# SECTION SRS

ECU DISCRIMINATED NO. .....45

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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#### **PRECAUTIONS**

PRECAUTIONS PFP:00001

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

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

#### **WARNING:**

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

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

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

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## **PREPARATION**

# PREPARATION PFP:00002

# **Commercial Service Tools**

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Tool name		Description
Tamper resistant TORX bit	\$-NT757	Size: T30

# **SUPPLEMENTAL RESTRAINT SYSTEM (SRS)**

#### **SUPPLEMENTAL RESTRAINT SYSTEM (SRS)** PFP:28556 **SRS Configuration** AHS000HH Driver air bag Front passenger Crash zone module air bag module sensor Seat belt buckle Seat belt buckle switch LH switch RH Front RH seat belt Front LH seat belt Diagnosis sensor unit pre-tensioner pre-tensioner • Auxiliary power source (condenser) • Drive circuit LH side air bag • CPU RH side air bag (satellite) sensor (satellite) sensor • G sensor (G sensor for front (for driver and front passenger air (G sensor for front LH side air bag) bags, front seat belt pre-tensioner) RH side air bag) Safing sensor (for driver and front passenger air bags, front seat belt pre-tensioner) Front LH side Front RH side · Safing sensor air bag module (for front side air bag and side air bag module curtain air bag module) RH side curtain LH side curtain air bag module air bag module

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

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

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

SRS configuration	Frontal collision	Left side collision	Right side collision
Driver air bag module	×	_	_
Front passenger air bag module	×	_	_
Front LH seat belt pre-tensioner	×	_	_
Front RH seat belt pre-tensioner	×	_	_
Front LH side air bag module	_	×	_
Front RH side air bag module	_	_	×
LH side curtain air bag module	_	×	_
RH side curtain air bag module	_	_	×

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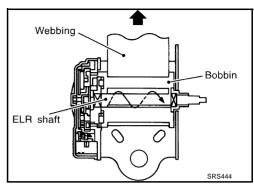
# **SUPPLEMENTAL RESTRAINT SYSTEM (SRS)**

#### 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.



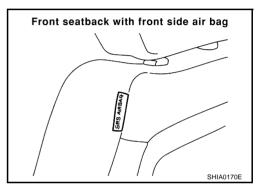
#### AHS000HJ

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# Front Side Air Bag

Front side air bag is built-in type.

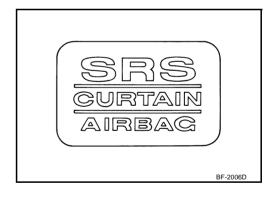
The front seatbacks with built-in type side air bag have the labels as shown.



#### AHS000HK

# Side Curtain Air Bag

The side curtain air bags have the labels as shown.



#### TROUBLE DIAGNOSIS

PFP:00004

#### **Trouble Diagnosis Introduction**

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#### **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	Х	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-11, "Wiring Diagram SRS —"</u>.)
- System component-to-harness connections

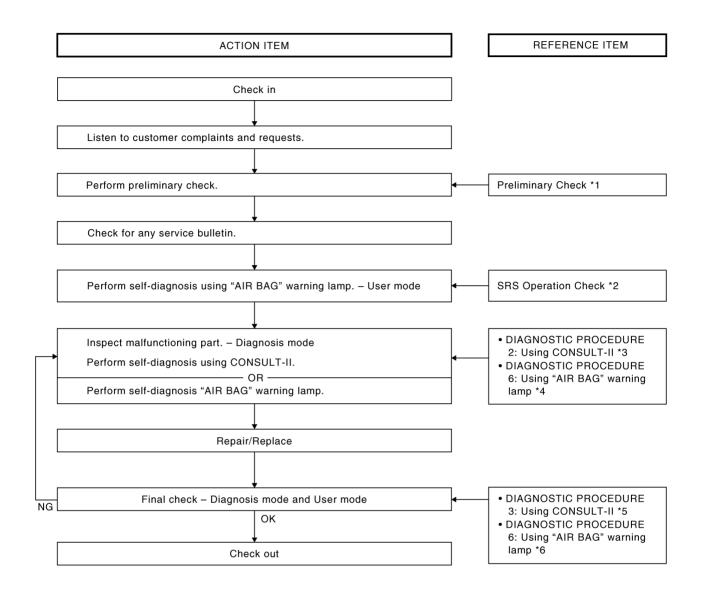
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## **WORK FLOW**

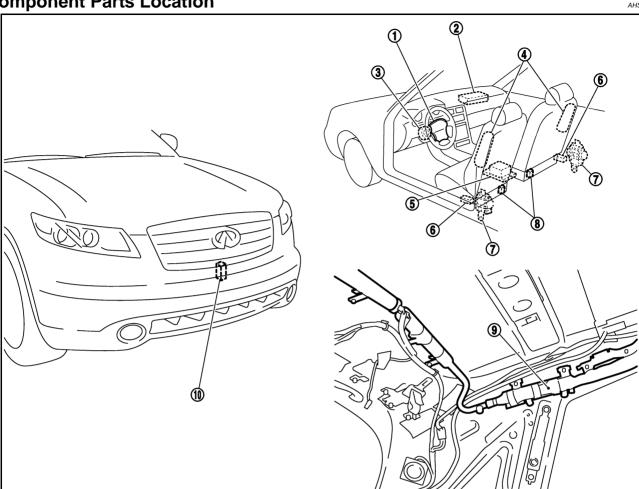


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- \*1: SRS-7, "Preliminary Check".
- \*2: SRS-17, "SRS Operation Check".
- \*3: SRS-19, "DIAGNOSTIC PROCE-DURE 2".

