

# SECTION **SRS**

## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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# PRECAUTIONS

## PRECAUTIONS

PPF:00001

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

GHS0000B

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. 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

GHS0000C

- Do not use electrical test equipment to check SRS circuits unless instructed to in this Service Manual.
- Before servicing the SRS, turn ignition switch OFF, disconnect both battery cables and wait at least 3 minutes.  
For approximately 3 minutes after the cables are removed, it is still possible for the air bag and seat belt pre-tensioner to deploy. Therefore, do not work on any SRS connectors or wires until at least 3 minutes have passed.
- Diagnosis sensor unit must always be installed with their arrow marks “←” pointing towards the front of the vehicle for proper operation. Also check diagnosis sensor unit for cracks, deformities or rust before installation and replace as required.
- The spiral cable must be aligned with the neutral position since its rotations are limited. Do not 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 place front side air bag module standing with stud bolt side setting bottom.
- Conduct self-diagnosis to check entire SRS for proper function after replacing any components.
- After air bag inflates, the front instrument panel assembly should be replaced if damaged.
- Always replace instrument panel pad following front passenger air bag deployment.

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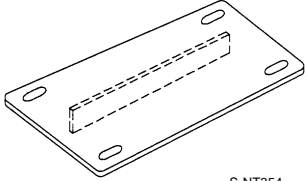
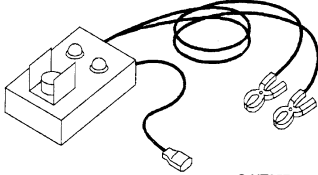
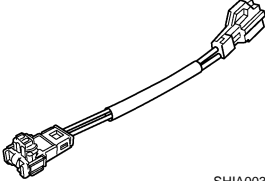
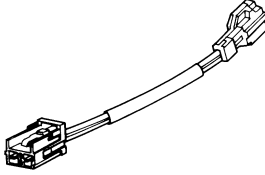
# PREPARATION

## PREPARATION

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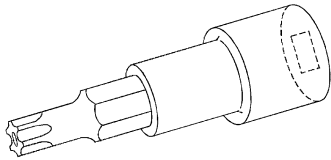
### Special Service Tools

GHS0000E

Tool number Tool name	Description
KV99105300 Air bag module bracket	 <p style="text-align: center;">S-NT354</p> Anchoring air bag module
KV99106400 Deployment tool	 <p style="text-align: center;">S-NT357</p> Disposing of air bag module and front seat belt pre-tensioner
KV99109700 <ul style="list-style-type: none"> <li>● Deployment tool adapter for front seat belt pre-tensioner</li> <li>● Deployment tool adapter for driver air bag module</li> </ul>	 <p style="text-align: center;">SHIA0038J</p> <ul style="list-style-type: none"> <li>● Connecting between the deployment tool and front seat belt pre-tensioner</li> <li>● Connecting between the deployment tool and driver air bag module</li> </ul>
KV99108300 Deployment tool adapters for front passenger air bag	 <p style="text-align: center;">ZZA1166D</p> Connecting between the deployment tool and front passenger air bag module

### Commercial Service Tools

GHS0000F

Tool name	Description
Tamper resistant TORX bit	 <p style="text-align: center;">S-NT757</p> Size: T30/T50

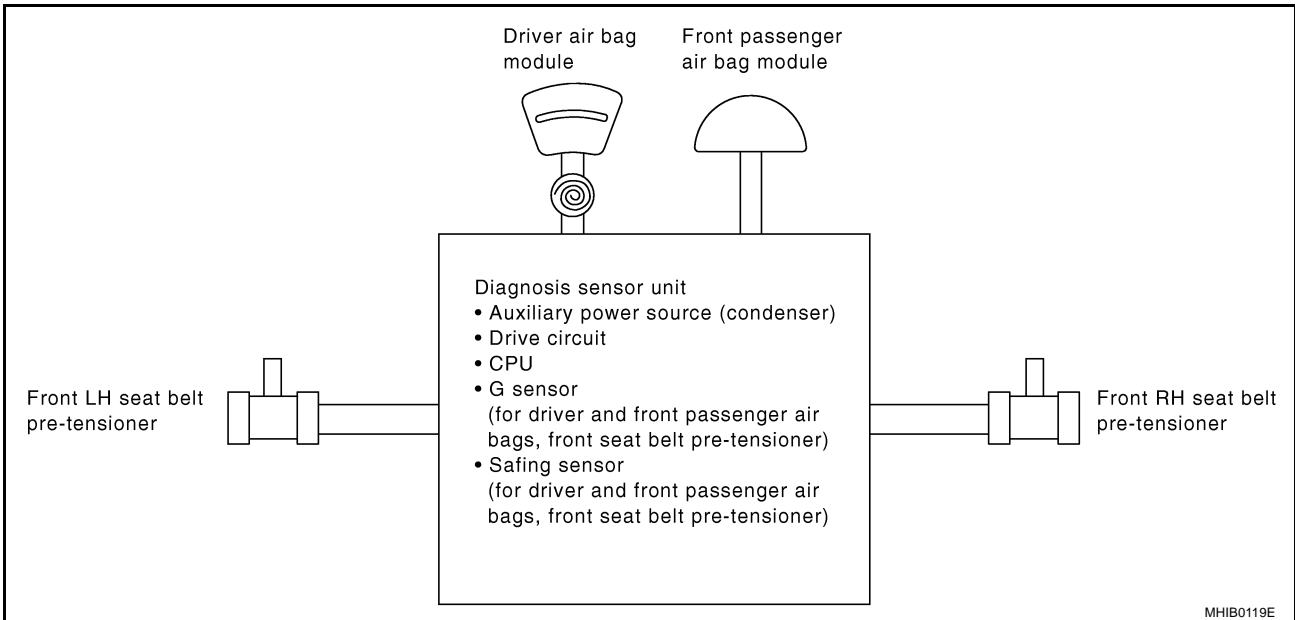
# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

PFP:28556

### SRS Configuration

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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 and front seat belt pre-tensioners 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 collision
Driver air bag module	×	—	—
Front passenger air bag module	×	—	—
Front LH seat belt pre-tensioner	×	—	—
Front RH seat belt pre-tensioner	×	—	—

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**SRS**

# SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

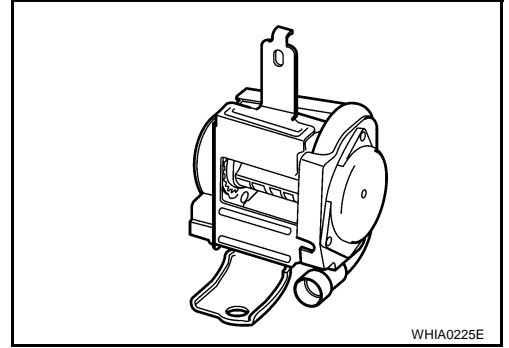
## Front Seat Belt Pre-Tensioner with Load Limiter

GHS0000H

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.



## Direct-Connect SRS Component Connectors

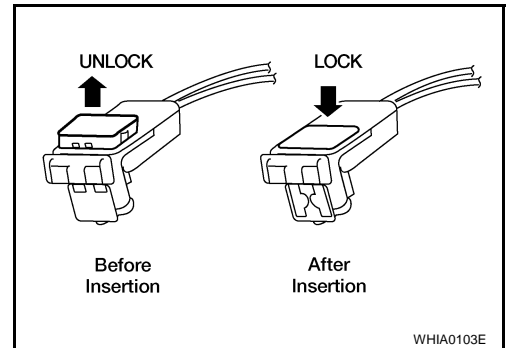
GHS0000K

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

- Driver air bag module
- Front passenger air bag module
- Front LH seat belt pre-tensioner
- Front RH seat belt pre-tensioner

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.



