## SECTION SRS В SUPPLEMENTAL RESTRAINT SYSTEM (SRS) С

### CONTENTS

PRECAUTIONS 3
Precautions for Supplemental Restraint System
(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-
SIONER"
Precautions for SRS "AIR BAG" and "SEAT BELT
PRE-TENSIONER" Service 3
Wiring Diagrams and Trouble Diagnosis
PREPARATION 4
Commercial Service Tools 4
SUPPLEMENTAL RESTRAINT SYSTEM (SRS) 5
SRS Configuration
Front Seat Belt Pre-tensioner with Load Limiter 6
Front Side Air Bag
Side Curtain Air Bag
TROUBLE DIAGNOSIS
Trouble Diagnosis Introduction7
DIAGNOSIS FUNCTION7
HOW TO PERFORM TROUBLE DIAGNOSIS
FOR QUICK AND ACCURATE REPAIR
WORK FLOW 8
Component Parts Location9
Schematic
Wiring Diagram — SRS —11
CONSULT-II Function
DIAGNOSIS MODE FOR CONSULT-II 15
HOW TO CHANGE SELF-DIAGNOSIS MODE
WITH CONSULT-II 15
HOW TO ERASE SELF-DIAGNOSTIC
RESULTS16
Self-Diagnosis Function (Without CONSULT-II) 16
HOW TO CHANGE SELF-DIAGNOSIS MODE
WITHOUT CONSULT-II
HOW TO ERASE SELF-DIAGNOSIS RESULTS 16
SRS Operation Check
DIAGNOSTIC PROCEDURE 1
Trouble Diagnosis with CONSULT-II
DIAGNOSTIC PROCEDURE 2 19
DIAGNOSTIC PROCEDURE 3

DIAGNOSTIC PROCEDURE 4 (CONTINUED		F
FROM DIAGNOSTIC PROCEDURE 2)	25	
DIAGNOSTIC PROCEDURE 5	25	
Trouble Diagnosis without CONSULT-II	29	G
DIAGNOSTIC PROCEDURE 6	29	
WARNING LAMP FLASH CODE CHART		
Trouble Diagnosis: "AIR BAG" Warning Lamp Does		
Not Turn OFF	<sub>34</sub> S	R
DIAGNOSTIC PROCEDURE 7	34	
Trouble Diagnosis: "AIR BAG" Warning Lamp Does		
Not Turn ON	35	I
DIAGNOSTIC PROCEDURE 8	35	
DRIVER AIR BAG MODULE	36	
Removal and Installation	36	J
REMOVAL		
INSTALLATION	37	
SPIRAL CABLE		K
Removal and Installation	38	
REMOVAL		
INSTALLATION		
FRONT PASSENGER AIR BAG MODULE	40	L
Removal and Installation		
REMOVAL		
INSTALLATION		M
SIDE CURTAIN AIR BAG MODULE		
Removal and Installation		
REMOVAL		
INSTALLATION		
CRASH ZONE SENSOR		
Removal and Installation		
REMOVAL		
INSTALLATION		
SIDE AIR BAG (SATELLITE) SENSOR		
Removal and Installation		
FRONT SEAT BELT PRE-TENSIONER		
Removal and Installation	45	

А

D

Е

S

DIAGNOSIS SENSOR UNIT	46
Removal and Installation	46
REMOVAL	46
INSTALLATION	46
ECU DISCRIMINATED NO	46
COLLISION DIAGNOSIS	47
For Frontal Collision	47
SRS INSPECTION (FOR FRONTAL COLLI-	

SION)	47
For Side Collision	
WHEN THE SIDE AIR BAG IS ACTIVATED IN	
THE SIDE COLLISION:	48
WHEN SRS IS NOT ACTIVATED IN THE SIDE	
COLLISION:	49
SRS INSPECTION (FOR SIDE COLLISION)	49

### PRECAUTIONS

PFP:00001

А

В

C

F

F

G

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

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

#### WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange 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 minutes.

For approximately 3 minutes after the cables are removed, it is still possible for the air bag and seat belt pre-tensioner to deploy. Therefore, do not work on any SRS connectors or wires until at least 3 minutes have passed.

- Diagnosis sensor unit must always be installed with their arrow marks "⇐" pointing towards the front of the vehicle for proper operation. Also check diagnosis sensor unit for cracks, deformities or rust before installation and replace as required.
- The spiral cable must be aligned with the neutral position since its rotations are limited. Do not turn steering wheel and 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.

### Wiring Diagrams and Trouble Diagnosis

When you read wiring diagrams, refer to the following:

- <u>GI-15, "How to Read Wiring Diagrams"</u> in GI section
- PG-3, "POWER SUPPLY ROUTING CIRCUIT" in PG section

When you perform trouble diagnosis, refer to the following:

- <u>GI-11, "How to Follow Trouble Diagnoses"</u> in GI section
- <u>GI-27, "How to Perform Efficient Diagnosis for an Electrical Incident"</u> in GI section

Check for any service bulletins before servicing the vehicle.

SRS

K

L

M

AHS000HE

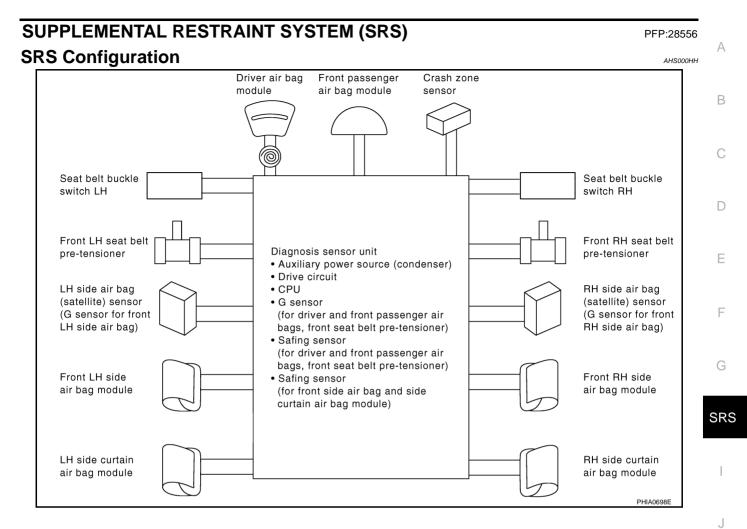
### PREPARATION

### PREPARATION Commercial Service Tools

PFP:00002

Commercial Service Tools			AHS000HG
Tool name		Description	
Tamper resistant TORX bit		Size: T30	
	S-NT757		

### SUPPLEMENTAL RESTRAINT SYSTEM (SRS)



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 sys-Κ tems. 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		_	×

#### 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

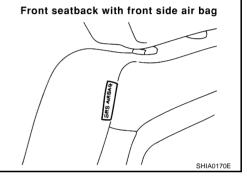
Front side air bag is built-in type. The front seatbacks with built-in type side air bag have the labels as shown.

## Webbing Bobbin 0 C SRS444

AHS000HJ

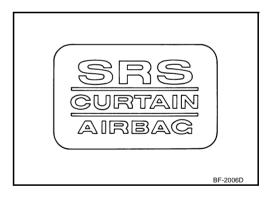
AHS000HK

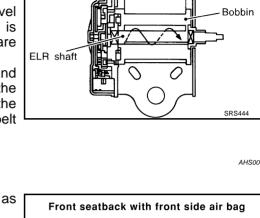
AHSOOOHI



### Side Curtain Air Bag

The side curtain air bags have the labels as shown.





### **TROUBLE DIAGNOSIS**

PFP:00004

А

F

SRS

Μ

#### **Trouble Diagnosis Introduction**

#### **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	F
"AIR BAG" warning lamp	Х	Х	ON-OFF operation	
CONSULT-II	—	Х	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	l J
Preliminary Check	
Make sure the following parts are in good order.	
<ul> <li>Battery (Refer to <u>SC-4, "How to Handle Battery"</u>.)</li> </ul>	Κ
<ul> <li>Fuse (Refer to <u>SRS-11, "Wiring Diagram — SRS —</u>".)</li> </ul>	
System component-to-harness connections	L

#### **WORK FLOW**

ACTION ITEM	REFERENCE ITEM
 Check in	
Listen to customer complaints and requests.	
 Perform preliminary check.	 Preliminary Check *1
Check for any service bulletin.	
 Perform self-diagnosis using "AIR BAG" warning lamp. – User mode	 - SRS Operation Check *2
Inspect malfunctioning part. – Diagnosis mode	DIAGNOSTIC PROCEDUR
Perform self-diagnosis using CONSULT-II.	2: Using CONSULT-II *3 • DIAGNOSTIC PROCEDURI 6: Using "AIR BAG" warnin
 Perform self-diagnosis "AIR BAG" warning lamp.	lamp *4
 ↓ Repair/Replace	
Final check – Diagnosis mode and User mode	 DIAGNOSTIC PROCEDURI     3: Using CONSULT-II *5
ок	DIAGNOSTIC PROCEDUR 6: Using "AIR BAG" warnin
Check out	lamp *6

- 1: <u>SRS-7, "Preliminary Check"</u>.
- <u>DURE 6"</u>.
- \*4: <u>SRS-29, "DIAGNOSTIC PROCE-</u> \*5 <u>SRS-23, "DIAGNOSTIC PROCE-</u> \*6 <u>SRS-29, "DIAGNOSTIC PROCE-</u> <u>DURE 3"</u>.