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

# **Component Parts Location**



- 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

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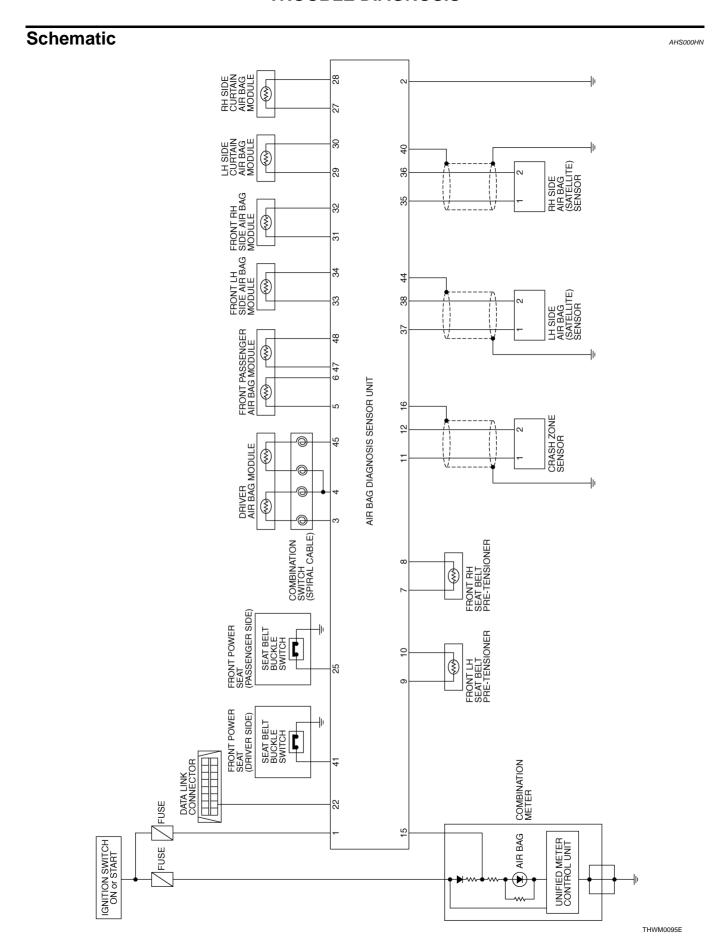
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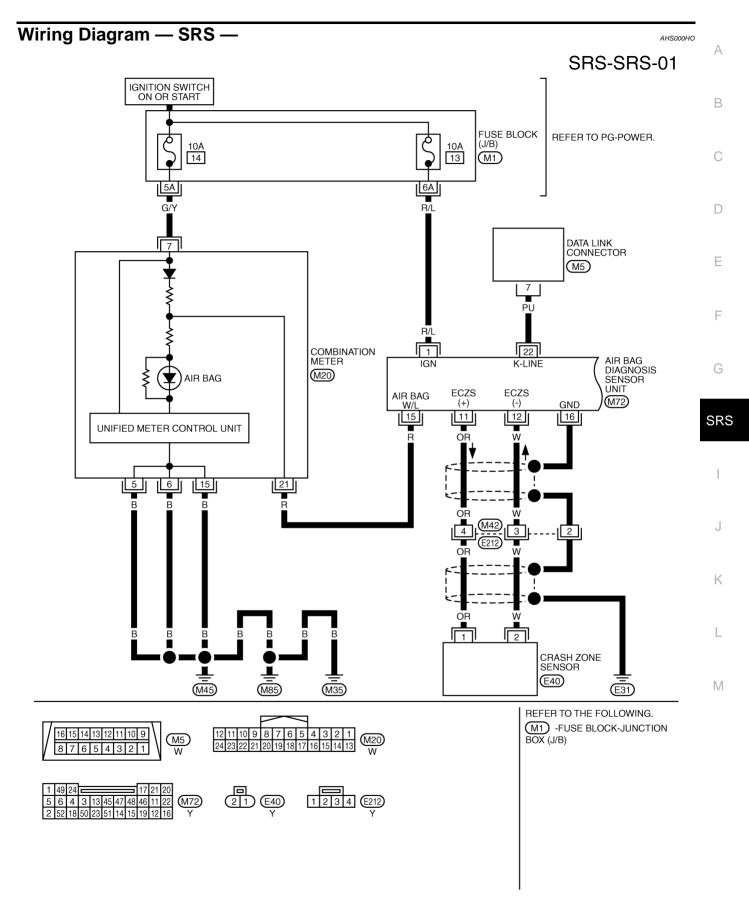
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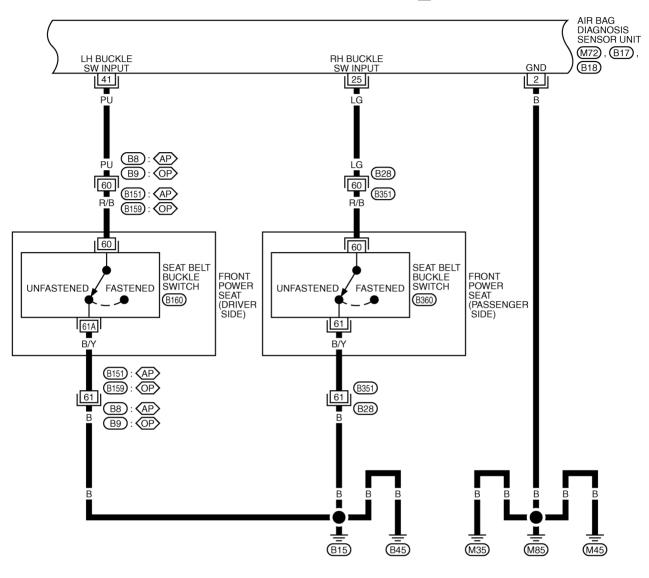
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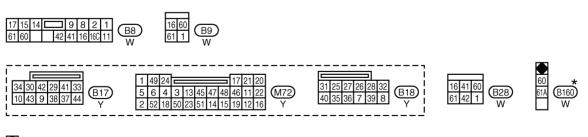
Revision: 2005 July SRS-11 2005 FX

# SRS-SRS-02

(AP): WITH AUTOMATIC DRIVE POSITIONER

OP: WITHOUT AUTOMATIC DRIVE POSITIONER



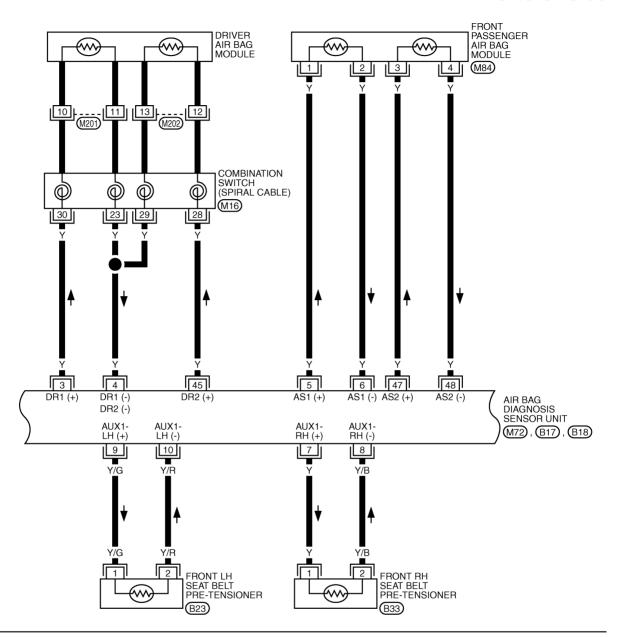


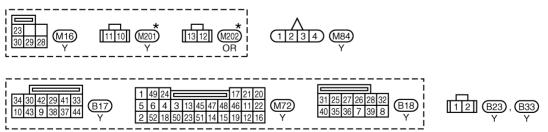


 $\star:$  THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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#### SRS-SRS-03





