# SECTION SRS SUPPLEMENTAL RESTRAINT SYSTEM (SRS) С

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# PRECAUTIONS

# PRECAUTIONS

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

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

#### WARNING:

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

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

- Do not use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.

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

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

#### **Occupant Classification System Precaution**

Replace control unit and passenger front seat cushion as an assembly.

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# PREPARATION

# PREPARATION

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# **Special Service Tools**

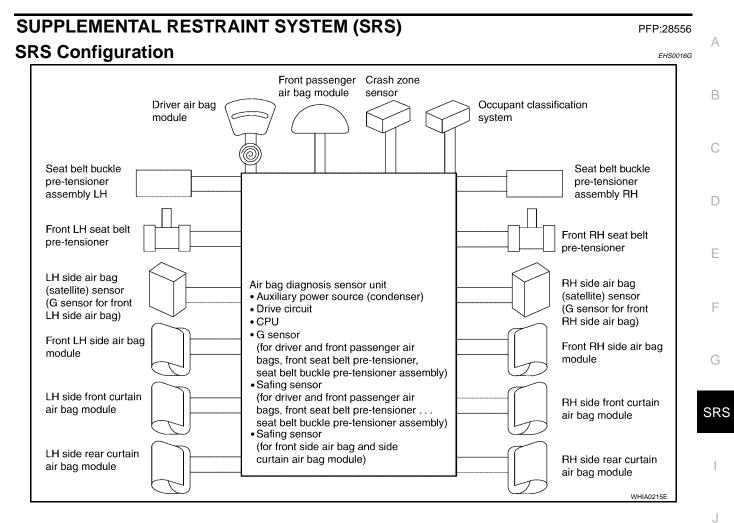
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number		Description
(Kent-Moore No.)		
Tool name		
 (J-42057) Air bag lock master key set		Removing and installing air bag lock
	LRS210	
Commercial Service Tools		EHS0016F

# Tool name (Kent-Moore No.) Description Steering wheel puller (J-1859A) Removing steering wheel LHA0043E LHA0043E Steering wheel puller legs (J-42578) Removing steering wheel

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)



The air bag deploys if the air bag diagnosis sensor unit is activated 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, front passenger air bag module, front seat belt pre-tensioners and seat belt buckle pre-tensioner assemblies are activated in a frontal collision but not in a side collision. SRS configurations for some collision modes are as follows:

SRS configuration	Frontal collision	Left side collision	Right side colli- sion	Rollover
Driver air bag module	x	—	—	—
Front passenger air bag module	x	—		_
Front LH seat belt pre-tensioner	x	—		х
Front LH seat belt buckle pre-tensioner assembly	x	—	_	х
Front RH seat belt pre-tensioner	x	—	_	х
Front RH seat belt buckle pre-tensioner assembly	x	—	_	х
Front LH side air bag module	—	x	_	_
Front RH side air bag module	—	—	х	_
LH side front curtain air bag module	—	x	_	х
LH side rear curtain air bag module	—	x	_	х
RH side front curtain air bag module	—	—	x	х
RH side rear curtain air bag module	—	—	х	х

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

The seat belt pre-tensioner system with load limiter is installed for both the driver's seat and the front passenger's seat. It operates simultaneously with the SRS air bag system in the event of a frontal collision with an impact exceeding a specified level.

When the frontal collision with an impact exceeding a specified level occurs, seat belt slack resulting from clothing or other factors is immediately taken up by the pre-tensioner. Vehicle passengers are securely restrained.

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

# Front Side Air Bag

Front side air bag modules are built into the front seatback assemblies. Vehicles with side air bags are equipped with labels as shown.

# Side Curtain Air Bag

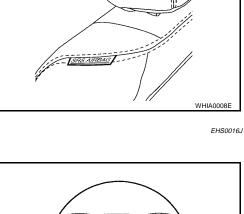
Side curtain air bag modules are located above the vehicle headlining. Vehicles with side curtain air bags are equipped with labels as shown.

# **Occupant Classification System (OCS)**

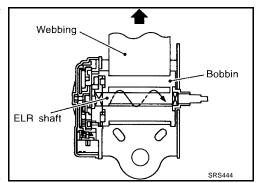
The occupant classification system (OCS) identifies different size occupants, out of position occupants, and detects if child seat is present in the front passenger seat. The OCS receives inputs from the occupant classification sensor (located inside the passenger seat cushion assembly) and belt tension sensor (part of the passenger front seat belt assembly and located at the belt anchor location). Depending on classification of the passenger, the OCS sends a signal to the air bag diagnosis sensor unit. The air bag diagnosis sensor unit uses this signal and the seat belt buckle switch RH signal to determine deployment or non deployment of the passenger front air bag in the event of a collision. Depending on the signals received, the air bag diagnosis sensor unit can disable the passenger front air bag completely.

#### NOTE:

In case of customer concern, CONSULT-II can be used to confirm the passenger air bag status (readiness).



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# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Front Passenger Seat (Condition)	PASS AIR BAG OFF In (Status)	dicator Passenger Air B (Readines	0	CONSULT-II Display
Seat occupied	OFF	Active (enabled)		ON
Seat occupied NOTE	ON	Deactivated (disab	led)	OFF
Seat empty	OFF	Deactivated (disab	led)	OFF
Occupant -		Belt tension sensor	IF.	

#### **Direct-connect SRS Component Connectors**

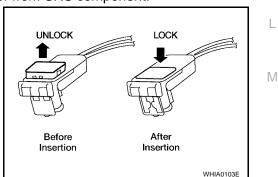
The following SRS components use direct-connect style harness connectors.

Driver air bag module

- Front passenger air bag module
- LH side front curtain air bag module
- LH side rear curtain air bag module
- RH side front curtain air bag module
- RH side rear curtain air bag module
- Front LH seat belt pre-tensioner
- Front RH seat belt pre-tensioner
- Seat belt buckle pre-tensioner assembly LH
- Seat belt buckle pre-tensioner assembly RH

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

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



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#### **Trouble Diagnosis Introduction**

#### CAUTION:

- Do not use electrical test equipment on any circuit related to the SRS unless instructed to do so in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harness connectors.
- Do not attempt to repair, splice or modify SRS wiring harnesses. If a harness is damaged, replace it with a new one.
- Keep ground connections clean.

#### **DIAGNOSIS FUNCTION**

The SRS self-diagnosis results can be read by using "AIR BAG" warning lamp and/or CONSULT-II.

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

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

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

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

#### HOW TO PERFORM TROUBLE DIAGNOSES FOR QUICK AND ACCURATE REPAIR

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

#### **Information From Customer**

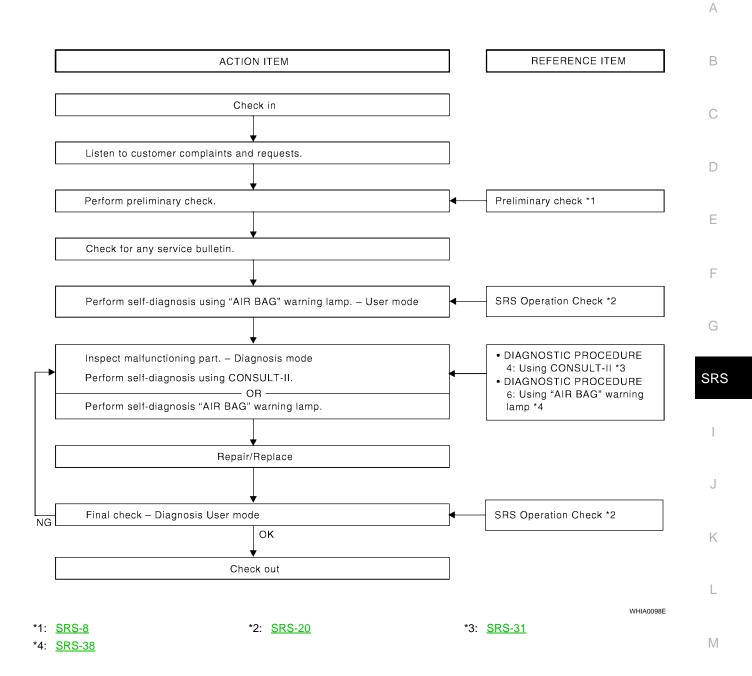
WHAT - Vehicle model WHEN - Date, Frequencies WHERE - Road conditions HOW - Operating conditions, Symptoms

#### **Preliminary Check**

Check that the following parts are in good order.

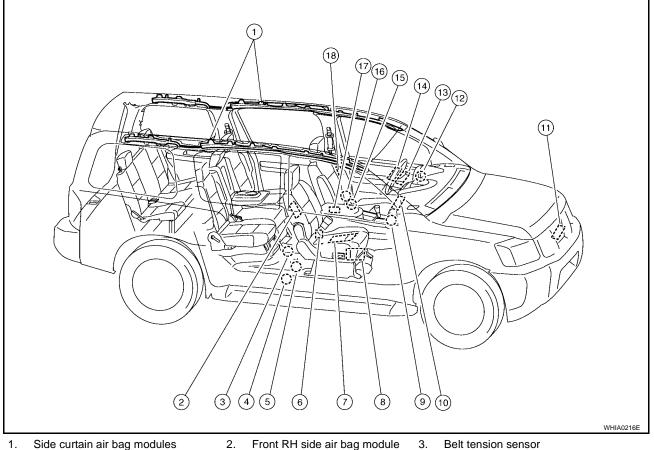
- Battery (Refer to <u>SC-4, "How to Handle Battery"</u>.)
- Fuse (Refer to <u>SRS-12, "Wiring Diagram— SRS —</u>".)
- System component-to-harness connections

#### WORK FLOW



#### **SRS Components Parts Location**

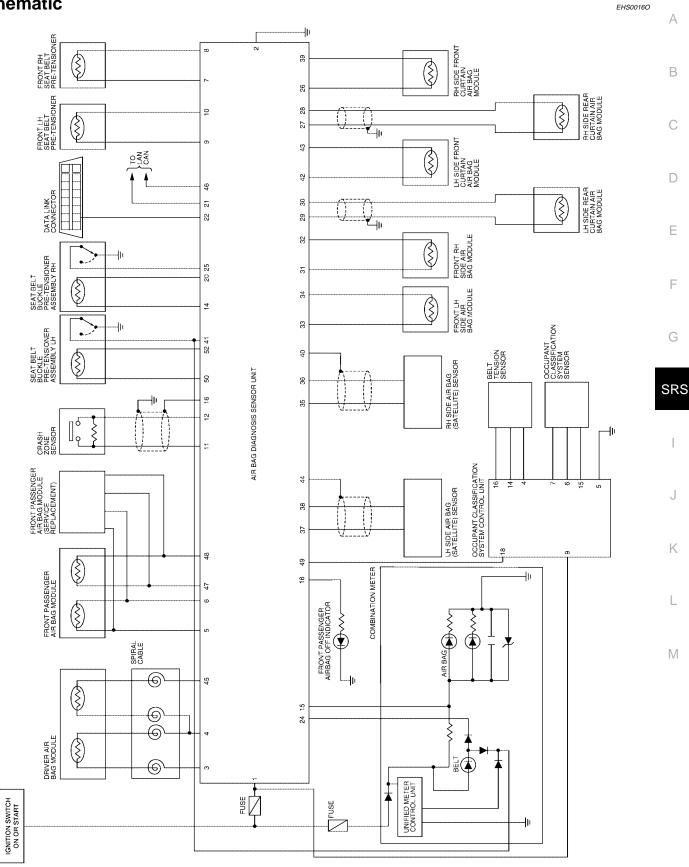




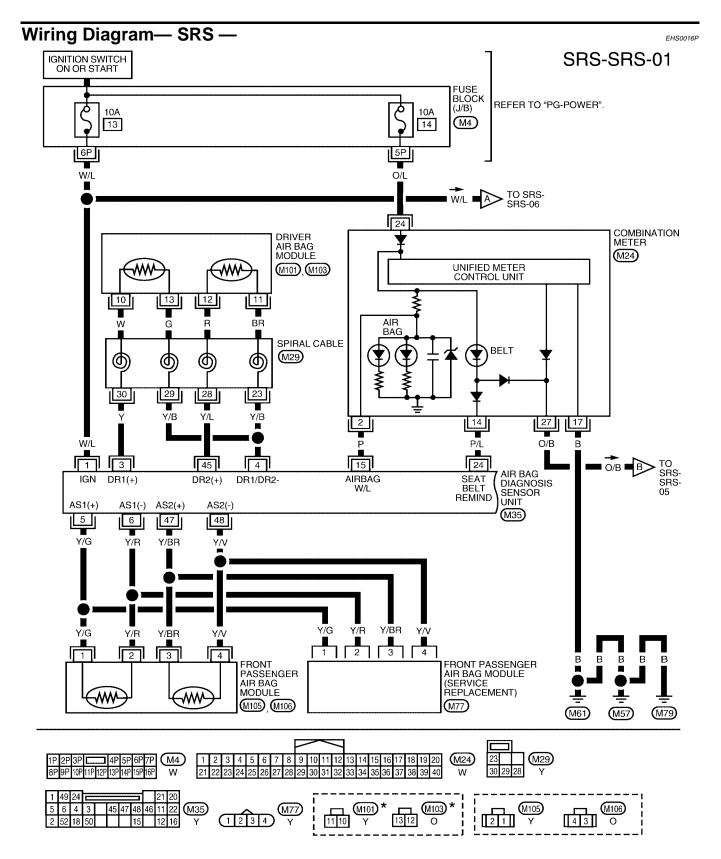
- 1. Side curtain air bag modules
- RH side air bag (satellite) sensor 4.
- 7. Occupant classification system sensor
- 10. Front passenger air bag module
- 13. Spiral cable
- 16. Front LH seat belt pre-tensioner
- 2. Front RH side air bag module 5. Front RH seat belt pre-ten-
- sioner 8. Occupant classification system control unit
- 11. Crash zone sensor
- Driver air bag module 14.
- 17. Air bag diagnosis sensor unit

