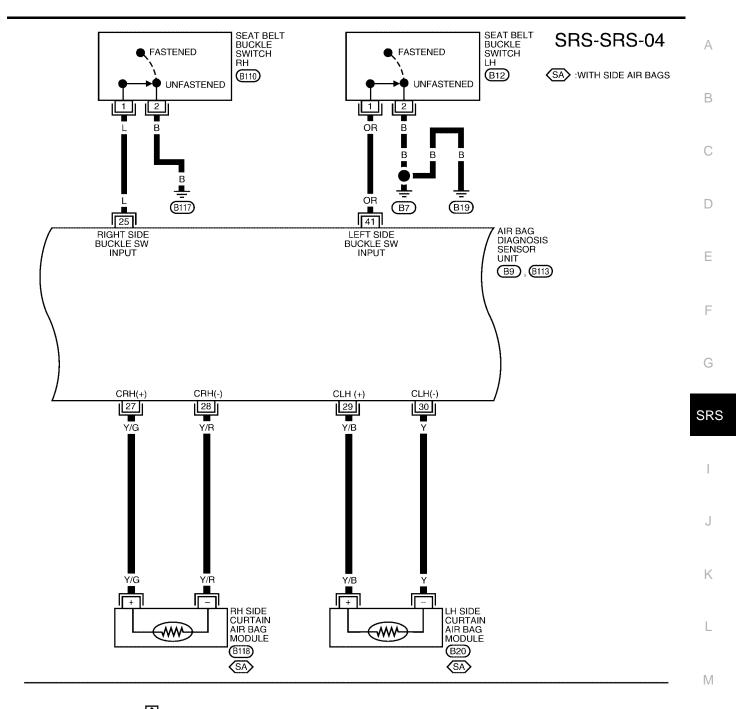


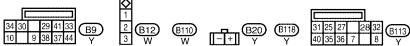
# SRS-SRS-03

(SA): WITH SIDE AIR BAGS



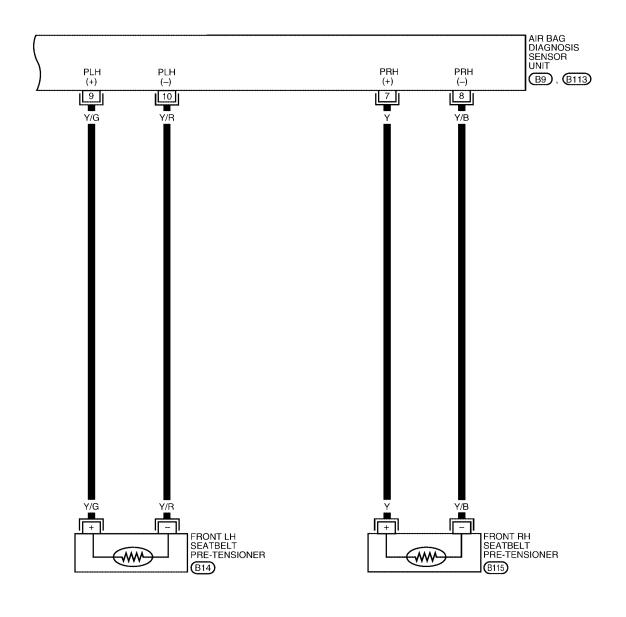
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# SRS-SRS-05





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# CONSULT-II FUNCTION DIAGNOSIS MODE FOR CONSULT-II

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"SELF-DIAG [CURRENT]"

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

"SELF-DIAG [PAST]"

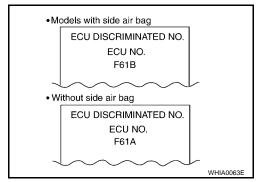
Diagnosis results previously stored in the memory are displayed on the CONSULT-II screen. The stored results are not erased until memory erasing is executed.

• "TROUBLE DIAG RECORD"

With TROUBLE DIAG RECORD, diagnosis results previously erased by a reset operation can be displayed on the CONSULT-II screen.

"ECU DISCRIMINATED NO."

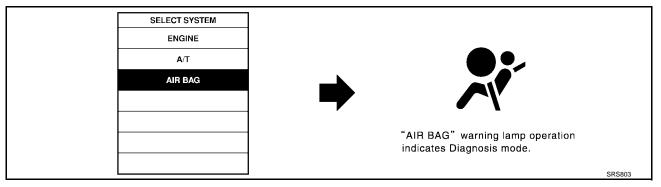
The diagnosis sensor unit for each vehicle model is assigned with its own, individual classification number. This number will be displayed on the CONSULT-II screen, as shown. When replacing the diagnosis sensor unit, refer to the part number for the compatibility. After installation, replacement with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



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

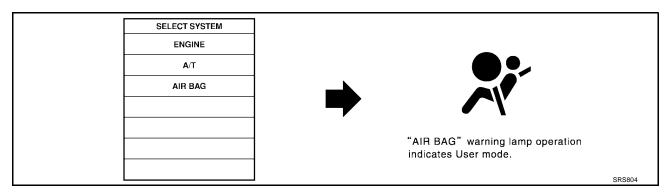
#### From User Mode to Diagnosis Mode

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-II until "SELECT SYSTEM" appears, Diagnosis mode automatically changes to User mode.



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#### **HOW TO ERASE SELF-DIAGNOSIS RESULTS**

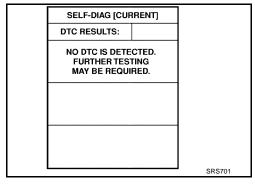
- "SELF-DIAG [CURRENT]"
  - A current Self-diagnosis result is displayed on the CONSULT-II screen in real time.
  - After the malfunction is repaired completely, no malfunction is detected on "SELF-DIAG [CURRENT]".
- "SELF-DIAG [PAST]"

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

#### NOTE:

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

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

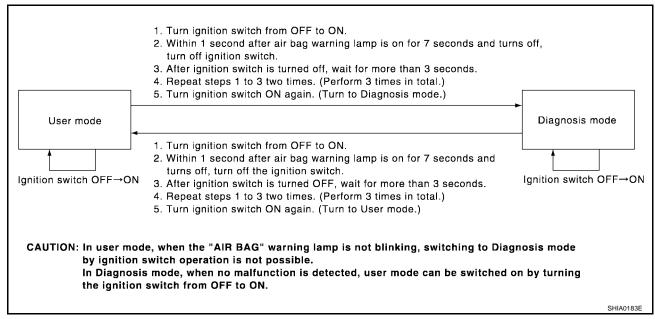


# **SELF-DIAGNOSIS FUNCTION (WITHOUT CONSULT-II)**

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- The reading of these results is accomplished using one of two modes "User mode" and "Diagnosis mode".
- After a malfunction is repaired, turn the ignition switch OFF for at least one second, then back ON. Diagnosis mode returns to the User mode. At that time, the self-diagnostic result is cleared.

#### **HOW TO CHANGE SELF-DIAGNOSIS MODE**



#### **HOW TO ERASE SELF-DIAGNOSIS RESULTS**

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

# **SRS Operation Check DIAGNOSTIC PROCEDURE 1**

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

- 1. Turn the ignition switch from OFF to ON, and check that the air bag warning lamp blinks.
- 2. Compare the SRS air bag warning lamp blinking pattern with the examples.



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'AIR BAG" warning lamp operation-User mode-	SRS condition	Reference item
ON OFF 7 sec.	<ul><li>No malfunction is detected.</li><li>No further action is necessary.</li></ul>	_
ON OFF 7 sec. 0.5 sec. 0.5 sec. SHIA0012E	The system is malfunctioning and need to be repaired as indicated.	Go to SRS-21, "DIAGNOSTIC PROCEDURE 2" or SRS-32, "DIAGNOSTIC PROCEDURE 6".
	<ul><li> Air bag is deployed.</li><li> Seat belt pre-tensioner is deployed.</li></ul>	Go to SRS-61, "COLLISION DIAGNOSIS"
ON OFF SHIA0013E	<ul> <li>Diagnosis sensor unit is malfunctioning.</li> <li>Air bag power supply circuit is malfunctioning.</li> <li>SRS air bag warning lamp circuit is malfunctioning.</li> </ul>	Go to SRS-37, "Trouble Diagnose "AIR BAG" Warning Lamp Does N Turn Off" .
IGN ON ON OFF	<ul> <li>Diagnosis sensor unit is malfunctioning.</li> <li>Air bag warning lamp circuit is malfunctioning.</li> </ul>	Go to <u>SRS-38</u> , "Trouble Diagnose "AIR BAG" Warning Lamp Does N Turn On".

# Trouble Diagnoses with CONSULT-II DIAGNOSTIC PROCEDURE 2

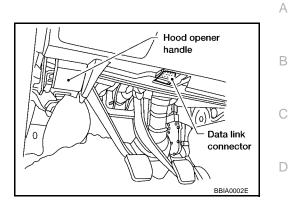
- 1. Turn ignition switch OFF.
- 2. Connect CONSULT-II to the data link connector.



Touch "START".

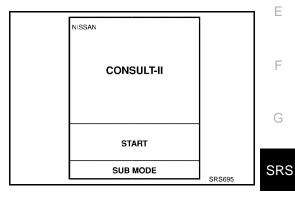
5. Touch "AIR BAG".

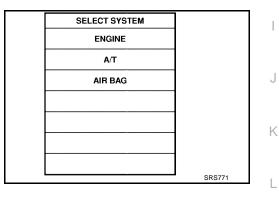
6. Touch "SELF-DIAG [CURRENT]".



