# SECTION SRS

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

# **CONTENTS**

PRECAUTIONS 3	FROM DIAGNOSTIC PROCEDURE 2)	25
Precautions for Supplemental Restraint System	DIAGNOSTIC PROCEDURE 5	25
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	Trouble Diagnosis Without CONSULT-II	29
SIONER" 3	DIAGNOSTIC PROCEDURE 6	
Precautions for SRS "AIR BAG" and "SEAT BELT	WARNING LAMP FLASH CODE CHART	30
PRE-TENSIONER" Service 3	Trouble Diagnosis: "AIR BAG" Warning Lamp Doe	S
Precautions for Trouble Diagnosis 3	Not Turn Off	
PREPARATION 4	DIAGNOSTIC PROCEDURE 7	34
Special Service Tools4	Trouble Diagnosis: "AIR BAG" Warning Lamp Doe	S
Commercial Service Tools 4	Not Turn On	
SUPPLEMENTAL RESTRAINT SYSTEM (SRS) 5	DIAGNOSTIC PROCEDURE 8	35
SRS Configuration5	DRIVER AIR BAG MODULE	36
Front Seat Belt Pre-Tensioner with Load Limiter 6	Removal and Installation	36
Front Side Air Bag 6	REMOVAL	36
Side Curtain Air Bag 6	INSTALLATION	37
TROUBLE DIAGNOSIS 7	SPIRAL CABLE	38
Trouble Diagnosis Introduction 7	Removal and Installation	38
DIAGNOSIS FUNCTION7	REMOVAL	38
HOW TO PERFORM TROUBLE DIAGNOSIS	INSTALLATION	39
FOR QUICK AND ACCURATE REPAIR	FRONT PASSENGER AIR BAG MODULE	40
WORK FLOW 8	Removal and Installation	40
Component Parts Location9	REMOVAL	
Schematic 10	INSTALLATION	41
Wiring Diagram — SRS —11	FRONT SIDE AIR BAG MODULE	42
CONSULT-II Function15	Removal and Installation	
DIAGNOSIS MODE FOR CONSULT-II15	REMOVAL	
HOW TO CHANGE SELF-DIAGNOSIS MODE	INSTALLATION	43
WITH CONSULT-II15	SIDE CURTAIN AIR BAG MODULE	44
HOW TO ERASE SELF-DIAGNOSTIC	Removal and Installation	44
RESULTS 16	REMOVAL	
Self-Diagnosis Function (Without CONSULT-II) 16	INSTALLATION	45
HOW TO CHANGE SELF-DIAGNOSIS MODE	CRASH ZONE SENSOR	46
WITHOUT CONSULT-II16	Removal and Installation	46
HOW TO ERASE SELF-DIAGNOSIS RESULTS 16	REMOVAL	46
SRS Operation Check17	INSTALLATION	46
DIAGNOSTIC PROCEDURE 1 17	SIDE AIR BAG (SATELLITE) SENSOR	47
Trouble Diagnosis With CONSULT-II	Removal and Installation	
DIAGNOSTIC PROCEDURE 2 19	REMOVAL	
DIAGNOSTIC PROCEDURE 323	INSTALLATION	47
DIAGNOSTIC PROCEDURE 4 (CONTINUED		

D

Е

F

G

K

L

FRONT SEAT BELT PRE-TENSIONER48	CLE)5	55
Removal and Installation48	DEPLOYMENT OF AIR BAG MODULE AND	
DIAGNOSIS SENSOR UNIT49	SEAT BELT PRE-TENSIONER WHILE	
Removal and Installation49	MOUNTED IN VEHICLE5	56
REMOVAL49	DISPOSING OF AIR BAG MODULE AND SEAT	
INSTALLATION49	BELT PRE-TENSIONER5	56
ECU DISCRIMINATED NO49	COLLISION DIAGNOSIS5	57
DISPOSALOFAIRBAGMODULEANDSEATBELT	For Frontal Collision5	57
PRE-TENSIONER50	SRS INSPECTION (FOR FRONTAL COLLI-	
Caution for Air Bag Module and Seat Belt Pre-Ten-	SION)5	57
sioner50	For Side Collision5	58
CHECKING DEPLOYMENT TOOL50	WHEN THE SIDE AIR BAG IS ACTIVATED IN	
DEPLOYMENT PROCEDURES FOR AIR BAG	THE SIDE COLLISION:5	58
MODULE (OUTSIDE OF VEHICLE)51	WHEN SRS IS NOT ACTIVATED IN THE SIDE	
DEPLOYMENT PROCEDURES FOR SEAT	COLLISION:5	59
BELT PRE-TENSIONER (OUTSIDE OF VEHI-	SRS INSPECTION (FOR SIDE COLLISION)5	59

**PRECAUTIONS** PFP:00001

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

Α

В

F

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 Man-

#### **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 harnesses or harness connectors.

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

- Do not use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 min-
  - For approximately 3 minutes after the cables are removed, it is still possible for the air bag and seat belt pre-tensioner to deploy. Therefore, do not work on any SRS connectors or wires until at least 3 minutes have passed.
- Diagnosis sensor unit must always be installed with their arrow marks "

  " pointing towards the front of the vehicle for proper operation. Also check diagnosis sensor unit for cracks, deformities or rust before installation and replace as required.
- The spiral cable must be aligned with the neutral position since its rotations are limited. Do not attempt to turn steering wheel or column after removal of steering gear.
- Handle air bag module carefully. Always place driver and 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.
- Always replace instrument panel pad following front passenger air bag deployment.

# **Precautions for Trouble Diagnosis**

AHS000AJ

When you read wiring diagrams, refer to the following:

- GI-14, "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-26, "How to Perform Efficient Diagnosis for an Electrical Incident" in GI section

Check for any service bulletins before servicing the vehicle.

**SRS** 

G

PREPARATION PFP:00002

# **Special Service Tools**

AHS000E3

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 module and front seat belt pre-tensioner
KV99110200 (J38381-65) Deployment tool adapter for front passenger air bag module	SHIA0173E	Connecting between the deployment tool and front passenger air bag module
KV99110500 (J38381-80)  Deployment tool adapter for driver air bag module (Yellow and orange connectors)  Deployment tool adapter for seat belt pre-tensioner (Yellow connector)  Deployment tool adapter for side curtain air bag module (Yellow connector)	For seat belt pre-tensioner	<ul> <li>Connecting between the deployment tool and driver air bag module</li> <li>Connecting between the deployment tool and front seat belt pre-tensioner</li> <li>Connecting between the deployment tool and side curtain air bag module</li> </ul>
KV99108300 (J38381-35) Deployment tool adapter for front side air bag module	ZZA1166D	Connecting between the deployment tool and front side air bag module

# **Commercial Service Tools**

AHS000E4

Tamper resistant TORX bit Size: T30	Tool name	Description
	Tamper resistant TORX bit	Size: T30

# **SUPPLEMENTAL RESTRAINT SYSTEM (SRS)**

#### **SUPPLEMENTAL RESTRAINT SYSTEM (SRS)** PFP:28556 **SRS Configuration** AHS000AM 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 LH side air bag) RH 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	_	_	×

Revision; 2004 April SRS-5 2003 Murano

G

SRS

Α

K

L

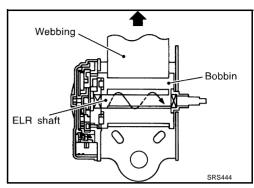
## **SUPPLEMENTAL RESTRAINT SYSTEM (SRS)**

#### 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.

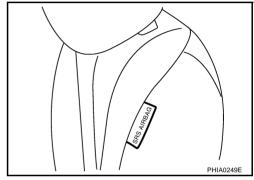
When passengers in a vehicle are thrown forward in a collision and the restraining force of the seat belt exceeds a specified level, the load limiter permits the specified extension of the seat belt by the twisting of the ELR shaft, and a relaxation of the chest-area seat belt web tension while maintaining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

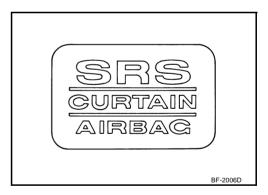


#### AHS000AP

AHS000AN

# Side Curtain Air Bag

The side curtain air bags have the labels as shown.



#### **TROUBLE DIAGNOSIS**

PFP:00004

## **Trouble Diagnosis Introduction**

AHS000E5

Α

#### **CAUTION:**

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

Make sure the following parts are in good order.

- Battery (Refer to <u>SC-4, "How to Handle Battery"</u>.)
- Fuse (Refer to <u>SRS-10, "Schematic"</u>.)
- System component-to-harness connections

SRS

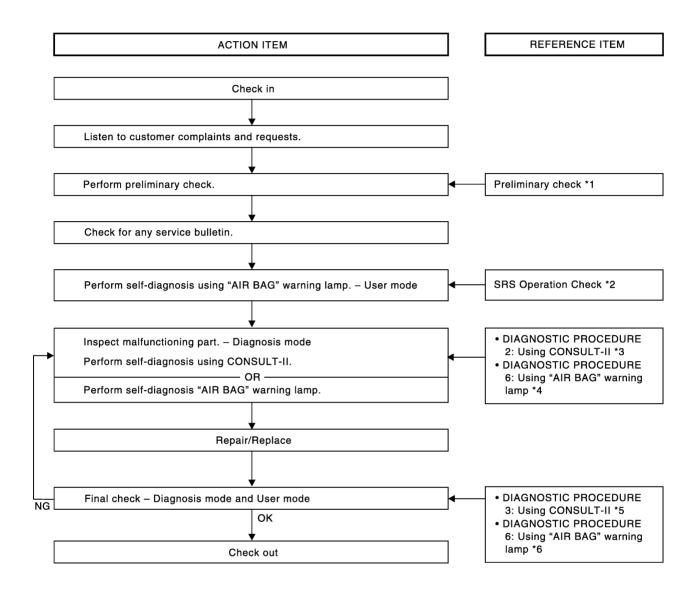
G

F

. J

K

#### **WORK FLOW**



PHIA0217E

- \*1: SRS-7, "Preliminary Check".
- \*2: SRS-17, "SRS Operation Check".
  - DU
- \*4: SRS-29, "DIAGNOSTIC PROCE-DURE 6".
- \*5 SRS-23, "DIAGNOSTIC PROCE-DURE 3".
- \*3: SRS-19, "DIAGNOSTIC PROCE-DURE 2".
- \*6 SRS-29, "DIAGNOSTIC PROCE-DURE 6".