# TROUBLE DIAGNOSIS

## TROUBLE DIAGNOSIS

PPF:00004

### Trouble Diagnosis Introduction

GHS0000L

#### 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	X	X	ON-OFF operation
CONSULT-II	—	X	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.

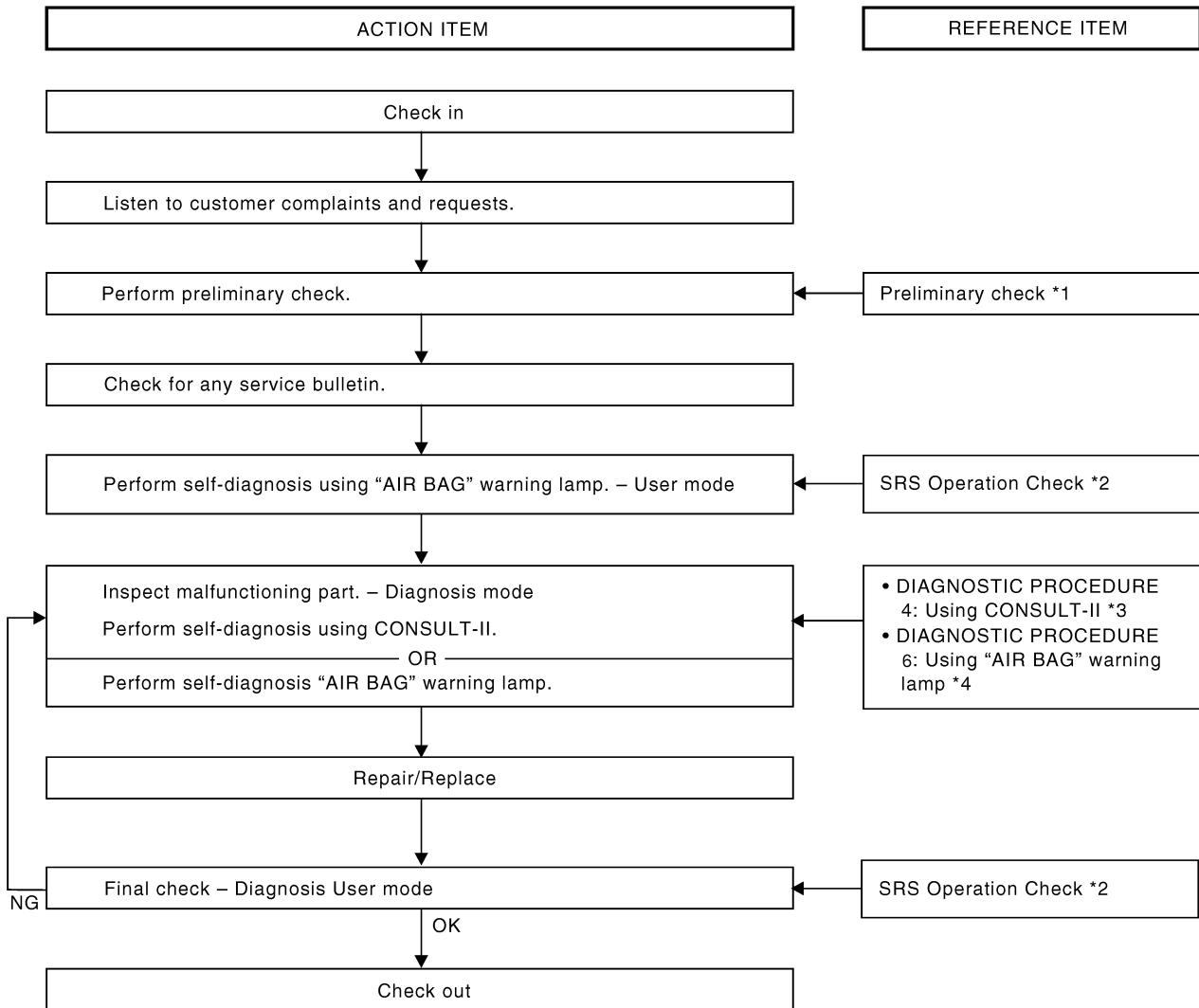
- Battery (Refer to [SC-5, "How to Handle Battery"](#) .)
- Fuse (Refer to [SRS-10, "Wiring Diagram—SRS—"](#) .)
- System component-to-harness connections

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SRS

# TROUBLE DIAGNOSIS

## WORK FLOW



WHIA0098E

\*1: [SRS-7](#)

\*2: [SRS-14](#)

\*3: [SRS-19](#)

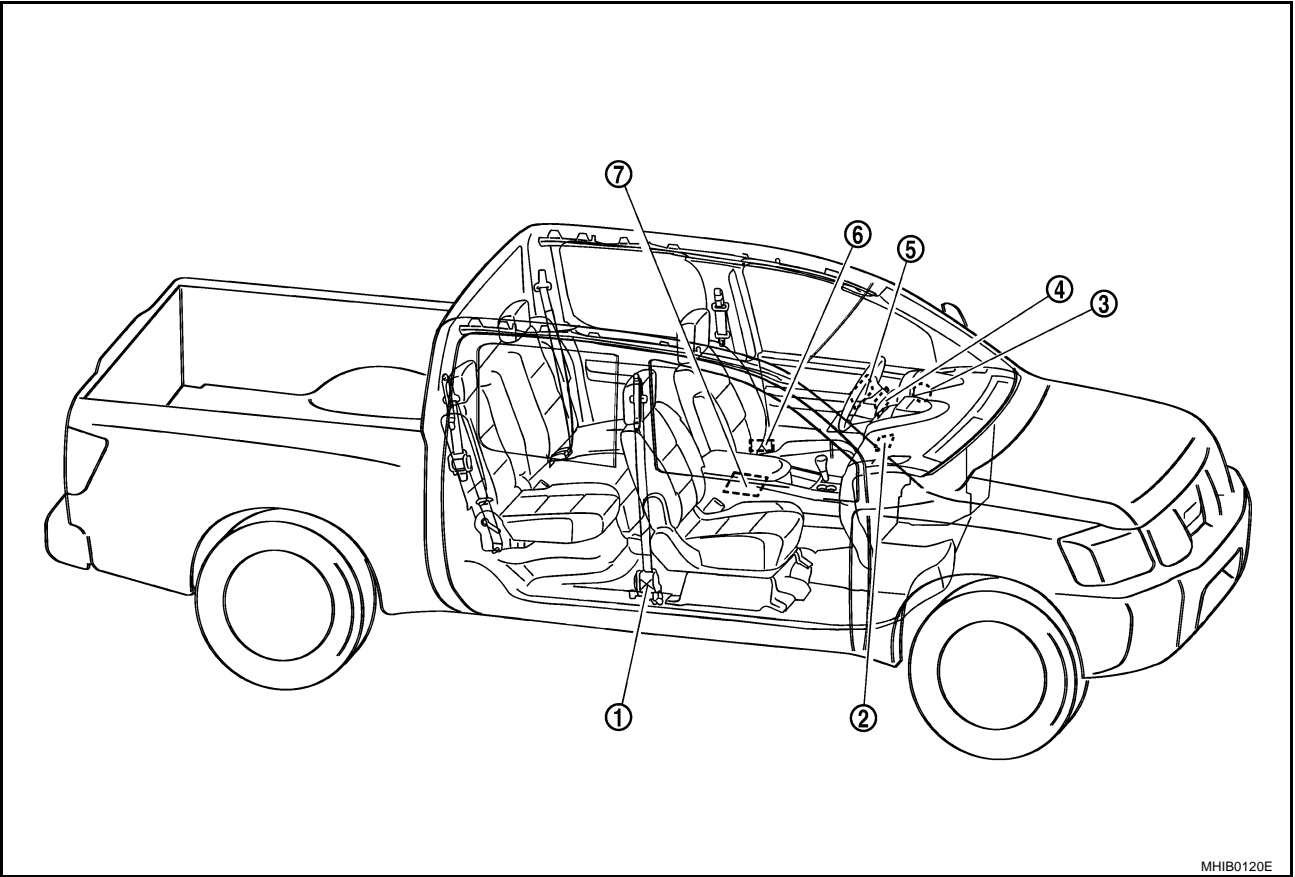
\*4: [SRS-22](#)