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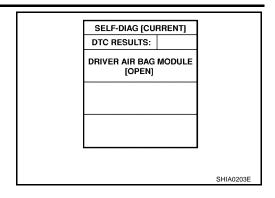
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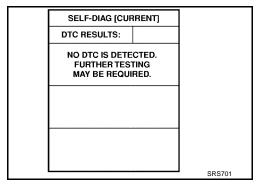
	SELECT DIAG MODE	
s	ELF-DIAG [CURRENT]	
	SELF-DIAG [PAST]	
TF	ROUBLE DIAG RECORD	
EC	CU DISCRIMINATED NO.	
		SRS697

7. Diagnostic code is displayed on "SELF-DIAG [CURRENT]".



If no malfunction is detected on "SELF-DIAG [CURRENT]" even though malfunction is detected in "SRS Operation Check", refer to SRS-27, "DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)", to diagnose the following cases:

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



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

Diagnostic item		Explanation	Repair order Recheck SRS at each replacement
NO DTC IS DETECTED.	When malfunction is indicated by the "AIR	Low battery voltage (Less than 9V)	Go to <u>SRS-25</u> , " <u>DIAGNOSTIC PRO-CEDURE 3</u> ".
	BAG" warning lamp in User mode.	<ul> <li>Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair.</li> <li>Intermittent malfunction has been detected in the past.</li> </ul>	Go to SRS-27, "DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)".      Go to SRS-27, "DIAGNOSTIC PROCEDURE 5".
	No malfunction is determined by the second sec	ected.	_
DRIVER AIRBAG MODULE [OPEN]	<ul> <li>Driver air bag module circuit is shorted to some power supply circuit (including the spiral cable).</li> <li>Driver air bag module circuit is shorted to ground (including the spiral cable).</li> <li>Driver air bag module circuits are shorted to each other.</li> </ul>		Visually check the wiring harness connection.     Replace the harness if it has visible
DRIVER AIRBAG MODULE [VB-SHORT]			damage.  3. Replace driver air bag module. (Before disposal, it must be
DRIVER AIRBAG MODULE [GND-SHORT]			deployed.) 4. Replace the spiral cable. 5. Replace the diagnosis sensor unit.
DRIVER AIRBAG MODULE [SHORT]			6. Replace the related harness.
ASSIST A/B MODULE [VB-SHORT]	Front passenger air bag module circuit is shorted to some power supply circuit.		Visually check the wiring harness connection.
ASSIST A/B MODULE [OPEN]	Front passenger air bag module circuit is open.		Replace the harness if it has visible damage.
ASSIST A/B MODULE [GND-SHORT]	Front passenger air bag module circuit is shorted to ground.		Replace front passenger air bag module. (Before disposal, it must be deployed.)
ASSIST A/B MODULE [SHORT]	Front passenger air be other.	ag module circuits are shorted to each	4. Replace the diagnosis sensor unit. 5. Replace the related harness.

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement	
CRASH ZONE SEN [UNIT FAIL]	Crash zone sensor	Visually check the wiring harness connection.	
CRASH ZONE SEN [COMM FAIL]		Replace the harness if it has visible damage.	
CRASH ZONE SEN [UNMATCH]		3. Replace the crash zone sensor.	
[ONWATION]		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	
SIDE MODULE LH [OPEN]	Front LH side air bag module circuit is open.	Visually check the wiring harness connection.	
SIDE MODULE LH [VB-SHORT]	Front LH side air bag module circuit is shorted to some power supply circuit.	Replace the harness if it has visible damage.	
SIDE MODULE LH [GND-SHORT]	Front LH side air bag module circuit is shorted to ground.	Replace front LH seatback assembly (front LH side air bag module).      (Before disposal, it must be	
SIDE MODULE LH	• Front LH side air bag module circuits are shorted to each other.	deployed.)	
[SHORT]		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	
SIDE MODULE RH [OPEN]	Front RH side air bag module circuit is open.	Visually check the wiring harness connection.	
SIDE MODULE RH [VB-SHORT]	Front RH side air bag module circuit is shorted to some power supply circuit.	2. Replace the harness if it has visible damage.	
SIDE MODULE RH [GND-SHORT]	Front RH side air bag module circuit is shorted to ground.	Replace front RH seatback assembly (front RH side air bag module).     (Before disposal, it must be	
SIDE MODULE RH	Front RH side air bag module circuits are shorted to each other.	deployed.)	
[SHORT]		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	
SATELLITE SENS LH [UNIT FAIL]	LH side air bag (Satellite) sensor	Visually check the wiring harness connection.	
SATELLITE SENS LH [COMM FAIL]		Replace the harness if it has visible damage.	
SATELLITE SENS LH [UNMATCH]		3. Replace the LH side air bag (satellite) sensor.	
		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	
SATELLITE SENS RH [UNIT FAIL]	RH side air bag (Satellite) sensor	Visually check the wiring harness connection.	
SATELLITE SENS RH [COMM FAIL]		Replace the harness if it has visible damage.	
SATELLITE SENS RH [UNMATCH]		3. Replace the RH side air bag (satellite) sensor.	
		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	

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PRE-TEN FRONT LH (DPEN)	Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
PRE-TEN FRONT LH [VB-SHORT]  PRE-TEN FRONT LH [GND-SHORT]  PRE-TEN FRONT LH [GND-SHORT]  PRE-TEN FRONT LH [SHORT]  PRE-TEN FRONT LH [SHORT]  PRE-TEN FRONT LH [SHORT]  PRE-TEN FRONT H [SHORT]  PRE-TEN FRONT H [SHORT]  PRE-TEN FRONT RH [CPEN]  PRE-TEN FRONT RH [CPEN]  PRE-TEN FRONT RH [CND-SHORT]  PRE-TEN F		The circuit for front LH pre-tensioner is open.	
PRE-TEN FRONT LH [GND-SHORT]  PRE-TEN FRONT LH [SHORT]  The circuits for the front LH pre-tensioner are shorted to each other.  The circuits for the front LH pre-tensioner are shorted to each other.  PRE-TEN FRONT RH [OPEN]  PRE-TEN FRONT RH [OPEN]  PRE-TEN FRONT RH [OPEN]  PRE-TEN FRONT RH [OND-SHORT]  PRE-TEN FRONT RH [GND-SHORT]  PRE-TEN FRONT RH [SHORT]  The circuit for front RH pre-tensioner is shorted to some power supply circuit.  The circuit for front RH pre-tensioner is shorted to ground.  PRE-TEN FRONT RH [SHORT]  The circuits for the front RH pre-tensioner is shorted to ground.  CURTAIN MODULE LH [OPEN]  CURTAIN MODULE LH [OND-SHORT]  CURTAIN MODULE LH [GND-SHORT]  CURTAIN MODULE LH [GND-SHORT]  CURTAIN MODULE LH [COPEN]  The LH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE LH [COPEN]  The LH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  The LH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [COPEN]  The RH side curtain air bag module circuit is shorted to ground.  Replace the related harness.  A Replace the diagnosis sensor unit.  S Replace the harness if it has visible damage.  A Replace the harness if it has visible damage.  A Repl	PRE-TEN FRONT LH		connections.
PRE-TEN FRONT RH [CHORT]  PRE-TEN FRONT RH [OPEN]  • The circuit for front RH pre-tensioner are shorted to each other.  • The circuit for front RH pre-tensioner is shorted to some power supply circuit.  • The circuit for front RH pre-tensioner is shorted to some power supply circuit.  • The circuit for front RH pre-tensioner is shorted to some power supply circuit.  • The circuit for front RH pre-tensioner is shorted to some power supply circuit.  • The circuit for front RH pre-tensioner is shorted to ground.    Replace the harness if it has visible damage.   Replace the harness if it has visible damage.   Replace the diagnosis sensor unit.   Replace the diagnosis sensor unit.   Replace the harness if it has visible damage.   Replace the diagnosis sensor unit.   Replace the dia	PRE-TEN FRONT LH		damage.
OPEN  Supply circuit.	PRE-TEN FRONT LH	· ·	sioner. (Before disposal, it must be deployed.)  4. Replace the diagnosis sensor unit.
VB-SHORT    Supply circuit.   PRE-TEN FRONT RH   GND-SHORT    • The circuit for front RH pre-tensioner is shorted to ground.   S. Replace front RH seat belt pre-tensioner.   (Before disposal, it must be deployed.)   4. Replace the diagnosis sensor unit.   5. Replace the diagnosis sensor unit.   6. The LH side curtain air bag module circuit is shorted to some power supply circuits.   • The LH side curtain air bag module circuit is shorted to ground.   6. Replace the diagnosis sensor unit.   6. Replace RH side curtain air bag module circuit is shorted to some power supply circuit.   • The RH side curtain air bag module circuit is shorted to some power supply circuit.   • The RH side curtain air bag module circuit is shorted to some power supply circuit.   • The RH side curtain air bag module circuit is shorted to some power supply circuit.   • The RH side curtain air bag module circuit is shorted to ground.   2. Replace RH side curtain air bag module.   (Before disposal, it must be deployed.)   4. Replace the diagnosis sensor unit.   6. Replace the diagnosis sensor unit.   6. Replace the diagnosis sensor unit.   7. Replace the diagnosis sensor unit			Visually check the wiring harness
CURTAIN MODULE LH   OTHE LH side curtain air bag module circuit is shorted to some power supply circuits.		· · · · · · · · · · · · · · · · · · ·	
PRE-TEN FRONT RH [SHORT]  The circuits for the front RH pre-tensioner are shorted to each other.  CURTAIN MODULE LH [OPEN]  CURTAIN MODULE LH [VB-SHORT]  CURTAIN MODULE LH [GND-SHORT]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [GND-SHORT]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [OREN]  CURTAI		The circuit for front RH pre-tensioner is shorted to ground.	3. Replace front RH seat belt pre-ten-
CURTAIN MODULE LH [VB-SHORT]  CURTAIN MODULE LH [GND-SHORT]  CURTAIN MODULE LH [GND-SHORT]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [VB-SHORT]  CURTAIN MODULE RH [GND-SHORT]  CURTAIN MODULE RH		-	(Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit.
CURTAIN MODULE LH [GND-SHORT]		The LH side curtain air bag module circuit is open.	
[GND-SHORT]  The EH side curtain air bag module circuit is shorted to ground.  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [VB-SHORT]  CURTAIN MODULE RH [GND-SHORT]  The RH side curtain air bag module circuit is shorted to ground. [Before disposal, it must be deployed.)  4. Replace the harness if it has visible damage.  3. Replace RH side curtain air bag module. (Before disposal, it must be deployed.)  4. Replace the diagnosis sensor unit. 5. Replace the related harness.  CONTROL UNIT  Diagnosis sensor unit is malfunctioning.			
CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [VB-SHORT]  CURTAIN MODULE RH [GND-SHORT]  O The RH side curtain air bag module circuit is shorted to some power supply circuit.  CURTAIN MODULE RH [GND-SHORT]  O The RH side curtain air bag module circuit is shorted to ground.  The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module.  O The RH side curtain air bag module.  O The RH side curtain air bag module.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to ground.  O The RH side curtain air bag module circuit is shorted to some power supply circuit.  O The RH side curtain air bag module circuit is shorted to some power supply circuit.  O The RH side curtain air bag module circuit is shorted to some power supply circuit.  O The RH side curtain air bag module circuit is shorted to some power supply circuit.  O The RH side curtain air bag module circuit is shorted to some power supply circuit.  O The RH side curtain air bag module circuit is shorted to some power supply circuit.  O The RH sid		The LH side curtain air bag module circuit is shorted to ground.	module. (Before disposal, it must be
CURTAIN MODULE RH [OPEN]  CURTAIN MODULE RH [VB-SHORT]  CURTAIN MODULE RH [Figure 1]  CURTAIN MODULE RH [OPEN]  The RH side curtain air bag module circuit is shorted to some power supply circuit.  CURTAIN MODULE RH [GND-SHORT]  The RH side curtain air bag module circuit is shorted to ground.  The RH side curtain air bag module circuit is shorted to ground.  The RH side curtain air bag module. (Before disposal, it must be deployed.)  4. Replace the diagnosis sensor unit.  5. Replace the related harness.  CONTROL UNIT  Diagnosis sensor unit is malfunctioning.			,
[VB-SHORT] power supply circuit.  CURTAIN MODULE RH [GND-SHORT]  • The RH side curtain air bag module circuit is shorted to ground.  (Before disposal, it must be deployed.)  4. Replace the diagnosis sensor unit.  5. Replace the related harness.  CONTROL UNIT  • Diagnosis sensor unit is malfunctioning.  1. Visually check the wiring harness		The RH side curtain air bag module circuit is open.	Visually check the wiring harness
CURTAIN MODULE RH [GND-SHORT]  • The RH side curtain air bag module circuit is shorted to ground.  (Before disposal, it must be deployed.)  4. Replace the diagnosis sensor unit.  5. Replace the related harness.  CONTROL UNIT  • Diagnosis sensor unit is malfunctioning.  1. Visually check the wiring harness		_	_
<ul> <li>5. Replace the related harness.</li> <li>CONTROL UNIT</li> <li>Diagnosis sensor unit is malfunctioning.</li> <li>1. Visually check the wiring harness</li> </ul>	CURTAIN MODULE RH	1 117	module. (Before disposal, it must be
CONTROL UNIT  • Diagnosis sensor unit is malfunctioning.  1. Visually check the wiring harness			-
annatian	CONTROL UNIT	Diagnosis sensor unit is malfunctioning.	Visually check the wiring harness
connection.  2. Replace the diagnosis sensor unit.			connection.  2. Replace the diagnosis sensor unit.