**Component Parts Location** AHS000E6 Front passenger air bag module Front side Driver air bag module air bag modules RH side air bag Spiral cable (satellite) sensor RH front seat belt Diagnosis sensor unit pre-tensioner Seat belt buckle switches LH side air bag/ (satellite) sensor LH front seat belt pre-tensioner

Crash zone sensor

SRS

`Side curtain air bag module

PHIA0273E

G

Α

В

D

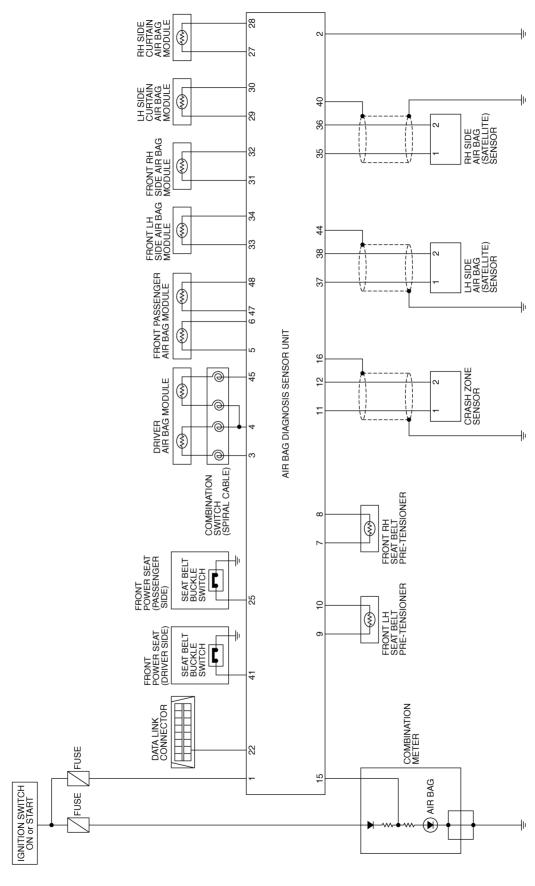
Е

J

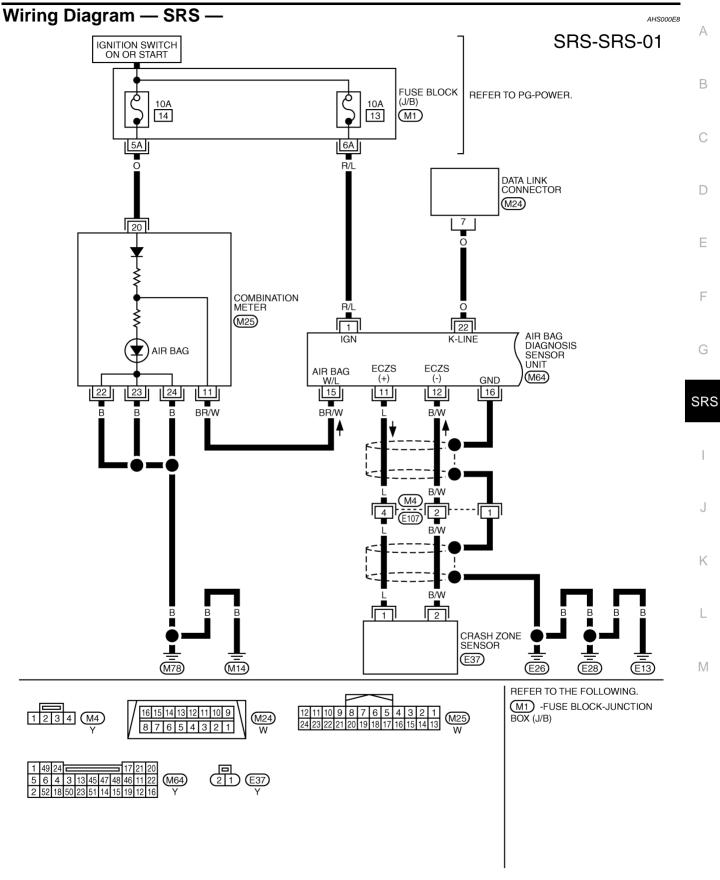
K

L



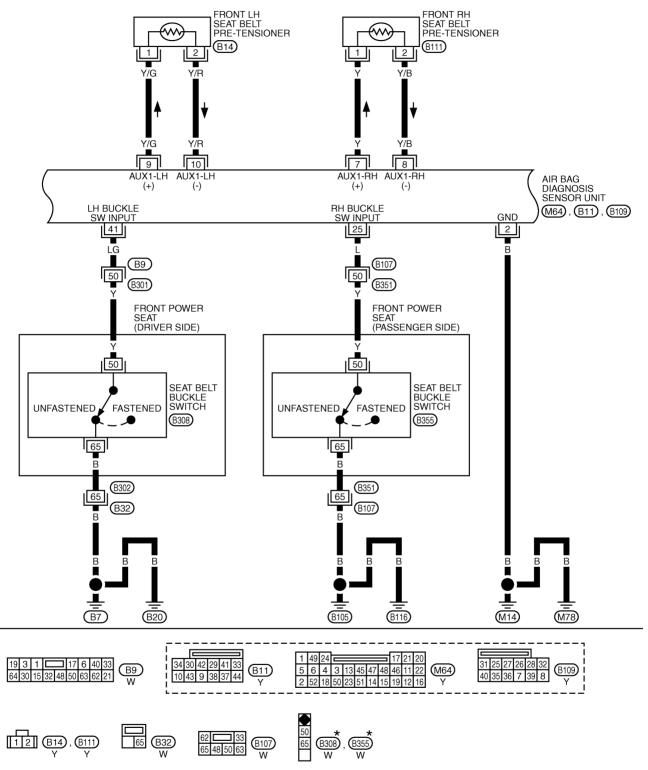


THWA0020E



THWA0025E

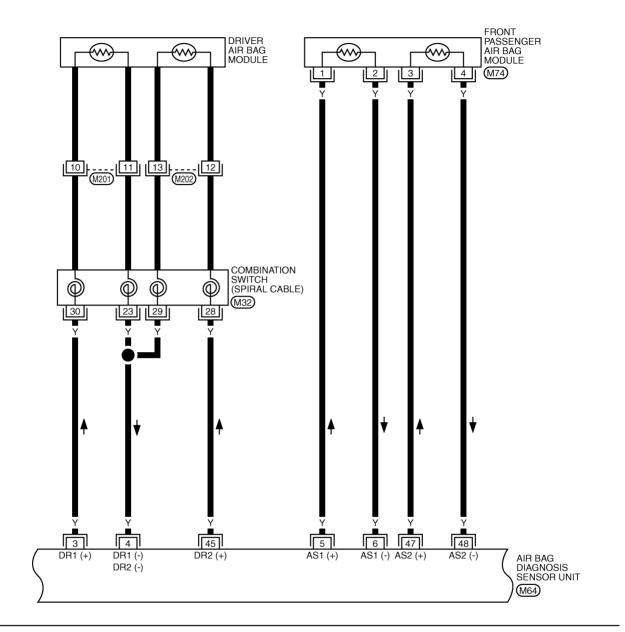
#### SRS-SRS-02



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

THWA0022E

# SRS-SRS-03





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

THWA0023E

В

Α

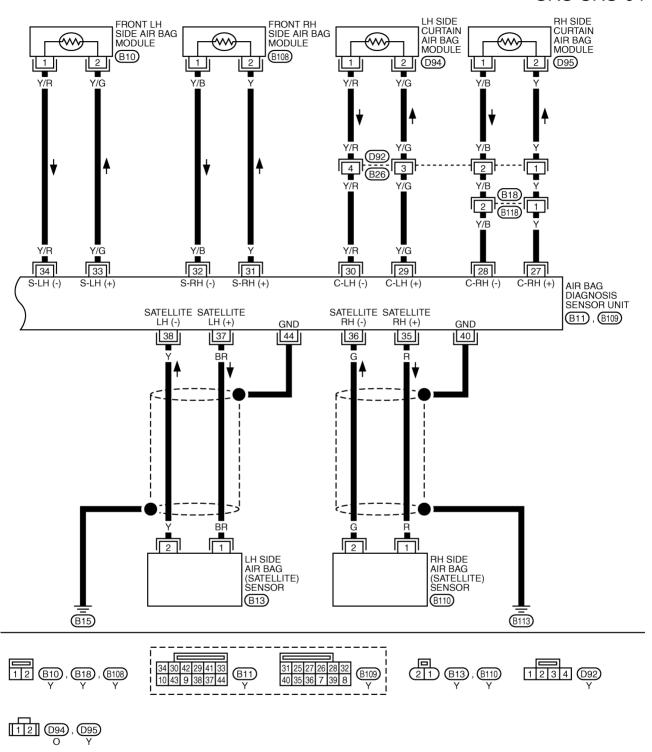
D

Е

G

SRS

# SRS-SRS-04



THWA0024E

# CONSULT-II Function DIAGNOSIS MODE FOR CONSULT-II

AHS000MO

Α

• "SELF-DIAG [CURRENT]"

A current self-diagnostic results (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.

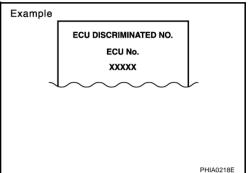
"TROUBLE DIAG RECORD"

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.