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

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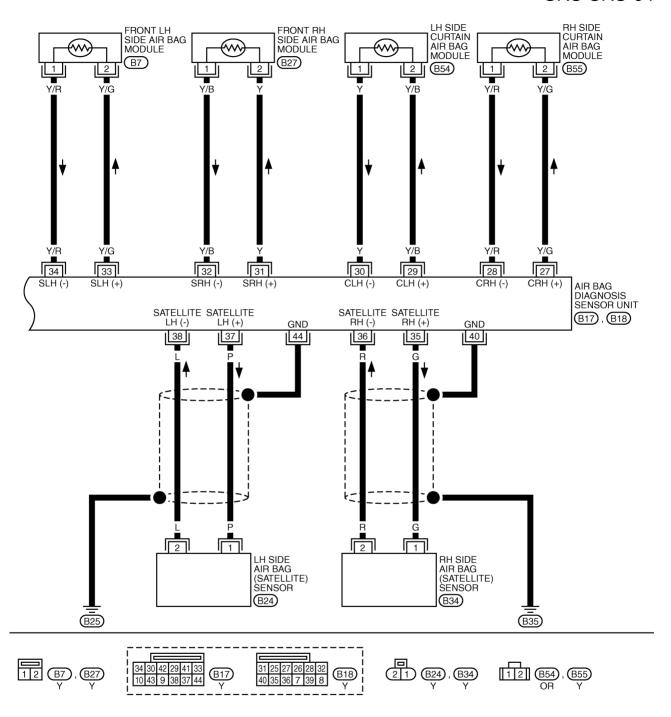
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#### SRS-SRS-04



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# CONSULT-II Function DIAGNOSIS MODE FOR CONSULT-II

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• "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.

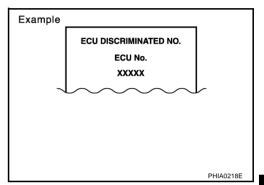
"TROUBLE DIAG RECORD"

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.

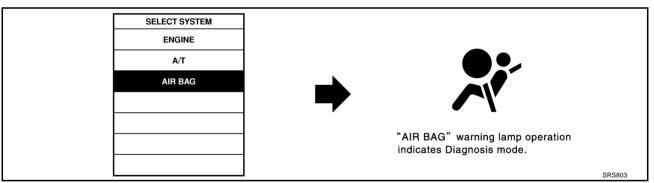
After repair, make sure the discriminated number of diagnosis sensor unit installed to vehicle are same. Refer to <a href="SRS-45">SRS-45</a>, "ECU DISCRIMINATED NO." .



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

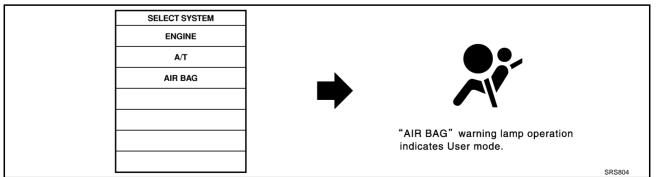
# From User Mode to Diagnosis Mode

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.



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#### HOW TO ERASE SELF-DIAGNOSTIC RESULTS

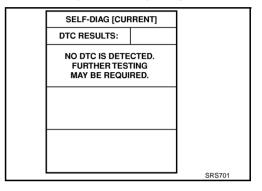
- "SELF-DIAG [CURRENT]"
  - A current self-diagnostic result is displayed on the CONSULT-II screen in real time.
  - After the malfunction is repaired completely, no malfunction is detected on "SELF-DIAG [CURRENT]".
- "SELF-DIAG [PAST]"

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.

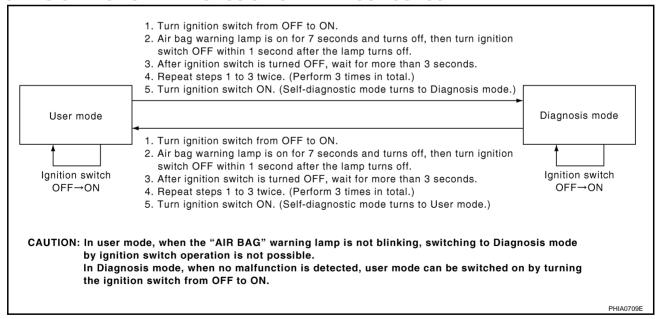


# **Self-Diagnosis Function (Without CONSULT-II)**

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- 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

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

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



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"AIR BAG" warning lamp operation — User mode —	SRS condition	Reference item
ON OFF 7 Sec.	<ul><li>No malfunction is detected.</li><li>No further action is necessary.</li></ul>	<u>-</u>
ON OFF 7 Sec. 0.5 Sec. 0.5 sec. SHIA0012E	The system is malfunctioning and needs to be repaired as indicated.	Go to <u>SRS-19</u> , " <u>DIAGNOSTIC</u> <u>PROCEDURE 2</u> " or <u>SRS-25</u> , " <u>DIAGNOSTIC PROCEDURE 5</u> ".
	<ul><li> Air bag is deployed.</li><li> Seat belt pre-tensioner is deployed.</li></ul>	Go to <u>SRS-46</u> , "COLLISION DIAG 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-33, "Trouble Diagnosis: "AIR BAG" Warning Lamp Does No Turn OFF".
IGN ON ON	<ul> <li>Diagnosis sensor unit is malfunctioning.</li> <li>Air bag warning lamp circuit is malfunctioning.</li> </ul>	Go to SRS-34, "Trouble Diagnosis "AIR BAG" Warning Lamp Does No Turn ON".

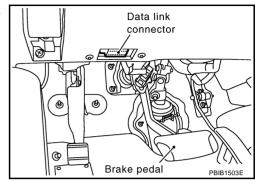
# Trouble Diagnosis with CONSULT-II DIAGNOSTIC PROCEDURE 2

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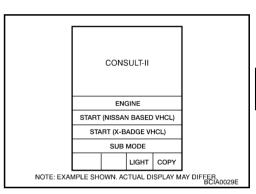
#### **CAUTION:**

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.

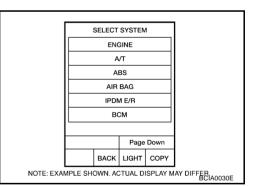
- 1. Turn ignition switch OFF.
- Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



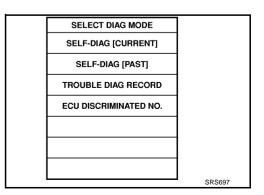
- Turn ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".