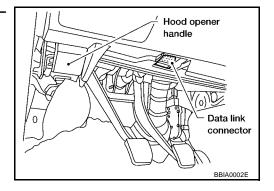
#### NOTE:

• Follow the procedures in numerical order when repairing malfunctioning parts. Confirm whether malfunction is eliminated using air bag warning lamp or CONSULT-II each time repair is finished. If malfunction is still observed, proceed to the next step. When malfunction is eliminated, further repair work is not required.

#### **DIAGNOSTIC PROCEDURE 3**

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

- 1. After repairing SRS, connect both battery cables.
- 2. Connect CONSULT-II to data link connector.
- 3. Turn ignition switch "ON".



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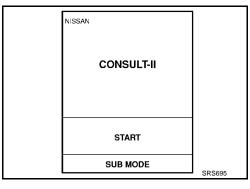
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**SRS** 

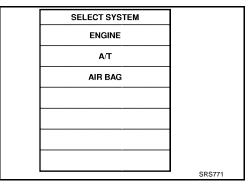
K

M

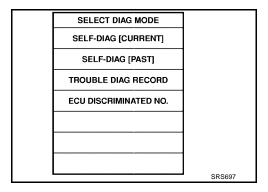
4. Touch "START".



5. Touch "AIR BAG".



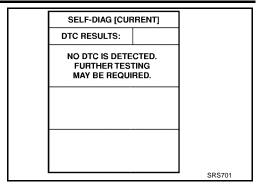
6. Touch "SELF-DIAG [CURRENT]".



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

If any malfunction is detected on "SELF-DIAG [CURRENT]", the malfunctioning part is not repaired completely or another malfunctioning part is detected. Go to <u>SRS-21</u>, "<u>DIAGNOSTIC PROCEDURE 2</u>", and repair malfunctioning part completely.

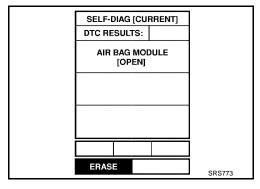


8. Touch "ERASE".

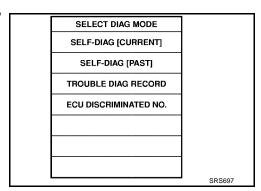
#### NOTE:

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

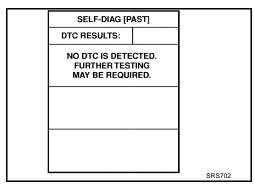
If the memory of the malfunction in "SELF-DIAG [PAST]" is not erased, the User mode shows the system malfunction by the operation of the warning lamp even if the malfunction is repaired completely.



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



- 10. Check that no malfunction is detected on "SELF-DIAG [PAST]".
- 11. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears in order to return to User mode from Diagnosis mode.
- 12. Turn ignition switch OFF then turn off and disconnect CON-SULT-II.
- 13. Go to <u>SRS-19</u>, "Checking Air Bag Operation by Using "AIR BAG" Warning Lamp-User Mode".



# **DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)** Inspecting SRS malfunctioning record

# 1. CONSIDER POSSIBILITY OF NOT ERASING SELF-DIAGNOSTIC RESULT AFTER REPAIRING

#### В

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Is it the first time for maintenance of SRS?

#### Yes or No

No

Yes >> Go to SRS-21, "DIAGNOSTIC PROCEDURE 2". C

 $\mathsf{D}$ 

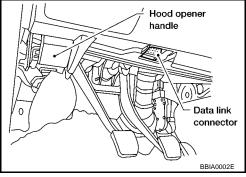
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>> Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair. Go to SRS-25, "DIAGNOSTIC PROCEDURE 3".

#### **DIAGNOSTIC PROCEDURE 5**

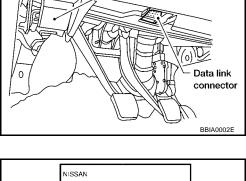
#### Inspecting SRS intermittent malfunction by using CONSULT-II - Diagnosis mode

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



3. Turn ignition switch ON.

Touch "START".

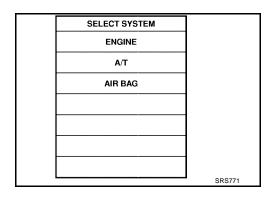


CONSULT-II

START

SUB MODE

5. Touch "AIR BAG".

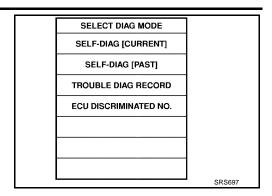


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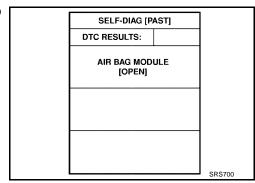
SRS

K

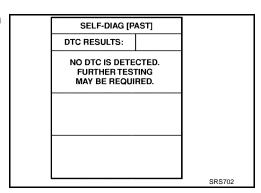
6. Touch "SELF-DIAG [PAST]".



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



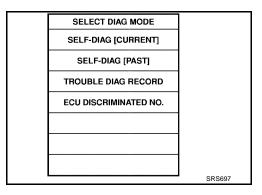
If no malfunction is detected on "SELF-DIAG [PAST]", touch "BACK" and go back to "SELECT DIAG MODE".



Touch "TROUBLE DIAG RECORD".

#### NOTE:

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



- 9. Diagnostic code is displayed on "TROUBLE DIAG RECORD".
- 10. Touch "PRINT".
- Compare diagnostic codes to <u>SRS-29</u>, "CONSULT-II <u>Diagnostic</u> <u>Code Chart ("SELF-DIAG [PAST]" or "TROUBLE DIAG</u> <u>RECORD")"</u>.
- 12. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears.
- 13. Turn ignition switch OFF, then turn off and disconnect CON-SULT-II, and both battery cables.

TROUBLE DIAG RECORD
DTC RESULTS:

DRIVER AIR BAG MODULE
[OPEN]

SHIA0182E

- 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 the Removal and Installation procedure for the appropriate component.
- 15. Go to SRS-25, "DIAGNOSTIC PROCEDURE 3", for final checking.

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

Diagnostic item		Explanation	Repair order Recheck SRS at each replacement
NO DTC IS DETECTED.	When malfunction is indicated by the "AIR	Low battery voltage (Less than 9V)	Go to <u>SRS-25, "DIAGNOSTIC PRO-CEDURE 3"</u> .
	BAG" warning lamp in User mode.	Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after	Go to <u>SRS-27</u> , " <u>DIAGNOSTIC PRO-</u> <u>CEDURE 4 (CONTINUED FROM</u> <u>DIAGNOSTIC PROCEDURE 2)"</u> .
		repair.  • Intermittent malfunction has been detected in the past.	• Go to <u>SRS-27, "DIAGNOSTIC PROCEDURE 5"</u> .
	No malfunction is determined.	ected.	<del>-</del>
DRIVER AIRBAG MODULE	Driver air bag module	circuit is open (including the spiral cable).	Visually check the wiring harness connection.
[OPEN]			2. Replace the harness if it has visible
DRIVER AIRBAG MODULE	<ul> <li>Driver air bag module circuit (including the s</li> </ul>	circuit is shorted to some power supply	damage.  3. Replace driver air bag module.
[VB-SHORT]	onount (morading the o	piral dabio).	(Before disposal, it must be
DRIVER AIRBAG	_	circuit is shorted to ground (including the	deployed.)
MODULE [GND-SHORT]	spiral cable).		4. Replace the spiral cable.
DRIVER AIRBAG	• Driver air bag madula	circuits are shorted to each other.	5. Replace the diagnosis sensor unit.
MODULE [SHORT]	• Driver all bag module	circuits are shorted to each other.	Replace the related harness.
ASSIST A/B MODULE [VB-SHORT]	Front passenger air bag module circuit is shorted to some power supply circuit.		Visually check the wiring harness connection.
ASSIST A/B MODULE [OPEN]	Front passenger air bag module circuit is open.		Replace the harness if it has visible damage.
ASSIST A/B MODULE [GND-SHORT]	Front passenger air bag module circuit is shorted to ground.		<ol> <li>Replace front passenger air bag module. (Before disposal, it must be deployed.)</li> </ol>
ASSIST A/B MODULE	Front passenger air bag module circuits are shorted to each		4. Replace the diagnosis sensor unit.
[SHORT]	other.		5. Replace the related harness.
CRASH ZONE SEN [UNIT FAIL]	Crash zone sensor		Visually check the wiring harness connection.
CRASH ZONE SEN [COMM FAIL] CRASH ZONE SEN			Replace the harness if it has visible damage.
[UNMATCH]			3. Replace the crash zone sensor.
			4. Replace the diagnosis sensor unit.
			5. Replace the related harness.
SIDE MODULE LH [OPEN]	Front LH side air bag module circuit is open.		Visually check the wiring harness connection.
SIDE MODULE LH [VB-SHORT]	Front LH side air bag supply circuit.	module circuit is shorted to some power	Replace the harness if it has visible damage.
SIDE MODULE LH [GND-SHORT]	Front LH side air bag	module circuit is shorted to ground.	<ol> <li>Replace front LH seatback assembly (front LH side air bag module).</li> <li>(Before disposal, it must be</li> </ol>
SIDE MODULE LH	• Front LH side air bag	module circuits are shorted to each other.	deployed.)
[SHORT]			4. Replace the diagnosis sensor unit.
			<ol><li>Replace the related harness.</li></ol>