- Belt tension sensor
- 6. Seat belt buckle pre-tensioner assembly RH
- 9. Front passenger air bag off indicator
- 12. Air bag warning lamp
- 15. LH side air bag (satellite) sensor
- 18. Front LH side air bag module

#### Schematic

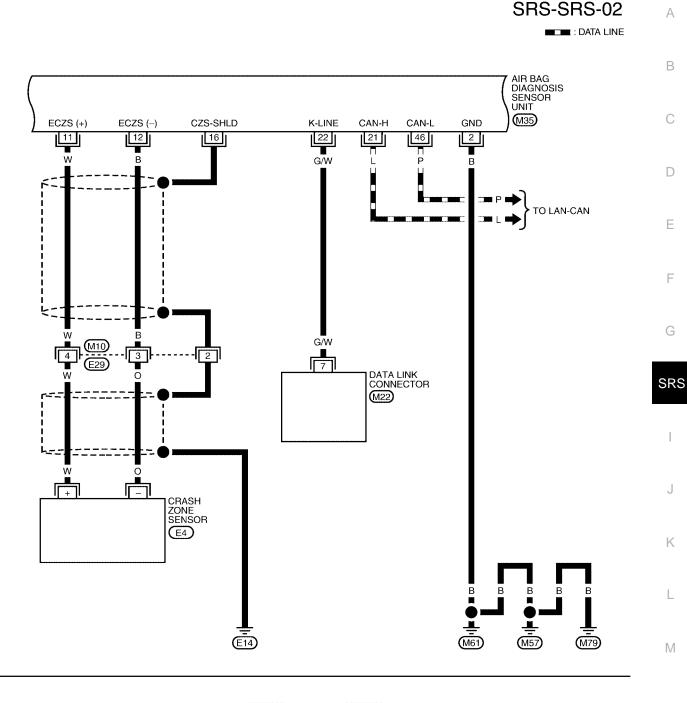


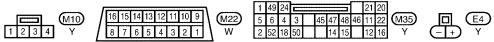
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\*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT" OF PG SECTION.

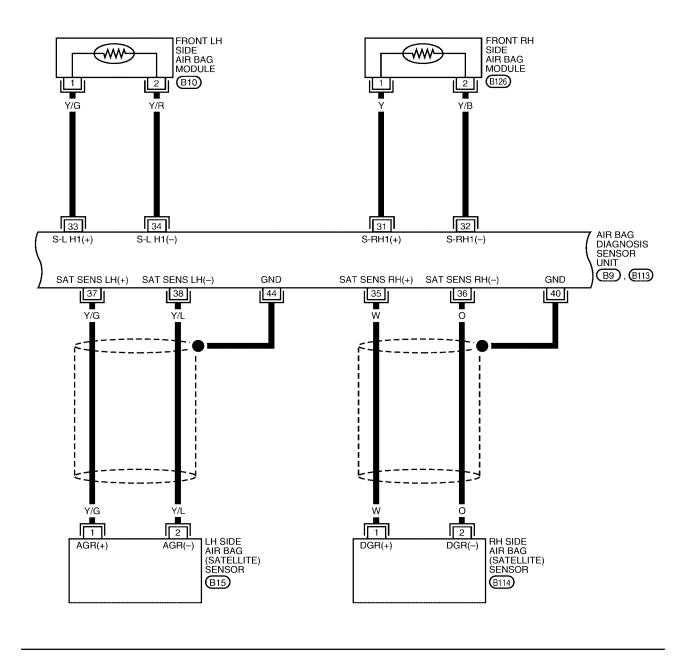
WHWA0328E

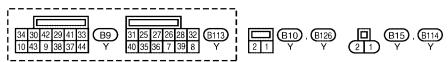




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#### SRS-SRS-03

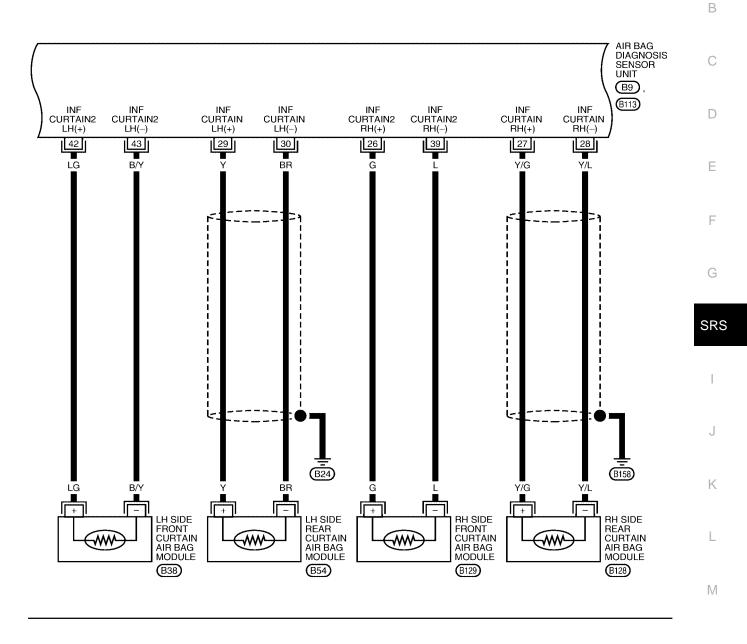


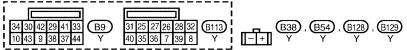


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SRS-SRS-04

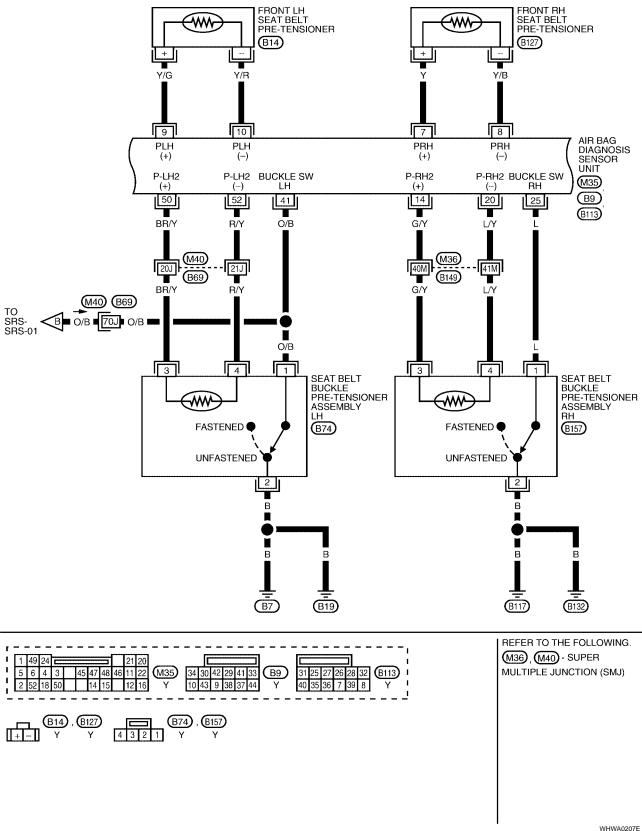
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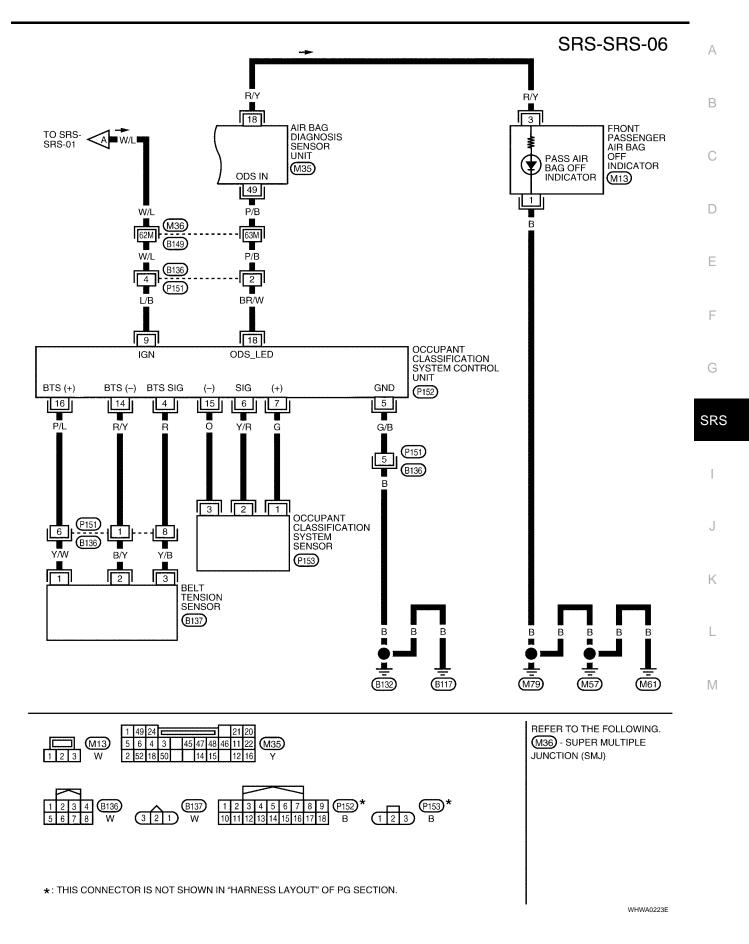


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# SRS-SRS-05



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# **CONSULT-II Function (AIR BAG)**

#### CONSULT-II can display each diagnostic item using the diagnostic test modes shown following.

AIR BAG diagnostic mode	Descri	ption
SELF-DIAG [CURRENT]	A current Self-diagnosis result (also indicated by the mode) is displayed on the CONSULT-II screen in reaing repairs.	
SELF-DIAG [PAST]	Diagnosis results previously stored in the memory a stored results will remain until memory erasing is ex	
TROUBLE DIAG RECORD	With TROUBLE DIAG RECORD, diagnosis results p played on the CONSULT-II screen.	previously erased by a reset operation can be dis-
ECU DISCRIMINATED NO.	The air bag diagnosis sensor unit for each vehicle model is assigned with its own, individual classifi- cation number. This number will be displayed on the CONSULT-II screen, as shown. When replac- ing the air bag 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 CON- SULT-II screen. <b>The air bag diagnosis sensor unit discrimi- nated number assigned is F62F.</b>	ECU DISCRIMINATED NO. ECU No. XXXX PRINT BACK LIGHT COPY ARS366
PASSENGER AIR BAG	The STATUS (readiness) of the front passenger air bag module is displayed. The STATUS displayed (ON/OFF) depends on the signals supplied to the occupant classification system control module and air bag diagnosis sensor unit. Refer to <u>SRS-6.</u> <u>"Occupant Classification System (OCS)"</u> for more information.	PASSENGER AIRBAG         STATUS         OFF         MODE         BACK         LIGHT         COPY         WHIA0290E

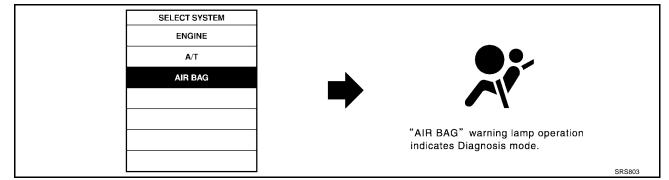
#### **CONSULT-II** Function

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# 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.

SELECT SYSTEM ENGINE		
A/T		
AIR BAG		
	"AIR BAG" warning lamp operation	
	indicates User mode.	
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#### HOW TO ERASE SELF-DIAGNOSIS RESULTS

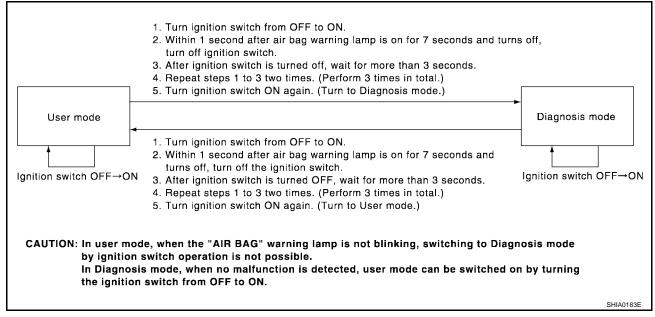
- "SELF-DIAG [CURRENT]" SELF-DIAG [CURRENT] Ε A current self-diagnosis result is displayed on the CONSULT-II DTC RESULTS: screen in real time. NO DTC IS DETECTED. After the malfunction is repaired completely, no malfunction is FURTHER TESTING detected on "SELF-DIAG [CURRENT]". MAY BE REQUIRED. F SRS701 SRS "SELF-DIAG [PAST]" SELF-DIAG [PAST] Return to the "SELF-DIAG [CURRENT]" CONSULT-II screen by DTC RESULTS: touching "BACK" key of CONSULT-II and select "SELF-DIAG NO DTC IS DETECTED. [PAST]" in SELECT DIAG MODE. Touch "ERASE" in "SELF-FURTHER TESTING DIAG [PAST]" mode. MAY BE REQUIRED. NOTE: If the memory of the malfunction in "SELF-DIAG [PAST]" is not erased, the User mode will continue to show the system malfunction by the operation of the warning lamp even if Κ the malfunction is repaired completely. SRS702 L **"TROUBLE DIAG RECORD"** 
  - The memory of "TROUBLE DIAG RECORD" cannot be erased.

