SECTION SRS

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SRS

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	S-N1757	Size: T30

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

SUPPLEMENTAL RESTRAINT SYSTEM (SRS) PFP:28556 **SRS Configuration** AHS000AM Driver air bag Front passenger Crash zone module air bag module sensor Seat belt buckle Seat belt buckle switch 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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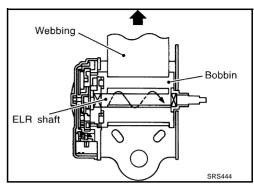
SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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.



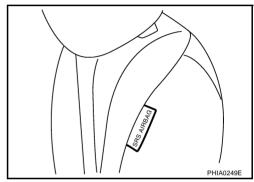
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Front Side Air Bag

Front side air bag is built-in type.

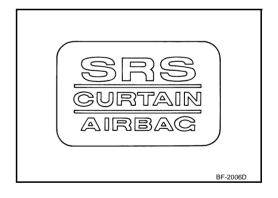
The front seatbacks with built-in type side air bag have the labels as shown.



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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	X	X	ON-OFF operation
CONSULT-II	_	X	Monitoring

HOW TO PERFORM TROUBLE DIAGNOSIS FOR QUICK AND ACCURATE REPAIR

A good understanding of the malfunction conditions can make troubleshooting faster and more accurate. In general, each customer feels differently about a malfunction. It is important to fully understand the symptoms or conditions for a customer complaint.

Information from Customer

WHAT..... Vehicle model

WHEN..... Date, Frequencies

WHERE..... Road conditions

HOW..... Operating conditions, Symptoms

Preliminary Check

Make sure the following parts are in good order.

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

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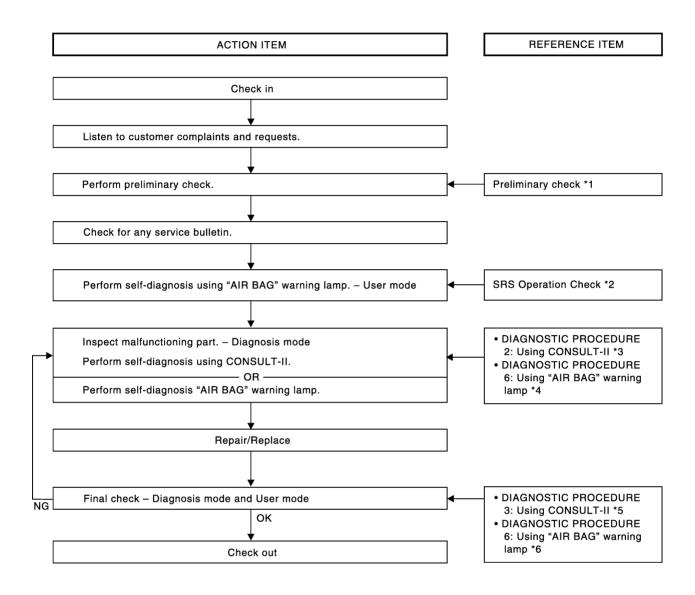
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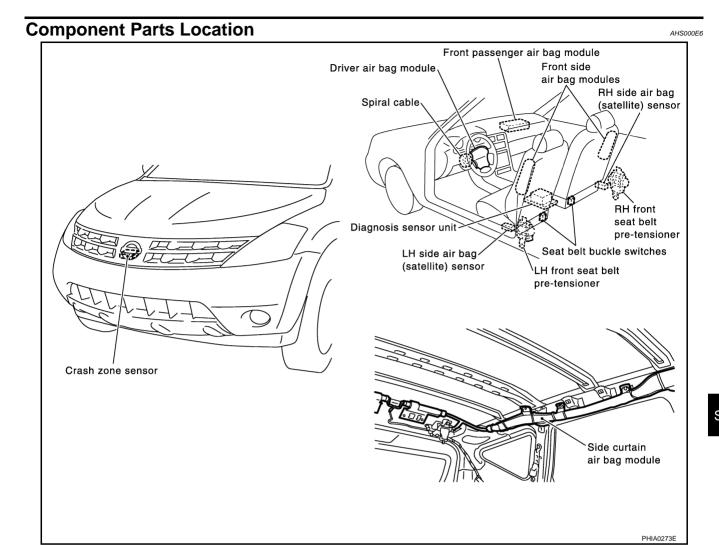
WORK FLOW



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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>.