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В

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
SIDE MODULE RH [OPEN]	Front RH side air bag module circuit is open.	Visually check the wiring harness connection.
SIDE MODULE RH [VB-SHORT]	Front RH side air bag module circuit is shorted to some power supply circuit.	Replace the harness if it has visible damage.
SIDE MODULE RH [GND-SHORT]	Front RH side air bag module circuit is shorted to ground.	Replace front RH seatback assembly (front RH side air bag module).      (Before disposal, it must be
SIDE MODULE RH	• Front RH side air bag module circuits are shorted to each other.	deployed.)
[SHORT]		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.
SATELLITE SENS LH [UNIT FAIL]	LH side air bag (Satellite) sensor	Visually check the wiring harness connection.
SATELLITE SENS LH [COMM FAIL] SATELLITE SENS LH		Replace the harness if it has visible damage.
[UNMATCH]		3. Replace the LH side air bag (satellite) sensor.
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.
SATELLITE SENS RH [UNIT FAIL]	RH side air bag (Satellite) sensor	Visually check the wiring harness connection.
SATELLITE SENS RH [COMM FAIL]		2. Replace the harness if it has visible damage.
SATELLITE SENS RH [UNMATCH]		3. Replace the RH side air bag (satellite) sensor.
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.
PRE-TEN FRONT LH [OPEN]	The circuit for front LH pre-tensioner is open.	Visually check the wiring harness
PRE-TEN FRONT LH [VB-SHORT]	The circuit for front LH pre-tensioner is shorted to some power supply circuit.	connections.  2. Replace the harness if it has visible
PRE-TEN FRONT LH	The circuit for front LH pre-tensioner is shorted to ground.	damage.
[GND-SHORT]		Replace front LH seat belt pre-tensioner.     (Before disposal, it must be deployed.)
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.
PRE-TEN FRONT RH [OPEN]	The circuit for front RH pre-tensioner is shorted to some power supply circuit.	Visually check the wiring harness
PRE-TEN FRONT RH [VB-SHORT]	The circuit for front RH pre-tensioner is shorted to some power supply circuit.	connections.  2. Replace the harness if it has visible
PRE-TEN FRONT RH	The circuit for front RH pre-tensioner is shorted to ground.	damage.
[GND-SHORT]		Replace front RH seat belt pre-tensioner.     (Before disposal, it must be
		deployed.)
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
CURTAIN MODULE LH [OPEN]	The LH side curtain air bag module circuit is open.	Visually check the wiring harness connection.
CURTAIN MODULE LH [VB-SHORT]	The LH side curtain air bag module circuit is shorted to some power supply circuits.	Replace the harness if it has visible damage.
CURTAIN MODULE LH [GND-SHORT]	The LH side curtain air bag module circuit is shorted to ground.	Replace LH side curtain air bag module.     (Before disposal, it must be deployed.)
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.
CURTAIN MODULE RH [OPEN]	The RH side curtain air bag module circuit is open.	Visually check the wiring harness connection.
CURTAIN MODULE RH [VB-SHORT]	The RH side curtain air bag module circuit is shorted to some power supply circuit.	Replace the harness if it has visible damage.
CURTAIN MODULE RH [GND-SHORT]	The RH side curtain air bag module circuit is shorted to ground.	Replace RH side curtain air bag module.     (Before disposal, it must be deployed.)
		<ul><li>4. Replace the diagnosis sensor unit.</li><li>5. Replace the related harness.</li></ul>
CONTROL UNIT	Diagnosis sensor unit is malfunctioning.	Visually check the wiring harness connection.
		2. Replace the diagnosis sensor unit.

SRS

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# Trouble diagnoses without CONSULT-II. DIAGNOSTIC PROCEDURE 6

EHS000KW

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

SRS is now in Diagnosis mode.

"AIR BAG" warning lamp operates in Diagnosis mode as follows:

# WARNING LAMP FLASH CODE CHART

< Diagnosis results (previously stored in the memory) might not be erased after repair or intermittent malfunctions have been detected in the past.>

Flash pattern	Repair order
a through b are repeated.	1. Go to DIAGNOSTIC PROCEDURES 2 and 3.
ON 7 sec. 2 sec. 2 sec.	SHIA0026E

Flash pattern	Repair order
a through d are repeated. d:Two flashes indicate malfunctioning driver air bag module circuits.  2 flashes ON OFF 7 sec. 2 sec. 2 sec. 2 sec. 2 sec. 2 sec. 2 sec.	Visually check the wiring harness connection.     Replace the harness if it has visible damage.     Replace the spiral cable.     Replace driver air bag module.     (Before disposal, it must be deployed.)     Replace the diagnosis sensor unit.     Replace the related harness.

<Diagnosis sensor unit> Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connections. d: Seven flashes indicate malfunctioning diagnosis sensor unit 2. Replace the harness if it has visible damage. circuit. 3. Replace the diagnosis sensor unit. 4. Replace the related harness. b а ON 7 sec 3 sec. 2 sec. 2 sec. 2 sec. SHIA0028E

<front air="" bag="" module="" passenger=""></front>	
Flash pattern	Repair order
a through d are repeated. d: Eight flashes indicate malfunctioning front passenger air bag module circuit.  8 flashes ON OFF 7 sec. 2 sec. 2 sec. 2 sec. 0.5 sec.	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.

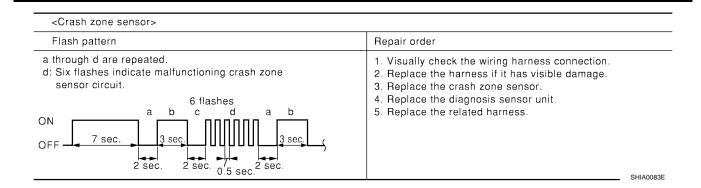
**SRS-33** Revision: May 2004 2003 Altima Α

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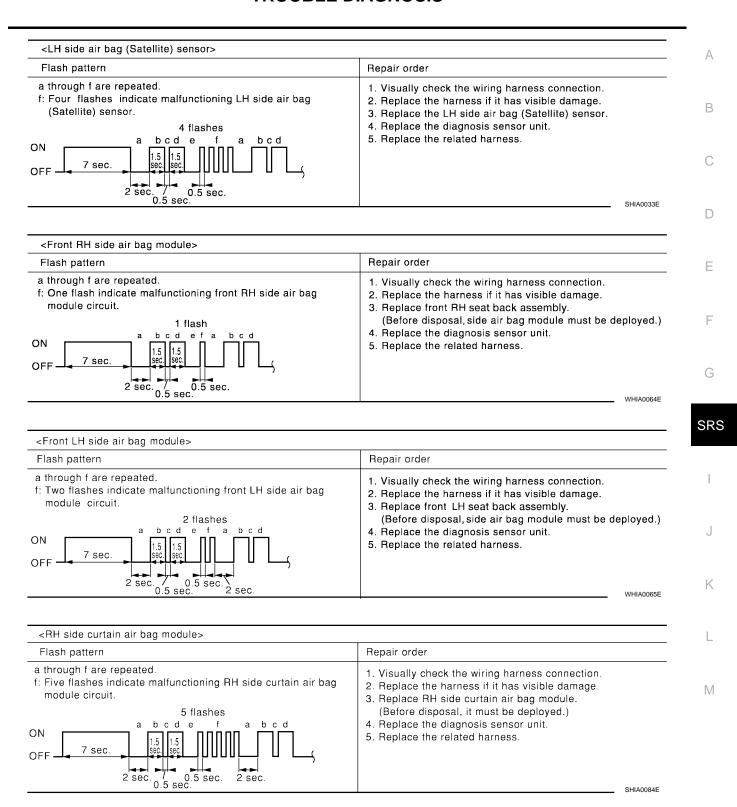
**SRS** 



Flash pattern	Repair order
a through d are repeated. d: One flash indicates malfunctioning front RH seat belt pre-tensioner circuit.  1 flash b c d a b ON OFF 7 sec. 2 sec. 2 sec. 2 sec. 2 sec. 2 sec. 2 sec.	1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage. 3. Replace front RH seat belt pre-tensioner. (Before disposal, it must be activated.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.

<front belt="" lh="" pre-tensioner="" seat=""></front>	
Flash pattern	Repair order
a through d are repeated. d: Three flashes indicate malfunctioning front LH seat belt pre-tensioner circuit.  ON OFF  7 sec.  3 flashes c d a b  2 sec. 2 sec. 0.5 sec.	Visually check the wiring harness connections.     Replace the harness if it has visible damage.     Replace front LH seat belt pre-tensioner.     (Before disposal, it must be activated.)     Replace the diagnosis sensor unit.     Replace the related harness.

<rh (satellite)="" air="" bag="" sensor="" side=""></rh>	
Flash pattern	Repair order
a through f are repeated.  f: Three flashes indicate malfunctioning RH side air bag (Satellite) sensor circuit.  3 flashes  ON 7 sec. 2 sec. 0.5 sec. 2 sec.	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace the RH side air bag (Satellite) sensor. 4. Replace the diagnosis sensor unit. 5. Replace the related harness.