# Self-Diagnosis Function (Without CONSULT-II)

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

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#### HOW TO CHANGE SELF-DIAGNOSIS MODE



#### HOW TO ERASE SELF-DIAGNOSIS RESULTS

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

#### SRS Operation Check DIAGNOSTIC PROCEDURE 1

Checking SRS Operation Using "AIR BAG" Warning Lamp—User Mode

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



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#### Warning lamp examples

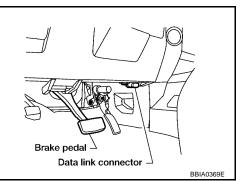
AIR BAG" warning lamp operation-User mode-	SRS condition	Reference item
ON OFF 7 sec. SHIA0011E	<ul> <li>No malfunction is detected.</li> <li>No further action is necessary.</li> </ul>	
OFF 7 sec. 0.5 sec.	The system is malfunctioning and needs to be repaired as indicated.	Go to <u>SRS-22, "DIAGNOSTIC</u> <u>PROCEDURE 2"</u> or <u>SRS-38,</u> <u>"DIAGNOSTIC PROCEDURE 6"</u> .
IGN ON	<ul> <li>Air bag is deployed.</li> <li>Seat belt pre-tensioner is deployed.</li> <li>Seat belt buckle pre-tensioner assembly is deployed.</li> </ul>	Go to <u>SRS-60, "COLLISION DIAG-</u> <u>NOSIS"</u> .
ON OFF SHIA0013E	<ul> <li>Air bag diagnosis sensor unit is mal- functioning.</li> <li>Air bag power supply circuit is mal- functioning.</li> <li>SRS air bag warning lamp circuit is malfunctioning.</li> </ul>	Go to <u>SRS-44, "Trouble Diagnosis:</u> <u>"AIR BAG" Warning Lamp Does Not</u> <u>Turn Off"</u> .
IGN ON ON OFF	<ul> <li>Air bag diagnosis sensor unit is mal- functioning.</li> <li>Air bag warning lamp circuit is mal- functioning.</li> </ul>	Go to <u>SRS-45, "Trouble Diagnosis:</u> <u>"AIR BAG" Warning Lamp Does Not</u> <u>Turn On"</u> .
SHIA0014E		

# Trouble Diagnosis With CONSULT-II DIAGNOSTIC PROCEDURE 2

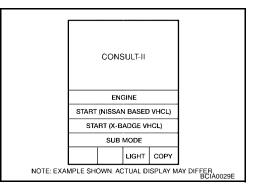
#### **CAUTION:**

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

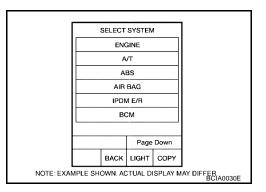
- 1. Turn ignition switch OFF.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to the data link connector.

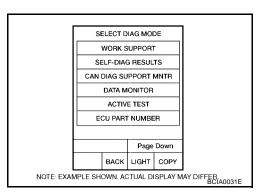


- 3. Turn ignition switch ON.
- 4. Touch "START (NISSAN BASED VHCL)".



5. Touch "AIR BAG". If "AIR BAG" is not indicated, refer to <u>GI-40, "CONSULT-II Data</u> Link Connector (DLC) Circuit".

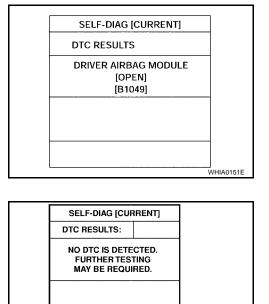




6. Touch "SELF-DIAG [CURRENT]".

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



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If no malfunction is detected on "SELF-DIAG [CURRENT]" even though malfunction is detected in "SRS Operation Check", refer to <u>SRS-31, "DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM</u> <u>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	
	When malfunction is indicated by the "AIR	<ul> <li>Low battery voltage (Less than 9V)</li> </ul>	Go to <u>SRS-28</u> , "DIAGNOSTIC PRO- <u>CEDURE 3"</u> .	1
NO DTC IS DETECTED	BAG" warning lamp in User mode.	<ul> <li>Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair.</li> </ul>	Go to <u>SRS-31, "DIAGNOSTIC PRO-</u> <u>CEDURE 4 (CONTINUED FROM</u> <u>DIAGNOSTIC PROCEDURE 2)"</u> .	J
		<ul> <li>Intermittent malfunction has been detected in the past.</li> </ul>	• Go to <u>SRS-31, "DIAGNOSTIC PRO-</u> <u>CEDURE 5"</u> .	Κ
	<ul> <li>No malfunction is de</li> </ul>	tected.	_	
DRIVER AIRBAG MODULE [OPEN]	• Driver air bag module circuit is open (including the spiral cable).		1. Visually check the wiring harness connection.	L
[B1049] or [B1054]			2. Replace the harness if it has visible	
DRIVER AIRBAG MODULE [VB-SHORT]	• Driver air bag module circuit is shorted to some power sup- ply circuit (including the spiral cable).		damage. 3. Replace driver air bag module.	Μ
[B1050] or [B1055]	p.)		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 air bag diagnosis sen- sor unit.	
[B1051] or [B1056]			6. Replace the related harness.	
DRIVER AIRBAG MODULE [SHORT] [B1052] or [B1057]	<ul> <li>Driver air bag module</li> </ul>	e circuits are shorted to each other.		

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement	
ASSIST A/B MODULE [OPEN]	• Front passenger air bag module circuit is open.	1. Visually check the wiring harness connection.	
[B1065] or [B1070] ASSIST A/B MODULE [VB-SHORT] [B1066] or [B1071]	<ul> <li>Front passenger air bag module circuit is shorted to some power supply circuit.</li> </ul>	<ol> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace front passenger air bag</li> </ol>	
[B1066] or [B1071] ASSIST A/B MODULE [GND-SHORT]	<ul> <li>Front passenger air bag module circuit is shorted to ground.</li> </ul>	4. Replace the air bag diagnosis sensor unit.	
[B1067] or [B1072] ASSIST A/B MODULE [SHORT] [B1068] or [B1073]	<ul> <li>Front passenger air bag module circuits are shorted to each other.</li> </ul>	5. Replace the related harness.	
CRASH ZONE SEN	Crash zone sensor	1. Visually check the wiring harness connection.	
[UNIT FAIL] [B1033] or [B1034]		2. Replace the harness if it has visible damage.	
CRASH ZONE SEN [COMM FAIL] [B1035]		<ol> <li>Replace the crash zone sensor.</li> <li>Replace the air bag diagnosis sensor unit.</li> <li>Replace the related harness.</li> </ol>	
SIDE MODULE LH [OPEN] [B1134]	• Front LH side air bag module circuit is open.	1. Visually check the wiring harness connection.	
SIDE MODULE LH [VB-SHORT] [B1135]	Front LH side air bag module circuit is shorted to some power supply circuit.	<ol> <li>Replace the harness if it has visibl damage.</li> <li>Replace front LH seat back assem bly (front LH side air bag module).</li> </ol>	
SIDE MODULE LH [GND-SHORT] [B1136]	• Front LH side air bag module circuit is shorted to ground.	<ol> <li>Replace the air bag diagnosis sensor unit.</li> <li>Replace the related barness</li> </ol>	
SIDE MODULE LH [SHORT] [B1137]	Front LH side air bag module circuits are shorted to each other.	5. Replace the related harness.	
SIDE MODULE RH [OPEN] [B1129]	• Front RH side air bag module circuit is open.	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the harness if it has visible</li> </ol>	
SIDE MODULE RH [VB-SHORT] [B1130]	• Front RH side air bag module circuit is shorted to some power supply circuit.	<ol> <li>Replace the harness if it has visib damage.</li> <li>Replace front RH seat back asser bly (front RH side air bag module)</li> </ol>	
SIDE MODULE RH [GND-SHORT] [B1131]	• Front RH side air bag module circuit is shorted to ground.	<ol> <li>4. Replace the air bag diagnosis sen sor unit.</li> <li>5. Replace the related harness.</li> </ol>	
SIDE MODULE RH [SHORT] [B1132]	Front RH side air bag module circuits are shorted to each other.		
	LH side air bag (satellite) sensor	1. Visually check the wiring harness connection.	
SATELLITE SENS LH [UNIT FAIL] [B1118] or [B1119]		2. Replace the harness if it has visibl damage.	
[B1118] or [B1119] SATELLITE SENS LH [COMM FAIL]		3. Replace the LH side air bag (satel lite) sensor.	
[B1120]		4. Replace the air bag diagnosis sensor unit.	
		5. Replace the related harness.	

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
	RH side air bag (satellite) sensor	1. Visually check the wiring harness connection.
SATELLITE SENS RH [UNIT FAIL]		2. Replace the harness if it has visible damage.
[B1113] or [B1114] SATELLITE SENS RH [COMM FAIL]		3. Replace the RH side air bag (satel- lite) sensor.
[B1115]		4. Replace the air bag diagnosis sensor unit.
		5. Replace the related harness.
PRE-TEN FRONT LH [OPEN]	• The circuit for front LH seat belt pre-tensioner is open.	1. Visually check the wiring harness connections.
[B1086] PRE-TEN FRONT LH	The circuit for front LH seat belt pre-tensioner is shorted to	2. Replace the harness if it has visible damage.
[VB-SHORT] [B1087]	some power supply circuit.	3. Replace front LH seat belt pre-ten- sioner.
PRE-TEN FRONT LH [GND-SHORT]	• The circuit for front LH seat belt pre-tensioner is shorted to ground.	4. Replace the air bag diagnosis sen- sor unit.
[B1088]		5. Replace the related harness.
PRE-TEN FRONT LH [SHORT] [B1089]	<ul> <li>The circuits for the front LH seat belt pre-tensioner are shorted to each other.</li> </ul>	
PRE-TEN FRONT RH [OPEN]	• The circuit for front RH seat belt pre-tensioner is open.	1. Visually check the wiring harness connections.
[B1081] PRE-TEN FRONT RH	The circuit for front RH seat belt pre-tensioner is shorted to	2. Replace the harness if it has visible damage.
[VB-SHORT] [B1082]	some power supply circuit.	3. Replace front RH seat belt pre-ten- sioner.
PRE-TEN FRONT RH [GND-SHORT]	• The circuit for front RH seat belt pre-tensioner is shorted to ground.	4. Replace the air bag diagnosis sen- sor unit.
[B1083]		5. Replace the related harness.
PRE-TEN FRONT RH [SHORT] [B1084]	• The circuits for the front RH seat belt pre-tensioner are shorted to each other.	
PRE-TEN2 FRONT LH [OPEN]	• The circuit for front LH seat belt buckle pre-tensioner is open.	1. Visually check the wiring harness connections.
		2. Replace the harness if it has visible damage.
PRE-TEN2 FRONT LH [VB-SHORT] [B1183]	<ul> <li>The circuit for front LH seat belt buckle pre-tensioner is shorted to some power supply circuit.</li> </ul>	<ol> <li>Replace front LH seat belt buckle pre-tensioner.</li> </ol>
PRE-TEN2 FRONT LH [GND-SHORT]	<ul> <li>The circuit for front LH seat belt buckle pre-tensioner is shorted to ground.</li> </ul>	4. Replace the air bag diagnosis sensor unit.
[B1184]		5. Replace the related harness.
PRE-TEN2 FRONT LH [SHORT] [B1185]	• The circuits for the front LH seat belt buckle pre-tensioner are shorted to each other.	