After repair, make sure the discriminated number shown in the below and the discriminated number of diagnosis sensor unit installed to vehicle are same. Refer to <a href="SRS-49">SRS-49</a>, "ECU DISCRIMINATED NO."</a>."

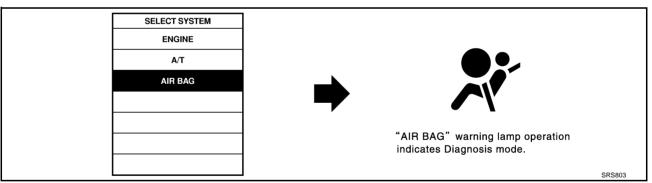


╛┏

## (F) 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, then diagnosis mode automatically changes to User mode.

SELECT SYSTEM ENGINE A/T AIR BAG		
	"AIR BAG" warning lamp operation indicates User mode.	SRS804

SRS

J

Κ

L

M

Revision; 2004 April SRS-15 2003 Murano

#### HOW TO ERASE SELF-DIAGNOSTIC RESULTS

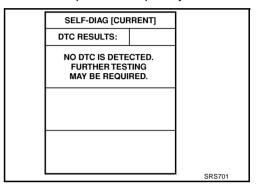
- "SELF-DIAG [CURRENT]"
  - A current self-diagnostic result is displayed on the CONSULT-II screen in real time.
  - After the malfunction is repaired completely, no malfunction is detected on "SELF-DIAG [CURRENT]".
- "SELF-DIAG [PAST]"

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.

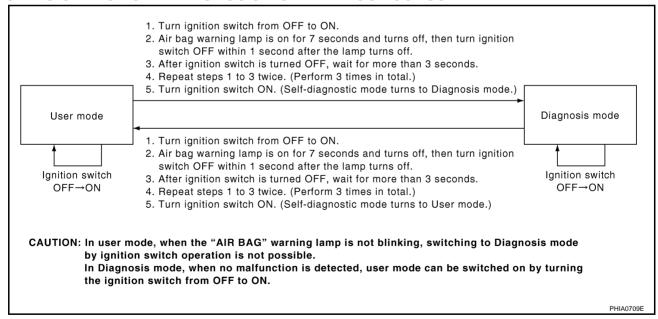


# **Self-Diagnosis Function (Without CONSULT-II)**

AHS000MP

- The reading of these results is accomplished "User mode" and "Diagnosis mode".
- After a malfunction is repaired, turn ignition switch ON. Diagnosis mode returns to the User mode. At that time, the self-diagnostic result is cleared.

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



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

After a malfunction is repaired, turn 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**

AHS000MQ

Α

В

D

Е

F

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

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



G

#### SRS

Κ

"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 needs to be repaired as indicated.	Go to SRS-19, "DIAGNOSTIC PROCEDURE 2" or SRS-25, "DIAGNOSTIC PROCEDURE 5"
	<ul><li> Air bag is deployed.</li><li> Seat belt pre-tensioner is deployed.</li></ul>	Go to SRS-57, "COLLISION DIAC NOSIS".
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-34, "Trouble Diagnosi "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 SRS-35, "Trouble Diagnosi "AIR BAG" Warning Lamp Does N Turn On"
SHIA0014E		

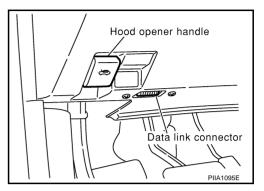
# Trouble Diagnosis With CONSULT-II DIAGNOSTIC PROCEDURE 2

AHS000MR

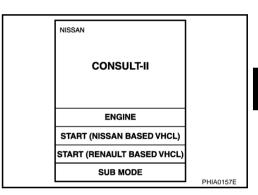
#### **CAUTION:**

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

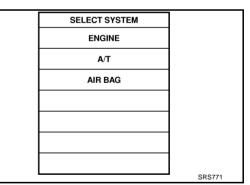
- 1. Turn ignition switch OFF.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



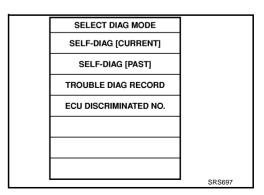
- Turn ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".



 Touch "AIR BAG".
 If "AIR BAG" is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit".



Touch "SELF-DIAG [CURRENT]".



00MR

Α

В

D

F

SRS

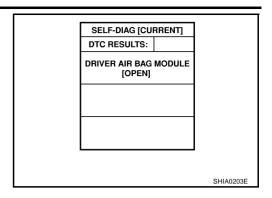
G

J

K

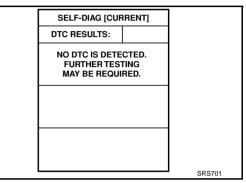
L

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", check the battery voltage. If the battery voltage is less than 9V, charge or replace the battery. Then go to <u>SRS-23</u>, "<u>DIAGNOSTIC PROCEDURE 3</u>". If the battery voltage is OK, go to <u>SRS-25</u>, "<u>DIAGNOSTIC PROCEDURE 4</u> (<u>CONTINUED FROM DIAGNOSTIC PROCEDURE 2</u>)" 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 BAG" warning lamp in	Low battery voltage (Less than 9V)	Go to <u>SRS-23</u> , " <u>DIAGNOSTIC PROCEDURE 3"</u> after charging the battery.	
	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-25, "DIAGNOSTIC PRO CEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)".      Go to SRS-25, "DIAGNOSTIC PROCEDURE 5".	
	No malfunction is determined.	ected.	_	
DRIVER AIRBAG MODULE	Driver air bag module	circuit is open (including the spiral cable).	Visually check the wiring harness connection.	
[OPEN]			Replace the harness if it has visib damage.     Replace the driver air bag module (Before disposal, it must be	
DRIVER AIRBAG MODULE [VB-SHORT]	<ul> <li>Driver air bag module (including the spiral ca</li> </ul>	circuit is shorted to a power supply circuit able).		
DRIVER AIRBAG	_	circuit is shorted to ground (including the	deployed.)	
MODULE [GND-SHORT]	spiral cable).		4. Replace the spiral cable.	
DRIVER AIRBAG MODULE [SHORT]	Driver air bag module	circuit is shorted between lines.	<ul><li>5. Replace the diagnosis sensor un</li><li>6. Replace the related harness.</li></ul>	
ASSIST A/B MODULE [OPEN]	Front passenger air bag module circuit is open.		Visually check the wiring harness connection.	
ASSIST A/B MODULE [VB-SHORT]	Front passenger air bag module circuit is shorted to a power supply circuit.		Replace the harness if it has visible damage.	
ASSIST A/B MODULE [GND-SHORT]	Front passenger air ba	ag module circuit is shorted to ground.	Replace the front passenger air bag module. (Before disposal, it must be deployed.)	
ASSIST A/B MODULE [SHORT]	Front passenger air ba	ag module circuit is shorted between lines.	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]		2. Replace the harness if it has visible damage.
		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 module circuit is shorted to a power supply circuit.	2. 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 the front LH setback assembly (front LH side air bag
SIDE MODULE LH [SHORT]	Front LH side air bag module circuit is shorted between lines.	module). (Before disposal, it must be deployed.)
		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 a 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.	3. Replace the front RH setback assembly (front RH side air bag
SIDE MODULE RH [SHORT]	Front RH side air bag module circuit is shorted between lines.	module). (Before disposal, it must be deployed.)
		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]		2. Replace the harness if it has visible damage.
		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.
		3. Replace the RH side air bag (Satellite) sensor.
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.

Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"
PRE-TEN FRONT LH [OPEN]	Front LH pre-tensioner circuit is open.	Visually check the wiring harness connections.
PRE-TEN FRONT LH [VB-SHORT]	Front LH pre-tensioner circuit is shorted to a power supply circuit.	Replace the harness if it has visible damage.
PRE-TEN FRONT LH [GND-SHORT]	Front LH pre-tensioner circuit is shorted to ground.	Replace the front LH seat belt.     (Before disposal, it must be activated.)
PRE-TEN FRONT LH [SHORT]	Front LH pre-tensioner circuit is shorted between lines.	4. Replace the diagnosis sensor unit. 5. Replace the related harness.
PRE-TEN FRONT RH [OPEN]	Front RH pre-tensioner circuit is open.	Visually check the wiring harness connections.
PRE-TEN FRONT RH [VB-SHORT]	<ul> <li>Front RH pre-tensioner circuit is shorted to a power supply circuit.</li> </ul>	Replace the harness if it has visible damage.
PRE-TEN FRONT RH [GND-SHORT]	Front RH pre-tensioner circuit is shorted to ground.	Replace the front RH seat belt.     (Before disposal, it must be activated.)
PRE-TEN FRONT RH [SHORT]	Front RH pre-tensioner circuit is shorted between lines.	<ul><li>4. Replace the diagnosis sensor unit.</li><li>5. Replace the related harness.</li></ul>
CURTAIN MODULE LH	LH side curtain air bag module circuit is open.	Visually check the wiring harness connection.
CURTAIN MODULE LH [VB-SHORT]	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]	LH side curtain air bag module circuit is shorted to ground.	Replace the LH side curtain air bag module.  (Refere dispessed it much be a side of the control of the curtain air bag module.)
CURTAIN MODULE LH [SHORT]	LH side curtain air bag module circuit is shorted between lines.	(Before disposal, it must be deployed.)
		<ul><li>4. Replace the diagnosis sensor unit.</li><li>5. Replace the related harness.</li></ul>
CURTAIN MODULE RH [OPEN]	RH side curtain air bag module circuit is open.	Visually check the wiring harness connection.
CURTAIN MODULE RH [VB-SHORT]	RH side curtain air bag module circuit is shorted to a power supply circuit.	Replace the harness if it has visible damage.
CURTAIN MODULE RH [GND-SHORT]	RH side curtain air bag module circuit is shorted to ground.	Replace the RH side curtain air bag module.      Refere disposal, it must be
CURTAIN MODULE RH [SHORT]	RH side curtain air bag module circuit is shorted between lines.	(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.