Flash pattern	Repair order	
a through f are repeated. f: Six flashes indicate malfunctioning LH side curtain air bag module circuit.  ON  7 sec.  2 sec.  0.5 sec.  2 sec.  0.5 sec.	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace LH side curtain air bag module. (Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.	

#### TROUBLE DIAGNOSIS

#### Trouble Diagnoses: "AIR BAG" Warning Lamp Does Not Turn Off DIAGNOSTIC PROCEDURE 6 Α SEE THE DEPLOYMENT OF AIR BAG MODULE Is air bag module deployed? Yes or No Yes >> Refer to SRS-61, "COLLISION DIAGNOSIS". No >> GO TO 2. 2. CHECK THE AIR BAG FUSE Check 10A fuse [No. 13, located in the fuse block (J/B)]. Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT". OK or NG Е >> GO TO 4. OK NG >> GO TO 3. 3. CHECK AIR BAG FUSE AGAIN Replace "AIR BAG" fuse and turn ignition switch ON. Does the "AIR BAG" fuse blow again? >> Repair main harness. No >> INSPECTION END. **SRS** 4. CHECK DIAGNOSIS SENSOR UNIT Connect CONSULT-II and touch "START". Is "AIR BAG" displayed on CONSULT-II? SELECT SYSTEM Yes or No **ENGINE** Yes >> GO TO 5. A/T No >> Visually check the wiring harness connection of diagno-AIR BAG sis sensor unit. If the harness connection check result is OK, replace diagnosis sensor unit.

# 5. CHECK HARNESS CONNECTION

NG

Is harness connection between warning lamp and diagnosis sensor unit OK? OK or NG

OK >> Replace diagnosis sensor unit.

>> Connect "AIR BAG" warning lamp and diagnosis sensor unit connector properly. If "AIR BAG" warning lamp still does not go off, replace harness.

SRS771

#### **TROUBLE DIAGNOSIS**

# **Trouble Diagnoses: "AIR BAG" Warning Lamp Does Not Turn On DIAGNOSTIC PROCEDURE 7**

EHS000KY

# 1. CHECK "METER" FUSE

Check the 10A meter fuse [No. 14, located in the fuse block (J/B)] . Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT" .

#### OK or NG

OK >> GO TO 3. NG >> GO TO 2.

# 2. CHECK "METER" FUSE AGAIN

Replace 10A meter fuse [No. 14, located in the fuse block (J/B)] and turn ignition switch ON.

## Does the meter fuse blow again?

Yes >> Repair the related harness.

No >> INSPECTION END.

# 3. CHECK HARNESS CONNECTION BETWEEN DIAGNOSIS SENSOR UNIT AND COMBINATION METER

Disconnect diagnosis sensor unit connector and turn ignition switch ON.

Does "AIR BAG" warning lamp turn on?

#### Yes or No

Yes >> Replace diagnosis sensor unit.

No >> Check the ground circuit of "AIR BAG" warning lamp.

#### **DRIVER AIR BAG MODULE**

#### **DRIVER AIR BAG MODULE**

PFP:K8510

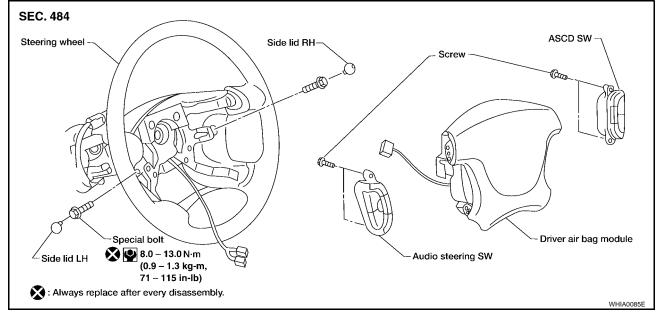
#### Removal and Installation

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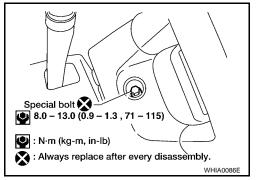
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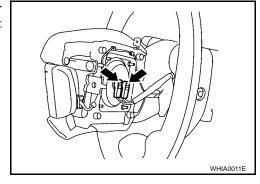
#### **REMOVAL**

#### **CAUTION:**

- Do not attempt to repair or replace damaged direct-connect driver air bag module connectors. If a direct-connect harness connector is damaged, the spiral cable must be replaced.
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of driver air bag module.
- Remove the side lids.
- 2. Remove the right and left side special hex head bolts.



- 3. Disconnect the steering wheel switches sub-harness connector.
- 4. Disconnect the air bag harness connectors, and remove the air bag module.
  - For removal/installation of the direct-connect SRS connectors, refer to SRS-7, "Direct-connect SRS Component Connectors"



SRS

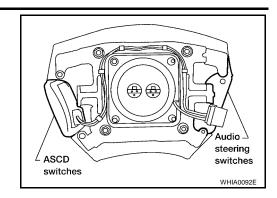
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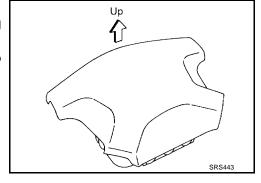
#### DRIVER AIR BAG MODULE

5. Remove the steering switch from the air bag module.

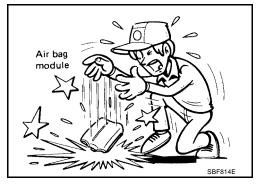


#### **CAUTION:**

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



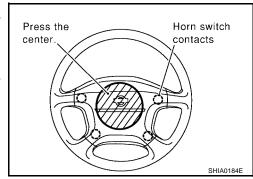
- Do not expose the driver air bag module to temperatures exceeding 90°C (194°F).
- Replace driver air bag module if it has been dropped or sustained an impact.
- Do not allow oil, grease or water to come in contact with the front passenger air bag module.



#### **INSTALLATION**

To install, reverse the removal procedure.

- For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7</u>, "<u>Direct-connect SRS Component Connectors</u>".
- For installing the air bag module, tighten the special bolts with the center of the horn pad pressed to make the contacts (RH/ LH) ON.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-19</u>, "<u>SRS Operation</u> <u>Check"</u>.



SPIRAL CABLE PFP:25554

#### Removal and Installation

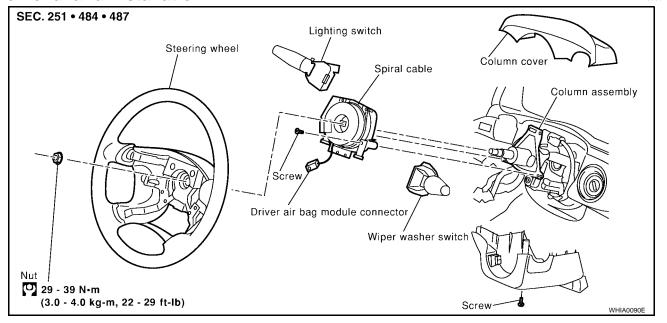
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#### **REMOVAL**

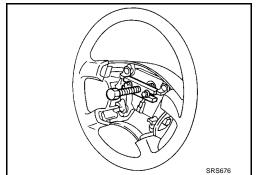
#### **CAUTION:**

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least
- 1. Remove driver air bag module. Refer to SRS-39, "Removal and Installation".
- 2. Set the steering wheel in the neutral position.
- 3. Disconnect the horn switch connector.
- 4. Remove the column cover. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY".
- 5. Disconnect the spiral cable connector.

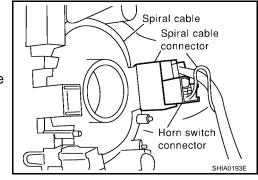
#### **CAUTION:**

Do not tap or bump the steering wheel.

6. Remove steering wheel with steering wheel puller. Be careful not to over-tighten puller on steering wheel.



- 7. Remove the spiral cable fixing screws, remove the spiral cable.
  - Do not attempt to disassemble spiral cable.
  - Do not apply lubricant to the spiral cable.
- Remove the wiper washer switch and lighting switch from the spiral cable.



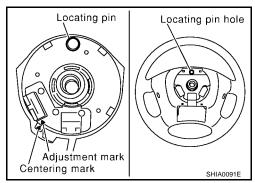
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#### SPIRAL CABLE

#### **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 counterclockwise about 2.5 turns from the right end position.



#### **INSTALLATION**

To install, reverse the removal procedure.

• After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-19</u>, "<u>SRS Operation Check"</u>.

#### FRONT PASSENGER AIR BAG MODULE

PFP:K8515

#### Removal and Installation

EHS0001 1

The passenger air bag module originally installed in the vehicle uses direct-connect style harness connectors. Service replacement passenger air bag modules use tab-locking style harness connectors. If the passenger air bag module is replaced or if the direct-connect harness connectors are damaged, the vehicle wiring harness must be modified to allow connection of the service replacement passenger air bag module. Refer to <a href="mailto:srs-44">SRS-44</a>, "WIRING HARNESS MODIFICATION" for wiring harness modification procedure.

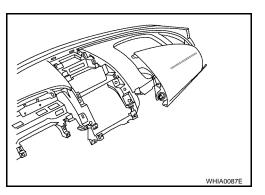
#### REMOVAL

#### **CAUTION:**

- Do not attempt to repair or replace damaged direct-connect front passenger air bag module connectors. If a direct-connect harness connector is damaged, the front passenger air bag must be replaced and the wiring harness modified.
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of or under front passenger air bag module.
- 1. Remove the glove box. Refer to <u>IP-14, "Glove Box"</u>.
- 2. Remove cluster lid C. Refer to IP-12, "Cluster Lid C".
- Remove cluster lid D. Refer to <u>IP-12, "Cluster Lid D"</u>.
- 4. Remove the side ventilator grille RH. Refer to <u>ATC-117, "Side Ventilator Grille RH"</u> (auto A/C) or <u>MTC-78, "Side Ventilator Grille RH"</u> (manual A/C).
- 5. Remove screws retaining instrument panel pad assembly.
- 6. Remove hex head bolt (through glove box opening) retaining front passenger air bag module to instrument panel crossmember.
- 7. Remove instrument panel pad and front passenger air bag module assembly from opening in instrument panel. Rest air bag module on the front edge of the instrument panel opening (crossmember) taking care to not allow module to hang by the connected wiring.

#### **CAUTION:**

 Do not allow the front passenger air bag module to hang by the connected wires.



- 8. Disconnect the passenger air bag module electrical connector(s) and remove the instrument panel pad and front passenger air bag module assembly from the vehicle.
  - For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7</u>, "<u>Direct-connect SRS</u>
     <u>Component Connectors</u>".