\*2: <u>SRS-17, "SRS Operation Check"</u>. \*3: <u>SRS-19, "DIAGNOSTIC PROCE-</u> DURE 2".

<u>DURE 6"</u>.

#### **Component Parts Location** AHS000HM А 2 1 4 В 3 6 \_\_\_\_ С D $\bigcirc$ (5) (8) Е 6 7 F F 9 G SRS 1 J PHIA0319E

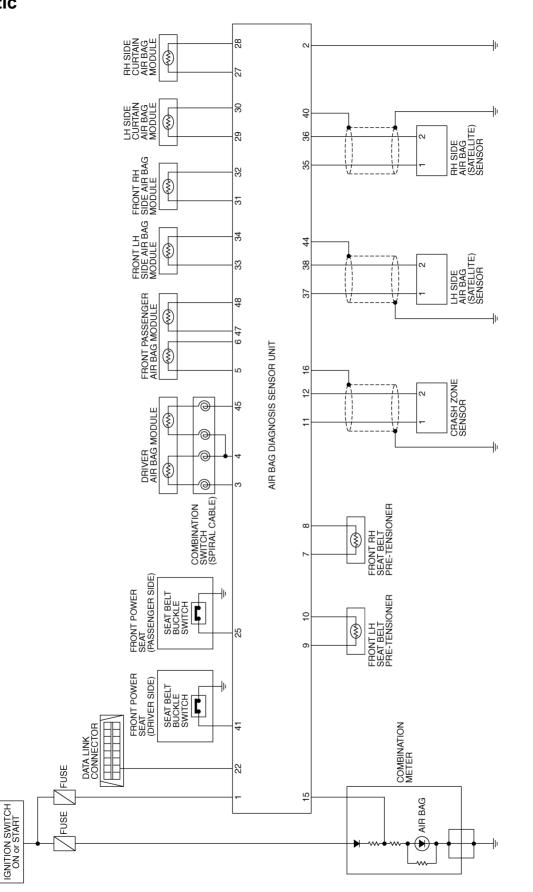
- 1. Driver air bag module
- 4. Front side air bag module
- 7. Seat belt pre-tensioner
- 10. Crash zone sensor
- 2. Front passenger air bag module
- 5. Diagnosis sensor unit
- 8. Seat belt buckle switch
- 3. Spiral cable
- 6. Side air bag (Satellite) sensor
- 9. Side curtain air bag module