#### 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.

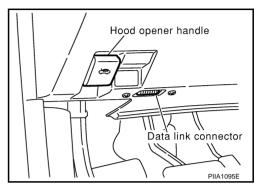
#### **DIAGNOSTIC PROCEDURE 3**

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

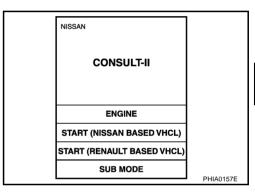
#### **CAUTION:**

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

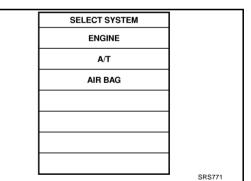
- After repairing SRS, connect both battery cables.
- Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



- Turn ignition switch ON.
- Touch "START (NISSAN BASED VHCL)".



Touch "AIR BAG". If "AIR BAG" is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit".



Touch "SELF-DIAG [CURRENT]".

SELECT DIAG MODE	
SELF-DIAG [CURRENT]	
SELF-DIAG [PAST]	
TROUBLE DIAG RECORD	
ECU DISCRIMINATED NO.	
	SRS697

Α

В

D

F

G

SRS

 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 SRS-19, "DIAGNOSTIC PRO-

CEDURE 2", and repair malfunctioning part completely.

SELF-DIAG [CURRENT]

DTC RESULTS:

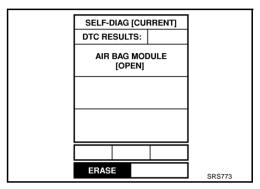
NO DTC IS DETECTED.
FURTHER TESTING
MAY BE REQUIRED.

8. Touch "ERASE".

#### NOTE:

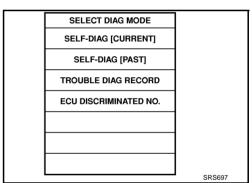
Touch "ERASE" to clear the memory of the malfunction ("SELF-DIAG [PAST]").

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.

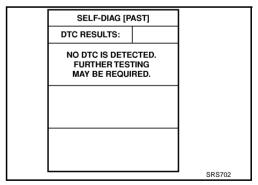


SRS701

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



- 10. Make sure 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-17</u>, "Checking Air Bag Operation by Using "AIR <u>BAG" Warning Lamp User Mode"</u>.



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

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

Is it the first time for maintenance of SRS?

#### YES or NO

YES >> Go to SRS-19, "DIAGNOSTIC PROCEDURE 2".

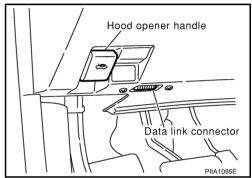
NO >> Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair. Go to <a href="SRS-23">SRS-23</a>, "DIAGNOSTIC PROCEDURE 3"</a>.

#### **DIAGNOSTIC PROCEDURE 5**

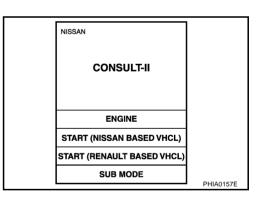
Inspecting SRS intermittent malfunction by using CONSULT-II — Diagnosis mode CAUTION:

If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunction might be detected in self-diagnosis depending on control unit which carry out CAN communication.

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



- 3. Turn ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".



 Touch "AIR BAG".
 If "AIR BAG" is not indicated, go to GI-38, "CONSULT-II Data Link Connector (DLC) Circuit".

SELECT SYSTEM	
ENGINE	
A/T	
AIR BAG	
	SRS771

Α

В

D

G

SRS

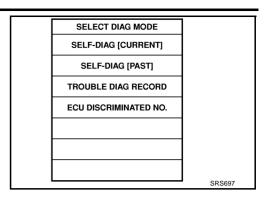
Κ

L

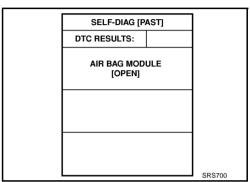
I\/

IVI

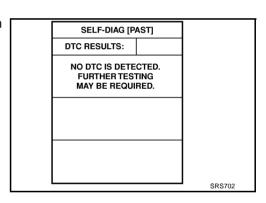
6. Touch "SELF-DIAG [PAST]".



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



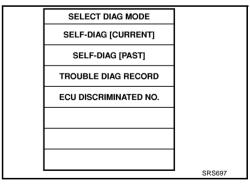
If no malfunction is detected on "SELF-DIAG [PAST]", touch "BACK" and go back to "SELECT DIAG MODE".



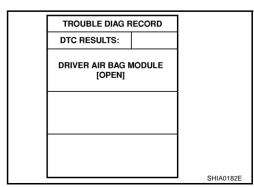
8. Touch "TROUBLE DIAG RECORD".

#### NOTE:

• Low battery voltage (Less than 9V)



- 9. Diagnostic code is displayed on "TROUBLE DIAG RECORD".
- 10. Touch "PRINT".
- 11. Compare diagnostic codes to <u>SRS-27</u>, "CONSULT-II <u>Diagnostic</u> <u>Code Chart ("SELF-DIAG [PAST]" or "TROUBLE DIAG 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.



- 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-23, "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 BAG" warning lamp in User mode.	Low battery voltage (Less than 9V)	Go to <u>SRS-23</u> , " <u>DIAGNOSTIC PRO-CEDURE 3"</u> .	
	No malfunction is determined.	cted.	Go to <u>SRS-23</u> , " <u>DIAGNOSTIC PRO-CEDURE 3"</u> .	
DRIVER AIRBAG MODULE	Driver air bag module circuit is open (including the spiral cable).		Visually check the wiring harness connection.	E
[OPEN] DRIVER AIRBAG MODULE [VB-SHORT]	Driver air bag module circuit is shorted to a power supply circuit (including the spiral cable).		Replace the harness if it has visible damage.      If the harness check result is OK, replace driver air bag module	F
DRIVER AIRBAG MODULE [GND-SHORT]	Driver air bag module spiral cable).	circuit is shorted to ground (including the	(Before disposal, it must be deployed.), diagnosis sensor unit and spiral cable.	(
DRIVER AIRBAG MODULE [SHORT]	Driver air bag module	circuit is shorted between lines.		SI
ASSIST A/B MODULE [OPEN]	Front passenger air ba	ag module circuit is open.	Visually check the wiring harness connection.	
ASSIST A/B MODULE [VB-SHORT]	Front passenger air bag module circuit is shorted to a power supply circuit.		Replace the harness if it has visible damage.	
ASSIST A/B MODULE [GND-SHORT]	Front passenger air bag module circuit is shorted to ground.		If the harness check result is OK,     replace the diagnosis sensor unit     and front passenger air bag module	
ASSIST A/B MODULE [SHORT]	Front passenger air ba	ng module circuit is shorted between lines.	(Before disposal, it must be deployed.).	k
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.	L
			If the harness check result is OK, replace crash zone sensor and diagnosis sensor unit.	1
SIDE MODULE LH [OPEN]	Front LH side air bag i	module circuit is open.	Visually check the wiring harness connection.	
SIDE MODULE LH [VB-SHORT]	Front LH side air bag in ply circuit.	module circuit is shorted to a power sup-	Replace the harness if it has visible damage.	
SIDE MODULE LH [GND-SHORT]	Front LH side air bag i	module circuit is shorted to ground.	3. If the harness check result is OK, replace the diagnosis sensor unit	
SIDE MODULE LH [SHORT]	Front LH side air bag i	module circuit is shorted between lines.	and LH side air bag module. (Before disposal, it must be deployed.).	

**SRS-27** 2003 Murano Revision; 2004 April

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]	<ul> <li>Front RH side air bag module circuit is shorted to a power sup- ply circuit.</li> </ul>	Replace the harness if it has visible damage.
SIDE MODULE RH [GND-SHORT]	Front RH side air bag module circuit is shorted to ground.	If the harness check result is OK, replace the diagnosis sensor unit
SIDE MODULE RH [SHORT]	Front RH side air bag module circuit is shorted between lines.	and RH side air bag module (Before disposal, it must be deployed.)
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.
		If the harness check result is OK, replace the diagnosis sensor unit and LH side air bag (Satellite) sensor.
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.
		<ol> <li>If the harness check result is OK, replace the diagnosis sensor unit and RH side air bag (Satellite) sen- sor.</li> </ol>
PRE-TEN FRONT LH [OPEN]	Front LH pre-tensioner circuit is open.	Visually check the wiring harness connections.
PRE-TEN FRONT LH [VB-SHORT]	Front LH pre-tensioner circuit is shorted to a power supply circuit.	Replace the harness if it has visible damage.
PRE-TEN FRONT LH [GND-SHORT]	Front LH pre-tensioner circuit is shorted to ground.	If the harness check result is OK, replace the diagnosis sensor unit
PRE-TEN FRONT LH [SHORT]	Front LH pre-tensioner circuit is shorted between lines.	and front LH seat belt (Before disposal, it must be activated.)
PRE-TEN FRONT RH [OPEN]	Front RH pre-tensioner circuit is open.	Visually check the wiring harness connections.
PRE-TEN FRONT RH [VB-SHORT]	Front RH pre-tensioner circuit is shorted to a power supply circuit.	Replace the harness if it has visible damage.
PRE-TEN FRONT RH [GND-SHORT]	Front RH pre-tensioner circuit is shorted to ground.	If the harness check result is OK, replace the diagnosis sensor unit
PRE-TEN FRONT RH [SHORT]	Front RH pre-tensioner circuit is shorted between lines.	and front RH seat belt (Before disposal, it must be activated.)
CURTAIN MODULE LH [OPEN]	LH side curtain air bag module circuit is open.	Visually check the wiring harness connection.
CURTAIN MODULE LH [VB-SHORT]	LH side curtain air bag module circuit is shorted to a power supply circuits.	Replace the harness if it has visible damage.
CURTAIN MODULE LH [GND-SHORT]	LH side curtain air bag module circuit is shorted to ground.	If the harness check result is OK, replace the diagnosis sensor unit
CURTAIN MODULE LH [SHORT]	LH side curtain air bag module circuit is shorted between lines.	and LH side curtain air bag module. (Before disposal, it must be deployed.)

Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"
CURTAIN MODULE RH [OPEN]	RH side curtain air bag module circuit is open.	Visually check the wiring harness connection.
CURTAIN MODULE RH [VB-SHORT]	RH side curtain air bag module circuit is shorted to a power supply circuit.	2. Replace the harness if it has visible damage.
CURTAIN MODULE RH [GND-SHORT]	RH side curtain air bag module circuit is shorted to ground.	3. If the harness check result is OK, replace the diagnosis sensor unit
CURTAIN MODULE RH [SHORT]	RH side curtain air bag module circuit is shorted between lines.	and RH side curtain air bag module. (Before disposal, it must be deployed.)
CONTROL UNIT	Diagnosis sensor unit is malfunctioning.	Visually check the wiring harness connection.
		2. Replace the diagnosis sensor unit.

# Trouble Diagnosis Without CONSULT-II DIAGNOSTIC PROCEDURE 6

AHS000MS

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 the steps 1 to 3 twice. (Perform three times in all.)
- 5. Turn ignition switch ON.

SRS is now in Diagnosis mode.

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

SRS

G

Α

В

С

D

F

J

K

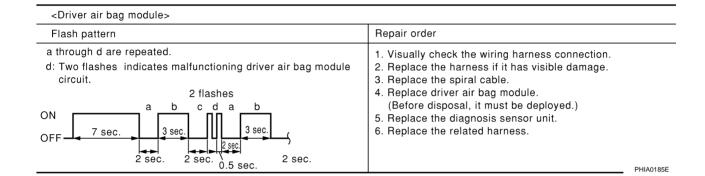
L

#### WARNING LAMP FLASH CODE CHART

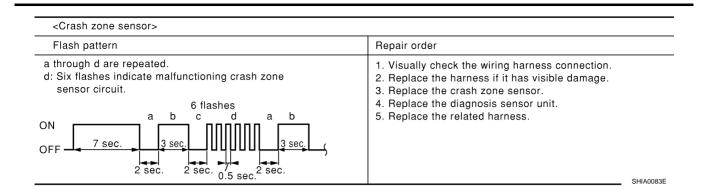
<Diagnosis results (previously stored in the memory) might not be erased after repair or intermittent malfunctions have been detected in the past.>

Flash pattern	Repair order
a through b are repeated.  IGN ON ON OFF 7 sec. 2 sec. 2 sec.	Erase memory. (Once key switch is turned from OFF to ON, TROUBLE DIAG RECORD will be erased.)

PHIA0532E



<Front passenger air bag module> Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connection. d: Eight flashes indicate malfunctioning front passenger air bag 2. Replace the harness if it has visible damage. module circuit. 3. Replace front passenger air bag module. (Before disposal, it must be deployed.) 8 flashes 4. Replace the diagnosis sensor unit. ON 5. Replace the related harness. 7 sec 3 sec 2 sec. 2 sec. 0.5 sec SHIA0029E



Α

В

D

Е

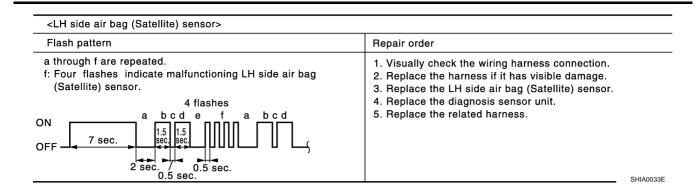
G

SRS

Flash pattern	Repair order
a through d are repeated. d: One flash indicates malfunctioning front RH seat belt pre-tensioner circuit.  ON  OFF  7 sec.  3 sec.  2 sec.  0.5 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.

Flash pattern	Repair order
a through d are repeated. d: Three flashes indicate malfunctioning front LH seat belt pre-tensioner circuit.  3 flashes a b c d a b ON 7 sec. 2 sec. 2 sec. 2 sec. 2 sec. 2 sec. 3 sec.	1. Visually check the wiring harness connections. 2. Replace the harness if it has visible damage. 3. Replace front LH seat belt pre-tensioner. (Before disposal, it must be activated.) 4. Replace the diagnosis sensor unit. 5. 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.  0.5 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.



<front air="" bag="" module="" rh="" side=""></front>	
Flash pattern	Repair order
a through f are repeated.  f: One flash indicate malfunctioning front RH side air bag module circuit.  ON  OFF  7 sec.  0.5 sec.  0.5 sec.	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace front RH side air bag module. (Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.

Flash pattern	Repair order
a through f are repeated. f: Two flashes indicate malfunctioning front LH side air bag module circuit.  2 flashes  2 flashes  3 b c d e f a b c d  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 front LH side air bag module. (Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.

<rh air="" bag="" curtain="" module="" side=""></rh>	
Flash pattern	Repair order
a through f are repeated. f: Five flashes indicate malfunctioning RH side curtain air bag module circuit.  5 flashes  ON  OFF  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 RH side curtain air bag module. (Before disposal, it must be deployed.) 4. Replace the diagnosis sensor unit. 5. Replace the related harness.
2 sec. 7 0.5 sec. 2 sec. 0.5 sec.	SHIADORA

<lh air="" bag="" curtain="" module="" side=""></lh>		
Flash pattern	Repair order	
a through f are repeated.  f: Six flashes indicate malfunctioning LH side curtain air bag module circuit.  ON  OFF  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.	

Α

В

С

D

Е

F

G

# SRS

J

Κ

ï

# Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn Off DIAGNOSTIC PROCEDURE 7

AHS000M

# 1. CHECK THE DEPLOYMENT OF AIR BAG MODULE

Is air bag module deployed?

YES or NO

YES >> Refer to SRS-57, "COLLISION DIAGNOSIS".

NO >> GO TO 2.

# 2. CHECK THE AIR BAG FUSE

Check 10A fuse [No.13, located in fuse block (J/B)]. Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT".

OK or NG

OK >> GO TO 4.

NG >> GO TO 3.

# 3. CHECK AIR BAG FUSE AGAIN

Replace "AIR BAG" fuse and turn ignition switch ON.

Does the "AIR BAG" fuse blow again?

YES >> Repair main harness.

NO >> INSPECTION END

# 4. CHECK DIAGNOSIS SENSOR UNIT

Connect CONSULT-II and touch "START".

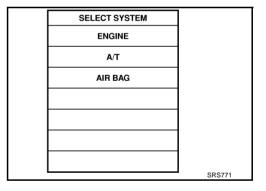
Is "AIR BAG" displayed on CONSULT-II?

YES or NO

YES >> GO TO 5.

NO

>> Visually check the wiring harness connection of diagnosis sensor unit. If the harness connection check result is OK, replace diagnosis sensor unit.



# 5. CHECK HARNESS CONNECTION

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

OK or NG

OK >> Replace diagnosis sensor unit.

NG

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

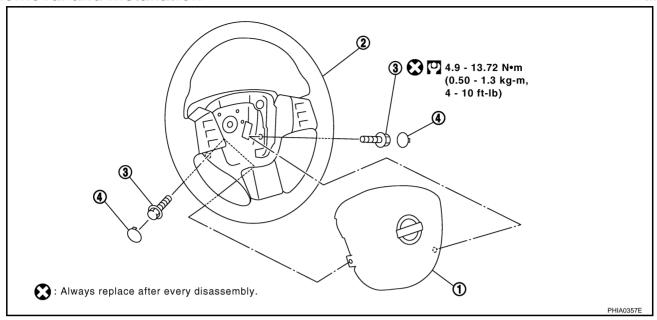
#### Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn On AHS000MU **DIAGNOSTIC PROCEDURE 8** Α 1. CHECK METER FUSE В Check 10A fuse [No.14, located in fuse block (J/B)]. Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT". OK or NG C OK >> GO TO 3. NG >> GO TO 2. 2. CHECK METER FUSE AGAIN D Replace 10A fuse [No.14, located in fuse block (J/B)] and turn ignition switch ON. Does the meter fuse blow again? F YES >> Repair the related harness. NO >> INSPECTION END 3. CHECK HARNESS CONNECTION BETWEEN DIAGNOSIS SENSOR UNIT AND COMBINATION F **METER** Disconnect diagnosis sensor unit connector and turn ignition switch ON. G Does "AIR BAG" warning lamp turn on? YES or NO YES SRS >> Replace diagnosis sensor unit. NO >> Check the ground circuit of "AIR BAG" warning lamp.

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

PFP:K8510

#### Removal and Installation

AHS000B1



- 1. Driver air bag module
- 2. Steering wheel

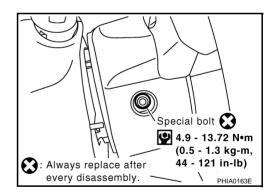
3. Special bolt (TORX bolt)

4. Side lid

#### **REMOVAL**

#### **CAUTION:**

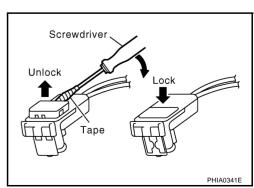
- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3
  minutes.
- Always work from the side of driver air bag module.
- Remove the side lids.
- 2. Remove the left and right side special bolts (TORX bolts).



- 3. Lift up the driver air bag module.
- 4. Disconnect the air bag harness connectors, and remove the driver air bag module.

#### **CAUTION:**

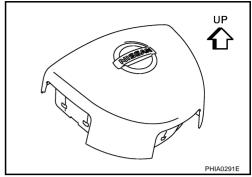
- For installing /removing driver air bag module connector, insert thin screwdriver wrapped in tape into notch, lift lock and remove connector.
- Install connector with lock raised, and push lock into connector.