# TROUBLE DIAGNOSIS

## SRS Components Parts Location

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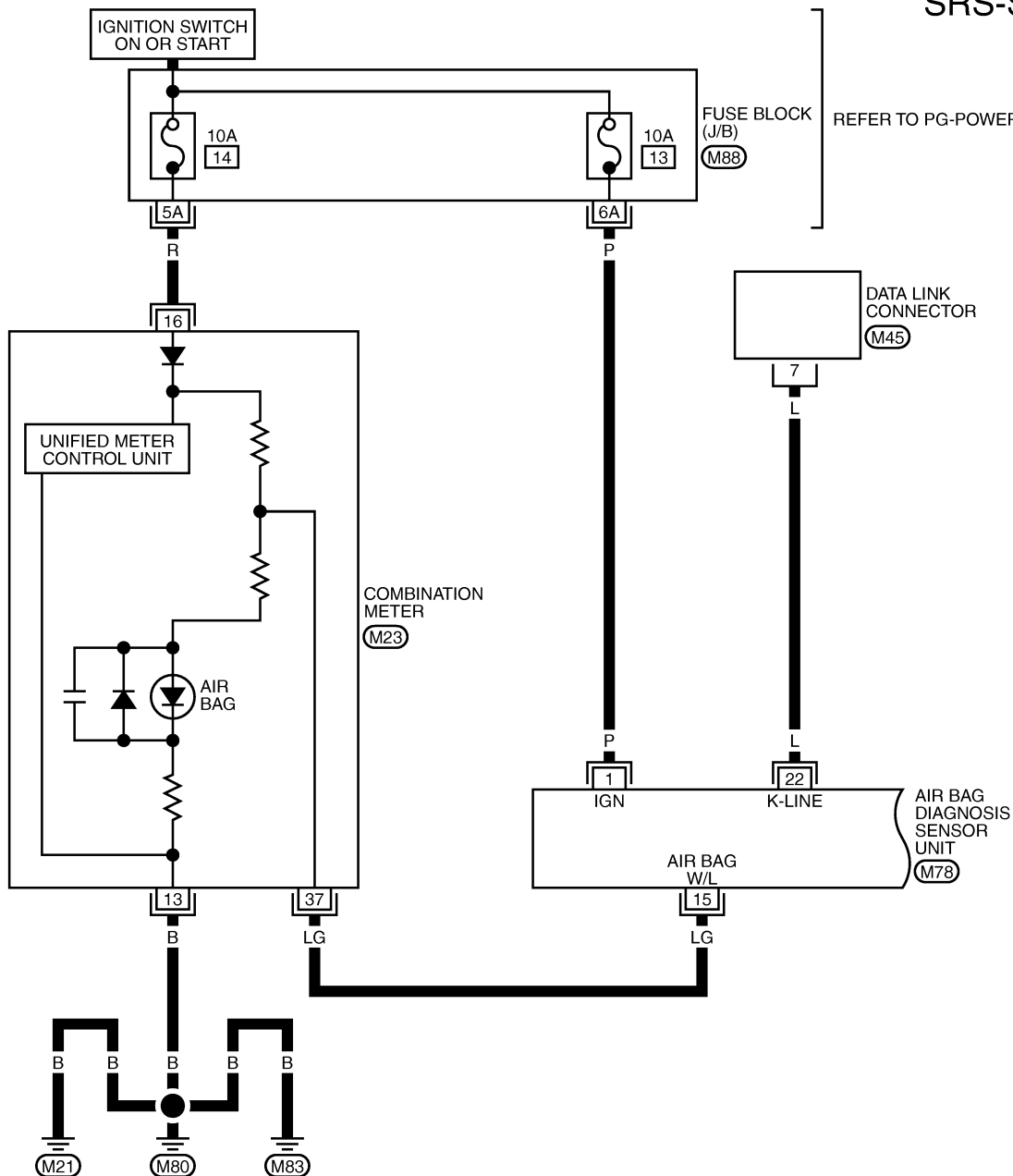
- |                                    |                                   |                                   |
|------------------------------------|-----------------------------------|-----------------------------------|
| 1. Front RH seatbelt pre-tensioner | 2. Front passenger air bag module | 3. Air bag warning lamp           |
| 4. Spiral cable                    | 5. Driver air bag module          | 6. Front LH seatbelt pretensioner |
| 7. Air bag diagnosis sensor unit   |                                   |                                   |

# TROUBLE DIAGNOSIS

## Wiring Diagram-SRS-

GHS00000

### SRS-SRS-01



REFER TO PG-POWER.

DATA LINK CONNECTOR (M45)

COMBINATION METER (M23)

AIR BAG DIAGNOSIS SENSOR UNIT (M78)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

(M23) W

16	15	14	13	12	11	10	9
8	7	6	5	4	3	2	1

(M45) W

REFER TO THE FOLLOWING.  
 (M88) - FUSE BLOCK-JUNCTION BOX (J/B)