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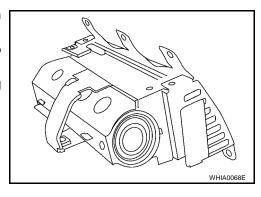
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#### **CAUTION:**

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



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



#### **INSTALLATION**

#### **Original Passenger Air Bag Module**

To install, reverse the removal procedure.

For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7</u>, "<u>Direct-connect SRS Component Connectors</u>".

#### **CAUTION:**

- Always work from the side of or under front passenger air bag module.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-19</u>, "<u>SRS Operation Check"</u>.

#### Service Replacement Passenger Air Bag Module

- 1. Untape yellow 4-pin service replacement air bag connector from the main harness.
- 2. Position the front passenger air bag module and instrument panel pad assembly in the instrument panel.
- 3. Install the hex head bolt to secure front passenger air bag module to the instrument panel crossmember.
- 4. Install screws to secure the instrument panel pad.
- 5. Clip the front passenger air bag module connector to the mounting bracket.
- 6. Install the side ventilator grille RH. Refer to <u>ATC-117, "Side Ventilator Grille RH"</u> (auto A/C) or <u>MTC-78, "Side Ventilator Grille RH"</u> (manual A/C).
- 7. Install cluster lid D. Refer to IP-12, "Cluster Lid D".
- 8. Install cluster lid C. Refer to IP-12, "Cluster Lid C".
- Install the glove box. Refer to <u>IP-14, "Glove Box"</u>.
- 10. Connect the front passenger air bag module harness connector to yellow 4-pin service replacement air bag connector.

#### **CAUTION:**

- Always work from the side of or under front passenger air bag module.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected.
   Refer to <u>SRS-19</u>, "<u>SRS Operation Check"</u>.

#### WIRING HARNESS MODIFICATION

The passenger air bag module originally installed in the vehicle uses direct-connect style harness connectors. Service replacement passenger air bag modules use tab-locking style harness connectors. If the passenger

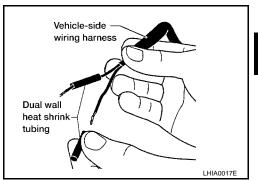
air bag module is replaced or if the direct-connect harness connectors are damaged, the vehicle wiring harness must be modified to allow connection of the service replacement passenger air bag module.

#### NOTE:

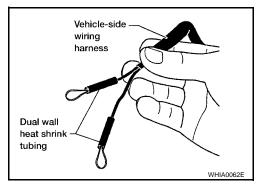
The wiring harness modification is to be performed only if the vehicle is equipped with the original passenger air bag which uses direct-connect harness connectors. If the passenger air bag is to be replaced in a vehicle that has already had the service replacement passenger air bag installed, the wiring harness modification is not required.

#### **CAUTION:**

- Do not attempt to repair or replace damaged direct-connect front passenger air bag module connectors. If a direct-connect harness connector is damaged, the front passenger air bag must be replaced and the wiring harness modified.
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of or under front passenger air bag module.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <a href="SRS-19">SRS-19</a>, "SRS Operation Check"</a>.
- 1. Locate the yellow and orange direct-connect passenger air bag module harness connectors.
- 2. Use wire cutters to cut back both previously used direct-connect passenger air bag module harness connectors from the vehicle wiring harness approximately 50 mm (1.9 in) from the connectors.
- 3. Remove approximately 150 mm (5.9 in) of the vehicle harness covering from the cut end.
- 4. Slide a piece of dual-wall heat shrink tubing (provided in the passenger air bag service kit) onto each wire of the previously used vehicle wiring harness.



Fold each wire back and insert into the end of the heat shrink tubing so that the end of the wire is approximately centered in the heat shrink tubing.



- 6. Use a heat gun to shrink the heat shrink tubing and seal the wire.
- 7. Use electrical tape to secure the modified circuits to the outside of the wiring harness.

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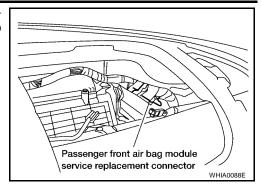
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Revision: May 2004 SRS-45 2003 Altima

8. Locate the front passenger air bag service replacement connector that is taped back to the main harness. Unwrap the tape to access the yellow service replacement connector.



#### FRONT SIDE AIR BAG MODULE

#### FRONT SIDE AIR BAG MODULE

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Removal

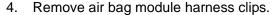
#### **WARNING:**

Removal of front side air bag module should only be done to allow deployment of front side air bag module prior to disposal of seatback assembly.

Only complete seatback assemblies can be replaced. Refer to SE-16, "Removal of seatback assembly".

#### **CAUTION:**

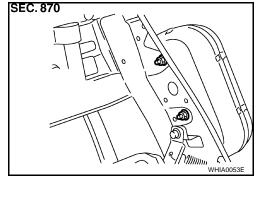
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the rear of the front side air bag module.
- 1. Remove the front seat. Refer to SE-15, "REMOVAL".
- 2. Remove the seatback trim and pad. Refer to <u>SE-15, "SEAT-BACK TRIM AND PAD"</u>.
- 3. Remove the seatback rear finisher, and remove the retainers securing the seat cushion trim. Refer to <u>SE-16, "SEAT CUSH-ION TRIM AND PAD"</u>.

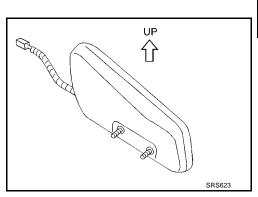


Remove the special fasteners coated with bonding agent from the front side air bag module, and remove the front side air bag module.

#### **CAUTION:**

- When using a clip removal tool to remove the seatback board, take care not to damage the harness for front side air bag module.
- Always place the front side air bag module standing with the stud bolt side facing down.
- Do not insert any foreign objects (screwdrivers, etc.) into front side air bag module.
- Do not attempt to disassemble front side air bag module.
- Replace front seatback assembly (side air bag module) if it has been dropped or sustained an impact.
- Do not expose front seatback assembly (side air bag module) to temperatures exceeding 90°C (194°F).
- Do not allow oil, grease or water to come in contact with the front side air bag module.
- After front side air bag module inflates, front seatback assembly must be replaced.







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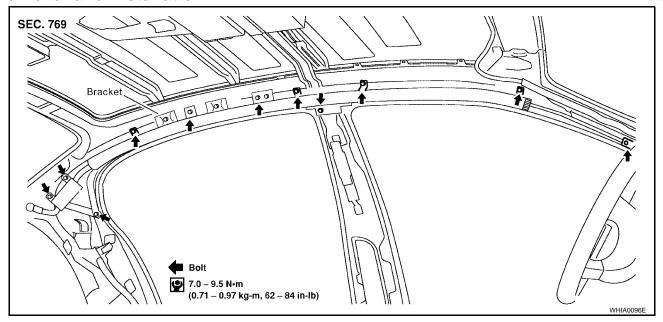
#### SIDE CURTAIN AIR BAG MODULE

#### SIDE CURTAIN AIR BAG MODULE

PFP:985P0

#### **Removal and Installation**

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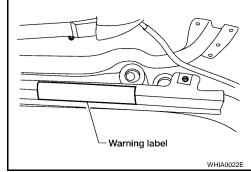
#### **REMOVAL**

#### **CAUTION:**

- Do not attempt to repair or replace damaged direct-connect side curtain air bag module connectors. If a direct-connect harness connector is damaged, the harness must be replaced.
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of the side curtain air bag module.
- 1. Remove headlining. Refer to EI-33, "Removal and Installation".
- 2. Remove three rearmost side curtain air bag inflator fixing bolts, and unhook the side curtain air bag inflator
- Disconnect side curtain air bag connector.
  - For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7</u>, "<u>Direct-connect SRS Component Connectors</u>".
- 4. Unclip wiring harness from side curtain air bag module bracket.
- 5. Remove side curtain air bag module fixing bolts and remove the side curtain air bag module.

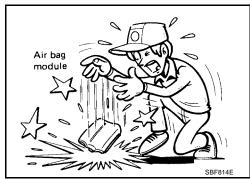
#### **CAUTION:**

- Always place the side curtain air bag module with the warning label facing upward.
- Do not attempt to disassemble side curtain air bag module.
- Do not insert any foreign objects (screwdriver, etc.) into air bag module connector.



#### SIDE CURTAIN AIR BAG MODULE

- Replace side curtain 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 side curtain air bag module.



#### **INSTALLATION**

To install, reverse the removal procedure.

• For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7</u>, "<u>Direct-connect SRS Component Connectors</u>".

#### **CAUTION:**

- Always work from the side of the side curtain air bag module.
- After replacement of side curtain air bag module, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-19</u>, "<u>SRS Operation Check"</u>.

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#### **CRASH ZONE SENSOR**

#### **CRASH ZONE SENSOR**

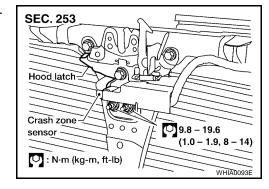
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# Removal and Installation REMOVAL

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#### **CAUTION:**

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- 1. Remove front grille. Refer to El-17, "Removal and Installation".
- 2. Remove crash zone sensor connector.
- 3. Remove crash zone sensor fixing nuts.



#### **CAUTION:**

- Replace crash zone sensor if it has been dropped or sustained an impact.
- Do not attempt to disassemble crash zone sensor.

#### **INSTALLATION**

To install, reverse the removal procedure.

#### **CAUTION:**

- Check crash zone sensor for proper installation.
- After the work is complete, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-19</u>, "<u>SRS Operation Check"</u>.

## SIDE AIR BAG (SATELLITE) SENSOR

# SIDE AIR BAG (SATELLITE) SENSOR

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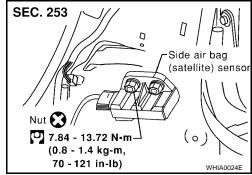
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#### Removal and Installation **REMOVAL**

#### **CAUTION:**

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- 1. Remove seat belt pre-tensioner. Refer to SB-4, "Removal and Installation of Front Seat Belt".
- Remove side air bag (satellite) sensor fixing nuts.
- Remove the side air bag (satellite) sensor connector.



#### **CAUTION:**

- Do not use old nuts; replace with new ones.
- Check side air bag (satellite) sensor to ensure it is free of deformities, dents, cracks or rust. If it shows any visible signs of damage, replace it with new one.
- Do not attempt to disassemble side air bag (satellite) sensor.
- Replace side air bag (satellite) sensor if it has been dropped or sustained an impact.