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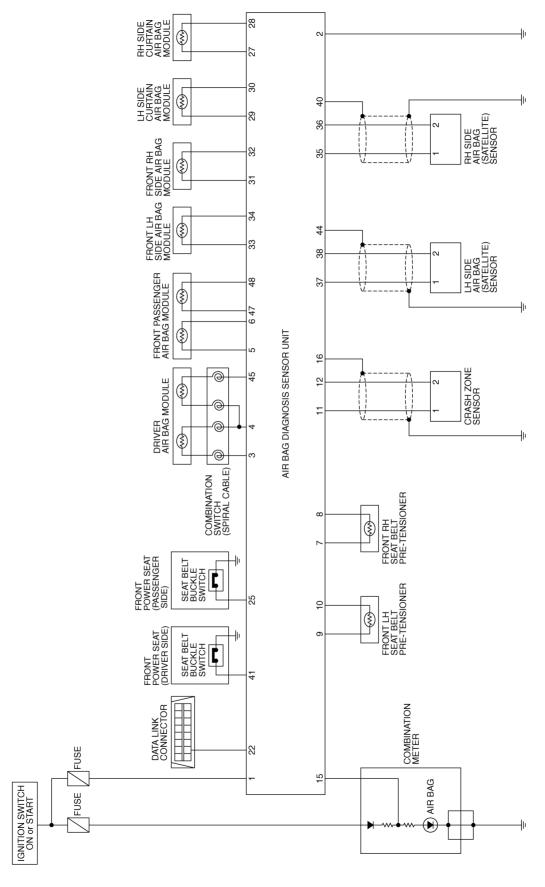
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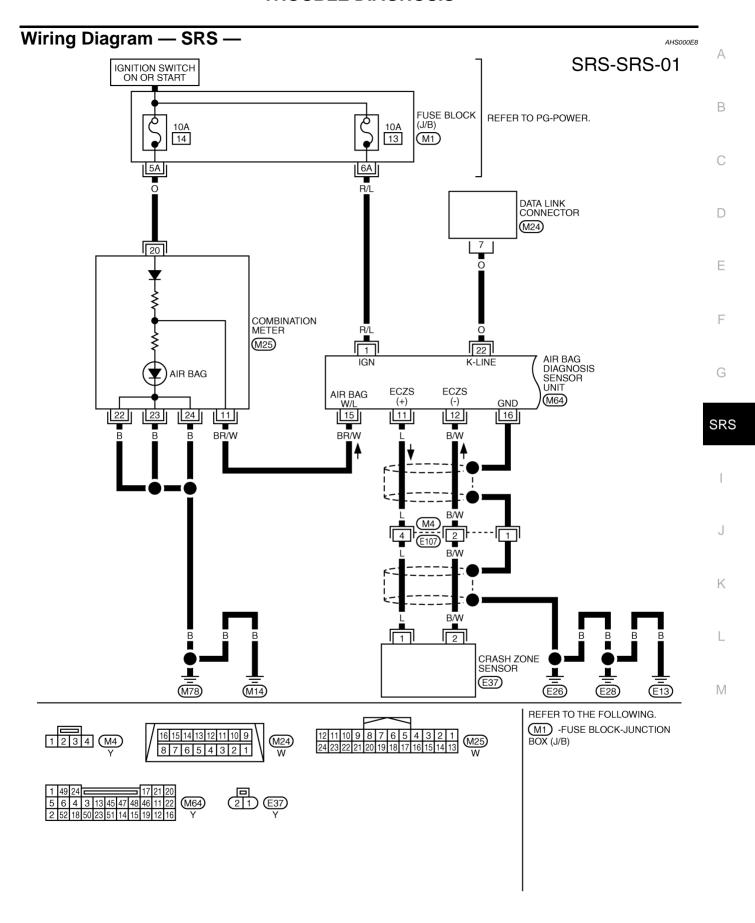
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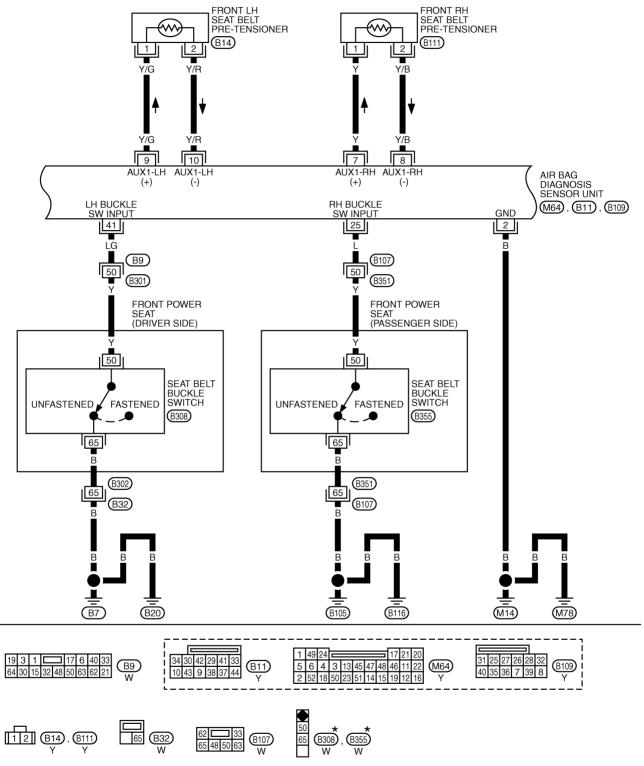






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SRS-SRS-02



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

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SRS-SRS-03

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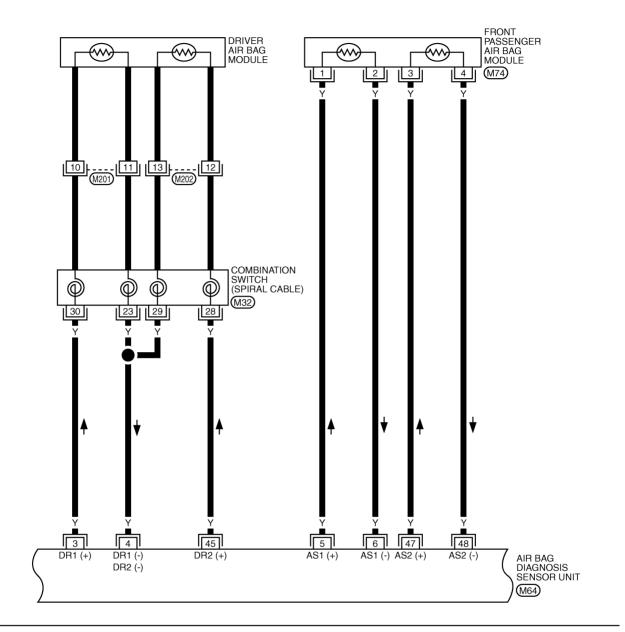
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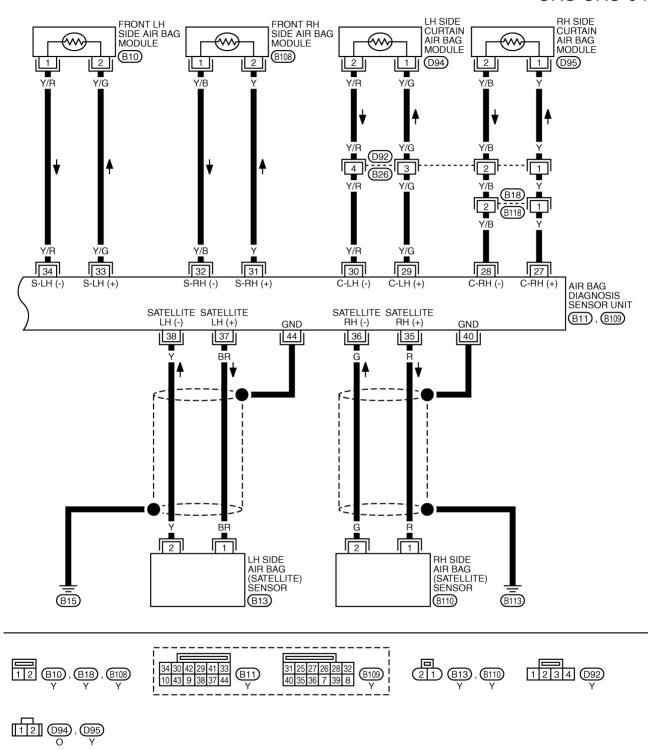




 $\star:$ THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

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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.