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
PRE-TEN2 FRONT RH [OPEN] [B1177]	• The circuit for front RH seat belt buckle pre-tensioner is open.	1. Visually check the wiring harness connections.
PRE-TEN2 FRONT RH	The circuit for front RH seat belt buckle pre-tensioner is	2. Replace the harness if it has visibl damage.
[VB-SHORT] [B1178]	shorted to some power supply circuit.	3. Replace front RH seat belt buckle pre-tensioner.
PRE-TEN2 FRONT RH [GND-SHORT] [B1179]	<ul> <li>The circuit for front RH seat belt buckle pre-tensioner is shorted to ground.</li> </ul>	<ol> <li>Replace the air bag diagnosis sen sor unit.</li> <li>Replace the related barrees</li> </ol>
PRE-TEN2 FRONT RH	The circuits for the front RH seat belt buckle pre-tensioner	5. Replace the related harness.
[SHORT] [B1180]	are shorted to each other.	
FR CURTN MODULE LH [OPEN] [B1198]	• The LH side front curtain air bag module circuit is open.	1. Visually check the wiring harness connection.
FR CURTN MODULE LH	The LH side front curtain air bag module circuit is shorted	2. Replace the harness if it has visibl damage.
[VB-SHORT] [B1199]	to some power supply circuits.	3. Replace LH side curtain air bag module.
FR CURTN MODULE LH [GND-SHORT]	• The LH side front curtain air bag module circuit is shorted to ground.	<ol> <li>Replace the air bag diagnosis sen sor unit.</li> </ol>
[B1200]		5. Replace the related harness.
FR CURTN MODULE LH [SHORT] [B1201]	• The circuits for the LH side front curtain air bag module are shorted to each other.	
FR CURTN MODULE RH [OPEN]	• The RH side front curtain air bag module circuit is open.	1. Visually check the wiring harness connection.
[B1193] FR CURTN MODULE RH	• The DH side front surfain oir bag module singuit is shorted	<ol> <li>Replace the harness if it has visibl damage.</li> </ol>
[VB-SHORT] [B1194]	• The RH side front curtain air bag module circuit is shorted to some power supply circuits.	<ol> <li>Replace RH side curtain air bag module.</li> </ol>
FR CURTN MODULE RH [GND-SHORT]	• The RH side front curtain air bag module circuit is shorted to ground.	<ol> <li>Replace the air bag diagnosis sen sor unit.</li> </ol>
[B1195]		5. Replace the related harness.
FR CURTN MODULE RH [SHORT] [B1196]	• The circuits for the RH side front curtain air bag module are shorted to each other.	
CURTAIN MODULE LH [OPEN] [B1150]	• The LH side rear curtain air bag module circuit is open.	1. Visually check the wiring harness connection.
CURTAIN MODULE LH	The LH side rear curtain air bag module circuit is shorted to	<ol> <li>Replace the harness if it has visibl damage.</li> </ol>
[VB-SHORT] [B1151]	some power supply circuits.	3. Replace LH side curtain air bag module.
CURTAIN MODULE LH [GND-SHORT] [B1152]	• The LH side rear curtain air bag module circuit is shorted to ground.	<ol> <li>Replace the air bag diagnosis sen sor unit.</li> <li>Replace the related harness.</li> </ol>
CURTAIN MODULE LH [SHORT] [B1153]	• The circuits for the LH side rear curtain air bag module are shorted to each other.	

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
CURTAIN MODULE RH [OPEN]	• The RH side rear curtain air bag module circuit is open.	1. Visually check the wiring harness connection.
[B1145] CURTAIN MODULE RH	The RH side rear curtain air bag module circuit is shorted	2. Replace the harness if it has visible damage.
[VB-SHORT] [B1146]	to some power supply circuits.	3. Replace RH side curtain air bag module.
CURTAIN MODULE RH [GND-SHORT]	• The RH side rear curtain air bag module circuit is shorted to ground.	4. Replace the air bag diagnosis sen- sor unit.
[B1147]		5. Replace the related harness.
CURTAIN MODULE RH [SHORT] [B1148]	• The circuits for the RH side rear curtain air bag module are shorted to each other.	
CONTROL UNIT	• Air bag diagnosis sensor unit is malfunctioning.	1. Visually check the wiring harness connection.
[B1XXX]		2. Replace the air bag diagnosis sensor unit.
OCCUPANT SENS C/U [UNIT FAIL] [B1017] or [B1021]	The OCS control unit is malfunctioning.	1. Replace RH front seat cushion/ occupant classification system con- trol unit assembly.
	• The OCS control unit is malfunctioning.	1. Replace the harness if it has visible damage.
OCCUPANT SENS C/U [UNIT FAIL] [B1020]		<ol> <li>Replace the RH front seat cushion assembly. Do not disassemble the seat cushion assembly.</li> </ol>
		3. Replace the RH front seat belt assembly.
	• Communication between the OCS control unit and air bag diagnosis sensor unit is interrupted.	1. Visually check the wiring harness connection.
		2. Replace the harness if it has visible damage.
OCCUPANT SENS C/U [COMM FAIL] [B1022]		<ol> <li>Replace RH front seat cushion assembly. Do not disassemble the seat cushion assembly.</li> </ol>
		<ol> <li>Replace the air bag diagnosis sen- sor unit.</li> </ol>
		5. Replace the related harness.
OCCUPANT SENS	<ul> <li>OCS sensor is malfunctioning.</li> </ul>	1. Visually check the wiring harness connection to the OCS sensor.
[UNIT FAIL] [B1018]		<ol> <li>Replace RH front seat cushion assembly. Do not disassemble the seat cushion assembly.</li> </ol>
	Belt tension sensor is malfunctioning.	1. Visually check the wiring harness connection.
		2. Replace the harness if it has visible damage.
BELT TENSION SENS [UNIT FAIL] [B1019]		3. Replace RH front seat belt assembly.
[B1019]		<ol> <li>Replace RH front seat cushion assembly. Do not disassemble the seat cushion assembly.</li> </ol>
		5. Replace the related harness.

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
	• Front passenger air bag off indicator is malfunctioning.	1. Visually check the wiring harness connection.
PASS A/B INDCTR CKT [B1023]		2. Replace the harness if it has visible damage.
		3. Replace front passenger air bag off indicator.
		4. Replace the air bag diagnosis sen- sor unit.
		5. Replace the related harness.
FRONTAL COLLISION DETECTION [B1209]	• Driver and front passenger air bag modules are deployed.	1. Refer to <u>SRS-60, "COLLISION</u> <u>DIAGNOSIS"</u> .
SIDE COLLISION DETECTION [B1210]	• Side or curtain air bag modules are deployed (with side air bags only).	1. Refer to <u>SRS-60, "COLLISION</u> <u>DIAGNOSIS"</u> .
ROLLOVER DETECTION [B1211]	Curtain air bag module and seat belt pre-tensioner are deployed.	1. Refer to <u>SRS-60, "COLLISION</u> <u>DIAGNOSIS"</u> .

#### 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.

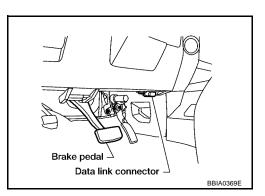
#### **DIAGNOSTIC PROCEDURE 3**

#### Final Check of SRS Using CONSULT-II—Diagnosis Mode

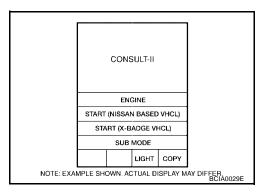
#### **CAUTION:**

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

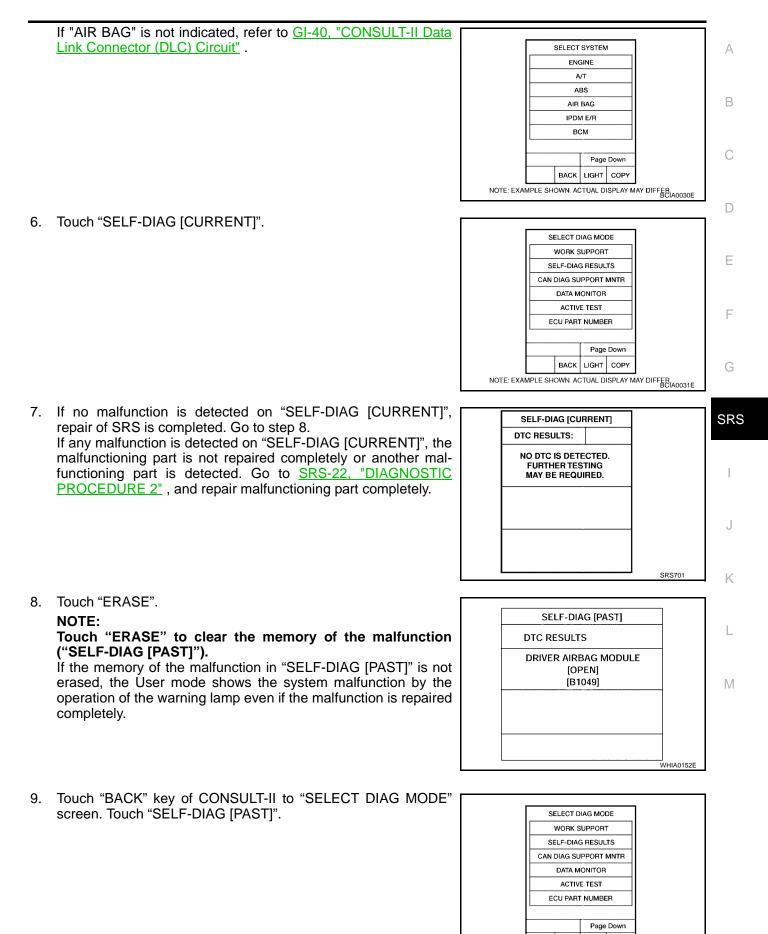
- 1. After repairing SRS, connect both battery cables.
- 2. Connect CONSULT-II and CONSULT-II CONVERTER to data link connector.
- 3. Turn ignition switch ON.



4. Touch "START (NISSAN BASED VHCL)".



#### 5. Touch "AIR BAG".



BACK LIGHT COPY

- 10. Check that no malfunction is detected on "SELF-DIAG [PAST]".
- 11. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears in order to return to User mode from Diagnosis mode.
- 12. Turn ignition switch OFF then turn off and disconnect CON-SULT-II.
- 13. Go to <u>SRS-20, "Checking SRS Operation Using "AIR BAG"</u> <u>Warning Lamp—User Mode"</u>.

SELF-DIAG [P/	AST]	
DTC RESULTS:		
NO DTC IS DETE FURTHER TEST MAY BE REQUI	ING	
		SRS702

#### **DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2) Check SRS Repair History**

#### 1. CONSIDER POSSIBILITY THAT SELF-DIAGNOSTIC RESULT WAS NOT ERASED AFTER REPAIR

Check repair history of the SRS.

Have any previous repairs been made to the SRS?

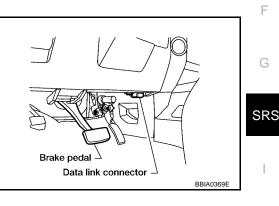
- >> Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased Yes after repair. Go to SRS-28, "DIAGNOSTIC PROCEDURE 3" .
- No >> Go to SRS-22, "DIAGNOSTIC PROCEDURE 2".

#### **DIAGNOSTIC PROCEDURE 5**

#### Check SRS Intermittent Malfunction 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 carries out CAN communication.

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



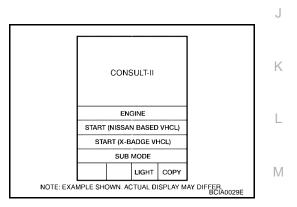
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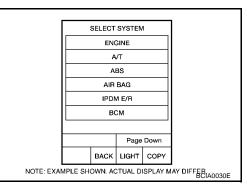
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F

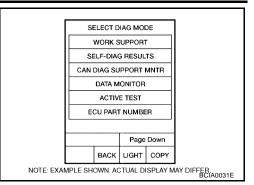
- 3. Turn ignition switch ON.
- Touch "START (NISSAN BASED VHCL)". 4.



Touch "AIR BAG". 5. If "AIR BAG" is not indicated, refer to GI-40, "CONSULT-II Data Link Connector (DLC) Circuit".



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



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

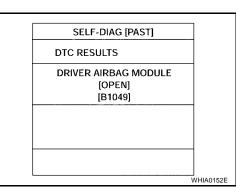
If no malfunction is detected on "SELF-DIAG [PAST]", touch

With "TROUBLE DIAG RECORD", diagnosis results previ-

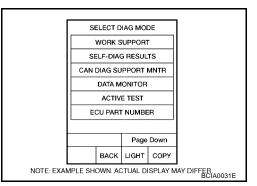
ously erased by a reset operation can be displayed.

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

Touch "TROUBLE DIAG RECORD".



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



- 9. Diagnostic code is displayed on "TROUBLE DIAG RECORD".
- 10. Touch "PRINT".

8.

NOTE:

- 11. Compare diagnostic codes to <u>SRS-33, "CONSULT-II Diagnostic</u> <u>Code Chart ("SELF-DIAG [PAST]" or "TROUBLE DIAG</u> <u>RECORD")"</u>.
- 12. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears.
- 13. Turn ignition switch OFF, then turn off and disconnect CON-SULT-II, and both battery cables.