 Touch "AIR BAG".
 If "AIR BAG" is not indicated, refer to GI-39, "CONSULT-II Data Link Connector (DLC) Circuit".



Touch "SELF-DIAG [CURRENT]".



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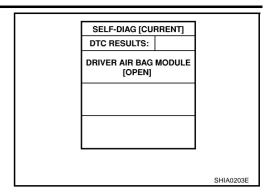
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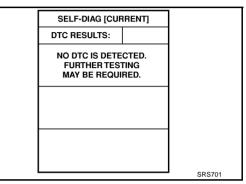
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7. Diagnostic code is displayed on "SELF-DIAG [CURRENT]".



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 PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)".      Go to SRS-25, "DIAGNOSTIC PROCEDURE 5".
	No malfunction is determined.	ected.	_
DRIVER AIR BAG MODULE [OPEN]	Driver air bag module	circuit is open (including the spiral cable).	Visually check the wiring harness connection.
DRIVER AIR BAG MODULE [VB-SHORT]	Driver air bag module circuit is shorted to a power supply circuit (including the spiral cable).		<ul><li>2. Replace the harness if it has visible damage.</li><li>3. Replace the driver air bag module.</li><li>4. Replace the spiral cable.</li></ul>
DRIVER AIR BAG MODULE [GND-SHORT]	Driver air bag module circuit is shorted to ground (including the spiral cable).		5. Replace the diagnosis sensor unit. 6. Replace the related harness.
DRIVER AIR BAG MODULE [SHORT]	Driver air bag module	circuit is shorted between lines.	
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 bag module circuit is shorted to ground.		Replace the front passenger air bag module.
ASSIST A/B MODULE [SHORT]	Front passenger air ba	ag module circuit is shorted between lines.	<ul><li>4. Replace the diagnosis sensor unit.</li><li>5. Replace the related harness.</li></ul>

Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"
CRASH ZONE SEN [UNIT FAIL]	Crash zone sensor	Visually check the wiring harness connection.
CRASH ZONE SEN [COMM FAIL]		Replace the harness if it has visible damage.
		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.	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
SIDE MODULE LH	Front LH side air bag module circuit is shorted between lines.	module).
[SHORT]		4. Replace the diagnosis sensor unit.
OIDE MOSULE ST	E (B) (1 ) (1 )	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]	<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.	Replace the front RH seatback     assembly (front RH side air bag     module).
SIDE MODULE RH	Front RH side air bag module circuit is shorted between lines.	4. Replace the diagnosis sensor unit.
[SHORT]		5. Replace the related harness.
SATELLITE SENS LH	LH side air bag (Satellite) sensor	Visually check the wiring harness
UNIT FAIL]	Lit side all bag (Gatellite) serisor	connection.
SATELLITE SENS LH COMM FAIL]		Replace the harness if it has visible damage.
		Replace the LH side air bag (Satellite) sensor.
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.
SATELLITE SENS RH [UNIT FAIL]	RH side air bag (Satellite) sensor	Visually check the wiring harness connection.
SATELLITE SENS RH [COMM FAIL]		Replace the harness if it has visible damage.
		3. Replace the RH side air bag (Satellite) sensor.
		4. Replace the diagnosis sensor unit.
		5. Replace the related harness.
PRE-TEN FRONT LH OPEN]	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.     Replace the diagnosis sensor unit.
PRE-TEN FRONT LH [SHORT]	Front LH pre-tensioner circuit is shorted between lines.	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.	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.	3. Replace the front RH seat belt.
PRE-TEN FRONT RH [SHORT]	Front RH pre-tensioner circuit is shorted between lines.	Replace the diagnosis sensor unit.     Replace the related harness.
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 circuit.	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.
CURTAIN MODULE LH [SHORT]	LH side curtain air bag module circuit is shorted between lines.	<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.
CURTAIN MODULE RH	RH side curtain air bag module circuit is shorted between lines.	4. Replace the diagnosis sensor unit.
[SHORT]		5. Replace the related harness.
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.

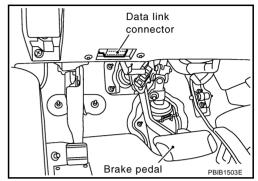
#### **DIAGNOSTIC PROCEDURE 3**

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

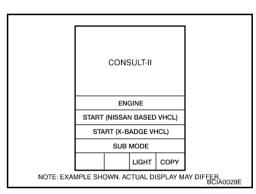
#### **CAUTION:**

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.

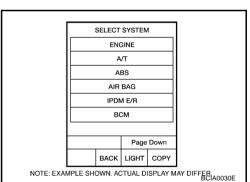
- 1. After repairing SRS, connect both battery cables.
- Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



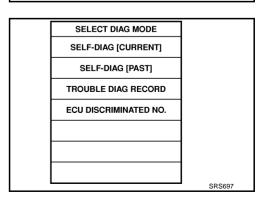
- 3. Turn ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".



 Touch "AIR BAG".
 If "AIR BAG" is not indicated, refer to GI-39, "CONSULT-II Data Link Connector (DLC) Circuit".



Touch "SELF-DIAG [CURRENT]".



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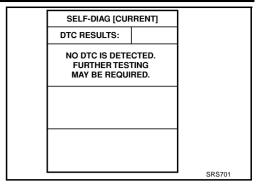
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 If no malfunction is detected on "SELF-DIAG [CURRENT]", repair of SRS is completed. Go to step 8.
 If any malfunction is detected on "SELF-DIAG [CURRENT]", the

malfunction is detected on "SELF-DIAG [CURRENT]", the malfunctioning part is not repaired completely or another malfunctioning part is detected. Go to <u>SRS-19</u>, "<u>DIAGNOSTIC</u> PROCEDURE 2", and repair malfunctioning part completely.

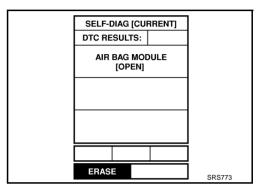


8. Touch "ERASE".

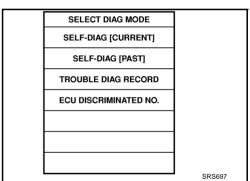
#### NOTE:

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

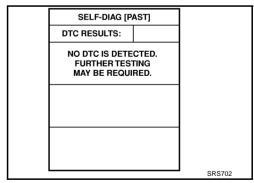
If the memory of the malfunction in "SELF-DIAG [PAST]" is not erased, the User mode shows the system malfunction by the operation of the warning lamp even if the malfunction is repaired completely.