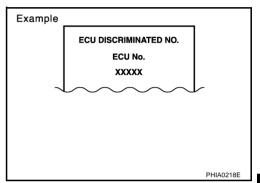
"TROUBLE DIAG RECORD"

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.

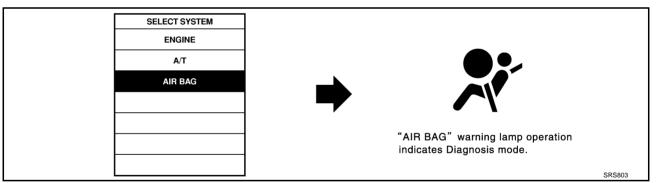
After repair, make sure the discriminated number of diagnosis sensor unit installed to vehicle are same. Refer to SRS-47, "ECU DISCRIMINATED NO.".



HOW TO CHANGE SELF-DIAGNOSIS MODE WITH CONSULT-II

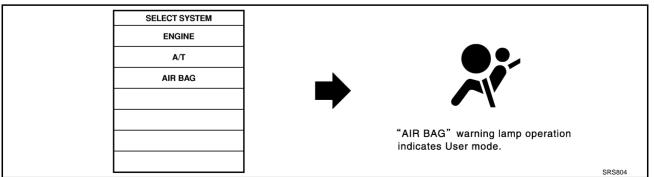
From User Mode to Diagnosis Mode

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, Diagnosis mode automatically changes to User mode.



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HOW TO ERASE SELF-DIAGNOSTIC RESULTS

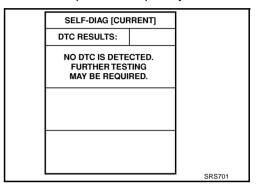
- "SELF-DIAG [CURRENT]"
 - A current self-diagnostic result is displayed on the CONSULT-II screen in real time.
 - After the malfunction is repaired completely, no malfunction is detected on "SELF-DIAG [CURRENT]".
- "SELF-DIAG [PAST]"

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.

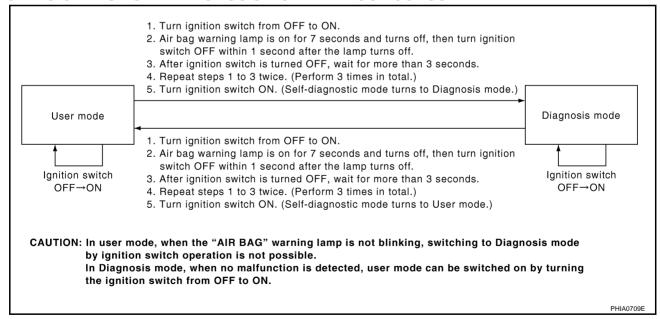


Self-Diagnosis Function (Without CONSULT-II)

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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-LL



HOW TO ERASE SELF-DIAGNOSTIC RESULTS

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

SRS Operation Check DIAGNOSTIC PROCEDURE 1

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

- 1. Turn the ignition switch from OFF to ON, and make sure 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.	No malfunction is detected.No further action is necessary.	_
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> ".
G.I.MOOTE	 Air bag is deployed. Seat belt pre-tensioner is deployed.	Go to SRS-48, "COLLISION DIAGNOSIS" .
ON OFF SHIA0013E	 Diagnosis sensor unit is malfunctioning. Air bag power supply circuit is malfunctioning. SRS air bag warning lamp circuit is malfunctioning. 	Go to <u>SRS-34</u> , "Trouble <u>Diagnosis</u> "AIR BAG" Warning Lamp Does No <u>Turn OFF"</u> .
IGN ON ON	 Diagnosis sensor unit is malfunctioning. Air bag warning lamp circuit is malfunctioning. 	Go to SRS-35, "Trouble Diagnosis "AIR BAG" Warning Lamp Does No Turn ON".

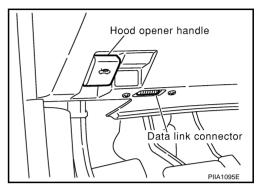
Trouble Diagnosis with CONSULT-II DIAGNOSTIC PROCEDURE 2

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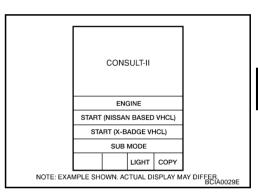
CAUTION:

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.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.

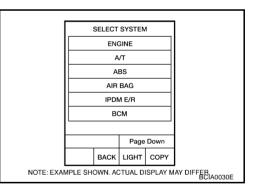


- Turn ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".

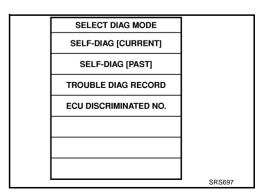


5. Touch "AIR BAG".

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



Touch "SELF-DIAG [CURRENT]".



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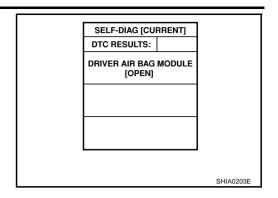
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7. Diagnostic code is displayed on "SELF-DIAG [CURRENT]".



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, "DIAGNOS-TIC PROCEDURE 3"</u>. If the battery voltage is OK, go to <u>SRS-25, "DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)"</u> to diagnose the following cases:

- SELF-DIAG [CURRENT]

 DTC RESULTS:

 NO DTC IS DETECTED.
 FURTHER TESTING
 MAY BE REQUIRED.

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- 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 PRO-CEDURE 3</u> " after charging the battery.
	User mode.	 Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair. Intermittent malfunction has been detected in the past. 	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 AIRBAG 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 AIRBAG MODULE [VB-SHORT]	Driver air bag module circuit is shorted to a power supply circuit (including the spiral cable).		damage. 3. Replace the driver air bag module. 4. Replace the spiral cable.
DRIVER AIRBAG 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 AIRBAG 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.	Visually check the wiring harness connection.
ASSIST A/B MODULE [VB-SHORT]	Front passenger air bag module circuit is shorted to a power supply circuit.		Replace the harness if it has visible damage.
ASSIST A/B MODULE [GND-SHORT]	Front passenger air ba	ag module circuit is shorted to ground.	Replace the front passenger air bag module.
ASSIST A/B MODULE [SHORT]	Front passenger air ba	ng module circuit is shorted between lines.	4. Replace the diagnosis sensor unit.5. Replace the related harness.