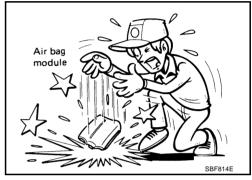
# **DRIVER AIR BAG MODULE**

#### **CAUTION:**

- Always work from the side of driver air bag module.
- Always place driver air bag module with pad side facing
- Do not insert any foreign objects (screwdriver, etc.) into driver air bag module.
- Do not 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 driver air bag module.



## **SRS**

#### **INSTALLATION**

Install in the reverse order of removal.

- For installing the air bag module, tighten the special bolts (TORX bolts).
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to SRS-17, "SRS Operation Check"

Α

В

D

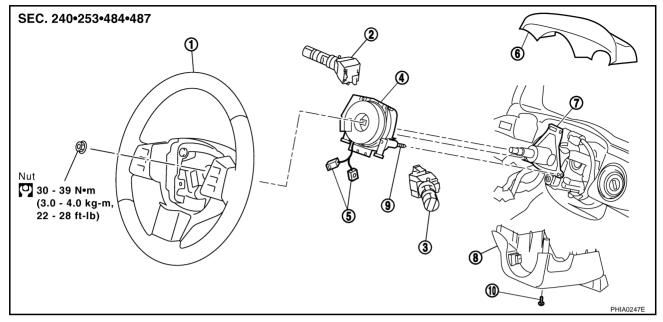
F

J

SPIRAL CABLE PFP:25554

# Removal and Installation

AHS000B2



- 1. Steering wheel
- 4. Spiral cable
- 7. Column assembly
- 10. Screw

- 2. Lighting and turn signal switch
- 5. Driver air bag module connector
- 8. Column cover lower
- 3. Wiper and washer switch
- 6. Column cover upper
- 9. Screw (Do not remove)

#### **REMOVAL**

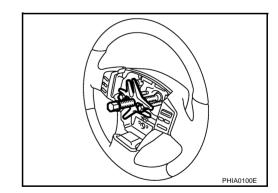
#### **CAUTION:**

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

- 1. Remove driver air bag module. Refer to <a href="SRS-36">SRS-36</a>, "Removal and Installation".
- 2. Set the steering wheel in the neutral position.
- 3. Remove nut of steering wheel.
- 4. Remove steering wheel with steering wheel puller.

#### **CAUTION:**

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



- 5. Remove the column cover upper and lower.
- 6. Remove the spiral cable fixing screws, and then remove the spiral cable.

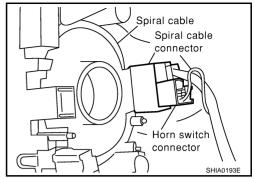
- Do not disassemble spiral cable.
- Do not apply lubricant to the spiral cable.

# SPIRAL CABLE

Remove the horn switch connector, and then spiral cable connector.

#### **CAUTION:**

Also, with the steering linkage disconnected the cable may snap by turning the steering wheel beyond the limited number of turns.

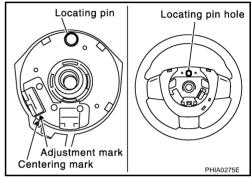


#### **INSTALLATION**

Install in the reverse order of removal.

#### 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.
- After the work is completed, perform self-diagnosis to make sure no malfunction is detected. Refer to <u>SRS-17</u>, <u>"SRS</u> <u>Operation Check"</u>.



Α

В

С

D

F

F

G

SRS

#### FRONT PASSENGER AIR BAG MODULE

# FRONT PASSENGER AIR BAG MODULE

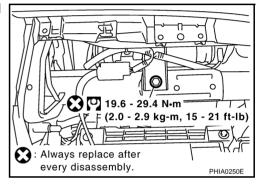
PFP:K8515

# Removal and Installation REMOVAL

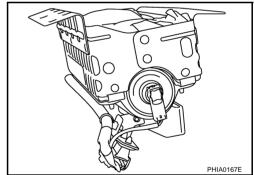
AHS000B3

#### **CAUTION:**

- Before servicing SRS, turn 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 instrument passenger lower panel and glove box assembly. Refer to <a href="IP-13">IP-13</a>, "(J) INSTRUMENT PASSENGER LOWER PANEL ASSEMBLY"</a>.
- 2. Remove cluster lid C. Refer to IP-14, "(N) CLUSTER LID C".
- 3. Remove side ventilator assembly (RH). Refer to IP-13, "(H) SIDE VENTILATOR ASSEMBLY (LH/RH)" .
- 4. Remove instrument side finisher (RH). Refer to IP-13, "(I) INSTRUMENT SIDE FINISHER (LH/RH)".
- 5. Disconnect passenger air bag connector.
- 6. Remove special bolt, and instrument passenger upper panel and passenger air bag module.
- 7. Remove passenger air bag module.



- 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 disassemble front passenger air bag module.
- Do not use old bolts after removal; replace with new bolts.



- 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.
- After front passenger air bag module inflates, the instrument panel assembly should be replaced.



# FRONT PASSENGER AIR BAG MODULE

#### **INSTALLATION**

Install in the reverse order of removal.

# **CAUTION:**

- Always work from the side of or under front passenger air bag module.
- After the work is completed, perform self-diagnosis to make sure no malfunction is detected.
   Refer to <u>SRS-17</u>, "<u>SRS Operation Check"</u>.

Α

С

В

D

Е

F

G

SRS

J

Κ

ı

# FRONT SIDE AIR BAG MODULE

# FRONT SIDE AIR BAG MODULE

PFP:K8EH0

#### Removal and Installation

AHS000B4

#### **CAUTION:**

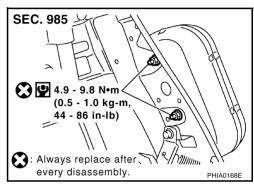
Removal of front side air bag module should only be done to allow deployment of front side air bag module prior to disposal of seatback assembly.

Only complete seatback assemblies can be replaced. Refer to <u>SE-127, "REMOVAL OF SEATBACK ASSEMBLY"</u>.

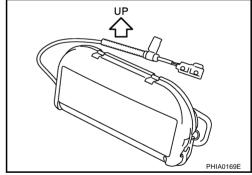
- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3
  minutes.
- Always work from the rear of the front side air bag module.

#### **REMOVAL**

- Remove front seat. Refer to <u>SE-125, "REMOVAL"</u>.
- 2. Remove seatback trim and pad. Refer to SE-126, "SEATBACK TRIM AND PAD".
- 3. Remove front side air bag module harness clips.
- 4. Remove front side air bag module fixing special nuts, then remove 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) into front side air bag module.
- Do not 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.



# FRONT SIDE AIR BAG MODULE

#### **INSTALLATION**

Install in the reverse order of removal.

# **CAUTION:**

- Always work from the side of or under front side air bag module.
- After the work is completed, perform self-diagnosis to make sure that no malfunction is detected.
   Refer to <u>SRS-17</u>, "<u>SRS Operation Check"</u>.

Α

С

В

D

Е

F

G

SRS

ı

Κ

ı

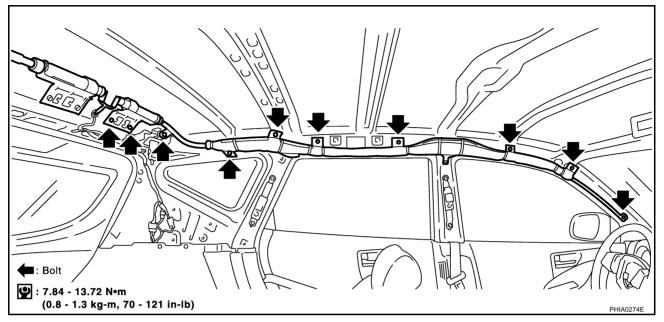
# SIDE CURTAIN AIR BAG MODULE

# SIDE CURTAIN AIR BAG MODULE

PFP:985P0

# Removal and Installation

AHS000B5

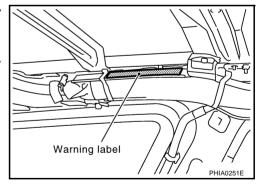


#### **REMOVAL**

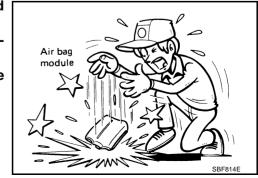
#### **CAUTION:**

- Before servicing SRS, turn 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 El-36, "Removal and Installation".
- 2. Disconnect side curtain air bag connector.
- 3. Remove side curtain air bag module fixing bolts.
- 4. Remove the side curtain air bag module.

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



- 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.



# SIDE CURTAIN AIR BAG MODULE

#### **INSTALLATION**

Install in the reverse order of removal.

# **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 make sure no malfunction is detected. Refer to <u>SRS-17</u>, "<u>SRS Operation Check"</u>.

Α

С

В

D

Е

F

G

SRS

J

K

.

# **CRASH ZONE SENSOR**

# **CRASH ZONE SENSOR**

PFP:98531

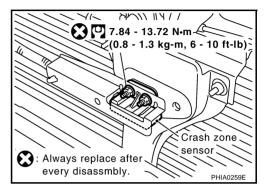
# Removal and Installation REMOVAL

AHS000B6

#### **CAUTION:**

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

- 1. Remove front grille. Refer to EI-20, "FRONT GRILLE".
- 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 disassemble crash zone sensor.

#### **INSTALLATION**

Install in the reverse order of removal.

- Check crash zone sensor for proper installation.
- After the work is complete, perform self-diagnosis to make sure no malfunction is detected. Refer to <u>SRS-17, "SRS Operation Check"</u>.