		1
TROUBLE	DIAG RECORD	
DTC RESU	LTS	
	RBAG MODULE	
-	OPEN]	
[]	B1049]	
L		J VHIA0153E

- 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-28, "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
	When malfunction is indicated by the "AIR	<ul> <li>Low battery voltage (Less than 9V)</li> </ul>	• Go to <u>SRS-28, "DIAGNOSTIC PRO-</u> <u>CEDURE 3"</u> .
NO DTC IS DETECTED	BAG" warning lamp in User mode.	<ul> <li>Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair.</li> <li>Intermittent malfunction has been detected in the past.</li> </ul>	<ul> <li>Go to <u>SRS-31, "DIAGNOSTIC PRO-CEDURE 4 (CONTINUED FROM</u>DIAGNOSTIC PROCEDURE 2)".</li> <li>Go to <u>SRS-31, "DIAGNOSTIC PROCEDURE 5"</u>.</li> </ul>
	No malfunction is de		
DRIVER AIRBAG MODULE [OPEN] [B1049] or [B1054]	<ul> <li>Driver air bag modul cable).</li> </ul>	e circuit is open (including the spiral	1. Visually check the wiring harness connection.
DRIVER AIRBAG MODULE	<ul> <li>Driver air bag modul</li> </ul>	e circuit is shorted to some power sup-	2. Replace the harness if it has visible damage.
[VB-SHORT]	ply circuit (including		3. Replace driver air bag module.
[B1050] or [B1055]	. Driver ein het met duit		4. Replace the spiral cable.
DRIVER AIRBAG MODULE [GND-SHORT] [B1051] or [B1056]	• Driver air bag module circuit is shorted to ground (including the spiral cable).		5. Replace the air bag diagnosis sen- sor unit.
DRIVER AIRBAG MODULE	• Driver air bag module circuits are shorted to each other.		6. Replace the related harness.
[SHORT] [B1052] or [B1057]			
ASSIST A/B MODULE [OPEN]	• Front passenger air bag module circuit is open.		1. Visually check the wiring harness connection.
[B1065] or [B1070]	- Front nonconner oir		2. Replace the harness if it has visible damage.
ASSIST A/B MODULE [VB-SHORT] [B1066] or [B1071]	<ul> <li>Front passenger air bag module circuit is shorted to some power supply circuit.</li> </ul>		<ol> <li>Replace front passenger air bag module.</li> </ol>
ASSIST A/B MODULE [GND-SHORT]	<ul> <li>Front passenger air bag module circuit is shorted to ground.</li> </ul>		4. Replace the air bag diagnosis sen- sor unit.
[B1067] or [B1072]			5. Replace the related harness.
ASSIST A/B MODULE [SHORT]	<ul> <li>Front passenger air bag module circuits are shorted to each other.</li> </ul>		
[B1068] or [B1073]	Oresh		
	<ul> <li>Crash zone sensor</li> </ul>		<ol> <li>Visually check the wiring harness connection.</li> </ol>
CRASH ZONE SEN [UNIT FAIL] [B1033] or [B1034]			2. Replace the harness if it has visible damage.
CRASH ZONE SEN			3. Replace the crash zone sensor.
[COMM FAIL] [B1035]			<ol> <li>Replace the air bag diagnosis sen- sor unit.</li> </ol>
			5. Replace the related harness.

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Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
SIDE MODULE LH [OPEN] [B1134]	• Front LH side air bag module circuit is open.	1. Visually check the wiring harness connection.
SIDE MODULE LH	Front LH side air bag module circuit is shorted to some	2. Replace the harness if it has visible damage.
[VB-SHORT] [B1135]	power supply circuit.	<ol> <li>Replace front LH seat back assembly (front LH side air bag module).</li> </ol>
SIDE MODULE LH [GND-SHORT]	• Front LH side air bag module circuit is shorted to ground.	4. Replace the air bag diagnosis sensor unit.
[B1136] SIDE MODULE LH [SHORT] [B1137]	• Front LH side air bag module circuits are shorted to each other.	5. Replace the related harness.
SIDE MODULE RH [OPEN] [B1129]	• Front RH side air bag module circuit is open.	1. Visually check the wiring harness connection.
SIDE MODULE RH	Front RH side air bag module circuit is shorted to some	2. Replace the harness if it has visible damage.
[VB-SHORT] [B1130]	power supply circuit.	<ol> <li>Replace front RH seat back assembly (front RH side air bag module).</li> </ol>
SIDE MODULE RH [GND-SHORT]	• Front RH side air bag module circuit is shorted to ground.	4. Replace the air bag diagnosis sensor unit.
[B1131]		5. Replace the related harness.
SIDE MODULE RH [SHORT] [B1132]	• Front RH side air bag module circuits are shorted to each other.	
	LH side air bag (satellite) sensor	1. Visually check the wiring harness connection.
SATELLITE SENS LH [UNIT FAIL]		2. Replace the harness if it has visible damage.
[B1118] or [B1119] SATELLITE SENS LH [COMM FAIL]		3. Replace the LH side air bag (satel- lite) sensor.
[B1120]		4. Replace the air bag diagnosis sensor unit.
		5. Replace the related harness.
	RH side air bag (satellite) sensor	1. Visually check the wiring harness connection.
SATELLITE SENS RH [UNIT FAIL]		<ol> <li>Replace the harness if it has visible damage.</li> </ol>
[B1113] or [B1114] SATELLITE SENS RH [COMM FAIL]		3. Replace the RH side air bag (satel- lite) sensor.
[B1115]		4. Replace the air bag diagnosis sensor unit.
		5. Replace the related harness.
PRE-TEN FRONT LH [OPEN] [B1086]	• The circuit for front LH seat belt pre-tensioner is open.	1. Visually check the wiring harness connections.
[B1086]		2. Replace the harness if it has visible
PRE-TEN FRONT LH [VB-SHORT] [B1087]	• The circuit for front LH seat belt pre-tensioner is shorted to some power supply circuit.	damage. 3. Replace front LH seat belt pre-ten- sioner.
PRE-TEN FRONT LH [GND-SHORT] [B1088]	• The circuit for front LH seat belt pre-tensioner is shorted to ground.	4. Replace the air bag diagnosis sen- sor unit.
PRE-TEN FRONT LH [SHORT] [B1089]	• The circuits for the front LH seat belt pre-tensioner are shorted to each other.	5. Replace the related harness.

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
PRE-TEN FRONT RH [OPEN]	• The circuit for front RH seat belt pre-tensioner is open.	1. Visually check the wiring harness connections.
[B1081]		2. Replace the harness if it has visible damage.
PRE-TEN FRONT RH [VB-SHORT] [B1082]	<ul> <li>The circuit for front RH seat belt pre-tensioner is shorted to some power supply circuit.</li> </ul>	3. Replace front RH seat belt pre-ten- sioner.
PRE-TEN FRONT RH [GND-SHORT] [B1083]	• The circuit for front RH seat belt pre-tensioner is shorted to ground.	<ul><li>4. Replace the air bag diagnosis sensor unit.</li><li>5. Replace the related harness.</li></ul>
PRE-TEN FRONT RH [SHORT] [B1084]	<ul> <li>The circuits for the front RH seat belt pre-tensioner are shorted to each other.</li> </ul>	
PRE-TEN2 FRONT LH [OPEN] [B1182]	• The circuit for front LH seat belt buckle pre-tensioner is open.	1. Visually check the wiring harness connections.
PRE-TEN2 FRONT LH	The circuit for front LH seat belt buckle pre-tensioner is	2. Replace the harness if it has visible damage.
[VB-SHORT] [B1183]	shorted to some power supply circuit.	3. Replace front LH seat belt buckle pre-tensioner.
PRE-TEN2 FRONT LH [GND-SHORT]	• The circuit for front LH seat belt buckle pre-tensioner is shorted to ground.	4. Replace the air bag diagnosis sensor unit.
[B1184]		5. Replace the related harness.
PRE-TEN2 FRONT LH [SHORT] [B1185]	• The circuits for the front LH seat belt buckle pre-tensioner are shorted to each other.	
PRE-TEN2 FRONT RH [OPEN]	• The circuit for front RH seat belt buckle pre-tensioner is open.	1. Visually check the wiring harness connections.
		2. Replace the harness if it has visible damage.
PRE-TEN2 FRONT RH [VB-SHORT] [B1178]	<ul> <li>The circuit for front RH seat belt buckle pre-tensioner is shorted to some power supply circuit.</li> </ul>	3. Replace front RH seat belt buckle pre-tensioner.
PRE-TEN2 FRONT RH [GND-SHORT]	• The circuit for front RH seat belt buckle pre-tensioner is shorted to ground.	4. Replace the air bag diagnosis sensor unit.
[B1179]		5. Replace the related harness.
PRE-TEN2 FRONT RH [SHORT] [B1180]	• The circuits for the front RH seat belt buckle pre-tensioner are shorted to each other.	
FR CURTN MODULE LH [OPEN]	• The LH side front curtain air bag module circuit is open.	1. Visually check the wiring harness connection.
[B1198]		2. Replace the harness if it has visible
FR CURTN MODULE LH [VB-SHORT] [B1199]	• The LH side front curtain air bag module circuit is shorted to some power supply circuits.	damage. 3. Replace LH side curtain air bag module.
FR CURTN MODULE LH [GND-SHORT]	<ul> <li>The LH side front curtain air bag module circuit is shorted to ground.</li> </ul>	4. Replace the air bag diagnosis sen- sor unit.
[B1200]		5. Replace the related harness.
FR CURTN MODULE LH [SHORT] [B1201]	• The circuits for the LH side front curtain air bag module are shorted to each other.	

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
FR CURTN MODULE RH [OPEN] [B1193]	• The RH side front curtain air bag module circuit is open.	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the harness if it has visible</li> </ol>
FR CURTN MODULE RH [VB-SHORT] [B1194]	• The RH side front curtain air bag module circuit is shorted to some power supply circuits.	damage. 3. Replace RH side curtain air bag module.
FR CURTN MODULE RH [GND-SHORT] [B1195]	• The RH side front curtain air bag module circuit is shorted to ground.	<ol> <li>4. Replace the air bag diagnosis sensor unit.</li> <li>5. Replace the related harness.</li> </ol>
FR CURTN MODULE RH [SHORT] [B1196]	• The circuits for the RH side front curtain air bag module are shorted to each other.	
CURTAIN MODULE LH [OPEN] [B1150]	• The LH side rear curtain air bag module circuit is open.	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the harness if it has visible</li> </ol>
CURTAIN MODULE LH [VB-SHORT] [B1151]	• The LH side rear curtain air bag module circuit is shorted to some power supply circuits.	damage. 3. Replace LH side curtain air bag module.
CURTAIN MODULE LH [GND-SHORT] [B1152]	• The LH side rear curtain air bag module circuit is shorted to ground.	<ol> <li>4. Replace the air bag diagnosis sensor unit.</li> <li>5. Replace the related harness.</li> </ol>
CURTAIN MODULE LH [SHORT] [B1153]	• The circuits for the LH side rear curtain air bag module are shorted to each other.	
CURTAIN MODULE RH [OPEN] [B1145]	• The RH side rear curtain air bag module circuit is open.	<ol> <li>Visually check the wiring harness connection.</li> <li>Deploce the horness if it has visible</li> </ol>
CURTAIN MODULE RH [VB-SHORT] [B1146]	• The RH side rear curtain air bag module circuit is shorted to some power supply circuits.	<ol> <li>Replace the harness if it has visible damage.</li> <li>Replace RH side curtain air bag module.</li> </ol>
CURTAIN MODULE RH [GND-SHORT] [B1147]	• The RH side rear curtain air bag module circuit is shorted to ground.	<ol> <li>Replace the air bag diagnosis sensor unit.</li> <li>Replace the related harness.</li> </ol>
CURTAIN MODULE RH [SHORT] [B1148]	• The circuits for the RH side rear curtain air bag module are shorted to each other.	
CONTROL UNIT [B1XXX]	• Air bag diagnosis sensor unit is malfunctioning.	<ol> <li>Visually check the wiring harness connection.</li> <li>Replace the air bag diagnosis sen-</li> </ol>
[51000]		sor unit.
OCCUPANT SENS C/U [UNIT FAIL] [B1017] or [B1021]	<ul> <li>The OCS control unit is malfunctioning.</li> </ul>	<ol> <li>Replace RH front seat cushion/ occupant classification system con trol unit assembly.</li> </ol>
	• The OCS control unit is malfunctioning.	1. Replace the harness if it has visible damage.
OCCUPANT SENS C/U [UNIT FAIL] [B1020]		<ol> <li>Replace the RH front seat cushion assembly. Do not disassemble the seat cushion assembly.</li> </ol>
		3. Replace the RH front seat belt assembly.

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
	• Communication between the OCS control unit and air bag diagnosis sensor unit is interrupted.	1. Visually check the wiring harness connection.
		2. Replace the harness if it has visible damage.
OCCUPANT SENS C/U [COMM FAIL] [B1022]		<ol> <li>Replace RH front seat cushion assembly. Do not disassemble the seat cushion assembly.</li> </ol>
		<ol> <li>Replace the air bag diagnosis sen- sor unit.</li> </ol>
		5. Replace the related harness.
OCCUPANT SENS	OCS sensor is malfunctioning.	1. Visually check the wiring harness connection to the OCS sensor.
[UNIT FAIL] [B1018]		<ol> <li>Replace RH front seat cushion assembly. Do not disassemble the seat cushion assembly.</li> </ol>
	Belt tension sensor is malfunctioning.	1. Visually check the wiring harness connection.
BELT TENSION SENS [UNIT FAIL] [B1019]		2. Replace the harness if it has visible damage.
		3. Replace RH front seat belt assem- bly.
		4. Replace RH front seat cushion assembly. Do not disassemble the seat cushion assembly.
		5. Replace the related harness.
	• Front passenger air bag off indicator is malfunctioning.	1. Visually check the wiring harness connection.
		2. Replace the harness if it has visible damage.
PASS A/B INDCTR CKT [B1023]		3. Replace front passenger air bag off indicator.
		<ol> <li>Replace the air bag diagnosis sen- sor unit.</li> </ol>
		5. Replace the related harness.
FRONTAL COLLISION DETECTION [B1209]	• Driver and front passenger air bag modules are deployed.	1. Refer to <u>SRS-60, "COLLISION</u> <u>DIAGNOSIS"</u> .
SIDE COLLISION DETECTION [B1210]	• Side or curtain air bag modules are deployed (with side air bags only).	1. Refer to <u>SRS-60, "COLLISION</u> <u>DIAGNOSIS"</u> .
ROLLOVER DETECTION [B1211]	<ul> <li>Curtain air bag module and seat belt pre-tensioner are deployed.</li> </ul>	1. Refer to <u>SRS-60, "COLLISION</u> <u>DIAGNOSIS"</u> .