Diagnostic item	Explanation	Repair order
Diagnostic item	Explanation	"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 sup- ply 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 setback assembly (front LH side air bag
SIDE MODULE LH	Front LH side air bag module circuit is shorted between lines.	module).
[SHORT]		Replace the diagnosis sensor unit. Replace the related between
		5. Replace the related harness.
SIDE MODULE RH [OPEN]	Front RH side air bag module circuit is open.	Visually check the wiring harness connection.
SIDE MODULE RH [VB-SHORT]	 Front RH side air bag module circuit is shorted to a power sup- ply circuit. 	Replace the harness if it has visible damage.
SIDE MODULE RH [GND-SHORT]	Front RH side air bag module circuit is shorted to ground.	Replace the front RH setback 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 bay (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 diagnosis sensor unit. 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]	 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.	Replace the front RH seat belt. Replace the diagnosis sensor unit.
PRE-TEN FRONT RH [SHORT]	Front RH pre-tensioner circuit is shorted between lines.	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 some power supply circuits.	Replace the harness if it has visible damage.
CURTAIN MODULE LH [GND-SHORT]	LH side curtain air bag module circuit is shorted to ground.	Replace the LH side curtain air bag module.
CURTAIN MODULE LH [SHORT]	LH side curtain air bag module circuit is shorted between lines.	4. Replace the diagnosis sensor unit.5. Replace the related harness.
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 [SHORT]	RH side curtain air bag module circuit is shorted between lines.	4. Replace the diagnosis sensor unit.5. Replace the related harness.
CONTROL UNIT	Diagnosis sensor unit is malfunctioning.	Visually check the wiring harness connection.
		2. Replace the diagnosis sensor unit.
FRONTAL COLLISION DETECTION	Seat belt pre-tensioner and front air bag are deployed.	Go to <u>SRS-48</u> , "For Frontal Collision" .
SIDE COLLISION DETECTION	Side and curtain air bag is deployed.	Go to SRS-50, "For Side Collision".

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.

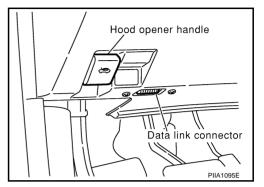
DIAGNOSTIC PROCEDURE 3

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

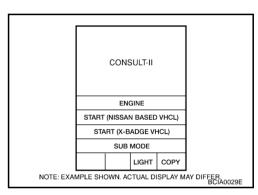
CAUTION:

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.

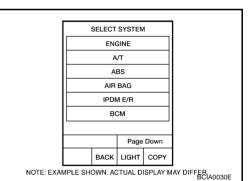
- 1. After repairing SRS, connect both battery cables.
- Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



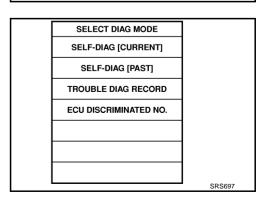
- 3. Turn ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".



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



Touch "SELF-DIAG [CURRENT]".



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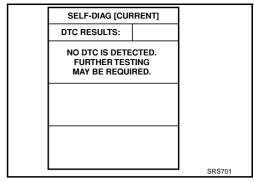
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 If no malfunction is detected on "SELF-DIAG [CURRENT]", repair of SRS is completed. Go to step 8.
 If any malfunction is detected on "SELF-DIAG [CURRENT]", the malfunctioning part is not repaired completely or another mal-

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

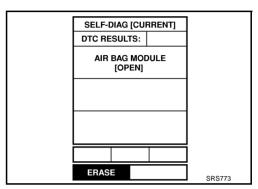


8. Touch "ERASE".

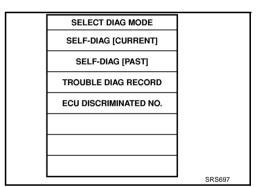
NOTE:

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

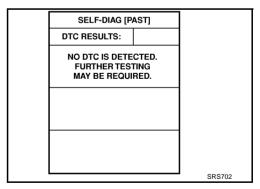
If the memory of the malfunction in "SELF-DIAG [PAST]" is not erased, the User mode shows the system malfunction by the operation of the warning lamp even if the malfunction is repaired completely.



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



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

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

Is it the first time for maintenance of SRS?

YES or NO

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

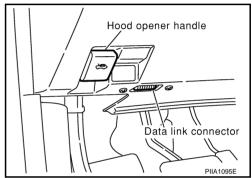
NO >> Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair. Go to SRS-23, "DIAGNOSTIC PROCEDURE 3".

DIAGNOSTIC PROCEDURE 5

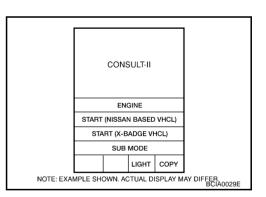
Inspecting SRS intermittent malfunction by using CONSULT-II — Diagnosis mode CAUTION:

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

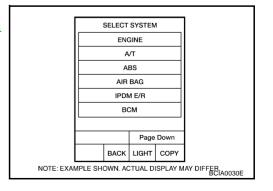
- 1. Turn ignition switch OFF.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.



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



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



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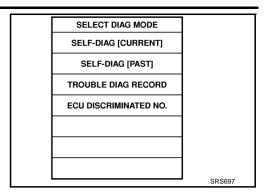
SRS

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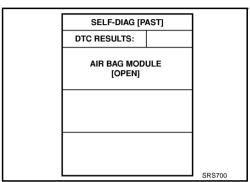
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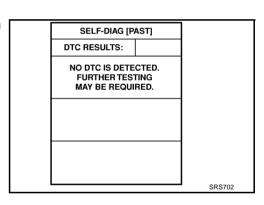
Touch "SELF-DIAG [PAST]".



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



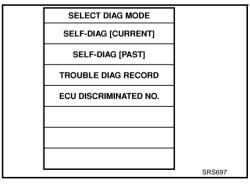
If no malfunction is detected on "SELF-DIAG [PAST]", touch "BACK" and go back to "SELECT DIAG MODE".



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-27, "CONSULT-II Diagnostic Code Chart ("SELF-DIAG [PAST]" or "TROUBLE DIAG RECORD")"</u>.
- 12. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears.
- 13. Turn ignition switch OFF, then turn off and disconnect CON-SULT-II, and both battery cables.