L

Μ

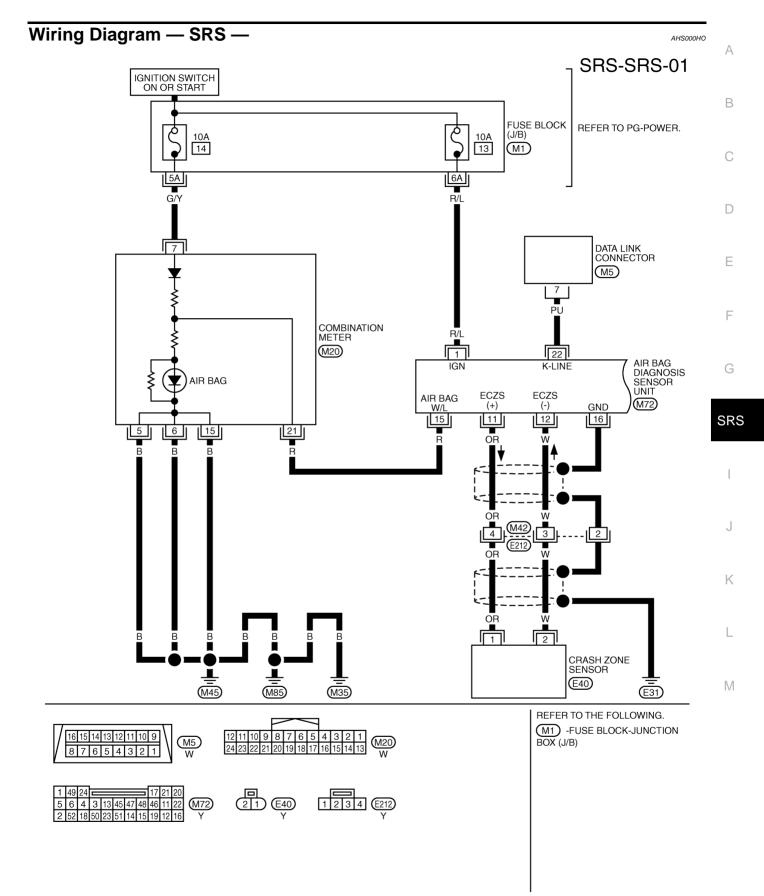
Κ

### Schematic



THWM0035E

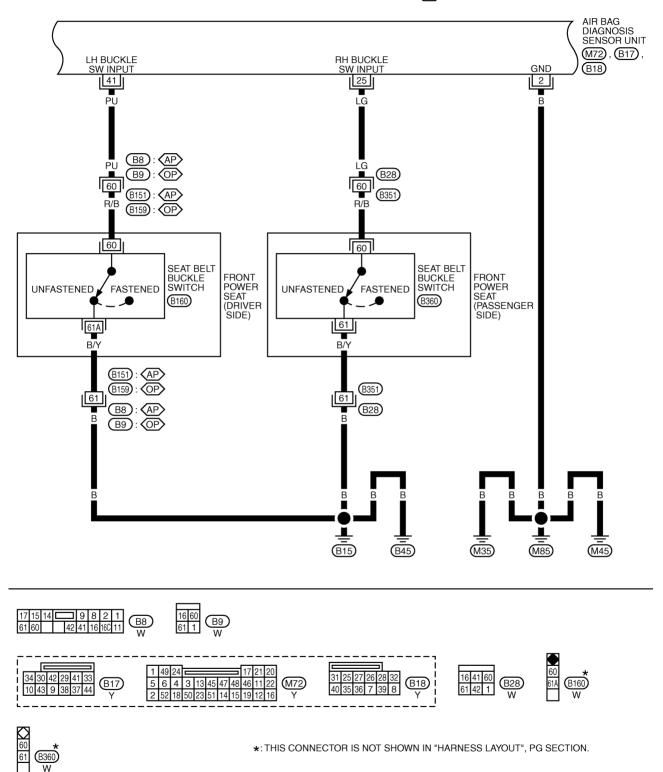
AHS000HN



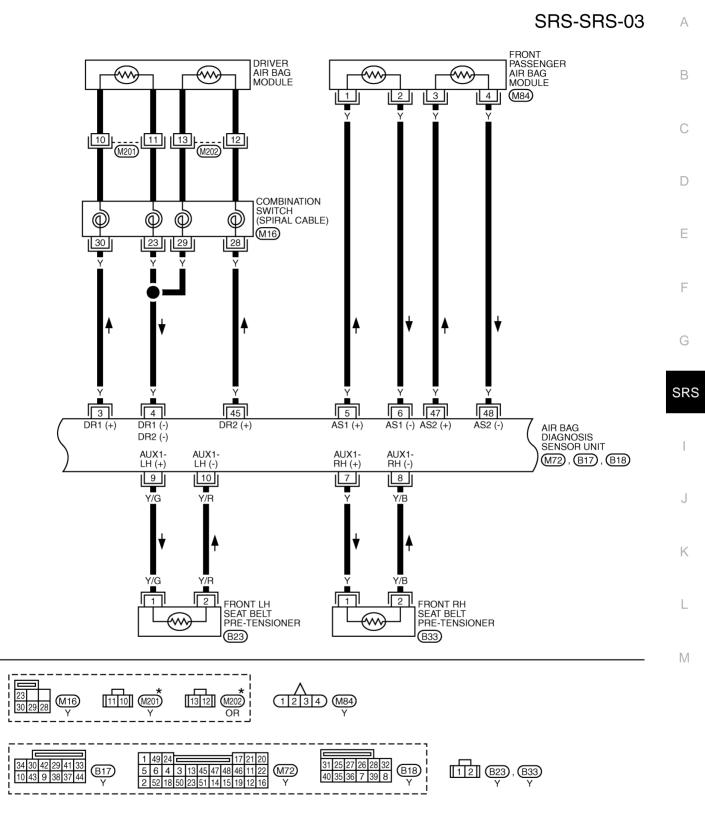
THWM0036E

### SRS-SRS-02

AP: WITH AUTOMATIC DRIVE POSITIONER



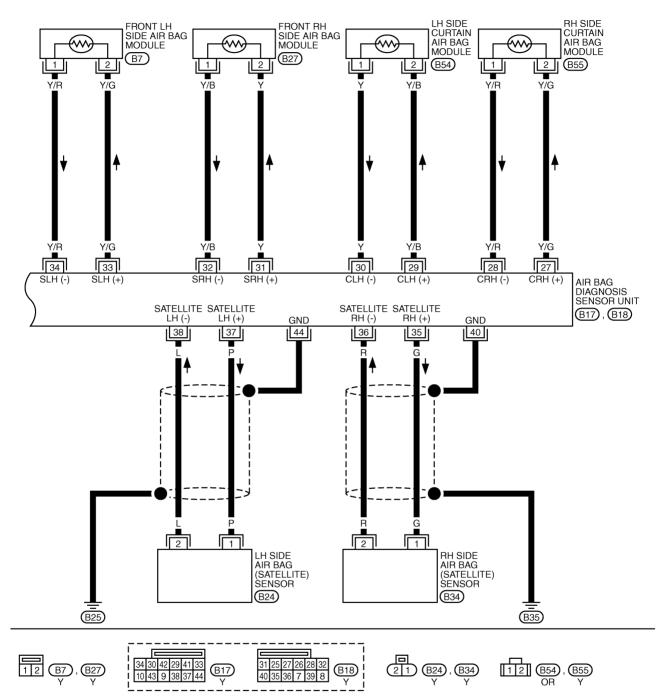
THWM0042E



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

THWM0038E

#### SRS-SRS-04



THWM0039E

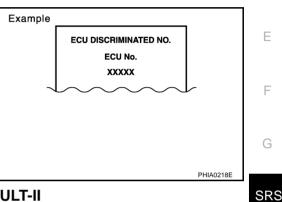
#### CONSULT-II Function DIAGNOSIS MODE FOR CONSULT-II

"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 cresults 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 of diagnosis sensor unit installed to vehicle are same. Refer to <u>SRS-46.</u> <u>"ECU DISCRIMINATED NO."</u>.



AHS000HF

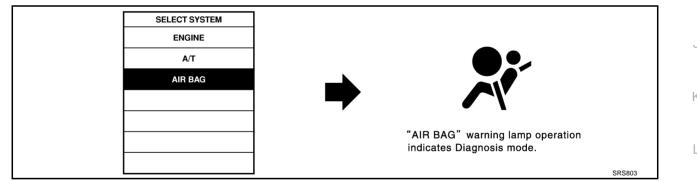
А

Μ

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

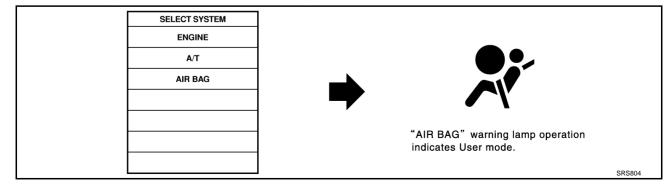
#### From User Mode to Diagnosis Mode

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.



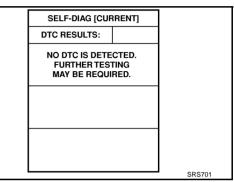
#### HOW TO ERASE SELF-DIAGNOSTIC RESULTS

- "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)

AHSOOOHQ

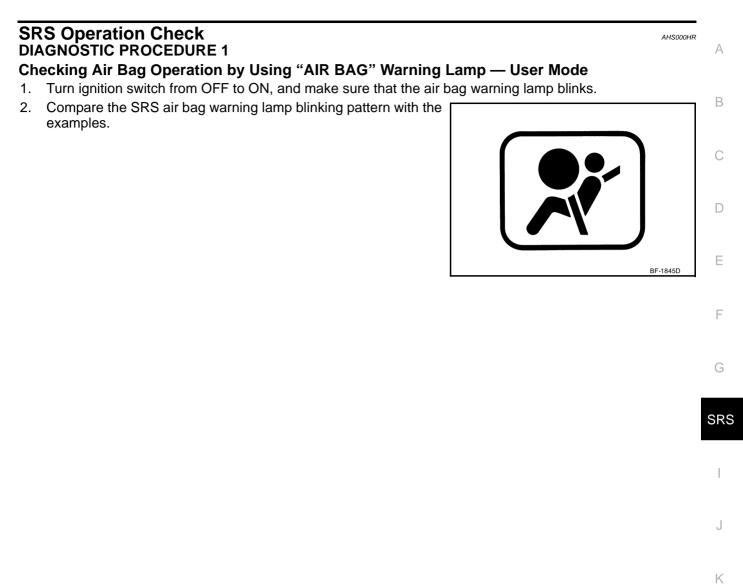
- The reading of these results is accomplished "User mode" and "Diagnosis mode".
- After a malfunction is repaired, turn ignition switch ON. Diagnosis mode returns to the User mode. At that time, the self-diagnostic result is cleared.

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

	<ol> <li>Turn ignition switch from OFF to ON.</li> <li>Air bag warning lamp is on for 7 seconds and turns off, then turn ignition switch OFF within 1 second after the lamp turns off.</li> <li>After ignition switch is turned OFF, wait for more than 3 seconds.</li> <li>Repeat steps 1 to 3 twice. (Perform 3 times in total.)</li> <li>Turn ignition switch ON. (Self-diagnostic mode turns to Diagnosis mode.) [</li> </ol>	
User mode		Diagnosis mode
Ignition switch OFF→ON	<ol> <li>Turn ignition switch from OFF to ON.</li> <li>Air bag warning lamp is on for 7 seconds and turns off, then turn ignition switch OFF within 1 second after the lamp turns off.</li> <li>After ignition switch is turned OFF, wait for more than 3 seconds.</li> <li>Repeat steps 1 to 3 twice. (Perform 3 times in total.)</li> <li>Turn ignition switch ON. (Self-diagnostic mode turns to User mode.)</li> </ol>	Ignition switch OFF→ON
by igniti In Diagn	node, when the "AIR BAG" warning lamp is not blinking, switching to Diagno on switch operation is not possible. osis mode, when no malfunction is detected, user mode can be switched on ion switch from OFF to ON.	
		PHIA0709E

#### HOW TO ERASE SELF-DIAGNOSIS RESULTS

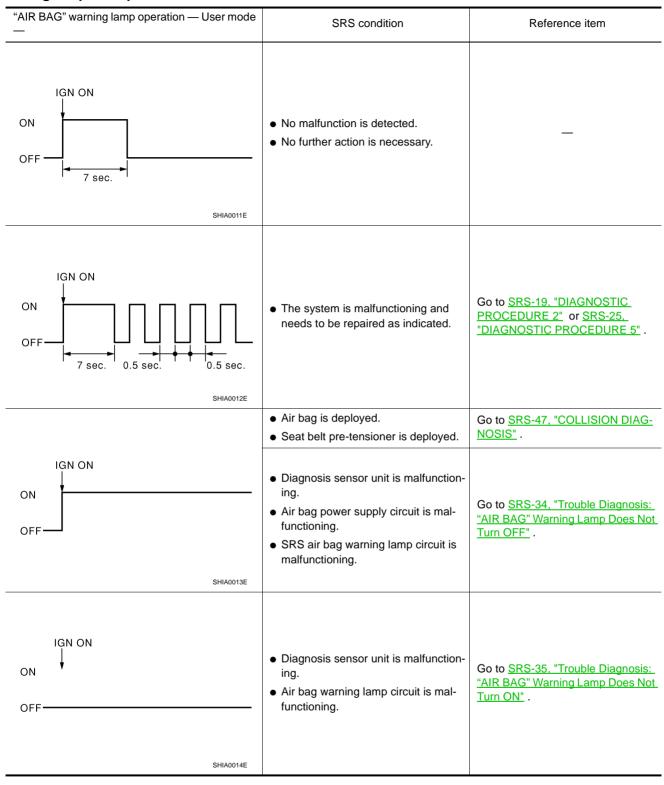
After a malfunction is repaired, turn ignition switch OFF for at least one second, then back ON. Diagnosis mode returns to the User mode. At that time, the self-diagnostic result is cleared.