#### **INSTALLATION**

To install, reverse the removal procedure.

#### **CAUTION:**

- Check side air bag (satellite) sensor for proper installation.
- After replacement of side air bag (satellite) sensor, perform self-diagnosis to check that no malfunction is detected. Refer to SRS-19, "SRS Operation Check".

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## FRONT SEAT BELT PRE-TENSIONER

# FRONT SEAT BELT PRE-TENSIONER

PFP:86884

# **Removal and Installation**

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For removal and installation procedures, refer to SB-4, "Removal and Installation of Front Seat Belt" .

#### **DIAGNOSIS SENSOR UNIT**

#### **DIAGNOSIS SENSOR UNIT**

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#### Removal and Installation **REMOVAL**

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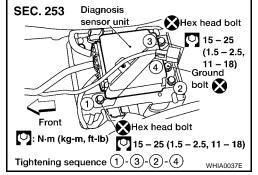
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#### **CAUTION:**

- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- 1. Disconnect each harness connector for the air bag module and seat belt pre-tensioner.
- 2. Remove center console. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY".
- 3. Disconnect diagnosis sensor unit connectors.
- 4. Remove special hex bolts from the diagnosis sensor unit.

#### **CAUTION:**

- Do not use old bolts. Replace with new ones.
- Check diagnosis sensor unit bracket to ensure it is free of deformities, dents, cracks or rust. If it shows any visible signs of damage, replace with new one.
- Replace diagnosis sensor unit if it has been dropped or sustained an impact.



#### INSTALLATION

To install, reverse the removal procedure.

#### NOTE:

The diagnosis sensor unit must always be installed with the arrow mark "←" pointing toward the front of the vehicle for proper operation.

#### **CAUTION:**

- Check the diagnosis sensor unit for proper installation.
- After replacement of diagnosis sensor unit, perform self-diagnosis to check that no malfunction is detected. Refer to SRS-19, "SRS Operation Check".

#### ECU DISCRIMINATED NO.

After replacing the diagnosis sensor unit, confirm that the diagnosis sensor unit identification is correct for the vehicle as equipped. Refer to SRS-17, "DIAGNOSIS MODE FOR CONSULT-II".

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#### DISPOSAL OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER

PFP:00014

## Caution for Air Bag Module and Seat Belt Pre-tensioner

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- Before disposing of air bag module, seat belt pre-tensioner or vehicle equipped with such systems, deploy
  the systems. If such systems have already been deployed due to an accident, dispose of them as indicated in "SRS-60, "DISPOSING OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER".
- When deploying the air bag module or seat belt pre-tensioner, always use the Special Service Tool; Deployment tool [KV99106400 (J38381)].
- When deploying the air bag module or seat belt pre-tensioner, stand at least 5 m (16 ft) away from the deployment component.
- When deploying air bag module or seat belt pre-tensioner, a fairly loud noise is made, followed by smoke being released. The smoke is not poisonous, however, be careful not to inhale smoke since it irritates the throat and can cause choking.
- Always deploy one air bag module at a time.
- Due to heat, leave air bag module unattended for more than 30 minutes after deployment. Also leave seat belt pre-tensioner unattended for more than 10 minutes after deployment.
- Be sure to wear gloves when handling a deployed air bag module or seat belt pre-tensioner.
- Never apply water to the deployed air bag module or 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 or 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 or seat belt pre-tensioner undeployed.

#### CHECKING DEPLOYMENT TOOL

#### Connecting to Battery

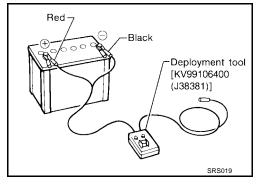
#### **CAUTION:**

#### 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.

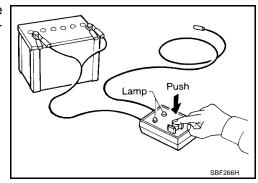
- Wait 3 minutes after the vehicle battery is disconnected before proceeding.
- Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.

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.



#### **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)

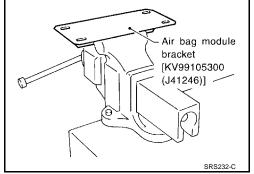
Switch operation	Left side lamp, green* "AIR BAG CONNECTOR VOLTAGE"	Right side lamp, green* "DEPLOYMENT TOOL POWER"
OFF	OFF	ON
ON	ON	ON

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

### DEPLOYMENT PROCEDURES FOR AIR BAG MODULE (OUTSIDE OF VEHICLE)

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

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



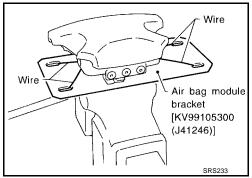
#### Deployment of Driver Air Bag Module (Outside of vehicle)

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

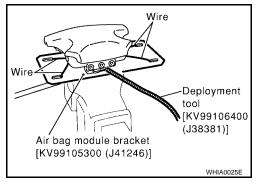
#### **CAUTION:**

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

2. Firmly secure air bag module bracket [SST: KV99105300 (J41246)] with air bag module attached, in a vise.



 Connect deployment tool [SST: KV99106400 (J38381)] to air bag module connector using deployment tool adapter (J38381-80).



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

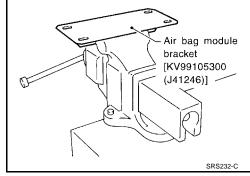
#### **CAUTION:**

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

# Air bag module Deployment tool [KV99106400 (J38381)] SRS235

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

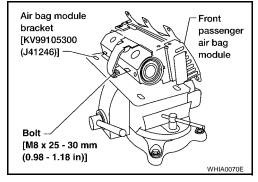
- Make an 8.5 mm (0.335 in) diameter hole in air bag module bracket [SST: KV99105300 (J41246)] at the position shown in figure.
- 2. Firmly secure air bag module bracket [SST: KV99105300 (J41246)] in a vise.



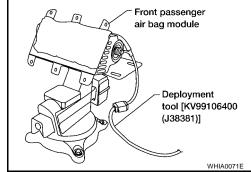
3. Match the two holes in air bag module bracket (held in vise) and front passenger air bag module and fix them with two bolts [M8  $\times$  25 - 30 mm (0.98 - 1.18 in)].

#### **CAUTION:**

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



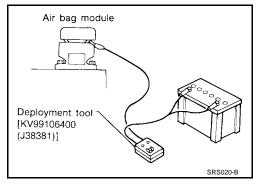
- 4. Connect deployment tool [SST: KV99106400 (J38381)] to front passenger air bag module. For service replacement front passenger air bag module, use deployment tool adapter (J38381-65).
- 5. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
- 6. The 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.

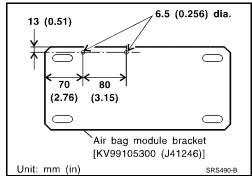
#### **CAUTION:**

- When deploying the front passenger 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 Front Side Air Bag Module (Outside of vehicle)

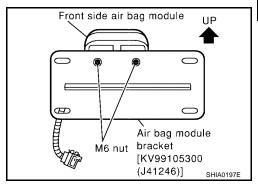
 Make 6.5 mm (0.256 in) diameter holes in air bag module bracket [SST: KV99105300 (J41246)] at the position shown in figure.



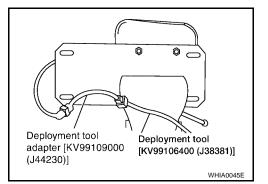
- 2. Firmly secure air bag module bracket [SST: KV99105300 (J41246)] in a vise.
- Insert the stud bolts of side air bag module into the two holes in air bag module bracket (held in vise) and fix them with two M6 nuts.

#### **CAUTION:**

Side air bag module should be secured to air bag module bracket [SST: KV99105300 (J41246)] in a vise with stud bolt side facing down.



Connect deployment tool [SST: KV99106400 (J38381)] connector to connector on air bag module using deployment tool adapter [SST: KV99109000 (J44230)].



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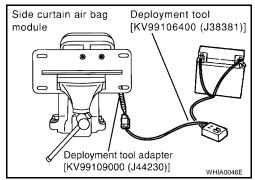
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- Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
- 6. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.
- 7. Press the button on the deployment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

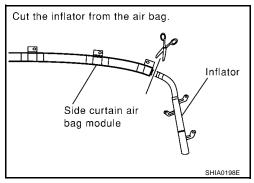
#### **CAUTION:**

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

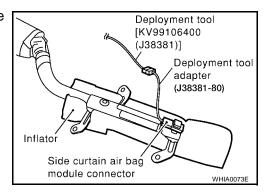


#### Deployment of Side Curtain Air Bag Module (Outside of vehicle)

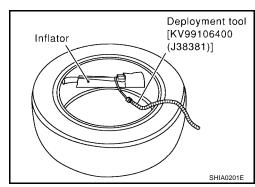
1. Cut the inflator from side curtain air bag module.



2. Connect deployment tool [SST: KV99106400 (J38381)] to the inflator using deployment tool adapter (J38381-80).



3. Put the inflator connected with the deployment tool [SST: KV99106400 (J38381)] into a tire without a wheel.



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 Put the tire with the inflator onto another tire without wheel. Add an additional tire without a wheel and then a tire mounted on a wheel on top.

#### **CAUTION:**

**CAUTION:** 

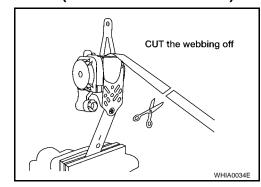
Tie all tires together with a strap in order keep them standing.

- 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.

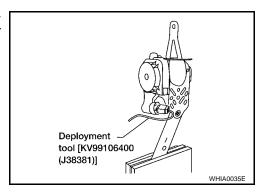
# When deploying the side curtain air bag module, stand at least 5 m (16 ft) away from the side curtain air bag module.

#### DEPLOYMENT PROCEDURES FOR SEAT BELT PRE-TENSIONER (OUTSIDE OF VEHICLE)

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



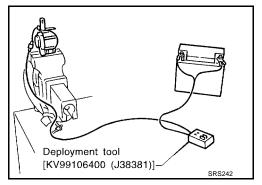
2. Connect deployment tool [SST: KV99106400 (J38381)] connector to front seat belt pre-tensioner using deployment tool adapter (J38381-80).