3	4					6	5
22	15	1					2

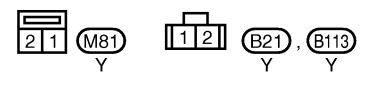
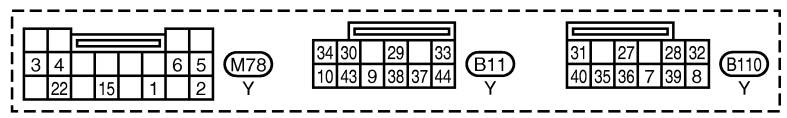
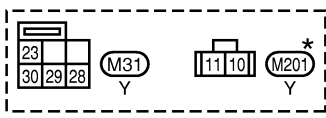
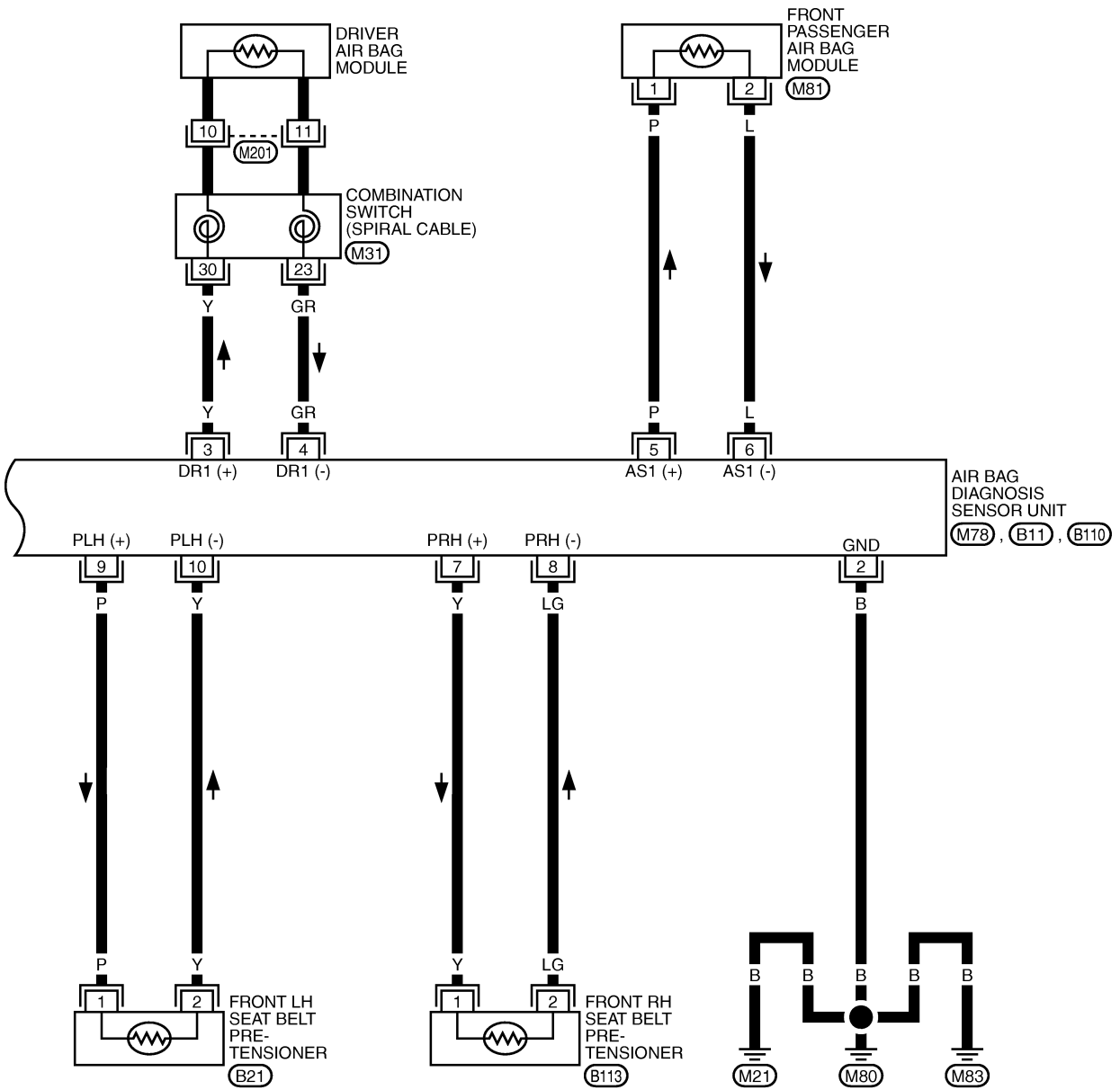
(M78) Y

# TROUBLE DIAGNOSIS

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

# TROUBLE DIAGNOSIS

## CONSULT-II Function (AIR BAG)

GHS0000P

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

AIR BAG diagnostic mode	Description
SELF-DIAG [CURRENT]	A current Self-diagnosis result (also indicated by the number of warning lamp flashes in the Diagnosis mode) is displayed on the CONSULT-II screen in real time. This refers to a malfunctioning part requiring repairs.
SELF-DIAG [PAST]	Diagnosis results previously stored in the memory are displayed on the CONSULT-II screen. The stored results will remain until memory erasing is executed.
TROUBLE DIAG RECORD	With TROUBLE DIAG RECORD, diagnosis results previously erased by a reset operation can be displayed on the CONSULT-II screen.
ECU DISCRIMINATED NO.	<p>The air bag diagnosis sensor unit for each vehicle model is assigned with its own, individual classification number. This number will be displayed on the CONSULT-II screen, as shown. When replacing the 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 CONSULT-II screen.</p> <p><b>For NISSAN MODEL R51, the air bag diagnosis sensor unit discriminated numbers assigned are A937 (for models with side and side front curtain air bags) and A939 (for models without side and side front curtain air bags).</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <div style="text-align: center; border: 1px solid black; padding: 5px;"> <p>ECU DISCRIMINATED NO.</p> <p style="margin-top: 20px;">ECU No. XXXX</p> </div> <div style="text-align: center; border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>PRINT</p> </div> <div style="display: flex; justify-content: center; gap: 10px; border: 1px solid black; padding: 5px; margin-top: 5px;"> <span>BACK</span> <span>LIGHT</span> <span>COPY</span> </div> <p style="text-align: right; font-size: small;">ARS366</p> </div>

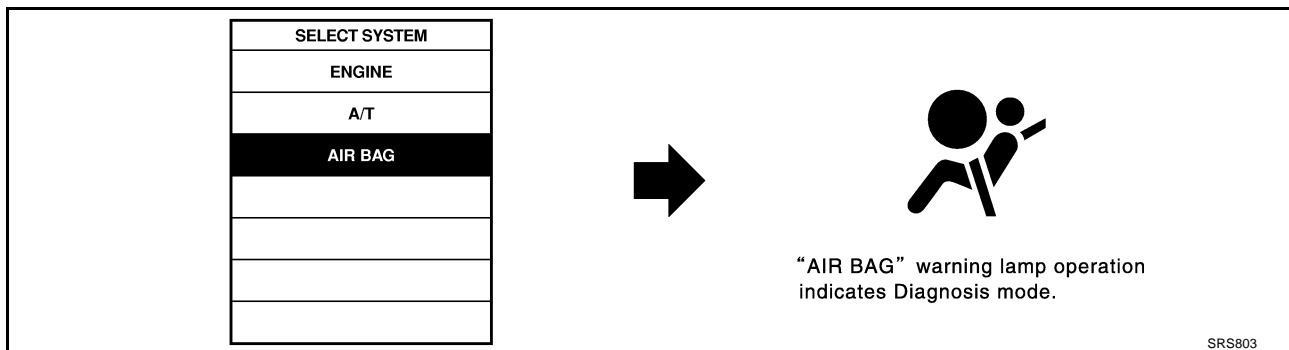
## CONSULT-II Function

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

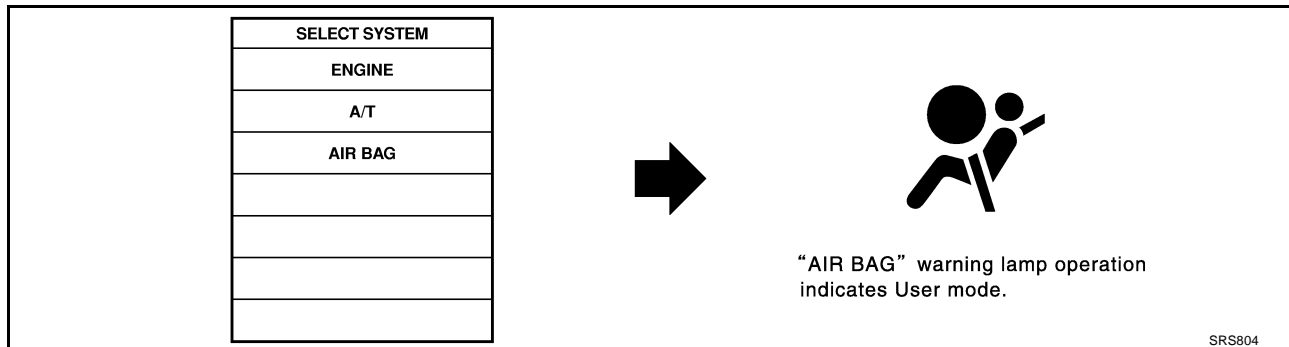
#### From User Mode to Diagnosis Mode

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.