# SIDE AIR BAG (SATELLITE) SENSOR

# SIDE AIR BAG (SATELLITE) SENSOR

PFP:98830

# Removal and Installation REMOVAL

AHS000B7

Α

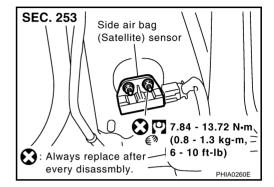
В

F

#### **CAUTION:**

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

- Remove seat belt pre-tensioner. Refer to SB-4, "Removal and Installation of Front Seat Belt".
- Remove side air bag (Satellite) sensor fixing nuts.
- 3. 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 disassemble side air bag (Satellite) sensor.
- Replace side air bag (Satellite) sensor if it has been dropped or sustained an impact.

#### **INSTALLATION**

Install in the reverse order of removal.

#### **CAUTION:**

- Check side air bag (Satellite) sensor for proper installation.
- After replacement of side air bag (Satellite) sensor, perform self-diagnosis to make sure no malfunction is detected. Refer to <u>SRS-17</u>, "<u>SRS Operation Check"</u>.

SRS

G

|

J

L

L

# FRONT SEAT BELT PRE-TENSIONER

# FRONT SEAT BELT PRE-TENSIONER

PFP:86884

# **Removal and Installation**

AHS000B8

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

# **DIAGNOSIS SENSOR UNIT**

### **DIAGNOSIS SENSOR UNIT**

#### PFP:28556

# Removal and Installation

#### AHS000B9

Α

В

F

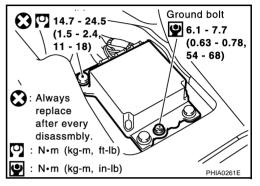
#### **CAUTION:**

Before servicing SRS, turn 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-18, "Removal and Installation".
- 3. Disconnect diagnosis sensor unit connector.
- 4. Remove 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

Install in the reverse order of removal.

#### **CAUTION:**

- Check the diagnosis sensor unit for proper installation.
- After replacement of diagnosis sensor unit, perform self-diagnosis to make sure no malfunction is detected. Refer to <u>SRS-17</u>, <u>"SRS Operation Check"</u>.

#### ECU DISCRIMINATED NO.

After replacing the diagnosis sensor unit, confirm that the diagnosis sensor unit identification is correct for the vehicle as equipped.

Specification	ECU DISCRIMINATED No.
Models with driver and passenger air bags, seat belt pre-tensioner, side air bags and curtain air bags	FA69

SRS

G

|

J

r\

L

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

PFP:00014

# **Caution for Air Bag Module and Seat Belt Pre-Tensioner**

AHSOOORA

- Before disposing of air bag module and seat belt pre-tensioner, or vehicles equipped with such systems, deploy the systems. If such systems have already been deployed due to an accident, dispose of them as indicated in SRS-50, "DISPOSAL OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER".
- When deploying the air bag module and seat belt pre-tensioner, always use the Special Service Tool; Deployment tool [KV99106400 (J38381)].
- When deploying the air bag module and seat belt pre-tensioner, stand at least 5 m (16 ft) away from the deployment component.
- When deploying air bag module and seat belt pre-tensioner, a fairly loud noise is made, followed by smoke being released. The smoke is not poisonous, however, be careful not to inhale smoke since it irritates the throat and can cause choking.
- Always activate one air bag module at a time.
- Due to heat, leave air bag module unattended for more than 30 minutes after deployment. Also leave seat belt pre-tensioner unattended for more than 10 minutes after deployment.
- Be sure to wear gloves when handling a deployed air bag module and seat belt pre-tensioner.
- Never apply water to the deployed air bag module and seat belt pre-tensioner.
- Wash your hands clean after finishing work.
- Place the vehicle outdoors with an open space of at least 6 m (20 ft) on all sides when deploying air bag module and seat belt pre-tensioner while mounted in vehicle.
- Use a voltmeter to make sure the vehicle battery is fully charged.
- Do not dispose of the air bag module and seat belt pre-tensioner undeployed.

#### **CHECKING DEPLOYMENT TOOL**

## **Connecting to Battery**

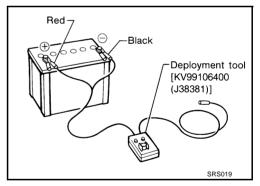
#### **CAUTION:**

#### The battery must show voltage of 9.6 V or more.

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

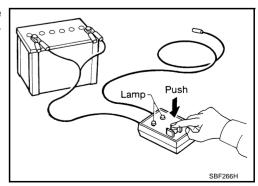
- Wait 3 minutes after the vehicle battery is disconnected before proceeding.
- Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.

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.

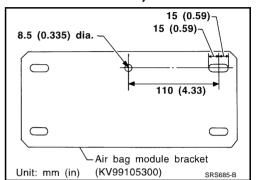


Switch operation	Left side lamp, green* "AIR BAG CONNECTOR VOLTAGE"	Right side lamp, green* "DEPLOYMENT TOOL POWER"
OFF	OFF	ON
ON	ON	ON

<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.

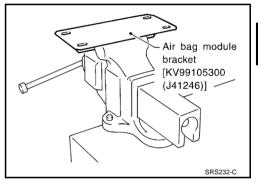
# DEPLOYMENT PROCEDURES FOR AIR BAG MODULE (OUTSIDE OF VEHICLE)

1. 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. Unless the vehicle is being scrapped, deploying the air bag in the vehicle interior.

Anchor air bag module bracket [SST: KV99105300 (J41246)] in a vice secured to a firm foundation deployment.



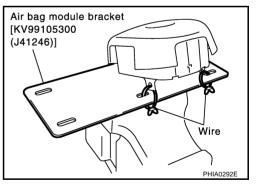
# **Deployment of Driver Air Bag Module (Outside of Vehicle)**

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

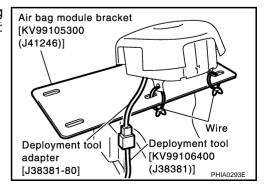
#### **CAUTION:**

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.



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



SRS

Α

В

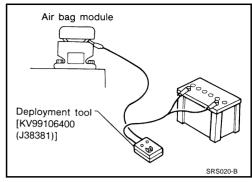
17

L

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

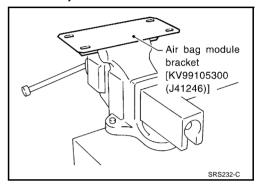
#### **CAUTION:**

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



# **Deployment of Front Passenger Air Bag Module (Outside of Vehicle)**

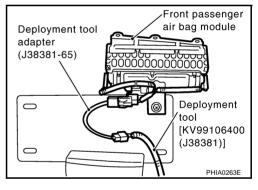
1. Firmly secure air bag module bracket [SST: KV99105300 (J41246)] in a vise.



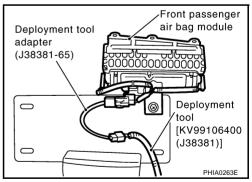
2. Match the hole in air bag module bracket (held in vise) and front passenger air bag module and fix them with one bolt  $[M8 \times 25 - 30 \text{ mm } (0.98 - 1.18 \text{ in})]$ .

#### **CAUTION:**

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



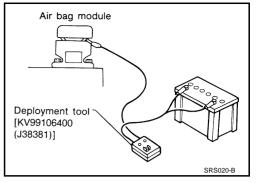
- 3. Connect deployment tool [SST: KV99106400 (J38381)] and deployment tool adapter [SST: KV99110200 (J38381-65)] to front passenger air bag module connector.
- 4. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
- 5. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.



6. Press the button on the deployment tool. The left side lamp on the tool, marked "air bag connector voltage", will illuminate and the air bag module will deploy.

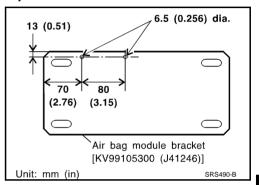
#### **CAUTION:**

- When deploying the 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)**

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

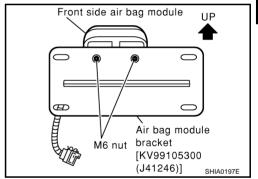


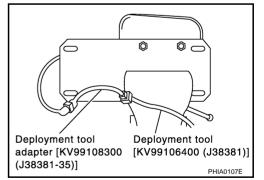
- 2. Firmly secure air bag module bracket [SST: KV99105300 (J41246)] in a vise.
- Insert the stud bolts of side air bag module into the two holes in air bag module bracket (held in vise) and fix them with two M6 nuts.

#### **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 adapter [SST: KV99108300 (J38381-35)] and deployment tool [SST: KV99106400 (J38381)] on side air bag module.





SRS

Α

В

F

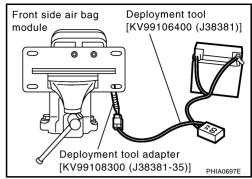
J

K

- 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.

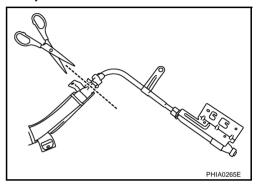
#### **CAUTION:**

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

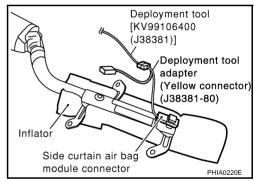


# Deployment of Side Curtain Air Bag Module (Outside of Vehicle)

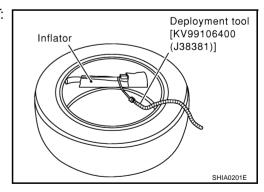
1. Cut the inflator from side curtain air bag module.



2. Connect deployment tool [SST: KV99106400 (J38381)] and deployment tool adapter yellow connector [SST: KV99110500 (J38381-80)] to the inflator.



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



4. 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:**

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

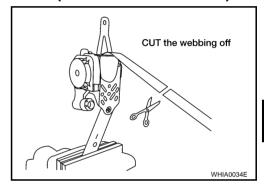
- 5. Connect red clip of deployment tool to battery positive terminal and black clip to negative terminal.
- 6. The lamp on the right side of the tool, marked "deployment tool power", should glow green, not red.
- 7. Press the button on the deployment tool. The left side lamp on the tool, marked "air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

#### **CAUTION:**

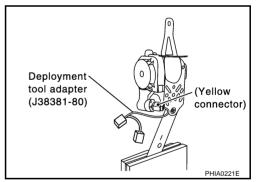
When deploying the side curtain air bag module, stand at least 5 m (16 ft) away from the side curtain air bag module.