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



- 10. 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. Go to SRS-17, "DIAGNOSTIC PROCEDURE 1".



# **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 SRS-19, "DIAGNOSTIC PROCEDURE 2".

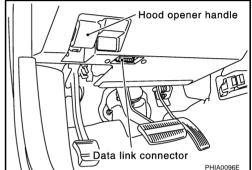
>> Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased NO after repair. Go to SRS-23, "DIAGNOSTIC PROCEDURE 3".

#### **DIAGNOSTIC PROCEDURE 5**

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

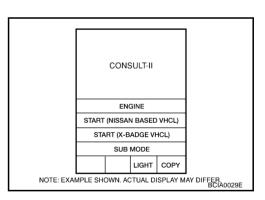
If CONSULT-II is used with no connection of CONSULT-II CONVERTER, malfunctions might be detected in self-diagnosis depending on control unit which carry out CAN communication.

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

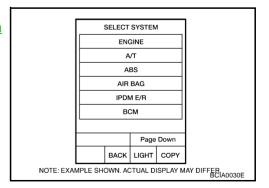


Turn ignition switch ON.

Touch "START (NISSAN BASED VHCL)".



Touch "AIR BAG". If "AIR BAG" is not indicated, refer to GI-39, "CONSULT-II Data Link Connector (DLC) Circuit".



SRS

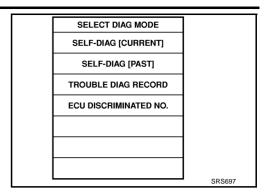
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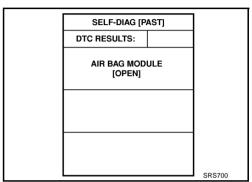
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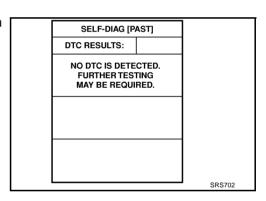
Touch "SELF-DIAG [PAST]".



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



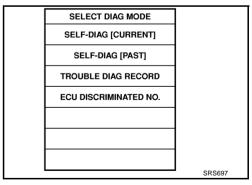
If no malfunction is detected on "SELF-DIAG [PAST]", touch "BACK" and go back to "SELECT DIAG MODE".



8. Touch "TROUBLE DIAG RECORD".

#### NOTE

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



- 9. Diagnostic code is displayed on "TROUBLE DIAG RECORD".
- 10. Touch "PRINT".
- 11. Compare diagnostic codes to <u>SRS-25, "DIAGNOSTIC PROCEDURE 5"</u>.
- Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears.
- 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

	TROUBLE DIAG R	RECORD	
	DTC RESULTS:		
,	DRIVER AIR BAG N [OPEN]	<b>NODULE</b>	
•			
,			SHIA0182E

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 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.  • Low battery voltage (Less than 9V)	Go to <u>SRS-23</u> , " <u>DIAGNOSTIC PROCEDURE 3</u> ".	
	No malfunction is detected.	Go to <u>SRS-23</u> , " <u>DIAGNOSTIC PRO-CEDURE 3"</u> .	
DRIVER AIR BAG MODULE OPEN]	Driver air bag module circuit is open (including the spiral cable).	Visually check the wiring harness connection.     Replace the harness if it has visible	
DRIVER AIR BAG MODULE VB-SHORT]	Driver air bag module circuit is shorted to a power supply circuit (including the spiral cable).	damage.  3. If the harness check result is OK, replace driver air bag module, diag-	
RIVER AIR BAG MODULE GND-SHORT]	Driver air bag module circuit is shorted to ground (including the spiral cable).	nosis sensor unit and spiral cable.	
PRIVER AIR BAG MODULE SHORT]	Driver air bag module circuit is shorted between lines.		
SSIST A/B MODULE DPEN]	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.	
SSIST 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	
SSIST A/B MODULE SHORT]	Front passenger air bag module circuit is shorted between lines.	and front passenger air bag module.	
CRASH ZONE SEN JNIT FAIL]	Crash zone sensor	Visually check the wiring harness connection.	
CRASH ZONE SEN COMM FAIL]		Replace the harness if it has visible damage.	
		If the harness check result is OK, replace crash zone sensor and diagnosis sensor unit.	
SIDE MODULE LH OPEN]	Front LH side air bag module circuit is open.	Visually check the wiring harness connection.	
IDE MODULE LH /B-SHORT]	Front LH side air bag module circuit is shorted to a power supply circuit.	Replace the harness if it has visible damage.	
SIDE MODULE LH GND-SHORT]	Front LH side air bag module circuit is shorted to ground.	3. If the harness check result is OK, replace the diagnosis sensor unit	
IDE MODULE LH SHORT]	Front LH side air bag module circuit is shorted between lines.	and LH side air bag module.	
IDE MODULE RH OPEN]	Front RH side air bag module circuit is open.	Visually check the wiring harness connection.	
IDE MODULE RH /B-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.	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.	

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RS

Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"	
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.	
		If the harness check result is OK, replace the diagnosis sensor unit and RH side air bag (Satellite) sensor.	
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.	
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.	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.	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.	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.	
CURTAIN MODULE RH [OPEN]	RH side curtain air bag module circuit is open.	1. Visually check the wiring harness	
CURTAIN MODULE RH [VB-SHORT]	RH side curtain air bag module circuit is shorted to a power supply circuit.	connection.  2. Replace the harness if it has visible	
CURTAIN MODULE RH [GND-SHORT]	RH side curtain air bag module circuit is shorted to ground.	damage.  3. If the harness check result is OK,	
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.	Visually check the wiring harness connection.	
		2. Replace the diagnosis sensor unit.	

#### **Trouble Diagnosis without CONSULT-II DIAGNOSTIC PROCEDURE 6**

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# Inspecting SRS Malfunctioning Parts by Using "AIR BAG" Warning Lamp — Diagnosis Mode

SRS will not enter Diagnosis mode if no malfunction is detected in User mode.

- Turn ignition switch ON.
- After "AIR BAG" warning lamp lights for 7 seconds, turn ignition switch OFF within 1 second.
- 3. Wait more than 3 seconds.
- Repeat the steps 1 to 3 twice. (Perform three times in all.)
- Turn ignition switch ON.

SRS is now in Diagnosis mode.