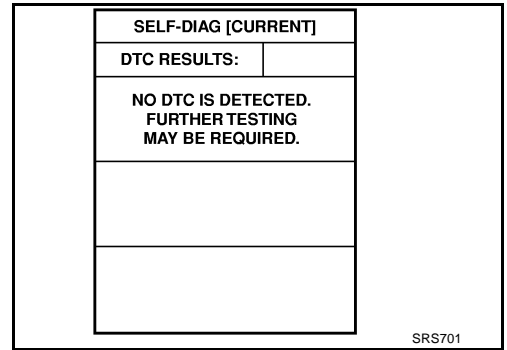


# TROUBLE DIAGNOSIS

## HOW TO ERASE SELF-DIAGNOSIS RESULTS

- “SELF-DIAG [CURRENT]”

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

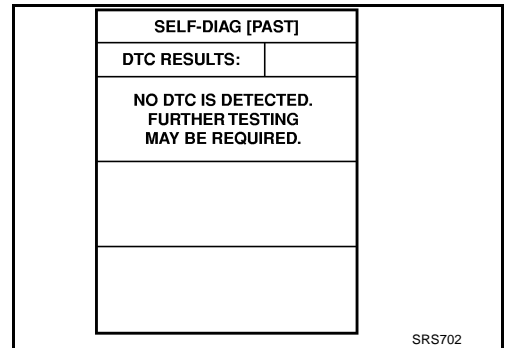


- “SELF-DIAG [PAST]”

Return to the “SELF-DIAG [CURRENT]” CONSULT-II screen by touching “BACK” key of CONSULT-II and select “SELF-DIAG [PAST]” in SELECT DIAG MODE. Touch “ERASE” in “SELF-DIAG [PAST]” mode.

**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 the malfunction is repaired completely.**



- “TROUBLE DIAG RECORD”

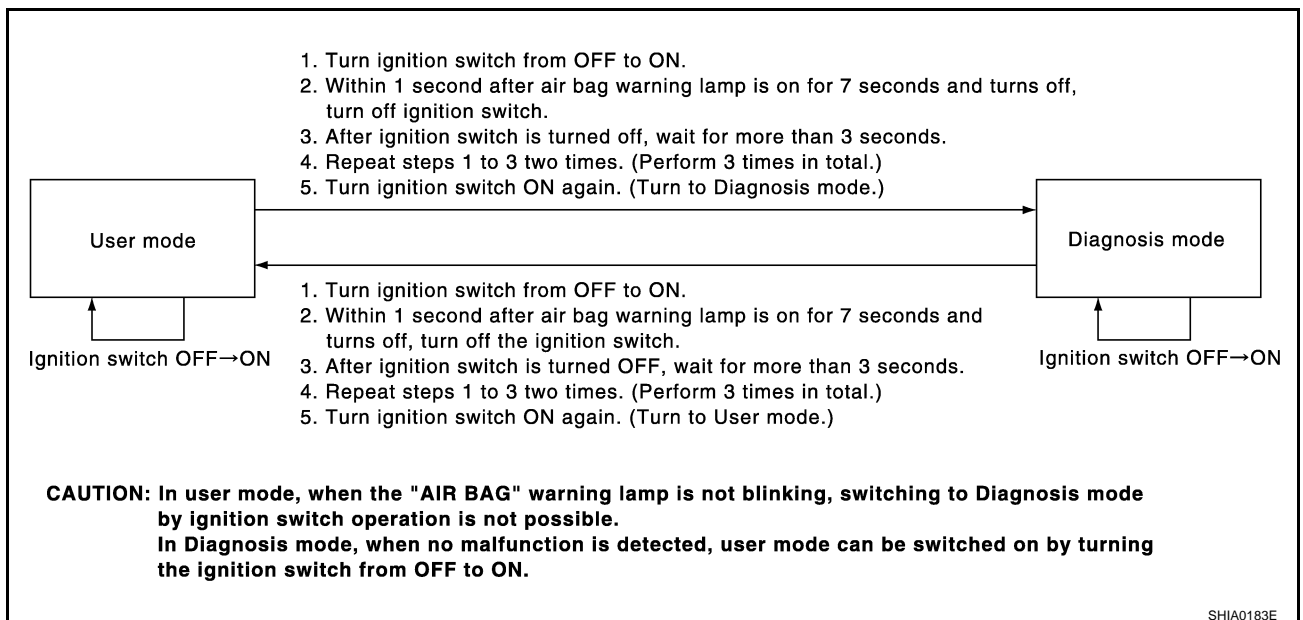
The memory of “TROUBLE DIAG RECORD” cannot be erased.

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

GHS0000R

- 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.

## HOW TO CHANGE SELF-DIAGNOSIS MODE



SHIA0183E

# TROUBLE DIAGNOSIS

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## HOW TO ERASE SELF-DIAGNOSIS RESULTS

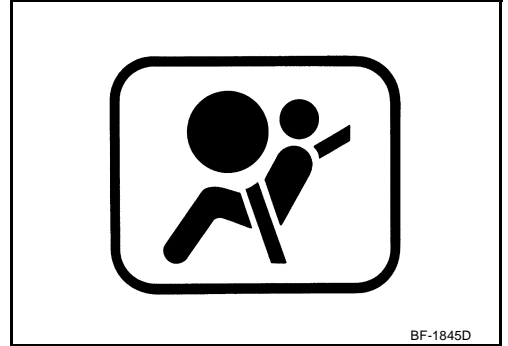
After a malfunction is repaired, turn the ignition switch OFF for at least one second, then back ON. Diagnosis mode returns to the User mode. At that time, the self-diagnostic result is cleared.

## SRS Operation Check DIAGNOSTIC PROCEDURE 1

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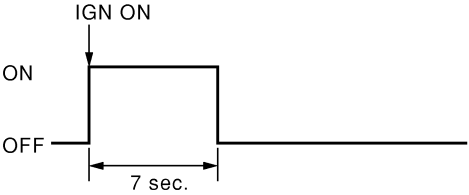
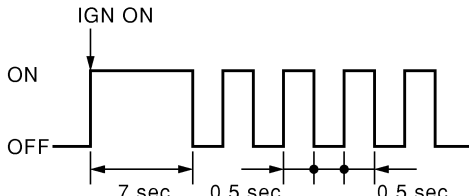
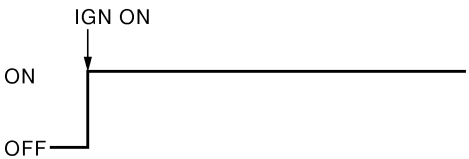

### Checking SRS Operation Using “AIR BAG” Warning Lamp—User Mode

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.