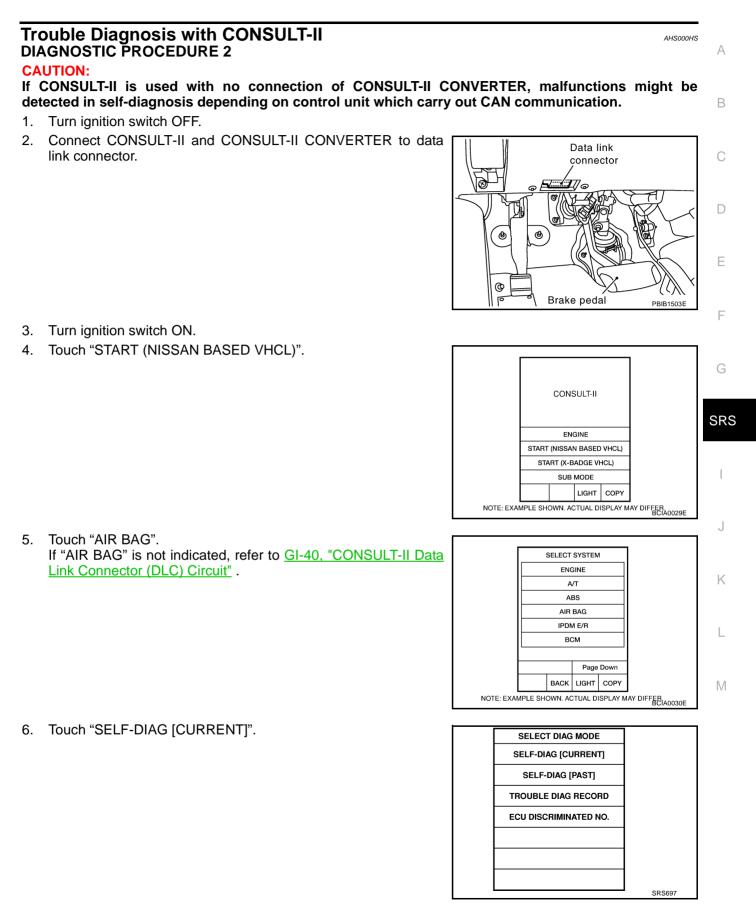


L

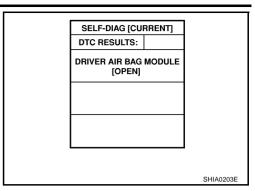
Μ

#### Warning lamp examples





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



SELF-DIAG [CURRENT]

NO DTC IS DETECTED. FURTHER TESTING

MAY BE REQUIRED.

SRS701

DTC RESULTS:

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 SRS-23, "DIAGNOSTIC PROCE-<u>DURE 3</u>". If the battery voltage is OK, go to <u>SRS-25, "DIAGNOSTIC</u> PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE

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

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

Diagnostic item		Explanation	Repair order "Recheck SRS at each replacement"	
NO DTC IS DETECTED.	When malfunction is indicated by the "AIR BAG" warning lamp in	<ul> <li>Low battery voltage (Less than 9V)</li> </ul>	• Go to <u>SRS-23, "DIAGNOSTIC PRO-</u> <u>CEDURE 3"</u> after charging the bat- tery.	
	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>	<ul> <li>Go to <u>SRS-25</u>, "DIAGNOSTIC PRO- CEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)".</li> <li>Go to <u>SRS-25</u>, "DIAGNOSTIC PRO- CEDURE 5".</li> </ul>	
	No malfunction is determined	ected.		
DRIVER AIR BAG MODULE [OPEN]	Driver air bag module	circuit is open (including the spiral cable).	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the harness if it has visible</li> </ol>	
DRIVER AIR BAG MODULE [VB-SHORT]	• Driver air bag module (including the spiral ca	circuit is shorted to a power supply circuit able).	<ol> <li>A. Replace the driver air bag module.</li> <li>Replace the driver air bag module.</li> <li>Replace the spiral cable.</li> <li>Replace the diagnosis sensor unit.</li> <li>Replace the related harness.</li> </ol>	
DRIVER AIR BAG MODULE [GND-SHORT]	Driver air bag module spiral cable).	circuit is shorted to ground (including the		
DRIVER AIR BAG MODULE [SHORT]	Driver air bag module	circuit is shorted between lines.		
ASSIST A/B MODULE [OPEN]	• Front passenger air ba	ag module circuit is open.	1. Visually check the wiring harness connection.	
ASSIST A/B MODULE [VB-SHORT]	<ul> <li>Front passenger air bas supply circuit.</li> </ul>	ag module circuit is shorted to a power	2. 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.	3. Replace the front passenger air bag module.	
ASSIST A/B MODULE [SHORT]	<ul> <li>Front passenger air bag</li> </ul>	ag module circuit is shorted between lines.	<ol> <li>Replace the diagnosis sensor unit.</li> <li>Replace the related harness.</li> </ol>	

Revision: 2004 November

Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"	А
CRASH ZONE SEN [UNIT FAIL]	Crash zone sensor	1. Visually check the wiring harness connection.	
CRASH ZONE SEN [COMM FAIL]		2. Replace the harness if it has visible damage.	В
		3. Replace the crash zone sensor.	
		4. Replace the diagnosis sensor unit.	С
		5. Replace the related harness.	
SIDE MODULE LH [OPEN]	• Front LH side air bag module circuit is open.	1. Visually check the wiring harness connection.	D
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.	3. Replace the front LH seatback assembly (front LH side air bag module).	E
SIDE MODULE LH	• Front LH side air bag module circuit is shorted between lines.	4. Replace the diagnosis sensor unit.	F
[SHORT]		5. Replace the related harness.	Г
SIDE MODULE RH [OPEN]	Front RH side air bag module circuit is open.	1. Visually check the wiring harness connection.	G
SIDE MODULE RH [VB-SHORT]	• Front RH side air bag module circuit is shorted to a power supply circuit.	2. Replace the harness if it has visible damage.	
SIDE MODULE RH [GND-SHORT]	• Front RH side air bag module circuit is shorted to ground.	3. Replace the front RH seatback assembly (front RH side air bag	SRS
SIDE MODULE RH	• Front RH side air bag module circuit is shorted between lines.	<ul><li>module).</li><li>4. Replace the diagnosis sensor unit.</li></ul>	
[SHORT]		5. Replace the related harness.	
SATELLITE SENS LH [UNIT FAIL]	LH side air bag (Satellite) sensor	1. Visually check the wiring harness connection.	
SATELLITE SENS LH [COMM FAIL]		<ol> <li>Replace the harness if it has visible damage.</li> </ol>	J
		3. Replace the LH side air bag (Satel- lite) sensor.	K
		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	I
SATELLITE SENS RH [UNIT FAIL]	RH side air bag (Satellite) sensor	1. Visually check the wiring harness connection.	L
SATELLITE SENS RH [COMM FAIL]		2. Replace the harness if it has visible damage.	Μ
		3. Replace the RH side air bag (Satel- lite) sensor.	
		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	
PRE-TEN FRONT LH [OPEN]	Front LH pre-tensioner circuit is open.	1. Visually check the wiring harness connections.	
PRE-TEN FRONT LH [VB-SHORT]	• Front LH pre-tensioner circuit is shorted to a power supply cir- cuit.	2. Replace the harness if it has visible damage.	
PRE-TEN FRONT LH [GND-SHORT]	• Front LH pre-tensioner circuit is shorted to ground.	3. Replace the front LH seat belt. (Before disposal, it must be acti-	
PRE-TEN FRONT LH	• Front LH pre-tensioner circuit is shorted between lines.	vated.)	
[SHORT]		4. Replace the diagnosis sensor unit.	
		5. Replace the related harness.	

Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"
PRE-TEN FRONT RH [OPEN]	• Front RH pre-tensioner circuit is open.	1. 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 cir- cuit.</li> </ul>	2. Replace the harness if it has visible damage.
PRE-TEN FRONT RH [GND-SHORT]	• Front RH pre-tensioner circuit is shorted to ground.	<ol> <li>Replace the front RH seat belt.</li> <li>Replace the diagnosis sensor unit.</li> </ol>
PRE-TEN FRONT RH [SHORT]	• Front RH pre-tensioner circuit is shorted between lines.	5. Replace the related harness.
CURTAIN MODULE LH [OPEN]	• LH side curtain air bag module circuit is open.	1. Visually check the wiring harness connection.
CURTAIN MODULE LH [VB-SHORT]	• LH side curtain air bag module circuit is shorted to a power supply circuit.	2. Replace the harness if it has visible damage.
CURTAIN MODULE LH [GND-SHORT]	• LH side curtain air bag module circuit is shorted to ground.	3. Replace the LH side curtain air bag module.
CURTAIN MODULE LH [SHORT]	• LH side curtain air bag module circuit is shorted between lines.	<ol> <li>Replace the diagnosis sensor unit.</li> <li>Replace the related harness.</li> </ol>
CURTAIN MODULE RH [OPEN]	• RH side curtain air bag module circuit is open.	1. 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. Replace the RH side curtain air bag module.
CURTAIN MODULE RH	• RH side curtain air bag module circuit is shorted between lines.	4. Replace the diagnosis sensor unit.
[SHORT]	Diagnosia conser unit is malfunctioning	5. Replace the related harness.
CONTROL UNIT	<ul> <li>Diagnosis sensor unit is malfunctioning.</li> </ul>	1. 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.

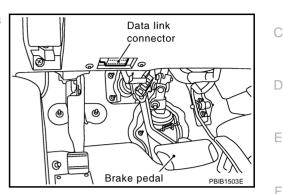
#### **DIAGNOSTIC PROCEDURE 3**

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.