### Trouble Diagnosis Without CONSULT-II DIAGNOSTIC PROCEDURE 6

# Inspect SRS Malfunction Using "AIR BAG" Warning Lamp—Diagnosis Mode NOTE:

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

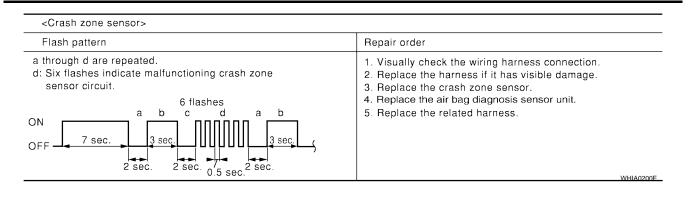
- 1. Turn ignition switch ON.
- 2. After "AIR BAG" warning lamp lights for 7 seconds, turn ignition switch OFF within 1 second.
- 3. Wait more than 3 seconds.
- 4. Repeat steps 1 to 3 two more times (3 times total).
- 5. Turn ignition switch ON.

SRS is now in Diagnosis mode.

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

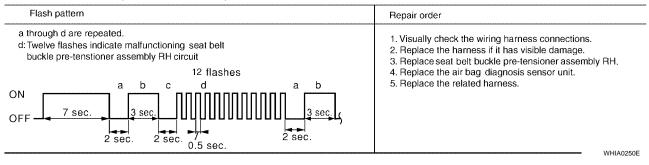
#### WARNING LAMP FLASH CODE CHART А < Diagnosis results (previously stored in the memory) might not be erased after repair or intermittent malfunctions have been detected in the past.> Flash pattern Repair order В a through b are repeated. 1. Go to DIAGNOSTIC PROCEDURES 2 and 3. IGN ON а b ON 3 7 sec Sec OFF 2 sec 2 sec SHIA0026E <Driver air bag module> Е Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connection. d: Two flashes indicate malfunctioning driver air bag 2. Replace the harness if it has visible damage. F module circuits. 3. Replace the spiral cable. 4. Replace driver air bag module. 2 flashes а b d a b 5. Replace the air bag diagnosis sensor unit. С ΟN 6. Replace the related harness. 7 sec 3 sec 3 sec OFF 2 sec 2 sec 2 sec. 0.5 sec WHIA0260E SRS <Air bag 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 air bag diagnosis sensor unit. 4. Replace the related harness. 7 flashes а b b С d а ON 7 sec 3 sec 3 sec OFF Κ 2 sec. 2 sec 2 sec 0.5 sec WHIA0198E <Front passenger air bag module> Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connection. Μ d: Eight flashes indicate malfunctioning front passenger air bag 2. Replace the harness if it has visible damage. module circuit. 3. Replace front passenger air bag module. 4. Replace the air bag diagnosis sensor unit. 8 flashes 5. Replace the related harness. а b С d b ON 7 sec 3 sec sec OFF 2 sec. 2 sec 2 sec 0.5 sec

WHIA0261E

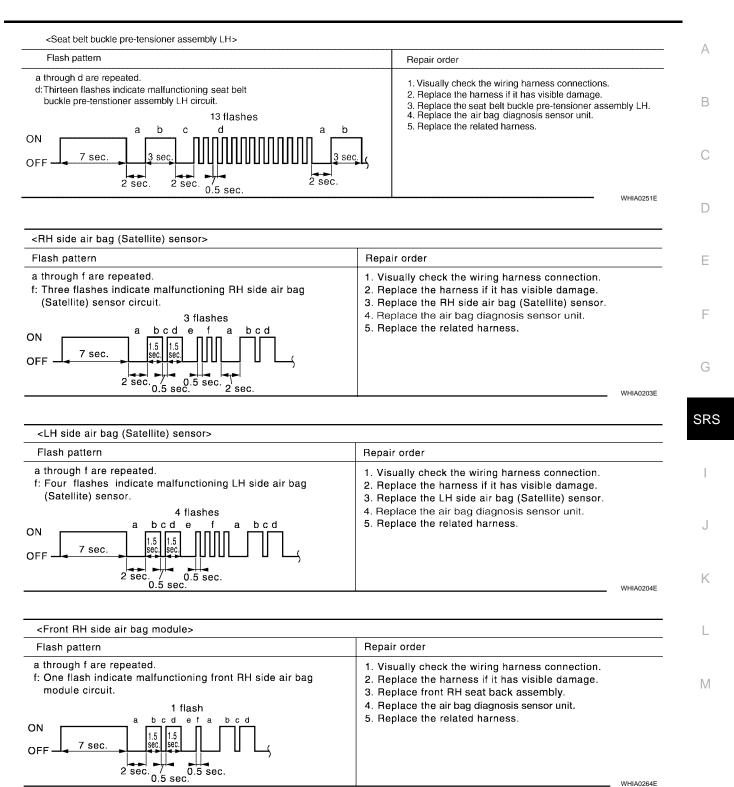


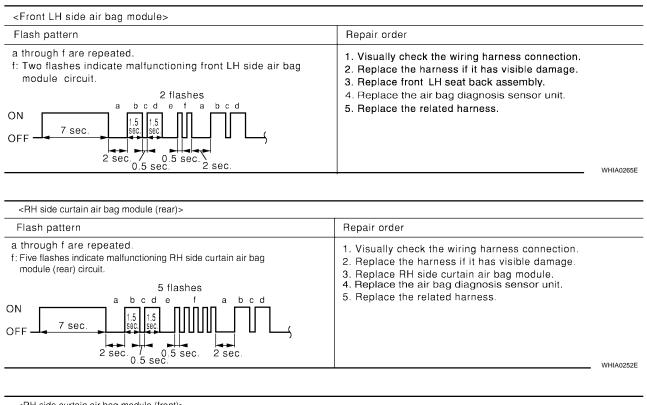
#### <Front RH seat belt pre-tensioner> Flash pattern Repair order a through d are repeated. 1. Visually check the wiring harness connections. d: One flash indicates malfunctioning front RH seat belt 2. Replace the harness if it has visible damage. pre-tensioner circuit. 3. Replace front RH seat belt pre-tensioner. 4. Replace the air bag diagnosis sensor unit. 1 flash 5. Replace the related harness. а b c d a b ON 7 sec. 3 sec 3 sec OFF 2 sec. 2 sec. 2 sec. 2 sec. 0.5 sec WHIA0262E

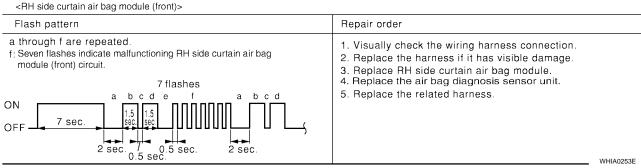
< Seat belt buckle pre-tensioner assembly RH>

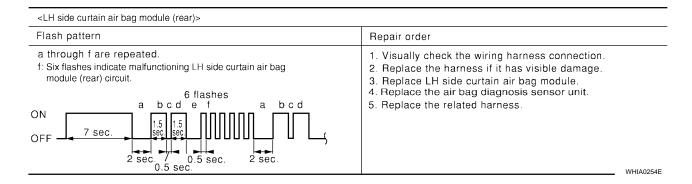


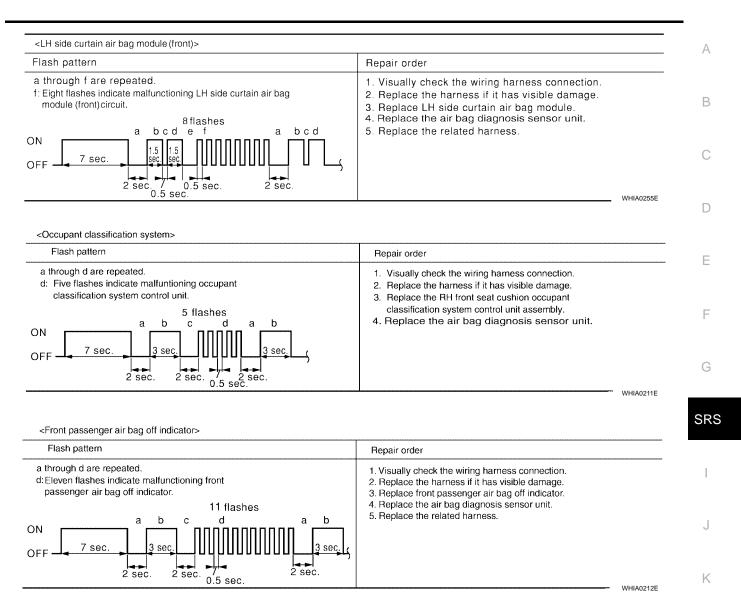
<front belt="" lh="" pre-tensioner="" seat=""></front>	
Flash pattern	Repair order
a through d are repeated. d: Three flashes indicate malfunctioning front LH seat belt pre-tensioner circuit. ON OFF 7 sec. 2 sec. 0.5 sec. 0.5 sec.	<ol> <li>Visually check the wiring harness connections.</li> <li>Replace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











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### Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn Off DIAGNOSTIC PROCEDURE 6

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### 1. CHECK CONDITION OF AIR BAG MODULE

#### Inspect for any deployed air bag modules or seat belt pre-tensioners.

Are any air bag modules or seat belt pre-tensioners deployed?

Yes >> Refer to <u>SRS-60, "COLLISION DIAGNOSIS"</u>.

No >> GO TO 2.

### 2. CHECK THE AIR BAG FUSE

Check 10A fuse [No. 13, located in the fuse block (J/B)]. Refer to <u>PG-4, "POWER SUPPLY ROUTING CIRCUIT"</u>.

#### OK or NG

OK >> GO TO 4. NG >> GO TO 3.

### 3. CHECK AIR BAG FUSE AGAIN

Replace 10A fuse [No. 13, located in the fuse block (J/B)] and turn ignition switch ON.

Does the fuse blow again?

Yes >> Repair harness.

No >> Inspection End.

### 4. CHECK AIR BAG DIAGNOSIS SENSOR UNIT

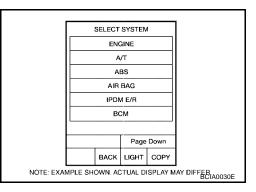
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Connect CONSULT-II and touch "START".

Is "AIR BAG" displayed on CONSULT-II?

Yes >> GO TO 5.

No >> Visually inspect the air bag diagnosis sensor unit harness connections. If the connections are OK, replace the air bag diagnosis sensor unit. Refer to <u>SRS-58</u>, <u>"Removal and Installation"</u>.



### 5. CHECK HARNESS CONNECTION

Check for loose connections between the combination meter and the air bag diagnosis sensor unit. OK or NG

OK >> Replace air bag diagnosis sensor unit. Refer to <u>SRS-58, "Removal and Installation"</u>.

NG >> Properly connect the combination meter and air bag diagnosis sensor unit harness connectors. If "AIR BAG" warning lamp still does not turn off, replace the wiring harness.

Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn On DIAGNOSTIC PROCEDURE 7		
1. CHECK METER FUSE		
Check the 10A fuse [No. 14, located in the fuse block (J/B)]. Refer to <u>PG-4, "POWER SUPPLY ROUTING CIRCUIT"</u> . OK or NG		
OK >> GO TO 3. NG >> GO TO 2.		
2. CHECK METER FUSE AGAIN		
Replace 10A fuse [No. 14, located in the fuse block (J/B)] and turn ignition switch ON.         Does the fuse blow again?         Yes       >> Repair harness.         No       >> Inspection End.		
$3. \ \mbox{check}$ harness connection between air bag diagnosis sensor unit and combination meter		
Disconnect the air bag diagnosis sensor unit harness connectors and turn ignition switch ON. Does "AIR BAG" warning lamp turn on?		
<ul> <li>Yes &gt;&gt; Replace the air bag diagnosis sensor unit. Refer to <u>SRS-58, "Removal and Installation"</u>.</li> <li>No &gt;&gt; Check the combination meter ground circuits.</li> </ul>	S	

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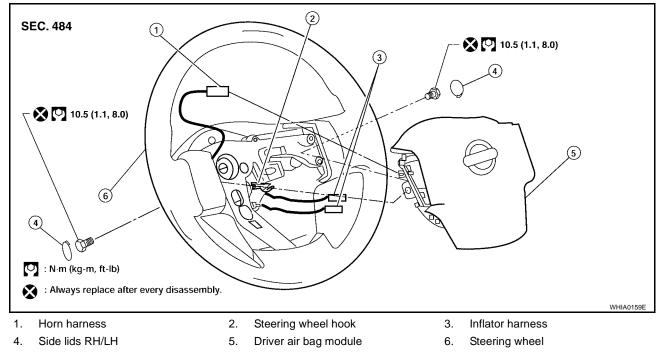
### DRIVER AIR BAG MODULE

## DRIVER AIR BAG MODULE

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### **Removal and Installation**

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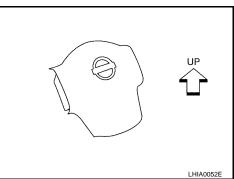
#### REMOVAL

#### **CAUTION:**

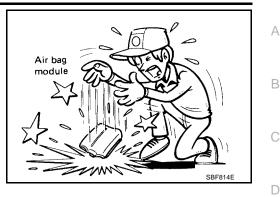
- Do not attempt to repair or replace damaged direct-connect SRS component connectors. If a driver air bag direct-connect harness connector is damaged, the spiral cable must be replaced.
- Before servicing the SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.
- When servicing the SRS, do not work from directly in front of air bag module.
- 1. Disconnect the negative and positive battery cables, then wait at least 3 minutes.
- 2. Remove the left and right side lids and bolts.
- 3. Lift the driver air bag module from the steering wheel.
- 4. Disconnect the horn connector and air bag harness, then remove the driver air bag module.
  - For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7, "Direct-connect SRS</u> <u>Component Connectors"</u>.