# TROUBLE DIAGNOSIS

## Warning lamp examples

"AIR BAG" warning lamp operation-User mode-	SRS condition	Reference item
 <p style="text-align: right; font-size: small;">SHIA0011E</p>	<ul style="list-style-type: none"> <li>● No malfunction is detected.</li> <li>● No further action is necessary.</li> </ul>	—
 <p style="text-align: right; font-size: small;">SHIA0012E</p>	<p>The system is malfunctioning and needs to be repaired as indicated.</p>	<p>Go to <a href="#">SRS-16. "DIAGNOSTIC PROCEDURE 2"</a> or <a href="#">SRS-22. "DIAGNOSTIC PROCEDURE 6"</a>.</p>
 <p style="text-align: right; font-size: small;">SHIA0013E</p>	<ul style="list-style-type: none"> <li>● Air bag is deployed.</li> <li>● Seat belt pre-tensioner is deployed.</li> </ul>	<p>Go to <a href="#">SRS-40. "COLLISION DIAGNOSIS"</a>.</p>
 <p style="text-align: right; font-size: small;">SHIA0014E</p>	<ul style="list-style-type: none"> <li>● Air bag diagnosis sensor unit is malfunctioning.</li> <li>● Air bag power supply circuit is malfunctioning.</li> <li>● SRS air bag warning lamp circuit is malfunctioning.</li> </ul>	<p>Go to <a href="#">SRS-24. "Trouble Diagnosis: "AIR BAG" Warning Lamp Does Not Turn OFF"</a>.</p>

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# TROUBLE DIAGNOSIS

## Trouble Diagnosis With CONSULT-II DIAGNOSTIC PROCEDURE 2

GHS0000T

### CAUTION:

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

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

SELF-DIAG [CURRENT]
DTC RESULTS
DRIVER AIRBAG MODULE [OPEN] [B1049]

WHIA0151E

2. If no malfunction is detected on "SELF-DIAG [CURRENT]" even though malfunction is detected in "SRS Operation Check", refer to [SRS-19, "DIAGNOSTIC PROCEDURE 4 \(CONTINUED FROM DIAGNOSTIC PROCEDURE 2\)"](#), to diagnose the following cases:

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

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

SRS701

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

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
NO DTC IS DETECTED	When malfunction is indicated by the "AIR BAG" warning lamp in User mode. <ul style="list-style-type: none"> <li>● Low battery voltage (Less than 9V)</li> <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 style="list-style-type: none"> <li>● Go to <a href="#">SRS-18, "DIAGNOSTIC PROCEDURE 3"</a>.</li> <li>● Go to <a href="#">SRS-19, "DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)"</a>.</li> <li>● Go to <a href="#">SRS-19, "DIAGNOSTIC PROCEDURE 5"</a>.</li> </ul>
	<ul style="list-style-type: none"> <li>● No malfunction is detected.</li> </ul>	—
DRIVER AIRBAG MODULE [OPEN] [B1049] or [B1054]	<ul style="list-style-type: none"> <li>● Driver air bag module circuit is open (including the spiral cable).</li> </ul>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace driver air bag module. (Before disposal, it must be deployed.)</li> <li>4. Replace the spiral cable.</li> <li>5. Replace the air bag diagnosis sensor unit.</li> <li>6. Replace the related harness.</li> </ol>
DRIVER AIRBAG MODULE [VB-SHORT] [B1050] or [B1055]	<ul style="list-style-type: none"> <li>● Driver air bag module circuit is shorted to some power supply circuit (including the spiral cable).</li> </ul>	
DRIVER AIRBAG MODULE [GND-SHORT] [B1051] or [B1056]	<ul style="list-style-type: none"> <li>● Driver air bag module circuit is shorted to ground (including the spiral cable).</li> </ul>	
DRIVER AIRBAG MODULE [SHORT] [B1052] or [B1057]	<ul style="list-style-type: none"> <li>● Driver air bag module circuits are shorted to each other.</li> </ul>	



## TROUBLE DIAGNOSIS

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement	
ASSIST A/B MODULE [OPEN] [B1065] or [B1070]	● Front passenger air bag module circuit is open.	1. Visually check the wiring harness connection.	A
ASSIST A/B MODULE [VB-SHORT] [B1066] or [B1071]	● Front passenger air bag module circuit is shorted to some power supply circuit.	2. Replace the harness if it has visible damage.	B
ASSIST A/B MODULE [GND-SHORT] [B1067] or [B1072]	● Front passenger air bag module circuit is shorted to ground.	3. Replace front passenger air bag module. (Before disposal, it must be deployed.)	C
ASSIST A/B MODULE [SHORT] [B1068] or [B1073]	● Front passenger air bag module circuits are shorted to each other.	4. Replace the air bag diagnosis sensor unit.	D
PRE-TEN FRONT LH [OPEN] [B1086]	● The circuit for front LH seat belt pre-tensioner is open.	5. Replace the related harness.	E
PRE-TEN FRONT LH [VB-SHORT] [B1087]	● The circuit for front LH seat belt pre-tensioner is shorted to some power supply circuit.	1. Visually check the wiring harness connections.	F
PRE-TEN FRONT LH [GND-SHORT] [B1088]	● The circuit for front LH seat belt pre-tensioner is shorted to ground.	2. Replace the harness if it has visible damage.	G
PRE-TEN FRONT LH [SHORT] [B1089]	● The circuits for the front LH seat belt pre-tensioner are shorted to each other.	3. Replace front LH seat belt pre-tensioner. (Before disposal, it must be deployed.)	SRS
PRE-TEN FRONT RH [OPEN] [B1081]	● The circuit for front RH seat belt pre-tensioner is open.	4. Replace the air bag diagnosis sensor unit.	I
PRE-TEN FRONT RH [VB-SHORT] [B1082]	● The circuit for front RH seat belt pre-tensioner is shorted to some power supply circuit.	5. Replace the related harness.	J
PRE-TEN FRONT RH [GND-SHORT] [B1083]	● The circuit for front RH seat belt pre-tensioner is shorted to ground.	1. Visually check the wiring harness connections.	K
PRE-TEN FRONT RH [SHORT] [B1084]	● The circuits for the front RH seat belt pre-tensioner are shorted to each other.	2. Replace the harness if it has visible damage.	L
CONTROL UNIT [B1XXX]	● Air bag diagnosis sensor unit is malfunctioning.	3. Replace the air bag diagnosis sensor unit.	M

**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.

# TROUBLE DIAGNOSIS

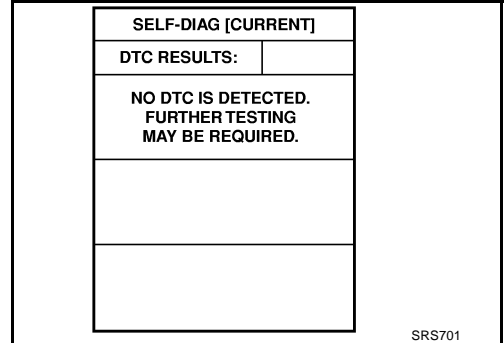
## DIAGNOSTIC PROCEDURE 3

### 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 carry out CAN communication.

1. If no malfunction is detected on "SELF-DIAG [CURRENT]", repair of SRS is completed. Go to step 8.  
If any malfunction is detected on "SELF-DIAG [CURRENT]", the malfunctioning part is not repaired completely or another malfunctioning part is detected. Go to [SRS-16, "DIAGNOSTIC PROCEDURE 2"](#), and repair malfunctioning part completely.