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

#### WARNING LAMP FLASH CODE CHART

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

Flash pattern	Repair order
a through b are repeated.  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

<driver air="" bag="" module=""></driver>	
Flash pattern	Repair order
a through d are repeated. d: Two flashes indicate malfunctioning driver air bag module circuit.  2 flashes	Visually check the wiring harness connection.     Replace the harness if it has visible damage.     Replace the spiral cable.     Replace the related harness.
ON 7 sec. 3 sec. 2 sec. 2 sec. 2 sec. 2 sec.	PHIA1233E

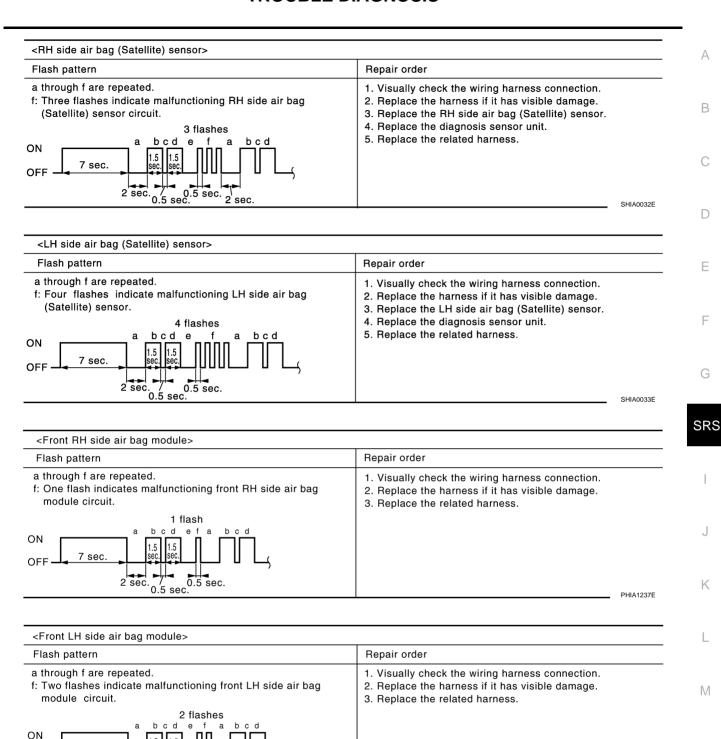
<Diagnosis sensor unit> Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connections. d: Seven flashes indicate malfunctioning diagnosis sensor unit 2. Replace the harness if it has visible damage. circuit. 3. Replace the diagnosis sensor unit. 4. Replace the related harness. 7 flashes b а b ON 7 sec 3 sec 3 sec OFF 2 sec. 2 sec 2 sec. 0.5 sec SHIA0028F SRS

#### <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 the related harness. 8 flashes b ON 7 sec OFF 2 sec. 2 sec. 2 sec. PHIA1234E

<crash sensor="" zone=""></crash>	
Flash pattern	Repair order
a through d are repeated. d: Six flashes indicate malfunctioning crash zone sensor circuit.  ON  OFF  7 sec.  3 sec.  2 sec.  2 sec.  2 sec.  0.5 sec.  2 sec.	Visually check the wiring harness connection.     Replace the harness if it has visible damage.     Replace the crash zone sensor.     Replace the diagnosis sensor unit.     Replace the related harness.

Flash pattern	Repair order
a through d are repeated.     d: One flash indicates malfunctioning front RH seat belt pre-tensioner circuit.	<ol> <li>Visually check the wiring harness connections.</li> <li>Replace the harness if it has visible damage.</li> <li>Replace the related harness.</li> </ol>
ON 7 sec. 3 sec. 2 sec. 2 sec. 2 sec. 0.5 sec. 2 sec.	

<front belt="" lh="" pre-tensioner="" seat=""></front>	
Flash pattern	Repair order
a through d are repeated. d: Three flashes indicate malfunctioning front LH seat belt pre-tensioner circuit. 3 flashes	<ol> <li>Visually check the wiring harness connections.</li> <li>Replace the harness if it has visible damage.</li> <li>Replace the related harness.</li> </ol>
ON 7 sec. 3 sec. 3 sec. 7 2 sec. 2 sec. 0.5 sec.	



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7 sec.

2 sec. 0.5 sec. 0.5 sec.

**OFF** 

Flash pattern	Repair order	
a through f are repeated. f: Five flashes indicate malfunctioning RH side curtain air bag module circuit.  5 flashes  2 sec. 7 sec. 2 sec.	Visually check the wiring harness connection.     Replace the harness if it has visible damage.     Replace the related harness.	
2 sec. 7 0.5 sec. 2 sec. 0.5 sec.		PHIA124
<lh air="" bag="" curtain="" module="" side=""></lh>		
<lh air="" bag="" curtain="" module="" side=""></lh>	Repair order	

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

AHS000HU

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1. CHECK THE DEPLOYMENT OF AIR BAG MODULE

Is air bag module deployed?

YES or NO

YES >> Refer to SRS-46, "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?

>> Repair or replace main harness.

NO >> INSPECTION END

# 4. CHECK DIAGNOSIS SENSOR UNIT

Connect CONSULT-II and touch "START".

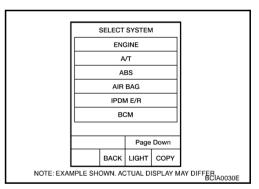
Is "AIR BAG" displayed on CONSULT-II?

#### 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.

SRS

**SRS-33** Revision: 2005 July

# Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn ON DIAGNOSTIC PROCEDURE 8

AHS000H

# 1. CHECK METER FUSE

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

#### OK or NG

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

# 2. CHECK METER FUSE AGAIN

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

#### Does the meter fuse blow again?

YES >> Repair or replace the related harness.

NO >> INSPECTION END

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

Disconnect diagnosis sensor unit connector and turn ignition switch ON.

Does "AIR BAG" warning lamp turn on?

#### YES or NO

YES >> Replace diagnosis sensor unit.

NO >> Replace combination meter assembly.

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

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

PFP:K8510

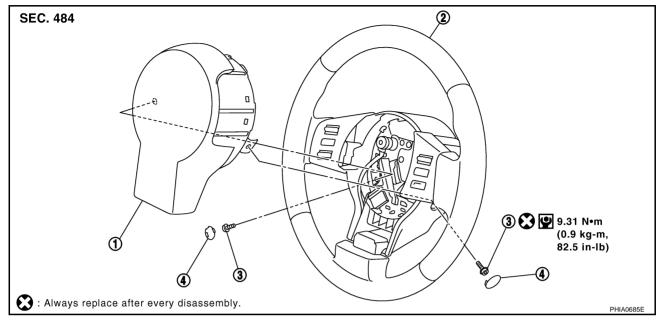
Removal and Installation

AHS000HW

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

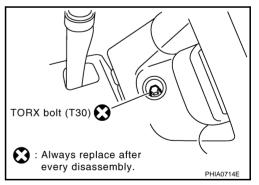
3. TORX bolt (T30)

4. Side lid

#### **REMOVAL**

#### **CAUTION:**

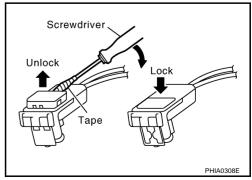
- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of driver air bag module.
- Remove the side lids.
- 2. Remove the right and left side TORX bolts (T30).