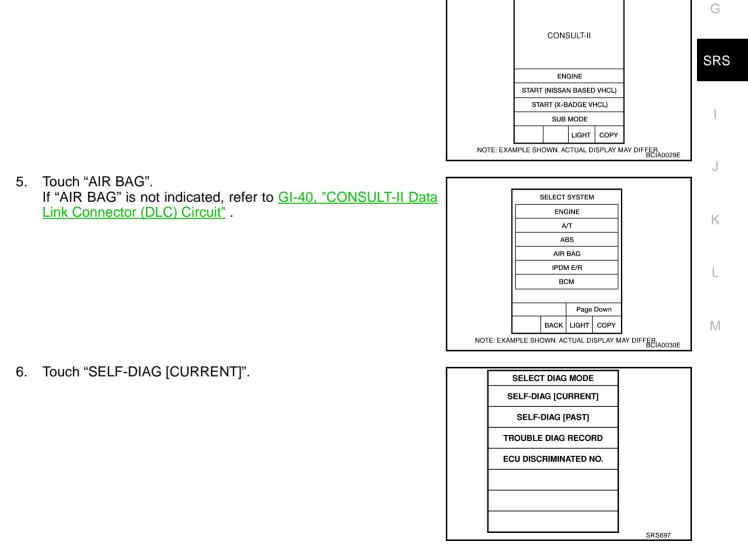
- 1. After repairing SRS, connect both battery cables.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



А

В

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



7. If no malfunction is detected on "SELF-DIAG [CURRENT]", SELF-DIAG [CURRENT] repair of SRS is completed. Go to step 8. DTC RESULTS: If any malfunction is detected on "SELF-DIAG [CURRENT]", the malfunctioning part is not repaired completely or another mal-NO DTC IS DETECTED. FURTHER TESTING functioning part is detected. Go to SRS-19, "DIAGNOSTIC MAY BE REQUIRED. PROCEDURE 2", and repair malfunctioning part completely. SRS701 Touch "ERASE". 8. SELF-DIAG [CURRENT] NOTE: DTC RESULTS: Touch "ERASE" to clear the memory of the malfunction ("SELF-AIR BAG MODULE DIAG [PAST]"). [OPEN] 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. ERASE SRS773 9. Touch "BACK" key of CONSULT-II to "SELECT DIAG MODE" SELECT DIAG MODE screen. Touch "SELF-DIAG [PAST]". SELF-DIAG [CURRENT] SELF-DIAG (PAST) TROUBLE DIAG RECORD ECU DISCRIMINATED NO. SRS697 10. Make sure no malfunction is detected on "SELF-DIAG [PAST]". SELF-DIAG [PAST] 11. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" DTC RESULTS: appears in order to return to User mode from Diagnosis mode. NO DTC IS DETECTED. 12. Turn ignition switch OFF then turn off and disconnect CON-FURTHER TESTING MAY BE REQUIRED. SULT-II. 13. Go to SRS-17, "DIAGNOSTIC PROCEDURE 1" . SRS702

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

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

Is it the first time for maintenance of SRS?

YES or NO

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

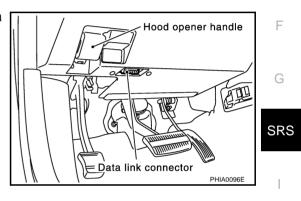
NO >> Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased C after repair. Go to <u>SRS-23, "DIAGNOSTIC PROCEDURE 3"</u>.

#### 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, 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.



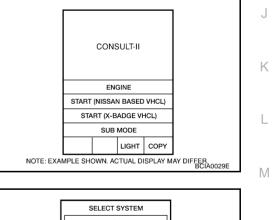
А

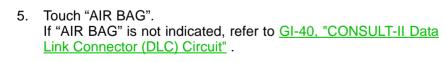
В

D

F

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





		SELECT	SYSTEM	1	
		ENG	GINE		
		А	/т		
		A	BS		
		AIR	BAG		
		IPDM E/R			
		ВСМ			
			Page	Down	
		васк	LIGHT	COPY	
NOTE: EXAM	MPLE SH	OWN. AC	TUAL D	ISPLAY M	AY DIFFER BCIA0030E

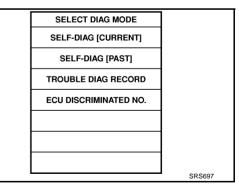
6. Touch "SELF-DIAG [PAST]".

step 10.

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

SELF-DIAG [PAST] DTC RESULTS: AIR BAG MODULE [OPEN] SRS700

SELF-DIAG [PAST] DTC RESULTS: NO DTC IS DETECTED. FURTHER TESTING MAY BE REQUIRED. SRS702



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

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

If no malfunction is detected on "SELF-DIAG [PAST]", touch

With "TROUBLE DIAG RECORD", diagnosis results previously

"BACK" and go back to "SELECT DIAG MODE".

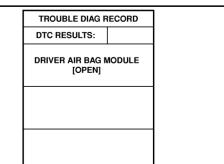
erased by a reset operation can be displayed.

8. Touch "TROUBLE DIAG RECORD".

10. Touch "PRINT".

NOTE:

- 11. Compare diagnostic codes to SRS-25, "DIAGNOSTIC PROCE-**DURE 5**".
- 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



SHIA0182E

self-diagnostic result. For replacement procedure of component parts, refer to the Removal and Installation procedure for the appropriate component.

15. Go to <u>SRS-23, "DIAGNOSTIC PROCEDURE 3"</u>, for final inspection.

#### 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.	oltage (Less than 9V)	Go to <u>SRS-23, "DIAGNOSTIC PRO-</u> <u>CEDURE 3"</u> .	
	• No malfunction is detected.		Go to <u>SRS-23, "DIAGNOSTIC PRO-</u> <u>CEDURE 3"</u> .	
DRIVER AIR BAG MODULE [OPEN]	• Driver air bag module circuit is open (inc	luding the spiral cable).	1. Visually check the wiring harness connection.	
DRIVER AIR BAG	<ul> <li>Driver air bag module circuit is shorted to a power supply circuit (including the spiral cable).</li> </ul>		<ol> <li>Replace the harness if it has visible damage.</li> <li>If the harness check result is OK.</li> </ol>	
[VB-SHORT]			3. If the harness check result is OK, replace driver air bag module.	
DRIVER AIR BAG MODULE [GND-SHORT]	<ul> <li>Driver air bag module circuit is shorted to spiral cable).</li> </ul>	ground (including the		
DRIVER AIR BAG MODULE [SHORT]	• Driver air bag module circuit is shorted b	etween lines.		
ASSIST A/B MODULE [OPEN]	• Front passenger air bag module circuit is	open.	1. Visually check the wiring harness connection.	
ASSIST A/B MODULE [VB-SHORT]	<ul> <li>Front passenger air bag module circuit is supply circuit.</li> </ul>	shorted to a power	2. Replace the harness if it has visible damage.	
ASSIST A/B MODULE [GND-SHORT]	• Front passenger air bag module circuit is shorted to ground.		3. If the harness check result is OK, replace the diagnosis sensor unit	
ASSIST A/B MODULE [SHORT]	• Front passenger air bag module circuit is	shorted between lines.	and front passenger air bag module	
CRASH ZONE SEN [UNIT FAIL]	Crash zone sensor		1. Visually check the wiring harness connection.	
CRASH ZONE SEN [COMM FAIL]			2. Replace the harness if it has visible damage.	
			<ol> <li>If the harness check result is OK, replace crash zone sensor and diag- nosis sensor unit.</li> </ol>	
SIDE MODULE LH [OPEN]	• Front LH side air bag module circuit is op	pen.	1. Visually check the wiring harness connection.	
SIDE MODULE LH [VB-SHORT]	• Front LH side air bag module circuit is sh ply circuit.	norted to a power sup-	2. Replace the harness if it has visible damage.	
SIDE MODULE LH [GND-SHORT]	• Front LH side air bag module circuit is sh	norted to ground.	3. If the harness check result is OK, replace the diagnosis sensor unit	
SIDE MODULE LH [SHORT]	• Front LH side air bag module circuit is sh	orted between lines.	and LH side air bag module.	
SIDE MODULE RH [OPEN]	• Front RH side air bag module circuit is o	pen.	1. Visually check the wiring harness connection.	
SIDE MODULE RH [VB-SHORT]	<ul> <li>Front RH side air bag module circuit is sl ply circuit.</li> </ul>	norted to a power sup-	2. Replace the harness if it has visible damage.	
SIDE MODULE RH [GND-SHORT]	• Front RH side air bag module circuit is sl	norted to ground.	3. If the harness check result is OK, replace the diagnosis sensor unit	
SIDE MODULE RH [SHORT]	• Front RH side air bag module circuit is sl	norted between lines.	and RH side air bag module	