	TROUBLE DIAG R	ECORD	
	DTC RESULTS:		
	DRIVER AIR BAG N [OPEN]	ODULE	
			SHIA0182E

- 14. Repair the system as outlined by the "Repair order" in "Intermittent Malfunction Diagnostic Code Chart", that corresponds to the self-diagnostic result. For replacement procedure of component parts, refer to the Removal and Installation procedure for the appropriate component.
- 15. Go to SRS-23, "DIAGNOSTIC PROCEDURE 3", for final checking.

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

Diagnostic item		Explanation	Repair order "Recheck SRS at each replacement"	
NO DTC IS DETECTED.	When malfunction is indicated by the "AIR BAG" warning lamp in User mode.	Low battery voltage (Less than 9V)	Go to <u>SRS-23, "DIAGNOSTIC PRO-CEDURE 3"</u> .	
	No malfunction is dete	cted.	Go to <u>SRS-23</u> , " <u>DIAGNOSTIC PRO-CEDURE 3</u> " .	
DRIVER AIRBAG MODULE	Driver air bag module	circuit is open (including the spiral cable).	Visually check the wiring harness connection.	
[OPEN] DRIVER AIRBAG MODULE [VB-SHORT]	Driver air bag module (including the spiral ca	circuit is shorted to a power supply circuit ble).	Replace the harness if it has visible damage. If the harness check result is OK,	
DRIVER AIRBAG MODULE [GND-SHORT]	Driver air bag module spiral cable).	circuit is shorted to ground (including the	replace driver air bag module diag- nosis sensor unit and spiral cable.	
DRIVER AIRBAG MODULE [SHORT]	Driver air bag module	circuit is shorted between lines.		S
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.		If the harness check result is OK, replace the diagnosis sensor unit and front passenger air bag module.	
ASSIST A/B MODULE [SHORT]	Front passenger air ba	g module circuit is shorted between lines.	and none passenger all bag module.	
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.	
			If the harness check result is OK, replace crash zone sensor and diagnosis sensor unit.	
SIDE MODULE LH [OPEN]	Front LH side air bag r	nodule circuit is open.	Visually check the wiring harness connection.	
SIDE MODULE LH [VB-SHORT]	Front LH side air bag r ply circuit.	module circuit is shorted to a power sup-	Replace the harness if it has visible damage.	
SIDE MODULE LH [GND-SHORT]	Front LH side air bag r	module circuit is shorted to ground.	3. If the harness check result is OK, replace the diagnosis sensor unit	
SIDE MODULE LH [SHORT]	Front LH side air bag r	module circuit is shorted between lines.	and LH side air bag module.	

SRS-27 Revision: 2005 August 2005 Murano

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Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"	
SIDE MODULE RH [OPEN]	Front RH side air bag module circuit is open.	Visually check the wiring harness connection.	
SIDE MODULE RH [VB-SHORT]	 Front RH side air bag module circuit is shorted to a power sup- ply 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.	
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) sen- sor. 	
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) sen- sor. 	
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.	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 circuits.	Replace the harness if it has visible damage.	
CURTAIN MODULE LH [GND-SHORT]	LH side curtain air bag module circuit is shorted to ground.	If the harness check result is OK, replace the diagnosis sensor unit	
CURTAIN MODULE LH [SHORT]	LH side curtain air bag module circuit is shorted between lines.	and LH side curtain air bag module.	

Diagnostic item	Explanation	Repair order "Recheck SRS at each replacement"
CURTAIN MODULE RH [OPEN]	RH side curtain air bag module circuit is open.	Visually check the wiring harness connection.
CURTAIN MODULE RH [VB-SHORT]	RH side curtain air bag module circuit is shorted to a power supply circuit.	Replace the harness if it has visible damage.
CURTAIN MODULE RH [GND-SHORT]	RH side curtain air bag module circuit is shorted to ground.	If the harness check result is OK, replace the diagnosis sensor unit
CURTAIN MODULE RH [SHORT]	RH side curtain air bag module circuit is shorted between lines.	and RH side curtain air bag module.
CONTROL UNIT	Diagnosis sensor unit is malfunctioning.	Visually check the wiring harness connection.
		2. Replace the diagnosis sensor unit.
FRONTAL COLLISION DETECTION	Seat belt pre-tensioner and front air bag are deployed.	Go to <u>SRS-48</u> , "For Frontal Collision" .
SIDE COLLISION DETECTION	Side and curtain air bag is deployed.	Go to <u>SRS-50</u> , "For <u>Side Collision"</u> .

Trouble Diagnosis without CONSULT-II DIAGNOSTIC PROCEDURE 6

Inspecting SRS Malfunctioning Parts By Using "AIR BAG" Warning Lamp — Diagnosis Mode NOTE:

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

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

SRS is now in Diagnosis mode.

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

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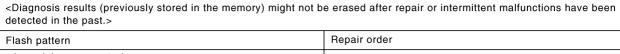
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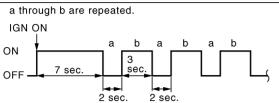
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WARNING LAMP FLASH CODE CHART





2 sec.

2 sec.

0.5 sec

1. Erase memory. (Once key switch is turned from OFF to ON, TROUBLE DIAG RECORD will be erased.)

PHIA0532E

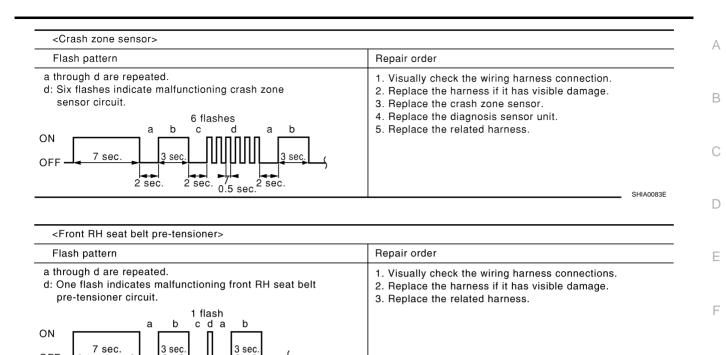
PHIA1233E

<Driver air bag module> Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connection. d: Two flashes indicate malfunctioning driver air bag module 2. Replace the harness if it has visible damage. 3. Replace the spiral cable. circuit. 4. Replace the related harness. 2 flashes b d С ON 7 sec

2 sec.