#### **CAUTION:**

- When servicing the SRS, do not work from directly in front of air bag module.
- Always place air bag module with pad side facing upward.
- Do not insert any foreign objects (screwdriver, etc.) into air bag module or harness connectors.
- Do not disassemble air bag module.
- Do not use old bolts after removal; replace with new bolts.
- Do not expose the air bag module to temperatures exceeding 90°C (194°F).



- Replace the 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 air bag module.



#### INSTALLATION

Installation is in the reverse order of removal.

- If driver air bag module is being replaced due to deployment, spiral cable must also be replaced. Refer to <u>SRS-48, "SPIRAL CABLE"</u>.
- For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7</u>, "<u>Direct-connect SRS Component Connectors</u>".
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to SRS-20, "SRS Operation Check".

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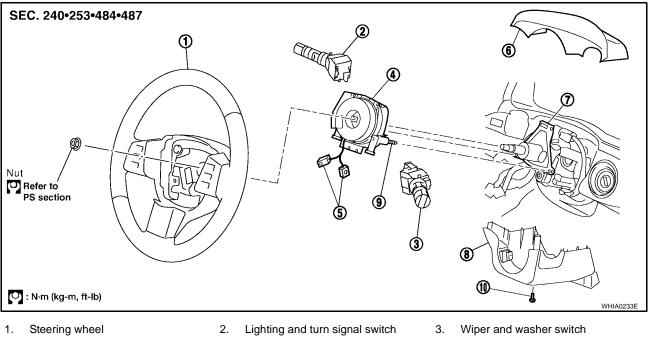
### **SPIRAL CABLE**

### **SPIRAL CABLE**

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#### **Removal and Installation**



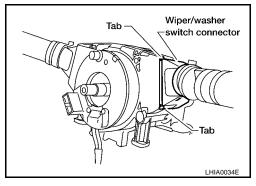
- 4. Spiral cable
- 7. Column assembly
- 10. Screw

- 5. Driver air bag module connector
- 8. Column cover lower
- 6. Column cover upper
- 9. Screw (Do not remove)

REMOVAL

### **CAUTION:**

- Before servicing the SRS, turn ignition switch OFF, disconnect both battery cables and wait at • least 3 minutes.
- When servicing the SRS, do not work from directly in front of air bag module. •
- 1. Remove the steering wheel. Refer to <u>PS-7, "STEERING WHEEL"</u>.
- 2. Remove the column cover upper and lower.
- 3. Remove wiper and washer switch connector, then pinch the tabs at wiper and washer switch base and slide away from steering column to remove.



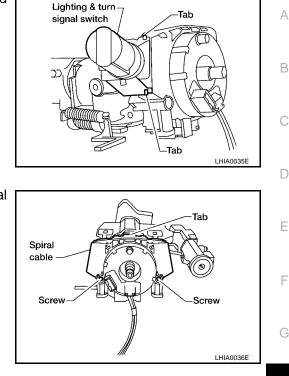
### SPIRAL CABLE

4. While pressing tabs, pull lighting and turn signal switch toward driver door and disconnect from base.

5. Remove the screws, release the clip, and remove the spiral cable.

#### CAUTION:

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



6. Remove the spiral cable connectors.

#### CAUTION:

With the steering linkage disconnected, the spiral 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 neutral position.

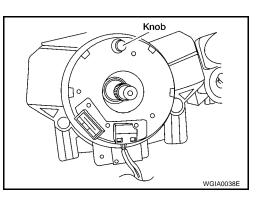
#### INSTALLATION

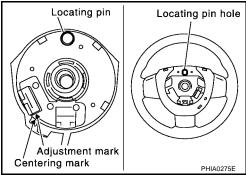
Installation is in the reverse order of removal.

- Align spiral cable correctly when installing steering wheel. Make sure that the spiral cable is in the neutral position. The neutral position is detected by turning left 2.6 revolutions from the right end position and ending with the knob at the top.
- If equipped with VDC, refer to <u>BRC-62, "Adjustment of Steering</u> <u>Angle Sensor Neutral Position"</u> for steering angle sensor adjustment.
- After the work is completed, perform self-diagnosis to make sure no malfunction is detected. Refer to <u>SRS-20, "SRS Operation</u> <u>Check"</u>.

#### **CAUTION:**

- The spiral cable may snap due to steering operation if the cable is not installed in the correct position.
- 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.





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### FRONT PASSENGER AIR BAG MODULE

### Removal and Installation

The passenger air bag module originally installed in the vehicle uses direct-connect style harness connectors. Service replacement passenger air bag modules use tab-locking style harness connectors. If the passenger air bag module is replaced or if the direct-connect harness connectors are damaged, the vehicle wiring harness must be modified to allow connection of the service replacement passenger air bag module. Refer to SRS-51, "WIRING HARNESS MODIFICATION" for wiring harness modification procedure.

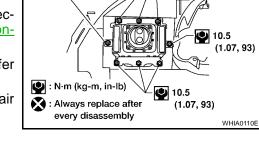
#### REMOVAL

#### **CAUTION:**

- Do not attempt to repair or replace damaged direct-connect front passenger air bag module connectors. If a direct-connect harness connector is damaged, the front passenger air bag must be replaced and the wiring harness modified.
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of or under front passenger air bag module.
- 1. Remove the glove box. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .
- 2. Remove 2 nuts (through glove box opening) retaining front passenger air bag module to instrument panel crossmember.
- 3. Disconnect the air bag module electrical connectors.
  - For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7</u>, "<u>Direct-connect SRS Component Connectors</u>".
- 4. Remove the instrument panel assembly from the vehicle. Refer to <u>IP-10, "INSTRUMENT PANEL ASSEMBLY"</u>.
- 5. Remove front passenger air bag module nuts and remove air bag module from the instrument panel assembly.

#### **CAUTION:**

- When servicing the SRS, do not work from directly in front of air bag module.
- Always place front passenger air bag module with caution label side facing upward.
- Do not insert any foreign objects (screwdriver, etc.) into air bag module or harness connectors.
- Do not disassemble air bag module.
- Do not use old nuts after removal; replace with new nuts.
- Do not expose the front passenger air bag module to temperatures exceeding 90°C (194°F).
- Replace the 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 air bag module.
- For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7, "Direct-connect SRS Component Connectors"</u>.

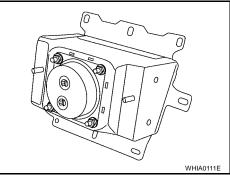


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#### INSTALLATION Original Passenger Air Bag Module

Installation is in the reverse order of removal.

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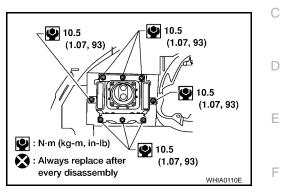
• For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7, "Direct-connect SRS Component Connectors"</u>.

#### **CAUTION:**

- Always work from the side of or under front passenger air bag module.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected.
   Refer to <u>SRS-20, "SRS Operation Check"</u>.

#### Service Replacement Passenger Air Bag Module

1. Install the front passenger air bag module to the instrument panel pad assembly.



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- 2. Install the instrument panel assembly. Refer to IP-10, "INSTRUMENT PANEL ASSEMBLY" .
- 3. Connect the front passenger air bag module harness connector to yellow 4-pin service replacement air G bag connector and fasten connector to mounting bracket.

#### **CAUTION:**

- Always work from the side of or under front passenger air bag module.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-20, "SRS Operation Check"</u>.

#### WIRING HARNESS MODIFICATION

The passenger air bag module originally installed in the vehicle uses direct-connect style harness connectors. Service replacement passenger air bag modules use tab-locking style harness connectors. If the passenger air bag module is replaced or if the direct-connect harness connectors are damaged, the vehicle wiring harness must be modified to allow connection of the service replacement passenger air bag module.

#### NOTE:

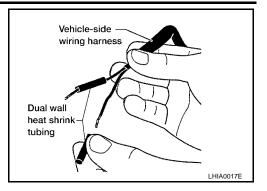
The wiring harness modification is to be performed only if the vehicle is equipped with the original passenger air bag which uses direct-connect harness connectors. If the passenger air bag is to be replaced in a vehicle that has already had the service replacement passenger air bag installed, the wiring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

#### **CAUTION:**

- Do not attempt to repair or replace damaged direct-connect front passenger air bag module connectors. If a direct-connect harness connector is damaged, the front passenger air bag must be replaced and the wiring harness modified.
- Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- Always work from the side of or under front passenger air bag module.
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-20, "SRS Operation Check"</u>.
- 1. Locate the yellow and orange direct-connect passenger air bag module harness connectors.
- 2. Use wire cutters to cut back both previously used direct-connect passenger air bag module harness connectors from the vehicle wiring harness approximately 50 mm (1.9 in) from the connectors.
- 3. Remove approximately 150 mm (5.9 in) of the vehicle harness covering from the cut end.

### FRONT PASSENGER AIR BAG MODULE

4. Slide a piece of dual-wall heat shrink tubing (provided in the passenger air bag service kit) onto each wire of the previously used vehicle wiring harness.



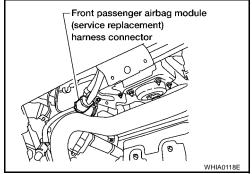
Vehicle-side

wiring

Dual wall heat shrink tubing harness

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

- 6. Use a heat gun to shrink the heat shrink tubing and seal the wire.
- 7. Use electrical tape to secure the modified circuits to the outside of the wiring harness.
- 8. Locate the front passenger air bag service replacement connector that is taped back to the main harness. Unwrap the tape to access the yellow service replacement connector and remove the dust cover from the connector.



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### SIDE CURTAIN AIR BAG MODULE

### SIDE CURTAIN AIR BAG MODULE

### **Removal and Installation**



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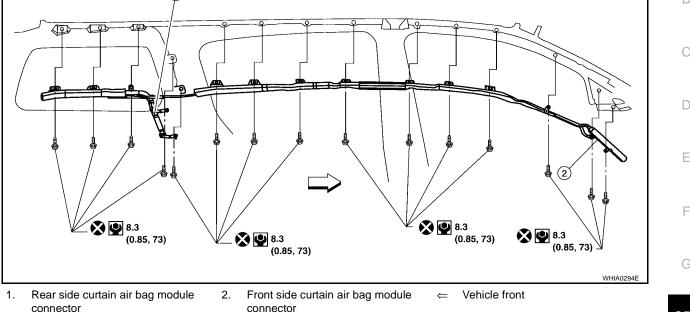
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#### REMOVAL

#### CAUTION:

- Do not attempt to repair or replace damaged direct-connect SRS component connectors. If a direct-connect harness connector is damaged, the harness must be replaced.
- Before servicing the SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- When servicing the SRS, do not work from directly in front of air bag module.
- 1. Remove headlining. Refer to EI-38, "Removal and Installation".
- 2. Disconnect front and rear side curtain air bag module connectors.
  - For removal/installation of the direct-connect SRS connectors, refer to SRS-7, "Direct-connect SRS Component Connectors".
- 3. Remove the bolts in order starting at the front or rear, and remove the side curtain air bag module.

#### **CAUTION:**

- When servicing the SRS, do not work from directly in front of air bag module.
- Do not insert any foreign objects (screwdriver, etc.) into air bag module or harness connectors.
- Do not disassemble air bag module.
- Do not expose the air bag module to temperatures exceeding 90°C (194°F).
- Replace side curtain 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 air bag module.



#### INSTALLATION

Installation is in the reverse order of removal.

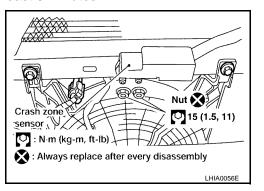
- For removal/installation of the direct-connect SRS connectors, refer to <u>SRS-7, "Direct-connect SRS Component Connectors"</u>.
- After replacement of side curtain air bag module, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-20, "SRS Operation Check"</u>.

### **CRASH ZONE SENSOR**

### Removal and Installation REMOVAL

#### **CAUTION:**

- Before servicing the SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.
- 1. Disconnect the negative and positive battery cables, then wait at least 3 minutes.
- 2. Remove front grille. Refer to EI-17, "FRONT GRILLE" .
- 3. Disconnect the crash zone sensor harness connector.
- 4. Remove crash zone sensor nuts.



#### **CAUTION:**

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

#### INSTALLATION

Installation is in the reverse order of removal.

• After the work is complete, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-20, "SRS Operation Check"</u>.

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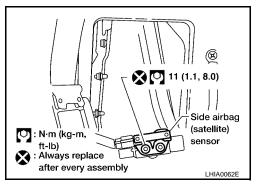
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### SIDE AIR BAG (SATELLITE) SENSOR

### Removal and Installation REMOVAL

#### CAUTION:

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



#### CAUTION:

- Do not use old nuts after removal; replace with new nuts.
- Check side air bag (satellite) sensor to make sure 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

Installation is in the reverse order of removal.

• After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-20, "SRS Operation Check"</u>.