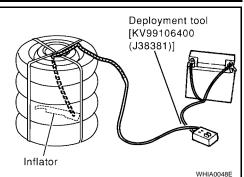


- 3. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
- 4. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.
- 5. Press the button on the deployment tool. The left side lamp on the tool, marked "seat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

#### **CAUTION:**

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





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

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

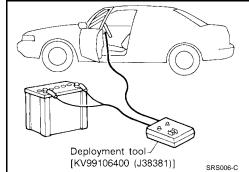
#### **CAUTION:**

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 module and seat belt pre-tensioner connector.
- 3. Connect deployment tool [SST: KV99106400 (J38381)] to air bag module or seat belt pre-tensioner. For front driver air bag module, use deployment tool adapter (J38381-80). For front passenger air bag module (service replacement), use deployment tool adapter (J38381-65). For side curtain air bag module, use deployment tool adapter (J38381-80).
  - For side air bag module, use deployment tool adapter [SST: KV99109000 (J44230)].
- 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.

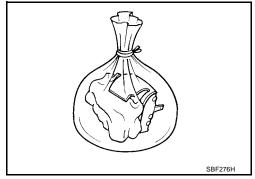


#### DISPOSING OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER

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

#### **CAUTION:**

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



#### **COLLISION DIAGNOSIS**

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#### **For Frontal Collision**

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To repair the SRS, perform the following steps.

# WHEN SRS (EXCEPT THE FRONT SIDE AIR BAG AND SIDE CURTAIN AIR BAG MODULES) IS ACTIVATED IN A COLLISION

- 1. Replace the diagnosis sensor unit.
- 2. Remove the air bag modules (except the front side air bag modules and side curtain air bag modules), crash zone sensor assembly, bracket and seat belt pre-tensioner assemblies.
- 3. Check the SRS components using the table below:
  - Replace any SRS components showing visible signs of damage (dents, cracks and deformation).
- 4. Install new air bag modules (except the front side air bag modules and side curtain air bag modules) crash zone sensor assembly, bracket and seat belt pre-tensioner assemblies.
- 5. Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to <u>SRS-19</u>, "<u>SRS Operation Check"</u> for details. Ensure entire SRS operates properly.

#### WHEN SRS IS NOT ACTIVATED IN A COLLISION

- 1. Check the SRS components using the table below:
  - Replace any SRS components showing visible signs of damage (dents, cracks and deformation).
- 2. Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to <u>SRS-19</u>, "<u>SRS Operation Check"</u> for details. Ensure entire SRS operates properly.

#### SRS INSPECTION (FOR FRONTAL COLLISION)

Part	SRS is activated	SRS is NOT activated	
Air bag module (driver and front pas-	REPLACE Install with new bolts.	Remove air bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.	
senger air bag mod- ule)		2. Install driver air bag module into the steering wheel to check fit and alignment with the wheel.	ı
		<ol><li>Install passenger air bag module into the instrument panel to check fit with the instrument panel.</li></ol>	J
		4. If no damage is found, reinstall with new bolts.	
		<ol><li>If damaged—REPLACE. Install air bag modules with new special bolts.</li><li>Air bag modules must be deployed before disposal.</li></ol>	K
Crash zone sensor	REPLACE the crash zone sensor and bracket with new nuts.	Remove the crash zone sensor. Check harness connectors for damage, terminals for deformities, and harness for binding.	
		<ol><li>Check for visible signs of damage (dents, cracks, deformation) of the crash zone sensor and bracket.</li></ol>	L
		3. Install the crash zone sensor to check fit.	
		4. If no damage is found, reinstall with new nuts.	N
		5. If damaged—REPLACE the crash zone sensor and bracket with new nuts.	
Seat belt pre-ten- sioner assemblies	REPLACE Install seat belt pre- tensioner with new bolts.	Remove seat belt pre-tensioners.     Check harness cover and connectors for damage, terminals for deformities, and harness for binding.	
		2. Check belts for damage and anchors for loose mounting.	
		3. Check retractor for smooth operation.	
		4. Check seat belt adjuster for damage.	
		5. If no damage is found, reinstall seat belt pre-tensioner assembly.	
		<ol><li>If damaged—REPLACE. Install the seat belt pre-tensioners with new bolts.</li><li>Seat belt pre-tensioners must be deployed before disposal.</li></ol>	
Diagnosis sensor unit	REPLACE Install with new bolts.	1. Check case for dents, cracks or deformities.	
		2. Check connectors for damage, and terminals for deformities.	
		3. If no damage is found, reinstall with new bolts and ground bolt.	
		If damaged—REPLACE. Install diagnosis sensor unit with new bolts and ground bolt.	

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Part	SRS is activated	SRS is NOT activated	
Steering wheel	1. Visually check steeri	ng 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 with nuts.		
	6. If damaged—REPLA	ACE.	
Spiral cable	1. Visually check spiral	cable and combination switch for damage.	
	2. Check connectors ar	nd protective tape for damage.	
	3. Check steering wheel for noise, binding or heavy operation.		
	4. If no damage is found, reinstall with screws.		
	5. If damaged—REPLA	ACE.	
Harness and connectors	1. Check connectors fo	r poor connection, damage, and terminals for deformities.	
	2. Check harness for binding, chafing, cuts, or deformities.		
	3. If no damage is foun	d, reinstall the harness and connectors.	
	4. If damaged—REPLA	CE the damaged harness. Do not attempt to repair, splice or modify any SRS harness.	
Instrument panel	1. Visually check instru	ment panel for damage.	
	2. If no damage is found, reinstall the instrument panel.		
	3. If damaged—REPLA	CE the instrument panel with bolts.	

For Side Collision

To repair the SRS, perform the following steps.

#### WHEN SRS IS ACTIVATED IN THE SIDE COLLISION

- Replace the following components:
- Front seat back assembly (on the side on which side air bag is activated)
- Diagnosis sensor unit
- (LH and RH) side air bag (satellite) sensors
- 2. Check the SRS components and the related parts using the following table.
- Replace any SRS components and the related parts showing visible signs of damage (dents, cracks, deformation).
- 3. Conduct self-diagnosis using CONSULT-II and "AIR BAG" warning lamp. Refer to <u>SRS-19</u>, "<u>SRS Operation Check</u>" for details. 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 following table.
- If the front seat back assembly is damaged, the front seat back assembly must be replaced.
- 2. Conduct self-diagnosis using CONSULT-II and "AIR BAG" warning lamp. Refer to <u>SRS-19, "SRS Operation Check"</u> for details. Ensure entire SRS operates properly.

THO ING! LOTIO	N (FOR SIDE COI	=======================================	
Part	Front side air bag and side curtain air bag are activated	Front side air bag and side curtain air bag are NOT activated	
		1. Check for visible signs of damage (dents, tears, deformation) of the center pillar on	
	Replace the side cur-	the collision side.	
	tain air bag module.	2. If damaged— Remove the side curtain air bag module.	
LH or RH) side cur- ain air bag module	(Repair the center pillar inner, etc. before	3. Check for visible signs of damaged (tears etc.) of the side curtain air bag module.	
ain air bag module	installing new one if	4. Check harness and connectors for damage, and terminals for deformities.	
	damaged.)	<ul><li>5. If no damage is found, reinstall the side curtain air bag module with new bolts.</li><li>6. If damaged—REPLACE the side curtain air bag module with new bolts.</li></ul>	
		Air bag modules must be deployed before disposal.	
Front (LH or RH) side	REPLACE front seat back assembly.	Check for visible signs of damage (dents, tears, deformation) of the seat back on the collision side.	
air bag module	back assembly.	Check harness and connectors for damage, and terminals for deformities.	
		_	
(III BII) : I :	DEDI AOE (L	3. If damaged—REPLACE the front seat back assembly.	
LH or RH) side air pag (satellite) sensor	REPLACE the side air bag (satellite)	<ol> <li>Remove the side air bag (satellite) sensor on the collision side. Check harness connectors for damage, terminals for deformities, and harness for binding.</li> </ol>	
	sensor on the colli- sion side with new	2. Check for visible signs of damage (dents, cracks, deformation) of the side air bag (satellite) sensor.	
	nuts. (Repair the center pil-	3. Install the side air bag (satellite) sensor to check fit.	
	lar inner, etc. before	4. If no damage is found, reinstall the side sir bag (satellite) sensor with new nuts.	
	installing new one if damaged.)	5. If damaged—REPLACE the side air bag (satellite) sensor with new nuts.	5
Diagnosis sensor unit	REPLACE the diag-	1. Check case and bracket for dents, cracks or deformities.	
	nosis sensor unit with	2. Check connectors for damage, and terminals for deformities.	
	the new bolts.	3. If no damage is found, reinstall the diagnosis sensor unit with new bolts and ground bolt.	
		4. If damaged—REPLACE the diagnosis sensor unit with new bolts and ground bolt.	
Seat belt pre-ten- sioner assembly		it can be extended smoothly.  ot be extended smoothly,	
	- Check for deformities of the center pillar inner.		
	<ul> <li>If the center pillar inn</li> </ul>	ner has no damage, REPLACE the seat belt pre-tensioner assembly.	
		It pre-tensioner assembly on the collision side. Check harness cover and connectors ls for deformities, and harness for binding.	
	3. Check for visible sign	ns of damage (dents, cracks, deformation) of the seat belt pre-tensioner assembly.	
	4. Check seat belt adju	ster for damage.	
	5. If no damage is foun	d, reinstall the seat belt pre-tensioner assembly.	
	<ol><li>If damaged—REPLACE the seat belt pre-tensioner assembly with new bolts.</li><li>The seat belt pre-tensioner assembly must be deployed before disposing of it.</li></ol>		
Seat (with front side	REPLACE front seat	1. Visually check the seat on the collision side.	
air bag)	back assembly.	<ol><li>Remove the seat on the collision side and check the following for damage and deformities.</li></ol>	
		- Harness, connectors and terminals	
		<ul> <li>Frame and recliner (for front and rear seat), and also adjuster and slides (for front seat)</li> </ul>	
		3. If no damage is found, reinstall the seat.	
		4. If damaged—REPLACE the damaged seat parts using new bolts. If the front seat back is damaged, the front seat back assembly must be replaced.	
Center inner pillar	1. Check the center inn	ner pillar on the collision side for damage (dents, cracks, deformation).	
r		R the center inner pillar.	
Trim/headliner		ns of damage (dents, cracks, deformation) of the interior trim on the collision side.	
	=	ACE the damaged trim parts.	