<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. 3. Replace the diagnosis sensor unit. 4. Replace the related harness. 7 flashes а С ON 7 sec 3 sec 2 sec. 2 sec 2 sec. 0.5 sec SHIA0028E

<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 d а ON 7 sec OFF 2 sec. 2 sec. 2 sec. 0.5 sec. PHIA1234E



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

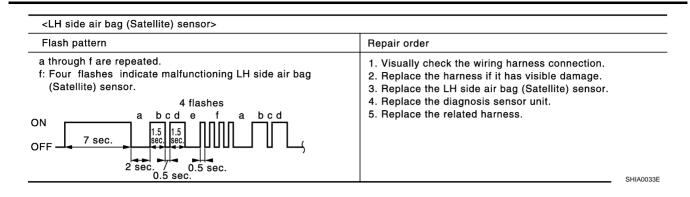
3 sec

0.5 sec.

2 sec.

2 sec.

<rh (satellite)="" air="" bag="" sensor="" side=""></rh>		
Flash pattern	Repair order	
a through f are repeated. f: Three flashes indicate malfunctioning RH side air bag (Satellite) sensor circuit. 3 flashes ON OFF 7 sec. 2 sec. 0.5 sec. 2 sec. 2 sec.	1. Visually check the wiring harness connection. 2. Replace the harness if it has visible damage. 3. Replace the RH side air bag (Satellite) sensor. 4. Replace the diagnosis sensor unit. 5. Replace the related harness.	SHIA0032F



<front air="" bag="" module="" rh="" side=""></front>		
Flash pattern	Repair order	
a through f are repeated. f: One flash indicates malfunctioning front RH side air bag module circuit.	 Visually check the wiring harness connection. Replace the harness if it has visible damage. Replace the related harness. 	
ON 1 flash a b c d e f a b c d OFF 7 sec. 2 sec. 7 0.5 sec. 0.5 sec. 0.5 sec.		PHIA1237E

<front air="" bag="" lh="" module="" side=""></front>		
Flash pattern	Repair order	
a through f are repeated. f: Two flashes indicate malfunctioning front LH side air bag module circuit.	 Visually check the wiring harness connection. Replace the harness if it has visible damage. Replace the related harness. 	
2 flashes a b c d e f a b c d OFF 7 sec. 0.5 sec. 2 sec.		

<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.	Visually check the wiring harness connection. Replace the harness if it has visible damage. Replace the related harness.
ON 7 sec. 7 sec. 9.5 sec. 2 sec. 0.5 sec. 2 sec.	DHIMAGADE

<lh air="" bag="" curtain="" module="" side=""></lh>		
Flash pattern	Repair order	
a through f are repeated. f: Six flashes indicate malfunctioning LH side curtain air bag module circuit. ON OFF 7 sec. 2 sec. 0.5 sec. 2 sec.	Visually check the wiring harness connection. Replace the harness if it has visible damage. Replace the related harness.	
0.5 sec.	PHIA1241E	

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

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1. CHECK THE DEPLOYMENT OF AIR BAG MODULE

Is air bag module deployed?

YES or NO

>> Refer to SRS-48, "COLLISION DIAGNOSIS". YES

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 or replace main harness.

NO >> INSPECTION END

4. CHECK DIAGNOSIS SENSOR UNIT

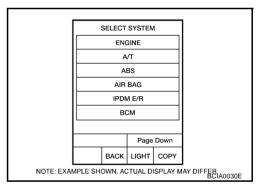
Connect CONSULT-II and touch "START". Is "AIR BAG" displayed on CONSULT-II?

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.

Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn ON DIAGNOSTIC PROCEDURE 8	A
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	В
OK >> GO TO 3. NG >> GO TO 2.	С
2. CHECK METER FUSE AGAIN	D
Replace 10A fuse [No.14, located in fuse block (J/B)] and turn ignition switch ON. Does the meter fuse blow again? YES >> Repair or replace the related harness. NO >> INSPECTION END	Е
3. CHECK HARNESS CONNECTION BETWEEN DIAGNOSIS SENSOR UNIT AND COMBINATION METER	F
Disconnect diagnosis sensor unit connector and turn ignition switch ON. Does "AIR BAG" warning lamp turn on? YES or NO	G
YES >> Replace diagnosis sensor unit. NO >> Replace combination meter assembly.	SR
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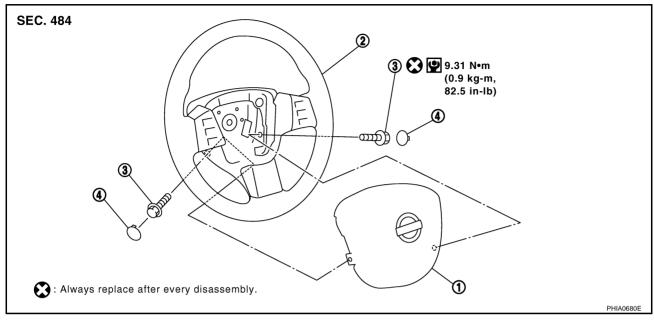
DRIVER AIR BAG MODULE

DRIVER AIR BAG MODULE

PFP:K8510

Removal and Installation

AHS000B1



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

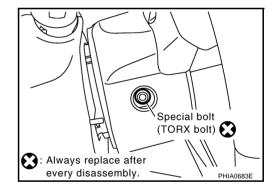
3. Special bolt (TORX bolt)

4. Side lid

REMOVAL

CAUTION:

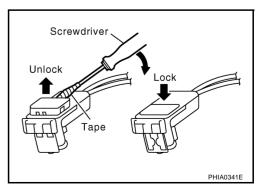
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of driver air bag module.
- 1. Remove the side lids.
- 2. Remove the left and right side special bolts (TORX bolts).



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

CAUTION:

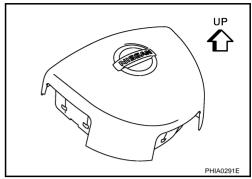
- For installing /removing driver air bag module connector, insert thin screwdriver wrapped in tape into notch, lift lock and remove connector.
- Install connector with lock raised, and push lock into connector.