Revision: 2004 November

А

Diagnostic item	Explanation	Repair order	
SATELLITE SENS LH	LH side air bag (Satellite) sensor	"Recheck SRS at each replacement" 1. Visually check the wiring harness	
[UNIT FAIL] SATELLITE SENS LH		connection. 2. Replace the harness if it has visible	
[COMM FAIL]		damage.	
		<ol> <li>If the harness check result is OK, replace the diagnosis sensor unit and LH side air bag (Satellite) sen- sor.</li> </ol>	
SATELLITE SENS RH [UNIT FAIL]	RH side air bag (Satellite) sensor	1. Visually check the wiring harness connection.	
SATELLITE SENS RH [COMM FAIL]		<ol> <li>Replace the harness if it has visible damage.</li> </ol>	
		<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.	1. Visually check the wiring harness	
PRE-TEN FRONT LH [VB-SHORT]	• Front LH pre-tensioner circuit is shorted to a power supply circuit.	connections. 2. Replace the harness if it has visible	
PRE-TEN FRONT LH [GND-SHORT]	• Front LH pre-tensioner circuit is shorted to ground.	damage. 3. 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	
PRE-TEN FRONT RH [OPEN]	• Front RH pre-tensioner circuit is open.	1. Visually check the wiring harness	
PRE-TEN FRONT RH [VB-SHORT]	• Front RH pre-tensioner circuit is shorted to a power supply cir- cuit.	connections. 2. Replace the harness if it has visible	
PRE-TEN FRONT RH [GND-SHORT]	• Front RH pre-tensioner circuit is shorted to ground.	damage. 3. 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	
CURTAIN MODULE LH [OPEN]	• LH side curtain air bag module circuit is open.	1. Visually check the wiring harness	
CURTAIN MODULE LH [VB-SHORT]	• LH side curtain air bag module circuit is shorted to a power supply circuit.	connection. 2. Replace the harness if it has visible	
CURTAIN MODULE LH [GND-SHORT]	• LH side curtain air bag module circuit is shorted to ground.	damage. 3. 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.	
CURTAIN MODULE RH [OPEN]	• RH side curtain air bag module circuit is open.	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the harness if it has visible damage.</li> <li>If the harness check result is OK, replace the diagnosis connect unit</li> </ol>	
CURTAIN MODULE RH [VB-SHORT]	• RH side curtain air bag module circuit is shorted to a power supply circuit.		
CURTAIN MODULE RH [GND-SHORT]	• RH side curtain air bag module circuit is shorted to ground.		
CURTAIN MODULE RH [SHORT]	• RH side curtain air bag module circuit is shorted between lines.	replace the diagnosis sensor unit and RH side curtain air bag module.	
CONTROL UNIT	Diagnosis sensor unit is malfunctioning.	1. Visually check the wiring harness connection.	
		2. Replace the diagnosis sensor unit.	

Trouble Diagnosis without CONSULT-II	T A
Inspecting SRS Malfunctioning Parts by Using "AIR BAG" Warning Lamp — Diagnosis Mode	
<ul> <li>NOTE:</li> <li>SRS will not enter Diagnosis mode if no malfunction is detected in User mode.</li> <li>1. Turn ignition switch ON.</li> </ul>	В
<ol> <li>After "AIR BAG" warning lamp lights for 7 seconds, turn ignition switch OFF within 1 second.</li> <li>Wait more than 3 seconds.</li> </ol>	С
<ol> <li>Repeat the steps 1 to 3 twice. (Perform three times in all.)</li> <li>Turn ignition switch ON.</li> <li>SRS is now in Diagnosis mode.</li> <li>"AIR BAG" warning lamp operates in Diagnosis mode as follows:</li> </ol>	D
	E
	F
	G

SRS

J

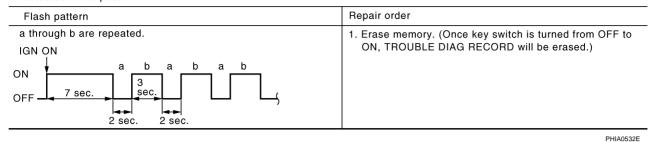
Κ

L

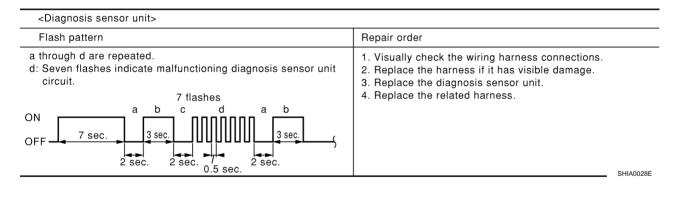
Μ

#### WARNING LAMP FLASH CODE CHART

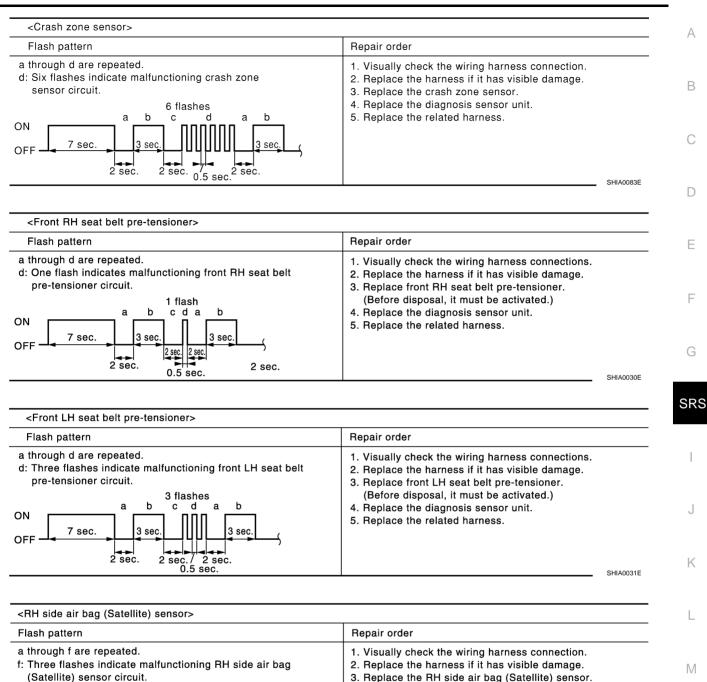
<Diagnosis results (previously stored in the memory) might not be erased after repair or intermittent malfunctions have been detected in the past.>



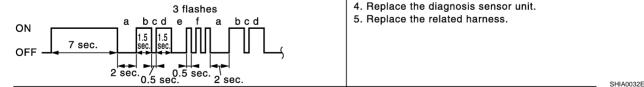
<Driver air bag module> Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connection. d: Two flashes indicates malfunctioning driver air bag module 2. Replace the harness if it has visible damage. circuit. 3. Replace the spiral cable. 4. Replace driver air bag module. 2 flashes (Before disposal, it must be deployed.) b d а С а b ON 5. Replace the diagnosis sensor unit. 3 sec 6. Replace the related harness. 7 sec OFF 2 sec. 2 sec. 2 sec. 0.5 sec PHIA0185E

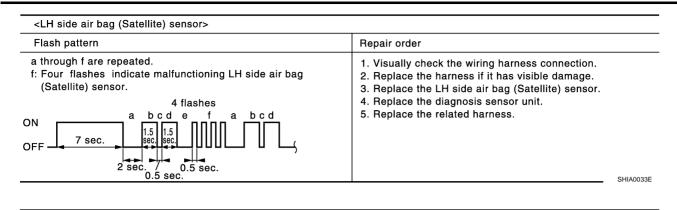


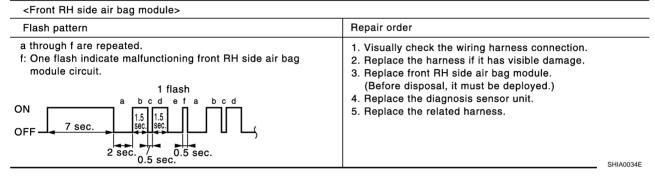
Flash pattern	Repair order
a through d are repeated. d: Eight flashes indicate malfunctioning front passenger air bag module circuit. ON OFF 7 sec. 2 sec. 2 sec. 0.5 sec.	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the harness if it has visible damage.</li> <li>Replace front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

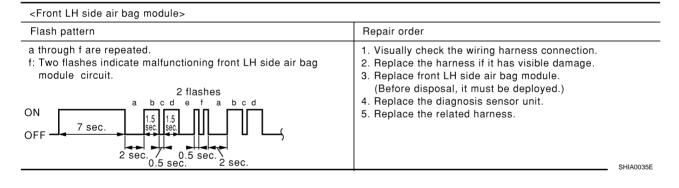


3. Replace the RH side air bag (Satellite) sensor.

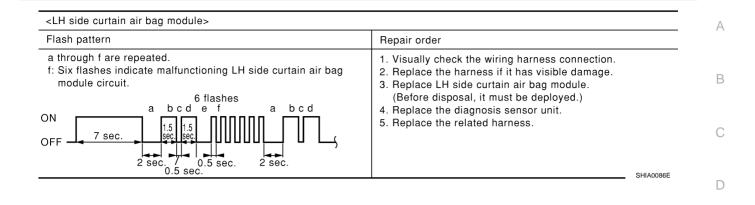








<rh air="" bag="" curtain="" module="" side=""></rh>		
Flash pattern	Repair order	
a through f are repeated. f: Five flashes indicate malfunctioning RH side curtain air bag module circuit. ON OFF 7 sec. 2 sec. 0.5 sec. 2 sec. 0.5 sec. 2 sec.	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the harness if it has visible damage.</li> <li>Replace RH side curtain air bag module. (Before disposal, it must be deployed.)</li> <li>Replace the diagnosis sensor unit.</li> <li>Replace the related harness.</li> </ol>	SHI40084E



SRS

I

J

Κ

L

Μ

Е

F

G

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

1. CHECK THE DEPLOYMENT OF AIR BAG MODULE

Is air bag module deployed?