- 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.



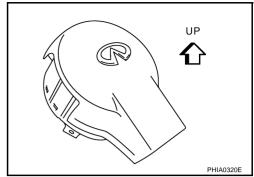
SRS

J

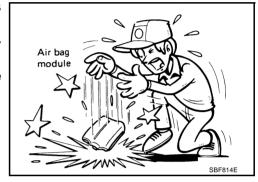
#### **DRIVER AIR BAG MODULE**

#### **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>.

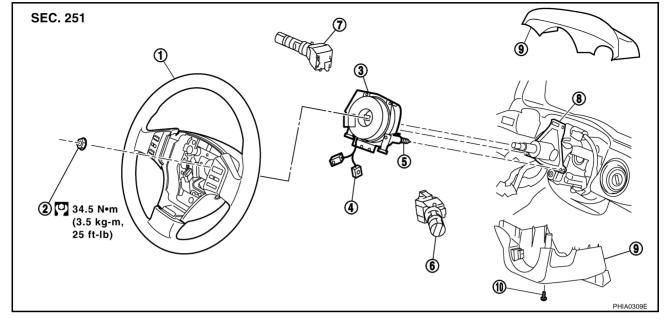
SPIRAL CABLE PFP:25554

# Removal and Installation

AHS000HX

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- 1. Steering wheel
- 4. Driver air bag module connector
- 7. Lighting and turn signal switch
- 10. Screw

- 2. Nut
- 5. Screw
- 8. Steering column assembly
- 3. Spiral cable
- 6. Wiper and washer switch
- 9. Steering column cover

**REMOVAL** 

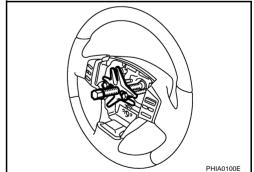
#### **CAUTION:**

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 SRS-35, "Removal and Installation".
- Set the steering wheel in the neutral position.
- Removal steering wheel nut.
- 4. Remove steering wheel with steering wheel puller [SST: ST2718001].

#### **CAUTION:**

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



- 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.

SRS

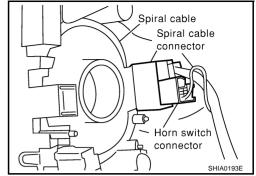
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# SPIRAL CABLE

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.



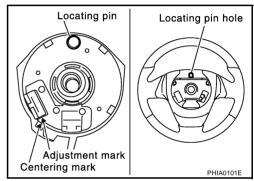
8. Remove the wiper washer switch and lighting switch from the spiral cable.

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



### FRONT PASSENGER AIR BAG MODULE

## FRONT PASSENGER AIR BAG MODULE

#### PFP:K8515

# Removal and Installation

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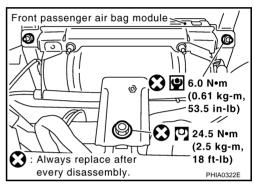
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#### **CAUTION:**

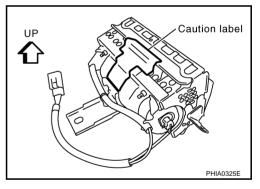
- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of or under front passenger air bag module.
- 1. Remove glove box assembly and instrument passenger lower panel. Refer to <a href="IP-13">IP-13</a>, "(J) Instrument Passenger Lower Panel".
- 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.



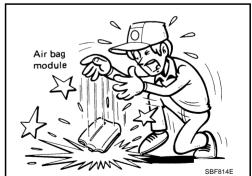
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#### **CAUTION:**

- Always place front passenger air bag module with caution label side facing upward.
- Do not insert any foreign objects (screwdriver, etc.) into front passenger air bag module.
- Do not 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</u>, "<u>SRS Operation Check"</u>.

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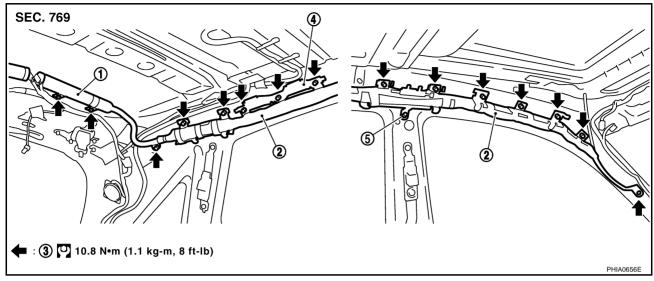
# SIDE CURTAIN AIR BAG MODULE

# SIDE CURTAIN AIR BAG MODULE

PFP:985P0

# Removal and Installation

AHS00010



- 1. Side curtain air bag Inflator
- 2. Side curtain air bag
- 3. Bolt

- 4. Assist grip bracket
- 5. Bolt (There is no torque control)

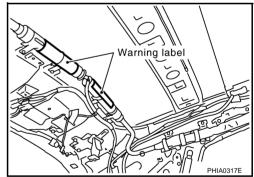
#### **REMOVAL**

#### **CAUTION:**

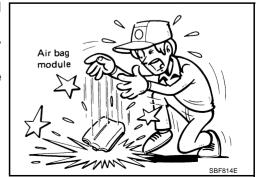
- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of the side curtain air bag module.
- 1. Remove headlining. Refer to EI-41, "Removal and Installation".
- 2. Disconnect side curtain air bag connector.
- 3. Remove 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.



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

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# **CRASH ZONE SENSOR**

# **CRASH ZONE SENSOR**

PFP:98531

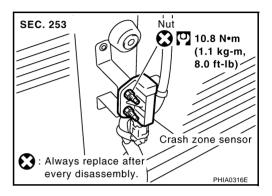
# Removal and Installation REMOVAL

AHS00011

#### **CAUTION:**

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

- 1. Remove front grille. Refer to El-22, "Removal and Installation".
- 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.

#### **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 <a href="SRS-17">SRS-17</a>, "SRS Operation Check"</a>.

# SIDE AIR BAG (SATELLITE) SENSOR

# SIDE AIR BAG (SATELLITE) SENSOR

PFP:98830

# Removal and Installation REMOVAL

AHS00012

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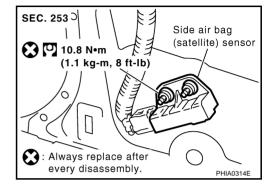
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#### **CAUTION:**

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-3, "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 that no malfunction is detected. Refer to <u>SRS-17</u>, <u>"SRS Operation Check"</u>.