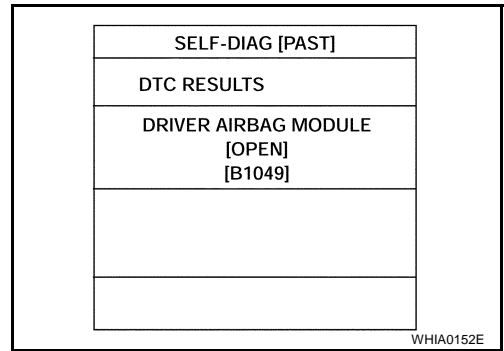


2. Touch "ERASE".

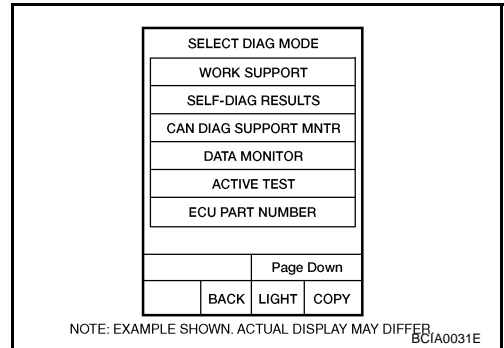
**NOTE:**

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

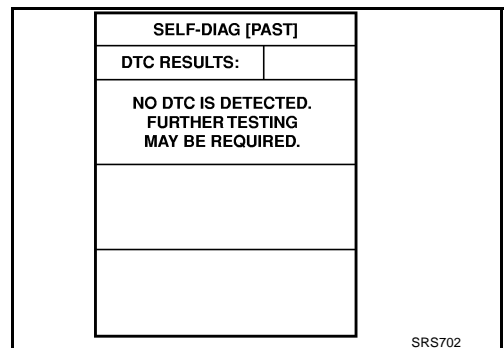
If the memory of the malfunction in "SELF-DIAG [PAST]" is not erased, the User mode shows the system malfunction by the operation of the warning lamp even if the malfunction is repaired completely.



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



4. Check that no malfunction is detected on "SELF-DIAG [PAST]".
5. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears in order to return to User mode from Diagnosis mode.
6. Turn ignition switch OFF then turn off and disconnect CONSULT-II. Goto [SRS-14, "Checking SRS Operation Using "AIR BAG" Warning Lamp—User Mode"](#).



# TROUBLE DIAGNOSIS

## 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?

- Yes >> Self-diagnostic result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair. Go to [SRS-18, "DIAGNOSTIC PROCEDURE 3"](#).
- No >> Go to [SRS-16, "DIAGNOSTIC PROCEDURE 2"](#).

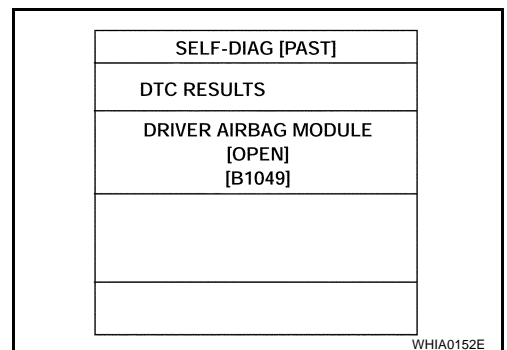
## DIAGNOSTIC PROCEDURE 5

### Check SRS Intermittent Malfunction Using CONSULT-II—Diagnosis Mode

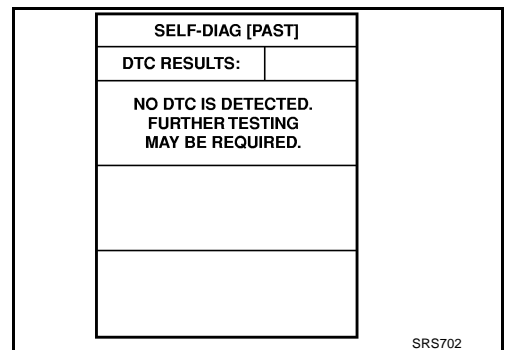
#### CAUTION:

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

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



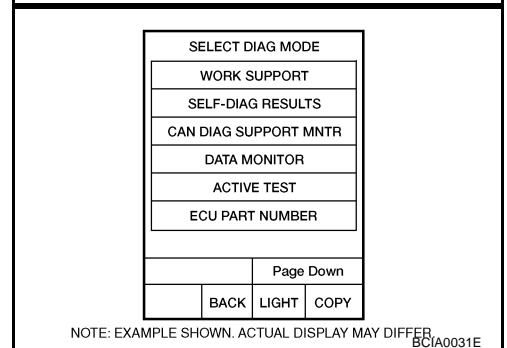
2. If no malfunction is detected on "SELF-DIAG [PAST]", touch "BACK" and go back to "SELECT DIAG MODE".



3. Touch "TROUBLE DIAG RECORD".

#### NOTE:

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



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SRS

## TROUBLE DIAGNOSIS

4. Diagnostic code is displayed on "TROUBLE DIAG RECORD".
5. Touch "PRINT".
6. Compare diagnostic codes to [SRS-20, "CONSULT-II Diagnostic Code Chart \("SELF-DIAG \[PAST\]" or "TROUBLE DIAG RECORD"\)"](#).
7. Touch "BACK" key of CONSULT-II until "SELECT SYSTEM" appears.
8. Turn ignition switch OFF, and disconnect CONSULT-II, and both battery cables.
9. 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.
10. Go to [SRS-18, "DIAGNOSTIC PROCEDURE 3"](#), for final checking.

TROUBLE DIAG RECORD
DTC RESULTS
DRIVER AIRBAG MODULE [OPEN] [B1049]