YES or NO

YES >> Refer to <u>SRS-47</u>, "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.

SRS771

#### 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.

AHS000HU

Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn ON AHSOOOHV DIAGNOSTIC PROCEDURE 8
1. CHECK METER FUSE
Check 10A fuse [No. 14, located in fuse block (J/B)]. Refer to PG-3, "POWER SUPPLY ROUTING CIRCUIT".
<u>OK or NG</u> OK >> GO TO 3. NG >> GO TO 2.
2. CHECK METER FUSE AGAIN
Replace 10A fuse [No. 14, located in fuse block (J/B)] and turn ignition switch ON.         Does the meter fuse blow again?         YES       >> Repair the related harness.         NO       >> INSPECTION END
3. CHECK HARNESS CONNECTION BETWEEN DIAGNOSIS SENSOR UNIT AND COMBINATION METER
<ul> <li>Disconnect diagnosis sensor unit connector and turn ignition switch ON.</li> <li>Does "AIR BAG" warning lamp turn ON?</li> <li>YES or NO</li> </ul>
YES       >> Replace diagnosis sensor unit.         NO       >> Replace combination meter assembly.

L

Μ

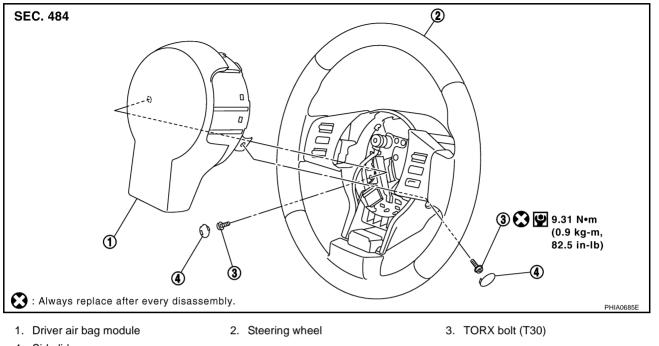
### DRIVER AIR BAG MODULE

### DRIVER AIR BAG MODULE



AHS000HW

#### **Removal and Installation**

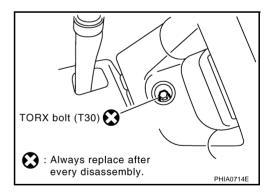


4. Side lid

#### REMOVAL

#### **CAUTION:**

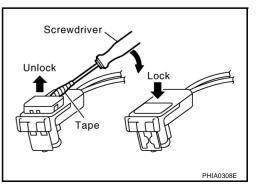
- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of driver air bag module.
- 1. Remove the side lids.
- 2. Remove the right and left side TORX bolts (T30).



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

**CAUTION:** 

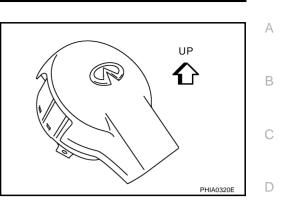
- For installing / removing driver air bag module connector, insert thin screwdriver wrapped in tape into notch, lift lock and remove connector.
- Install connector with lock raised, and push lock into connector.



## 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 upward.
- 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.





## INSTALLATION

Install in the reverse order of removal.

- For installing the air bag module, tighten the TORX bolts (T30).
- After the work is completed, perform self-diagnosis to make sure that no malfunction is detected. Refer to <u>SRS-17, "SRS Operation Check"</u>.

Κ

Т

Μ

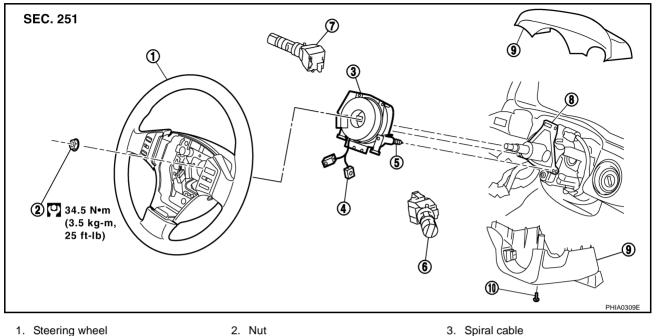
## **SPIRAL CABLE**

# SPIRAL CABLE

PFP:25554







1. Steering wheel

- 2. Nut 5. Screw
- 4. Driver air bag module connector
- 7. Lighting and turn signal switch
- 10. Screw

## REMOVAL

### **CAUTION:**

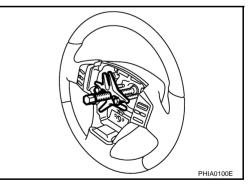
### Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.

8. Steering column assembly

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

### **CAUTION:**

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



6. Wiper and washer switch

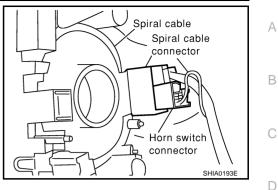
9. Steering column cover

- 5. Remove steering column covers. Refer to IP-11, "Removal and Installation".
- 6. Loosen the spiral cable fixing screws, and then remove the spiral cable. **CAUTION:** 
  - Do not disassemble spiral cable.
  - Do not apply lubricant to the spiral cable.

7. Disconnect the horn switch connector, and then the spiral cable connector.

## CAUTION:

- Do not tap or bump the steering wheel.
- Also, with the steering linkage disconnected the cable may snap by turning the steering wheel beyond the limited number of turns.



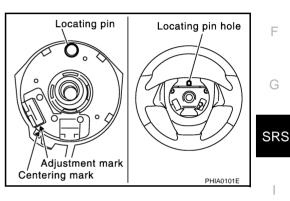
8. Remove the wiper washer switch and lighting switch from the spiral cable.

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



J

F

K

L

Μ

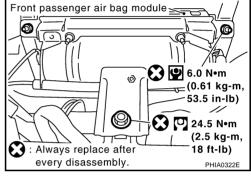
## FRONT PASSENGER AIR BAG MODULE

# FRONT PASSENGER AIR BAG MODULE

## Removal and Installation REMOVAL

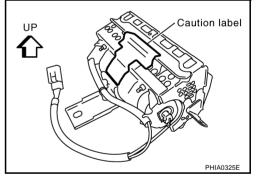
### **CAUTION:**

- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of or under front passenger air bag module.
- 1. Remove glove box assembly and instrument passenger lower panel. Refer to <u>IP-13, "(J) Instrument Passenger Lower Panel"</u>.
- 2. Remove display control unit, if navigation system is equipped.
- 3. Remove tire pressure warning control unit, if tire pressure warning control system is equipped.
- 4. Disconnect front passenger air bag module connector.
- 5. Remove the front passenger air bag module fixing nuts and bolt, then remove front passenger air bag module.



### **CAUTION:**

- Always place front passenger air bag module with caution label side facing upward.
- Do not insert any foreign objects (screwdriver, etc.) into front passenger air bag module.
- Do not 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.

## 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, "SRS Operation Check"</u>.

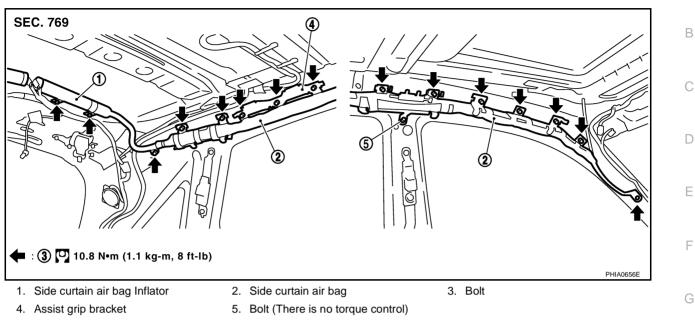
PFP:K8515

AHS000HY

# SIDE CURTAIN AIR BAG MODULE

# SIDE CURTAIN AIR BAG MODULE

## Removal and Installation



## 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 EI-42, "Removal and Installation" .
- 2. Disconnect side curtain air bag connector.
- 3. Remove side curtain air bag module fixing bolts, and remove the side curtain air bag module.

## **CAUTION:**

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

PFP:985P0

AHS00010

А

SRS

K

Μ

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



## INSTALLATION

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 that no malfunction is detected. Refer to <u>SRS-17, "SRS Operation Check"</u>.

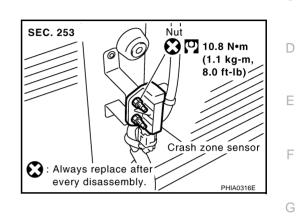
## **CRASH ZONE SENSOR**

# Removal and Installation REMOVAL

### **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-23, "Removal and Installation" .
- 2. Remove crash zone sensor connector.
- 3. Remove crash zone sensor fixing nuts.