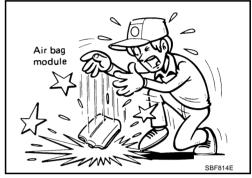


DRIVER AIR BAG MODULE

CAUTION:

- Always work from the side of driver air bag module.
- Always place driver air bag module with pad side facing
- Do not insert any foreign objects (screwdriver, etc.) into driver air bag module.
- Do not disassemble driver air bag module.
- Do not use old bolts after removal: replace with new
- Do not expose the driver air bag module to temperatures exceeding 90°C (194°F).
- Replace driver air bag module if it has been dropped or sustained an impact.
- Do not allow oil, grease or water to come in contact with the front passenger air bag module.





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INSTALLATION

Install in the reverse order of removal.

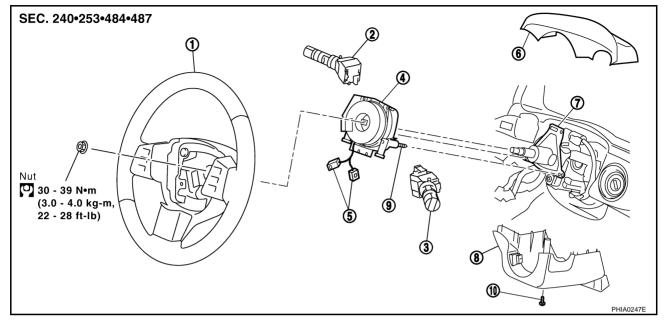
- For installing the air bag module, tighten the special bolts (TORX bolts).
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to SRS-17, "SRS Operation Check".

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SPIRAL CABLE PFP:25554

Removal and Installation

AHS000B2



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

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

REMOVAL

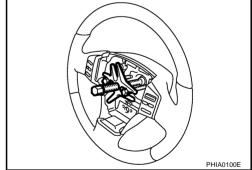
CAUTION:

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

- 1. Remove driver air bag module. Refer to SRS-36, "Removal and Installation".
- 2. Set the steering wheel in the neutral position.
- 3. Remove steering wheel nut.
- 4. Remove steering wheel with steering wheel puller [SST: ST27180001].

CAUTION:

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



- 5. Remove steering column cover upper and lower. Refer to IP-12, "(F) Steering Column Cover" .
- 6. Loosen the spiral cable fixing screws, and then remove the spiral cable.

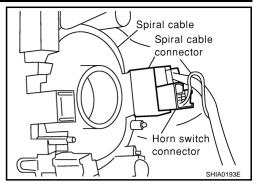
CAUTION:

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

Revision: 2005 August SRS-38 2005 Murano

SPIRAL CABLE

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

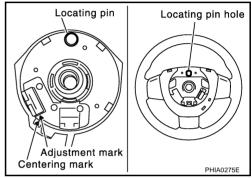


INSTALLATION

Install in the reverse order of removal.

CAUTION:

- The spiral cable may snap due to steering operation if the cable is installed in an improper position.
- Also, with the steering linkage disconnected the cable may snap by turning the steering wheel beyond the limited number of turns. The spiral cable can be turned counterclockwise about 2.5 turns from the right end position.
- After the work is completed, perform self-diagnosis to make sure no malfunction is detected. Refer to <u>SRS-17</u>, <u>"SRS</u> <u>Operation Check"</u>.



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FRONT PASSENGER AIR BAG MODULE

FRONT PASSENGER AIR BAG MODULE

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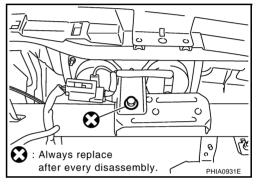
Removal and Installation REMOVAL

AHS000B3

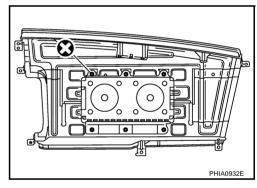
CAUTION:

- Before servicing SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of or under front passenger air bag module.
- 1. Remove instrument passenger lower panel and glove box assembly. Refer to IP-13, "(J) Instrument Passenger Lower Panel Assembly".
- 2. Remove cluster lid C. Refer to IP-14, "(N) Cluster Lid C".
- 3. Remove side ventilator assembly (RH). Refer to IP-13, "(H) Side Ventilator Assembly (LH/RH)".
- 4. Remove instrument side finisher (RH). Refer to IP-13, "(I) Instrument Side Finisher (LH/RH)".
- 5. Disconnect passenger air bag connector.
- 6. Remove fixing bolt, and instrument passenger upper panel and passenger air bag module.

Fixing bolt: 24.5 N·m (2.5 kg-m, 18 ft-lb)



7. Remove nuts, then remove passenger air bag module.



CAUTION:

- Always place front passenger air bag module with the air bag deployment side facing upward.
- Do not insert any foreign objects (screwdriver, etc.) into front passenger air bag module.
- Do not disassemble front passenger air bag module.
- Do not use old bolts after removal; replace with new bolts.
- Replace front passenger air bag module if it has been dropped or sustained an impact.
- Do not expose the front passenger air bag module to temperatures exceeding 90°C (194°F).
- Do not allow oil, grease or water to come in contact with the front passenger air bag module.
- After front passenger air bag module inflates, the instrument panel assembly should be replaced.



FRONT PASSENGER AIR BAG MODULE

INSTALLATION

Install in the reverse order of removal.

CAUTION:

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

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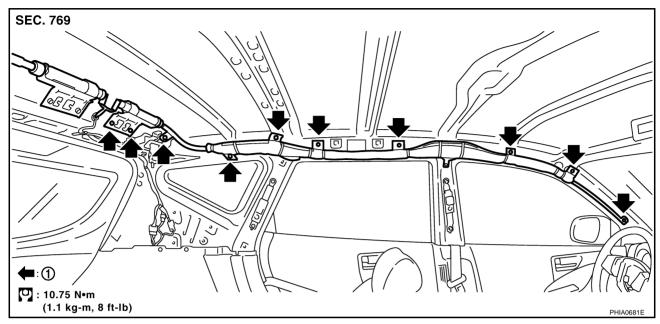
SIDE CURTAIN AIR BAG MODULE

SIDE CURTAIN AIR BAG MODULE

PFP:985P0

Removal and Installation

AHS000B5



1. Bolt

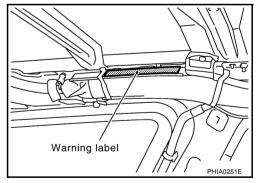
REMOVAL

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

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 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

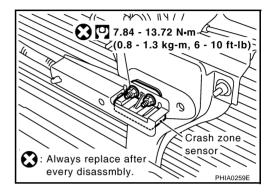
Removal and Installation REMOVAL

AHS000B6

CAUTION:

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

- 1. Remove front grille. Refer to EI-20, "FRONT GRILLE".
- 2. Remove crash zone sensor connector.
- 3. Remove crash zone sensor fixing nuts.