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

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



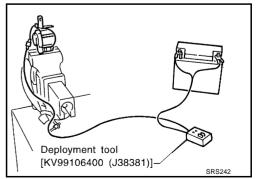
 Connect deployment tool [SST: KV99106400 (J38381)] and deployment tool adapter [SST: KV99110500 (J38381-80)] yellow connector to front seat belt pre-tensioner.



- 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.



Deployment tool [KV99106400 (J38381)]

Inflator

WHIA0048E

SRS

Α

K

L

# 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.

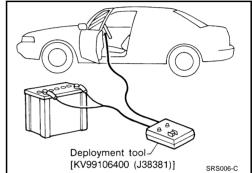
#### **CAUTION:**

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

- 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. For front passenger air bag module, attach deployment tool adapter [SST: KV99110200 (J38381-65)] to the tool connector. For side air bag module, attach deployment tool adapter [SST: KV99108300 (J38381-35)]. For curtain air bag module and seat belt pre-tensioner, attach deployment tool adapter [SST: KV99110500 (J38381-80)].
- 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:**

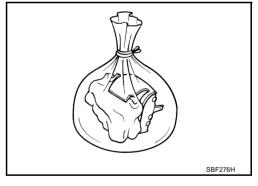
Activate only one air bag module or seat belt pre-tensioner at a time.



## 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, and seat belt pre-tensioner wait at least 30 minutes, and 10 minutes, respectively. Seal them in a plastic bag before disposal.

- 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 disassemble air bag module and seat belt pre-tensioner.
- Air bag module and seat belt pre-tensioner cannot be reused.
- Wash your hands clean after finishing work.



# **COLLISION DIAGNOSIS**

PFP:00015

### For Frontal Collision

AHS000EG

Α

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-17</u>, "<u>SRS Operation Check"</u> for details. Ensure entire SRS operates properly.

#### When SRS is not activated in a collision:

- Check the SRS components using the table below:
- Replace any SRS components showing visible signs of damage (dents, cracks and deformation).
- Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to <u>SRS-17</u>, "<u>SRS Operation Check</u>" for details. Ensure entire SRS operates properly.

## When only one front air bag module is activated in a collision:

- 1. Replace the following components:
- Diagnosis sensor unit
- Crash zone sensor
- Activated front air bag and seat belt pre-tensioner.
- 2. Check the other SRS components using the table below. (Refer to "SRS is NOT activated".)
- Replace any SRS components showing visible signs of damage (dents, cracks and deformation).
- 3. Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to <u>SRS-17</u>, "<u>SRS Operation</u> Check" for details. Ensure entire SRS operates properly.

Only one front air bag may inflate a crash, depending on the crash severity and whether the front occupants are belted or unbelted. This do not indicate improper performance of the system conduct self-diagnosis to make sure the entire SRS operates properly.

# SRS INSPECTION (FOR FRONTAL COLLISION)

Part	SRS is activated	SRS is NOT activated
Air bag module (driver and front pas- senger air bag mod- ule)	REPLACE Install with new bolts.	<ol> <li>Remove air bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.</li> <li>Install driver air bag module into the steering wheel to check fit and alignment with the wheel.</li> <li>Install passenger air bag module into the instrument panel to check fit with the instrument panel.</li> <li>No damage found, reinstall with new bolts.</li> </ol>
Crash zone sensor	REPLACE the crash zone sensor and	<ul> <li>4. If damaged—REPLACE air bag modules with new special bolts. Air bag must be deployed before disposal.</li> <li>1. Remove the crash zone sensor. Check harness connectors for damage, terminals for deformities, and harness for binding.</li> </ul>
	bracket with new nuts.	2. Check for visible signs of damage (dents, cracks, deformation) of the crash zone sensor and bracket.  3. Install the crash zone sensor to check fit.
		<ul><li>4. No damage found, reinstall with new bolts.</li><li>5. If damaged—REPLACE the crash zone sensor and bracket with new nuts.</li></ul>

SRS

F

F

G

J

K

Part	SRS is activated	SRS is NOT activated
Seat belt pre-ten- sioner assemblies	REPLACE Install seat belt pre- tensioner with new	Remove seat belt pre-tensioners.     Check harness cover and connectors for damage, terminals for deformities, and harness for binding.
	bolts.	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 with new bolts.
		If damaged—REPLACE seat belt pre-tensioners with new bolts.  Seat belt pre-tensioners must be deployed before disposal.
Diagnosis sensor unit	REPLACE	1. Check case for dents, cracks or deformities.
	Install with new bolts.	2. Check connectors for damage, and terminals for deformities.
		3. If no damage is found, reinstall with new bolts and ground bolt.
		4. If damaged—REPLACE diagnosis sensor unit with new bolts and ground bolt.
Steering wheel	Visually check steering wheel for deformities.	
	2. Check harness (built	t into steering wheel) and connectors for damage, and terminals for deformities.
	3. Install air bag modul	e to check fit or alignment with steering wheel.
	4. Check steering whee	el for excessive free play.
	5. If no damage is found, reinstall with nut.	
	6. If damaged—REPLA	ACE.
Spiral cable	Visually check spiral cable and combination switch for damage.	
	2. Check connectors a	nd protective tape for damage.
	3. Check steering whee	el for noise, binding or heavy operation.
	4. If no damage is foun	d, reinstall with screws.
	5. If damaged—REPLA	ACE.
Harness and connec-	Check connectors for poor connection, damage, and terminals for deformities.	
tors	2. Check harness for binding, chafing, cuts, or deformities.	
	3. If no damage is found, reinstall the harness and connectors.	
	4. If damaged—REPLA	ACE damaged section of harness. Do not repair, splice or modify any SRS harness.
Instrument panel	1. Visually check instru	ment panel for damage.
	2. If no damage is foun	d, reinstall the instrument panel.
	3. If damaged—REPLA	ACE the instrument panel with bolts.

# For Side Collision WHEN THE SIDE AIR BAG IS ACTIVATED IN THE SIDE COLLISION:

AHS000EH

- Replace the following components:
- All parts of front seatback (including front seatback frame) with front side air bag module (on the side on which front side air bag is activated)
- Curtain air bag module (on the side on which side curtain air bag is activated)
- Diagnosis sensor unit
- Satellite sensor (on the side on which side air bag and side curtain air bag is activated)
- 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 or "AIR BAG" warning lamp. Refer to <u>SRS-17, "SRS Operation Check"</u>. 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.
- Replace any SRS components and the related parts showing visible signs of damage (dents, cracks, deformation).
- Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to SRS-17, "SRS Operation Check". Ensure entire SRS operates properly.

# SRS INSPECTION (FOR SIDE COLLISION)

Part	Front side air bag and side curtain air bag is activated	Front side air bag and side curtain air bag is NOT activated	
	5	Check for visible signs of damage (dents, tears, deformation) of the center pillar on the collision side.	
	Replace the side curtain air bag module.	2. If damaged— Remove the side curtain air bag module.	
(LH or RH) side cur-	(Repair the center pil-	3. Check for visible signs of damaged (tears etc.) of the side curtain air bag module.	
tain air bag module	ain air bag module lar inner, etc. before	4. Check harness and connectors for damage, and terminals for deformities.	
	installing new one if damaged.)	5. If no damage is found, reinstall the side curtain air bag module with new bolts.	
damaged.)	damaged.)	<ol><li>If damaged—REPLACE the side curtain air bag module with new bolts.</li><li>Air bag must be deployed before disposal.</li></ol>	
Front (LH or RH) side air bag module	REPLACE all parts of seatback with	Check for visible signs of damage (dents, tears, deformation) of the seatback on the collision side.	
	deployed front side	2. Check harness and connectors for damage, and terminals for deformities.	
	air bag module.	<ol><li>If damaged—REPLACE the front seatback assembly.</li><li>Air bag must be deployed before disposal.</li></ol>	S
(LH or RH) side air bag (Satellite) sensor		Remove the side air bag (Satellite) sensor on the collision side. Check harness connectors for damage, terminals for deformities, and harness for binding.	
	side with new nuts.	<ol><li>Check for visible signs of damage (dents, cracks, deformation) of the side air bag (Satellite) sensor.</li></ol>	
	(Repair the center pillar inner, etc. before	3. Install the side air bag (Satellite) sensor to check fit.	
	installing new one if	4. If no damage is found, reinstall the side sir bag (Satellite) sensor with new nuts.	
	damaged.)	5. If damaged—REPLACE the side air bag (Satellite) sensor with new nuts.	
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		t can be extended smoothly.	
0.0	If the seat belt cannot be extended smoothly,  - Check for deformities of the center pillar inner.		
	<ul> <li>If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly.</li> </ul>		
	Remove the seat belt pre-tensioner assembly on the collision side. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.		
	Check for visible signs of damage (dents, cracks, deformation) of the seat belt pre-tensioner assembly.		
	4. Check seat belt adjuster for damage.		
	5. If no damage is found, reinstall the seat belt pre-tensioner assembly.		
	6. If damaged—REPLA	ACE the seat belt pre-tensioner assembly with new bolts.	

**SRS-59** 2003 Murano Revision; 2004 April

В

Α

Part	Front side air bag and side curtain air bag is activated	Front side air bag and side curtain air bag is NOT activated
Seat with front side		1. Visually check the seat on the collision side.
air bag		Remove the seat on the collision side and check the following for damage and deformities.
		- 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.	
Center inner pillar	1. Check the center inner pillar on the collision side for damage (dents, cracks, deformation).	
	2. If damaged—REPAIR the center inner pillar.	
Trim/headlining	1. Check for visible signs of damage (dents, cracks, deformation) of the interior trim on the collision side.	
	2. If damaged—REPLA	ACE the damaged trim parts.