PFP:98531

AHS00011

А

В

С

#### **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.
  CAUTION:

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

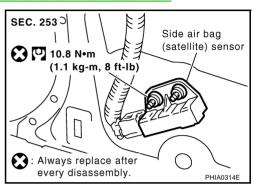
# SIDE AIR BAG (SATELLITE) SENSOR

## Removal and Installation REMOVAL

### **CAUTION:**

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

- 1. Remove seat belt pre-tensioner. Refer to <u>SB-3, "Removal and Installation of Front Seat Belt"</u>.
- 2. 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 that no malfunction is detected. Refer to <u>SRS-17, "SRS Operation Check"</u>.

PFP:98830

AHS00012

# FRONT SEAT BELT PRE-TENSIONER

FRONT SEAT BELT PRE-TENSIONER	PFP:86884
Removal and Installation	AHS00013
For removal and installation procedures, refer to <u>SB-3, "Removal and Installation of Front Seat Belt</u>	

## **DIAGNOSIS SENSOR UNIT**

## Removal and Installation REMOVAL

### **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-11, "Removal and Installation" .
- 3. Disconnect diagnosis sensor unit connector.
- 4. Remove special 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 things 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.

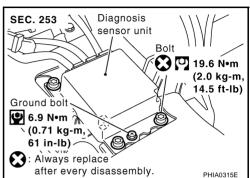
### **CAUTION:**

- Check the diagnosis sensor unit for proper installation.
- After replacement of diagnosis sensor unit, perform self-diagnosis to make sure that no malfunction is detected. Refer to <u>SRS-17, "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	FB02



PFP:28556

AH\$00014

COLLISION DIAGNOSIS PFP:00015					
For Frontal Collision					
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:					
•					
crash zone ser	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.				
	Check the SRS components using the table below:				
	•	owing visible signs of damage (dents, cracks and deformation).			
zone sensor as	ssembly, bracket an	t the front side air bag modules and side curtain air bag modules) crash d seat belt pre-tensioner assemblies.	D		
		SULT-II or "AIR BAG" warning lamp. Refer to <u>SRS-17, "SRS Operation</u> SRS operates properly.	E		
When SRS is not	activated in a collis	sion:			
	S components using		_		
	•	owing visible signs of damage (dents, cracks and deformation).	F		
	Check" for details. Ensure entire SRS operates properly.				
•	-	is activated in a collision:	G		
•	llowing components	:			
<ul> <li>Diagnosis sens</li> </ul>			SRS		
<ul> <li>Crash zone se</li> </ul>					
	air bag and seat be	•			
		using the table below. (Refer to "SRS is NOT activated".)			
	•	owing visible signs of damage (dents, cracks and deformation).			
		SULT-II or "AIR BAG" warning lamp. Refer to <u>SRS-17, "SRS Operation</u> SRS operates properly.	J		
are belted or unbel		ash, depending on the crash severity and whether the front occupants ndicate improper performance of the system. Perform self-diagnosis to operly.	K		
SRS INSPECTIO	N (FOR FRONTA	L COLLISION)	1.4		
Part	SRS is activated	SRS is NOT activated			
Air bag module (driver or front pas- senger air bag mod-	REPLACE Install with new bolts.	<ol> <li>Remove air bag module. Check harness cover and connectors for damage, termi- nals for deformities, and harness for binding.</li> <li>2.</li> </ol>	L		
ule)		<ul> <li>Install driver air bag module into the steering wheel to check fit and alignment with the wheel.</li> </ul>	Μ		
		<ul> <li>Install passenger air bag module into the instrument panel to check fit with the instrument panel.</li> </ul>			
		3. No damage found, reinstall with new bolts.			
		4. If damaged—REPLACE air bag modules with new special bolts.			
:	REPLACE the crash zone sensor and	1. Remove the crash zone sensor. Check harness connectors for damage, terminals for deformities, and harness for binding.			
	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.			
		4. No damage found, reinstall with new bolts.			

5. If damaged—REPLACE the crash zone sensor and bracket with new nuts.

Part	SRS is activated	SRS is NOT activated	
Seat belt pre-ten- sioner assemblies	REPLACE Install seat belt pre- tensioner with new bolts.	<ol> <li>Remove seat belt pre-tensioners.</li> <li>Check harness cover and connectors for damage, terminals for deformities, and harness for binding.</li> </ol>	
		2. Check belts for damage and anchors for loose mounting.	
		3. Check retractor for smooth operation.	
		4. Check seat belt adjuster for damage.	
		5. If no damage is found, reinstall seat belt pre-tensioner assembly with new bolts.	
		6. If damaged—REPLACE seat belt pre-tensioners with new bolts.	
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	1. Visually check steeri	ng wheel for deformities.	
	2. Check harness (built into steering wheel) and connectors for damage, and terminals for deformities.		
	3. Install air bag module to check fit or alignment with steering wheel.		
	4. Check steering wheel for excessive free play.		
	5. If no damage is found, reinstall with nut.		
	6. If damaged—REPLACE.		
Spiral cable	1. Visually check spiral	cable and combination switch for damage.	
	2. Check connectors and protective tape for damage.		
	3. Check steering wheel for noise, binding or heavy operation.		
	4. If no damage is found, reinstall with screws.		
	5. If damaged—REPLACE.		
Harness and connec-	1. 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—REPLACE damaged section of harness. Do not repair, splice or modify any SRS harness.		
Instrument panel	1. Visually check instrument panel for damage.		
	2. If no damage is foun	d, reinstall the instrument panel.	
	3. If damaged—REPLA	CE the instrument panel with bolts.	

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

AHS00017

- 1. 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 are 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</u> <u>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 <u>SRS-17, "SRS Operation</u> <sup>B</sup> <u>Check"</u>. Ensure entire SRS operates properly.

## SRS INSPECTION (FOR SIDE COLLISION)

Part	Front side air bag and side curtain air bag are activated	Front side air bag and side curtain air bag are NOT activated	
LH or RH side curtain air bag module	Replace the side cur- tain air bag module. (Repair the center pil- lar inner, etc. before installing new one if damaged.)	1. Check for visible signs of damage (dents, tears, deformation) of the center pillar on the collision side.	
		2. If damaged—Remove the side curtain air bag module.	
		3. Check for visible signs of damaged (tears etc.) of the LH or RH side curtain air bag module.	
		4. Check harness and connectors for damage, and terminals for deformities.	
		5. If no damage is found, reinstall the LH or RH side curtain air bag module with new bolts.	
		6. If damaged—REPLACE the LH or RH side curtain air bag module with new bolts.	
Front LH or RH side air bag module REPLACE all parts		1. 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.	3. If damaged—REPLACE the front seatback assembly.	
LH or RH side air bag (Satellite) sensor Diagnosis sensor unit	REPLACE the side air bag (Satellite) sen- sor on the collision side with new nuts. (Repair the center pil- lar inner, etc. before installing new one if damaged.) REPLACE the diag- nosis sensor unit with	<ol> <li>Remove the LH or RH side air bag (Satellite) sensor on the collision side. Check harness connectors for damage, terminals for deformities, and harness for binding.</li> <li>Check for visible signs of damage (dents, cracks, deformation) of the LH or RH side air bag (Satellite) sensor.</li> <li>Install the LH or RH side air bag (Satellite) sensor to check fit.</li> <li>If no damage is found, reinstall the LH or RH side sir bag (Satellite) sensor with new nuts.</li> <li>If damaged—REPLACE the LH or RH side air bag (Satellite) sensor with new nuts.</li> <li>Check case and bracket for dents, cracks or deformities.</li> <li>Check connectors for damage, and terminals for deformities.</li> </ol>	
	the new bolts.	<ul> <li>3. If no damage is found, reinstall the diagnosis sensor unit with new bolts and ground bolt.</li> <li>4. If damaged—REPLACE the diagnosis sensor unit with new bolts and ground bolt.</li> </ul>	
Seat belt pre-ten- sioner assembly		t can be extended smoothly. bt be extended smoothly,	
	<ul> <li>Check for deformities of the center pillar inner.</li> </ul>		
	- If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly.		
	2. Remove the seat belt pre-tensioner assembly on the collision side. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.		
	3. Check for visible signs of damage (dents, cracks, deformation) of the seat belt pre-tensioner assembly.		
	4. Check seat belt adjuster for damage.		
	0	d, reinstall the seat belt pre-tensioner assembly.	
	6. If damaged—REPLA	CE the seat belt pre-tensioner assembly with new bolts.	

А

Part	Front side air bag and side curtain air bag are activated	Front side air bag and side curtain air bag are NOT activated	
air bag front seatbac	front seatback (including front seat-	1. Visually check the seat on the collision side.	
		2. Remove the seat on the collision side and check the following for damage and deformities.	
		<ul> <li>Harness, connectors and terminals</li> </ul>	
		<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 si		
	2. If damaged—REPLACE the damaged trim parts.		