CAUTION:

- Replace crash zone sensor if it has been dropped or sustained an impact.
- Do not 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 no malfunction is detected. Refer to SRS-17, "SRS Operation Check".

SIDE AIR BAG (SATELLITE) SENSOR

SIDE AIR BAG (SATELLITE) SENSOR

PFP:98830

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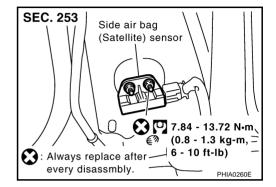
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Removal and Installation REMOVAL

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 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

AHS000B8

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

AHS000B9

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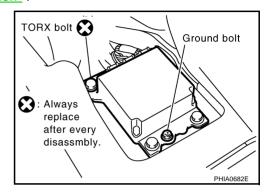
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CAUTION:

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

- 1. Disconnect each harness connector for the air bag module and seat belt pre-tensioner.
- 2. Remove center console. Refer to IP-18, "Removal and Installation".
- 3. Disconnect diagnosis sensor unit connector.
- 4. Remove fixing bolts from the diagnosis sensor unit.

Fixing bolt: 24.5 N-m (2.5 kg-m, 18 ft-lb)
Ground bolt: 6.9 N-m (0.7 kg-m, 61 in-lb)



CAUTION:

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

INSTALLATION

Install in the reverse order of removal.

CAUTION

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

ECU DISCRIMINATED NO.

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

Specification	ECU DISCRIMINATED No.
Driver air bag module, passenger air bag module, side air bag module and side curtain air bag module	FA8A

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COLLISION DIAGNOSIS

PFP:00015

For Frontal Collision

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To repair the SRS, perform the following steps.

When SRS (except the front side air bag and side curtain air bag modules) is activated in a collision:

- Replace the diagnosis sensor unit.
- 2. Remove the air bag modules (except the front side air bag modules and side curtain air bag modules), crash zone sensor assembly, bracket and seat belt pre-tensioner assemblies.
- 3. Check the SRS components using the table below:
- Replace any SRS components showing visible signs of damage (dents, cracks and deformation).
- 4. Install new air bag modules (except the front side air bag modules and side curtain air bag modules) crash zone sensor assembly, bracket and seat belt pre-tensioner assemblies.
- 5. Conduct self-diagnosis using CONSULT-II or "AIR BAG" warning lamp. Refer to <u>SRS-17</u>, "<u>SRS Operation</u> Check" 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 If the Driver air bag has NOT been activated: [same text as in current manual]	
Driver airbag module	If the Driver airbag has deployed: REPLACE. Install with new fasteners.		
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.	If the front airbags or seat belt pre-tensionsers have NOT been activated: [same text as in current manual]	
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 text as	in current manual]	- 1
Spiral cable	If the Driver airbag has deployed:	If the Driver airbag has not deployed:	-
Opirar dable	REPLACE the spiral cable.	[same text as in current manual]	
			(
Harness and con-	1. Check connectors for poor connection, dama	age, and terminals for deformities.	-
nectors	2. Check harness for binding, chafing, cuts, or o	deformities.	Г
	3. If no damage is found, reinstall the harness a	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 found, reinstall the instrumer	nt panel.	
	3. If damaged—REPLACE the instrument pane	l with bolts.	

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

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

WHEN SRS IS NOT ACTIVATED IN THE SIDE COLLISION:

- 1. Check the SRS components and the related parts using the following table.
- Replace any SRS components and the related parts showing visible signs of damage (dents, cracks, deformation).
- 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 is activated	Front side air bag and side curtain air bag is NOT activated
(LH or RH) side curtain air bag module	REPLACE the side curtain air bag module. (Repair the center pillar inner, etc. before installing new one if damaged.)	 Check for visible signs of damage (dents, tears, deformation) of the center pillar on the collision side. If damaged— Remove the side curtain air bag module. Check for visible signs of damaged (tears etc.) of the side curtain air bag module. Check harness and connectors for damage, and terminals for deformities. If no damage is found, reinstall the side curtain air bag module with new bolts. If damaged—REPLACE the side curtain air bag module with new bolts.
Front (LH or RH) side air bag module	REPLACE all parts of seatback with deployed front side air bag module.	 Check for visible signs of damage (dents, tears, deformation) of the seatback on the collision side. Check harness and connectors for damage, and terminals for deformities. If damaged—REPLACE the front seatback assembly.
(LH or RH) side air bag (Satellite) sensor	REPLACE the side air bag (Satellite) sensor on the collision side with new nuts. (Repair the center pillar inner, etc. before installing new one if damaged.)	 Remove the 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 side air bag (Satellite) sensor. Install the side air bag (Satellite) sensor to check fit. If no damage is found, reinstall the side sir bag (Satellite) sensor with new nuts. If damaged—REPLACE the side air bag (Satellite) sensor with new nuts.
Diagnosis sensor unit	REPLACE the diagnosis sensor unit with the new bolts.	 Check case and bracket for dents, cracks or deformities. Check connectors for damage, and terminals for deformities. If no damage is found, reinstall the diagnosis sensor unit with new bolts and ground bolt. If damaged—REPLACE the diagnosis sensor unit with new bolts and ground bolt.

Part	Front side air bag and side curtain air bag is activated	Front side air bag and side curtain air bag is NOT activated	
Seat belt pre-ten-		t can be extended smoothly.	
 Check for deformi If the center pillar Remove the seat for damage, terming Check for visible seat belt action If no damage is for damage is for damage is for damage. 	If the seat belt cannot 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.	
		t pre-tensioner assembly on the collision side. Check harness cover and connectors s 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	CE the seat belt pre-tensioner assembly with new bolts.	
air bag front seatback (including front se	REPLACE all parts of	1. Visually check the seat on the collision side.	
	(including front seat-	Remove the seat on the collision side and check the following for damage and deformities.	
	back frame)	- Harness, connectors and terminals	
		 Frame and recliner (for front and rear seat), and also adjuster and slides (for front seat) 	
		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	er 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	CE the damaged trim parts.	

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