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# FRONT SEAT BELT PRE-TENSIONER

# FRONT SEAT BELT PRE-TENSIONER

PFP:86884

# **Removal and Installation**

AHS00013

For removal and installation procedures, refer to SB-3, "Removal and Installation of Front Seat Belt".

# **DIAGNOSIS SENSOR UNIT**

## **DIAGNOSIS SENSOR UNIT**

#### PFP:28556

# Removal and Installation REMOVAL

#### AHS00014

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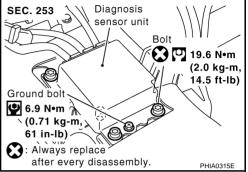
### **CAUTION:**

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

- Disconnect each harness connector for the air bag module and seat belt pre-tensioner. 1.
- 2. Remove center console. Refer to IP-11, "Removal and Installation".
- Disconnect diagnosis sensor unit connector.
- 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 SRS-17, "SRS Operation Check".

#### ECU DISCRIMINATED NO.

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

Specification	ECU DISCRIMINATED No.
Models with driver and passenger air bags, seat belt pre-tensioner, side air bags and curtain air bags	FB02

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## **COLLISION DIAGNOSIS**

PFP:00015

# **For Frontal Collision**

AHS00016

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:

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

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

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

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

- 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, "SRS Operation Check"</u> 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 does not indicate improper performance of the system. Perform self-diagnosis to make sure the entire SRS operates properly.

#### SRS INSPECTION (FOR FRONTAL COLLISION)

Part	SRS is activated	SRS is NOT activated	
Driver airbag module	If the Driver airbag has deployed: REPLACE. Install with new fasteners.	If the Driver air bag has NOT been activated: [same text as in current manual]	
Passenger front airbag module	If the Passenger front airbag has deployed: REPLACE. Install with new fasteners.	If the Passenger front air bag has NOT been activated: [same text as in current manual]	
Crash zone sensor	If any of the front airbags or seat belt pretensionsers have been activated: REPLACE the crash zone sensor and bracket with new fasteners.	been activated:	
Seat belt pre-ten- sioner assemblies	If the driver or passenger Seat belt pre-ten- sioner has been activated: REPLACE the seat belt pre-tensioner assemblies with new fasteners.	If the pre-tensioners have NOT been activated: [same text as in current manual]	
Diagnosis sensor unit	If any of the SRS components have been activated: REPLACE the Diagnosis sensor unit. Install with new fasteners.	If none of the SRS components have been activated: [same text as in current manual]	

Part	SRS is activated	SRS is NOT activated	
Steering wheel	[same to	ext as in current manual]	
Spiral cable	If the Driver airbag has deployed:	If the Driver airbag has not deployed:	
	REPLACE the spiral cable.	[same text as in current manual]	
Harness and con-	1. Check connectors for poor connection,	damage, and terminals for deformities.	
nectors	2. Check harness for binding, chafing, cuts, or deformities.		1
	3. If no damage is found, reinstall the harness and connectors.		
	4. If damaged—REPLACE damaged sect	ion of harness. Do not repair, splice or modify any SRS harness.	
Instrument panel	1. Visually check instrument panel for dar	nage.	<del></del>
	2. If no damage is found, reinstall the inst	rument panel.	
	3. If damaged—REPLACE the instrument	panel with bolts.	

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

AHS00017

- 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 Check"</u>. Ensure entire SRS operates properly.

#### WHEN SRS IS NOT ACTIVATED IN THE SIDE COLLISION:

- 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).
- 2. 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.

# 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 curtain air bag mod-	Check for visible signs of damage (dents, tears, deformation) of the center pillar on the collision side.
	ule.	2. If damaged—Remove the side curtain air bag module.
	(Repair the center pil- lar inner, etc. before installing new one if	<ol><li>Check for visible signs of damaged (tears etc.) of the LH or RH side curtain air bag module.</li></ol>
	damaged.)	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	ag module seatback with	Check for visible signs of damage (dents, tears, deformation) of the seatback on the collision side.
	deployed front side air bag module.	2. Check harness and connectors for damage, and terminals for deformities.
	all bay module.	If damaged—REPLACE the front seatback assembly.     Air bag must be deployed before disposal.
LH or RH side air bag (Satellite) sensor		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.
		Check for visible signs of damage (dents, cracks, deformation) of the LH or RH side air bag (Satellite) sensor.
		3. Install the LH or RH side air bag (Satellite) sensor to check fit.
		4. If no damage is found, reinstall the LH or RH side sir bag (Satellite) sensor with new nuts.
		5. If damaged—REPLACE the LH or RH side air bag (Satellite) sensor with new nuts.
Diagnosis sensor unit	REPLACE the diagnosis sensor unit with the new bolts.	1. Check case and bracket for dents, cracks or deformities.
		2. Check connectors for damage, and terminals for deformities.
		3. If no damage is found, reinstall the diagnosis sensor unit with new bolts and ground bolt.
		4. If damaged—REPLACE the diagnosis sensor unit with new bolts and ground bolt.

Part	Front side air bag and side curtain air bag are activated	Front side air bag and side curtain air bag are NOT activated	
Seat belt pre-ten- sioner assembly		t can be extended smoothly.  ot be extended smoothly,	
	- Check for deformities of the center pillar inner.		
	- If the center pillar inr	ner has no damage, REPLACE the seat belt pre-tensioner assembly.	
		It pre-tensioner assembly on the collision side. Check harness cover and connectors Is for deformities, and harness for binding.	
	3. Check for visible sign	ns of damage (dents, cracks, deformation) of the seat belt pre-tensioner assembly.	
	4. Check seat belt adju	ster for damage.	
	5. If no damage is foun	d, reinstall the seat belt pre-tensioner assembly.	
	6. If damaged—REPLA	ACE the seat belt pre-tensioner assembly with new bolts.	
Seat with front side air bag	REPLACE all parts of	1. Visually check the seat on the collision side.	
	front seatback (including front seat- back frame)	<ol><li>Remove the seat on the collision side and check the following for damage and deformities.</li></ol>	
	back frame)	- 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 inn	her pillar on the collision side for damage (dents, cracks, deformation).	
	2. If damaged—REPAIR the center inner pillar.		
Trim/headlining	1. Check for visible sign	ns of damage (dents, cracks, deformation) of the interior trim on the collision side.	
	2. If damaged—REPLA	ACE the damaged trim parts.	

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**SRS-49** Revision: 2005 July 2005 FX