PFP:98830

EHS00173

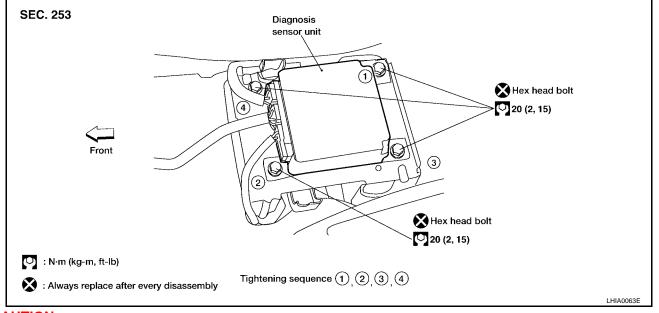
### FRONT SEAT BELT PRE-TENSIONER

FRONT SEAT BELT PRE-TENSIONER PFP:86884	
Removal and Installation EHS00174	A 4
For removal and installation procedures for seat belt and seat belt buckle pre-tensioners, refer to <u>SB-3</u> , <u>"Removal and Installation of Front Seat Belt"</u> .	<u>.</u> В
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## **DIAGNOSIS SENSOR UNIT**

Removal and Installation



### CAUTION:

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

#### **CAUTION:**

- Do not use old bolts; replace with new bolts.
- 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

Installation is in the reverse order of removal.

 After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-20, "SRS Operation Check"</u>.

#### CAUTION:

• The diagnosis sensor unit must always be installed with the arrow mark "

" pointing toward the front of the vehicle for proper operation.

#### ECU DISCRIMINATED NO.

After replacing the diagnosis sensor unit, confirm that the diagnosis sensor unit identification is correct for the vehicle as equipped. Refer to <u>SRS-18, "CONSULT-II Function (AIR BAG)"</u>.

PFP:28556

EHS00175

### **OCCUPANT CLASSIFICATION SYSTEM CONTROL UNIT**

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### **COLLISION DIAGNOSIS**

### **For Frontal Collision**

Check the SRS components using the following table.

• After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to <u>SRS-20, "SRS Operation Check"</u>.

### SRS INSPECTION (FOR FRONTAL COLLISION)

Part	SRS is activated	SRS is NOT activated
Driver air bag module	If the driver air bag has deployed: REPLACE Install with new fas- teners.	If the driver air bag has NOT been activated: 1. Remove driver air bag module. Check harness cover and connectors for damage, terminals for defermities, and harness for hinding.
		<ul><li>terminals for deformities, and harness for binding.</li><li>Install driver air bag module into the steering wheel to check fit and alignment with the wheel.</li></ul>
		3. If no damage is found, reinstall with new fasteners.
		4. If damaged—REPLACE. Install driver air bag modules with new fasteners.
bag module air l REI	If the front passenger air bag has deployed: REPLACE Install with new fas- teners.	If the front passenger air bag has NOT been activated:
		<ol> <li>Remove front passenger air bag module. Check harness cover and connectors fo damage, terminals for deformities, and harness for binding.</li> </ol>
		<ol><li>Install front passenger air bag module into the instrument panel to check fit with the instrument panel.</li></ol>
		3. If no damage is found, reinstall with new fasteners.
		<ol><li>If damaged—REPLACE. Install front passenger air bag modules with new fasteners.</li></ol>
Crash zone sensor	If any of the front air	If the front air bags or seat belt pre-tensioners have NOT been activated:
	bags or seat belt pre- tensioners* have been activated: REPLACE the crash zone sensor and bracket with new fas- teners.	<ol> <li>Remove the crash zone sensor. Check harness connectors for damage, terminal for deformities, and harness for binding.</li> </ol>
		<ol><li>Check for visible signs of damage (dents, cracks, deformation) of the crash zone sensor and bracket.</li></ol>
		3. Install the crash zone sensor to check fit.
		4. If no damage is found, reinstall with new fasteners.
pre-tensioner a tion using CON	*: Confirm seat belt pre-tensioner activa- tion using CONSULT- II only.	5. If damaged—REPLACE the crash zone sensor and bracket with new fasteners.
Seat belt pre-ten-	If either the driver or	If the pre-tensioners have NOT been activated:
sioner assemblies (All applicable loca- tions: buckle, reel, lap	passenger seat belt pre-tensioner* has been activated:	<ol> <li>Remove seat belt pre-tensioners. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.</li> </ol>
outer)	REPLACE all seat	2. Check belts for damage and anchors for loose mounting.
	belt pre-tensioner assemblies with new fasteners. *: Confirm seat belt pre-tensioner activa- tion using CONSULT-	3. Check retractor for smooth operation.
		4. Check seat belt adjuster for damage.
		5. Check for deformities of the center pillar inner.
		<ol><li>If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly.</li></ol>
	Il only.	7. If no damage is found, reinstall seat belt pre-tensioner assembly.
		8. If damaged—REPLACE. Install the seat belt pre-tensioners with new fasteners.
Diagnosis sensor unit	If any of the SRS	If none of the SRS components have been activated:
	components have	1. Check case for dents, cracks or deformities.
	been activated: REPLACE the diag- nosis sensor unit.	2. Check connectors for damage, and terminals for deformities.
		3. If no damage is found, reinstall with new fasteners.
	Install with new fas- teners.	4. If damaged—REPLACE. Install diagnosis sensor unit with new fasteners.

EHS001N3

Part	SRS is activated	SRS is NOT activated
Steering wheel	1. Visually check steeri	ng wheel for deformities.
	2. Check harness (built	into steering wheel) and connectors for damage, and terminals for deformities.
	3. Install driver air bag	module into the steering wheel to check fit and alignment with the wheel.
	4. Check steering whee	el for excessive free play.
	5. If no damage is foun	d, reinstall.
	6. If damaged—REPLA	ACE.
Spiral cable	If the driver front air	If the driver front air bag has not deployed:
	bag has deployed:	1. Visually check spiral cable and combination switch for damage.
	REPLACE the spiral cable.	2. Check connectors and protective tape for damage.
	cable.	3. Check steering wheel for noise, binding or heavy operation.
		4. If no damage is found, reinstall.
		5. If damaged—REPLACE.
Occupant classifica-	1. Remove passenger	seat.
tion system (Passen-	2. Check control unit case for dents, cracks of deformities.	
ger seat)	3. Check connectors and pressure sensor tube for damage, and terminals for deformities.	
	4. Check seat frame and cushion pan for dents or deformities.	
	5. If no damage is found, reinstall seat with new fasteners.	
	6. If damaged — REPL	ACE seat cushion assembly with new fasteners.
Harness and connec-	1. Check connectors fo	r poor connection, damage, and terminals for deformities.
tors	2. Check harness for binding, chafing, cuts, or deformities.	
	3. If no damage is foun	d, reinstall the harness and connectors.
	4. If damaged—REPLA	CE the damaged harness. Do not attempt to repair, splice or modify any SRS harness.
Instrument panel	If the passenger front	If the passenger front air bag has NOT deployed:
	air bag has deployed: REPLACE the instru- ment panel assembly.	1. Visually check instrument panel for damage.
		2. If no damage is found, reinstall the instrument panel.
		3. If damaged—REPLACE the instrument panel.
or Side and F	Rollover Collisi	ON EHS001N4
Check the SRS cor	nponents using the	following table
		form self-diagnosis to check that no malfunction is detected. Refer to
	Operation Check"	
		SIDE OR ROLLOVER COLLISION

- 1. Replace the following components:
- Front seat back assembly (on the side on which side air bag is activated)
- Diagnosis sensor unit
- (LH or RH) side air bag (satellite) sensor (on the side on which side 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 and "AIR BAG" warning lamp. Refer to <u>SRS-20, "SRS Opera-</u> tion Check" for details. Ensure entire SRS operates properly.

### WHEN SRS IS NOT ACTIVATED IN THE SIDE OR ROLLOVER COLLISION

- 1. Check the SRS components and the related parts using the following table.
- If the front seat back assembly is damaged, the front seat back assembly must be replaced.
- Conduct self-diagnosis using CONSULT-II and "AIR BAG" warning lamp. Refer to <u>SRS-20, "SRS Opera-</u> tion Check" for details. Ensure entire SRS operates properly.

Part	SRS is activated	SRS is NOT activated
LH side curtain air bag module	If the LH side curtain air bag has deployed: REPLACE the LH side curtain air bag module. (Repair the center pillar inner, etc. before installing new one if damaged.)	<ul> <li>If the LH side curtain air bag has NOT deployed:</li> <li>1. Check for visible signs of damage (dents, tears, deformation) of the center pillar on the collision side.</li> <li>2. If damaged—Remove the LH side curtain air bag module.</li> <li>3. Check for visible signs of damaged (tears etc.) of the LH side curtain air bag module.</li> <li>4. Check harness and connectors for damage, and terminals for deformities.</li> <li>5. If no damage is found, reinstall the LH side curtain air bag module with new fasteners.</li> <li>6. If damaged—REPLACE the LH side curtain air bag module with new fasteners.</li> </ul>
RH side curtain air bag module	If the RH side curtain air bag has deployed: REPLACE the RH side curtain air bag module. (Repair the center pillar inner, etc. before installing new one if damaged.)	<ul> <li>If the RH side curtain air bag has NOT deployed:</li> <li>1. Check for visible signs of damage (dents, tears, deformation) of the center pillar on the collision side.</li> <li>2. If damaged—Remove the RH side curtain air bag module.</li> <li>3. Check for visible signs of damaged (tears etc.) of the RH side curtain air bag module.</li> <li>4. Check harness and connectors for damage, and terminals for deformities.</li> <li>5. If no damage is found, reinstall the RH side curtain air bag module with new fasteners.</li> <li>6. If damaged—REPLACE the RH side curtain air bag module with new fasteners.</li> </ul>
Front LH side air bag module	If the front LH side air bag has deployed: REPLACE front LH seatback assembly.	<ul> <li>If the front LH side air bag has NOT deployed:</li> <li>1. Check for visible signs of damage (dents, tears, deformation) of the seat back on the collision side.</li> <li>2. Check harness and connectors for damage, and terminals for deformities.</li> <li>3. If damaged—REPLACE the front LH seatback assembly.</li> </ul>
Front RH side air bag module	If the front RH side air bag has deployed: REPLACE front RH seatback assembly.	<ul> <li>If the front RH side air bag has NOT deployed:</li> <li>1. Check for visible signs of damage (dents, tears, deformation) of the seat back on the collision side.</li> <li>2. Check harness and connectors for damage, and terminals for deformities.</li> <li>3. If damaged—REPLACE the front RH seatback assembly.</li> </ul>
(LH or RH) side air bag (satellite) sensor	If any of the SRS components have deployed: REPLACE the side air bag (satellite) sen- sor on the collision side with new fasten- ers. (Repair the cen- ter pillar inner, etc. before installing new one if damaged.)	<ul> <li>If none of the SRS components have been activated:</li> <li>1. Remove the side air bag (satellite) sensor on the collision side. Check harness connectors for damage, terminals for deformities, and harness for binding.</li> <li>2. Check for visible signs of damage (dents, cracks, deformation) of the side air bag (satellite) sensor.</li> <li>3. Install the side air bag (satellite) sensor to check fit.</li> <li>4. If no damage is found, reinstall the side sir bag (satellite) sensor with new fasteners.</li> <li>5. If damaged—REPLACE the side air bag (satellite) sensor with new fasteners.</li> </ul>
Diagnosis sensor unit	If any of the SRS components have deployed: REPLACE the diag- nosis sensor unit with new fasteners.	<ul> <li>If none of the SRS components have been activated:</li> <li>1. Check case and bracket for dents, cracks or deformities.</li> <li>2. Check connectors for damage, and terminals for deformities.</li> <li>3. If no damage is found, reinstall the diagnosis sensor unit with new fasteners.</li> <li>4. If damaged—REPLACE the diagnosis sensor unit with new fasteners.</li> </ul>

#### SRS INSPECTION (FOR SIDE AND ROLLOVER COLLISION)

Part	SRS is activated	SRS is NOT activated
Seat belt pre-ten-	If either the driver or	If the pre-tensioners have NOT been activated:
sioner assemblies passenger seat belt (All applicable loca- tions: buckle, reel, lap been activated:	<ol> <li>Remove seat belt pre-tensioners. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.</li> </ol>	
outer)	REPLACE all seat belt pre-tensioner	2. Check belts for damage and anchors for loose mounting.
	assemblies with new	3. Check retractor for smooth operation.
	fasteners.	4. Check seat belt adjuster for damage.
	*: Confirm seat helt	5. Check for deformities of the center pillar inner.
	pre-tensioner activa- tion using CONSULT-	<ol><li>If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly.</li></ol>
	II only.	7. If no damage is found, reinstall seat belt pre-tensioner assembly.
		8. If damaged—REPLACE. Install the seat belt pre-tensioners with new fasteners.
Seat (with front side	le If either the front LH	If the front LH or front RH side air bag modules have NOT deployed:
bag modules h been deployed	or front RH side air	1. Visually check the seat on the collision side.
	bag modules has been deployed: REPLACE front seat-	<ol><li>Remove the seat on the collision side and check the following for damage and deformities.</li></ol>
	back assembly on the	<ul> <li>Harness, connectors and terminals</li> </ul>
deploy	deployed side.	<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.
		<ol><li>If damaged—REPLACE the damaged seat parts using new fasteners. If the front seat back is damaged, the front seat back assembly must be replaced.</li></ol>
Center inner pillar	1. Check the center inr	er pillar on the collision side for damage (dents, cracks, deformation).
	2. If damaged—REPAI	R the center inner pillar.
Trim/headlining	1. Check for visible sig	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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