WHIA0153E

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

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
NO DTC IS DETECTED	When malfunction is indicated by the "AIR BAG" warning lamp in User mode. <ul style="list-style-type: none"> <li>● Low battery voltage (Less than 9V)</li> <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 style="list-style-type: none"> <li>● Go to <a href="#">SRS-18, "DIAGNOSTIC PROCEDURE 3"</a>.</li> <li>● Go to <a href="#">SRS-19, "DIAGNOSTIC PROCEDURE 4 (CONTINUED FROM DIAGNOSTIC PROCEDURE 2)"</a>.</li> <li>● Go to <a href="#">SRS-19, "DIAGNOSTIC PROCEDURE 5"</a>.</li> </ul>
	● No malfunction is detected.	—
DRIVER AIRBAG MODULE [OPEN] [B1049] or [B1054]	● Driver air bag module circuit is open (including the spiral cable).	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> </ol>
DRIVER AIRBAG MODULE [VB-SHORT] [B1050] or [B1055]	● Driver air bag module circuit is shorted to some power supply circuit (including the spiral cable).	<ol style="list-style-type: none"> <li>3. Replace driver air bag module. (Before disposal, it must be deployed.)</li> </ol>
DRIVER AIRBAG MODULE [GND-SHORT] [B1051] or [B1056]	● Driver air bag module circuit is shorted to ground (including the spiral cable).	<ol style="list-style-type: none"> <li>4. Replace the spiral cable.</li> <li>5. Replace the air bag diagnosis sensor unit.</li> </ol>
DRIVER AIRBAG MODULE [SHORT] [B1052] or [B1057]	● Driver air bag module circuits are shorted to each other.	<ol style="list-style-type: none"> <li>6. Replace the related harness.</li> </ol>
ASSIST A/B MODULE [OPEN] [B1065] or [B1070]	● Front passenger air bag module circuit is open.	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> </ol>
ASSIST A/B MODULE [VB-SHORT] [B1066] or [B1071]	● Front passenger air bag module circuit is shorted to some power supply circuit.	<ol style="list-style-type: none"> <li>2. Replace the harness if it has visible damage.</li> </ol>
ASSIST A/B MODULE [GND-SHORT] [B1067] or [B1072]	● Front passenger air bag module circuit is shorted to ground.	<ol style="list-style-type: none"> <li>3. Replace front passenger air bag module. (Before disposal, it must be deployed.)</li> </ol>
ASSIST A/B MODULE [SHORT] [B1068] or [B1073]	● Front passenger air bag module circuits are shorted to each other.	<ol style="list-style-type: none"> <li>4. Replace the air bag diagnosis sensor unit.</li> <li>5. Replace the related harness.</li> </ol>

## TROUBLE DIAGNOSIS

Diagnostic item	Explanation	Repair order Recheck SRS at each replacement
PRE-TEN FRONT LH [OPEN] [B1086]	<ul style="list-style-type: none"> <li>The circuit for front LH seat belt pre-tensioner is open.</li> </ul>	1. Visually check the wiring harness connections.
PRE-TEN FRONT LH [VB-SHORT] [B1087]	<ul style="list-style-type: none"> <li>The circuit for front LH seat belt pre-tensioner is shorted to some power supply circuit.</li> </ul>	2. Replace the harness if it has visible damage.
PRE-TEN FRONT LH [GND-SHORT] [B1088]	<ul style="list-style-type: none"> <li>The circuit for front LH seat belt pre-tensioner is shorted to ground.</li> </ul>	3. Replace front LH seat belt pre-tensioner. (Before disposal, it must be deployed.)
PRE-TEN FRONT LH [SHORT] [B1089]	<ul style="list-style-type: none"> <li>The circuits for the front LH seat belt pre-tensioner are shorted to each other.</li> </ul>	4. Replace the air bag diagnosis sensor unit.
PRE-TEN FRONT RH [OPEN] [B1081]	<ul style="list-style-type: none"> <li>The circuit for front RH seat belt pre-tensioner is open.</li> </ul>	5. Replace the related harness.
PRE-TEN FRONT RH [VB-SHORT] [B1082]	<ul style="list-style-type: none"> <li>The circuit for front RH seat belt pre-tensioner is shorted to some power supply circuit.</li> </ul>	1. Visually check the wiring harness connections.
PRE-TEN FRONT RH [GND-SHORT] [B1083]	<ul style="list-style-type: none"> <li>The circuit for front RH seat belt pre-tensioner is shorted to ground.</li> </ul>	2. Replace the harness if it has visible damage.
PRE-TEN FRONT RH [SHORT] [B1084]	<ul style="list-style-type: none"> <li>The circuits for the front RH seat belt pre-tensioner are shorted to each other.</li> </ul>	3. Replace front RH seat belt pre-tensioner. (Before disposal, it must be deployed.)
CONTROL UNIT [B1XXX]	<ul style="list-style-type: none"> <li>Air bag diagnosis sensor unit is malfunctioning.</li> </ul>	4. Replace the air bag diagnosis sensor unit.
		5. Replace the related harness.
		1. Visually check the wiring harness connection.
		2. Replace the harness if it has visible damage.
		3. Replace the air bag diagnosis sensor unit.

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# TROUBLE DIAGNOSIS

GHS0000U

## 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

<p>&lt;Diagnosis results (previously stored in the memory) might not be erased after repair or intermittent malfunctions have been detected in the past.&gt;</p>	
<p>Flash pattern</p> <p>a through b are repeated.</p>	<p>Repair order</p> <ol style="list-style-type: none"> <li>1. Go to DIAGNOSTIC PROCEDURES 2 and 3.</li> </ol>
SHIA0026E	
<p>&lt;Driver air bag module&gt;</p>	
<p>Flash pattern</p> <p>a through d are repeated.</p> <p>d: Two flashes indicate malfunctioning driver air bag module circuits.</p>	<p>Repair order</p> <ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace the spiral cable.</li> <li>4. Replace driver air bag module. (Before disposal, it must be deployed.)</li> <li>5. Replace the air bag diagnosis sensor unit.</li> <li>6. Replace the related harness.</li> </ol>
WHIA0197E	
<p>&lt;Air bag diagnosis sensor unit&gt;</p>	
<p>Flash pattern</p> <p>a through d are repeated.</p> <p>d: Seven flashes indicate malfunctioning diagnosis sensor unit circuit.</p>	<p>Repair order</p> <ol style="list-style-type: none"> <li>1. Visually check the wiring harness connections.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace the air bag diagnosis sensor unit.</li> <li>4. Replace the related harness.</li> </ol>
WHIA0198E	

# TROUBLE DIAGNOSIS

<Front passenger air bag module>	
Flash pattern	Repair order
<p>a through d are repeated.</p> <p>d: Eight flashes indicate malfunctioning front passenger air bag module circuit.</p>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connection.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace front passenger air bag module. (Before disposal, it must be deployed.)</li> <li>4. Replace the airbag diagnosis sensor unit.</li> <li>5. Replace the related harness.</li> </ol>

WHIA0199E

<Front RH seat belt pre-tensioner>	
Flash pattern	Repair order
<p>a through d are repeated.</p> <p>d: One flash indicates malfunctioning front RH seat belt pre-tensioner circuit.</p>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connections.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace front RH seat belt pre-tensioner. (Before disposal, it must be activated.)</li> <li>4. Replace the air bag diagnosis sensor unit.</li> <li>5. Replace the related harness.</li> </ol>

WHIA0201E

<Front LH seat belt pre-tensioner>	
Flash pattern	Repair order
<p>a through d are repeated.</p> <p>d: Three flashes indicate malfunctioning front LH seat belt pre-tensioner circuit.</p>	<ol style="list-style-type: none"> <li>1. Visually check the wiring harness connections.</li> <li>2. Replace the harness if it has visible damage.</li> <li>3. Replace front LH seat belt pre-tensioner. (Before disposal, it must be activated.)</li> <li>4. Replace the air bag diagnosis sensor unit.</li> <li>5. Replace the related harness.</li> </ol>

WHIA0202E

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# TROUBLE DIAGNOSIS

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

GHS0000V

### 1. CHECK CONDITION OF AIR BAG MODULES

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 [SRS-40, "COLLISION DIAGNOSIS"](#).

No >> GO TO 2.

### 2. CHECK THE AIR BAG FUSE

Check 10A fuse [No. 13, located in the fuse block (J/B)].

Refer to [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#).

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 or replace main harness.

No >> Inspection End.

### 4. CHECK AIR BAG DIAGNOSIS SENSOR UNIT

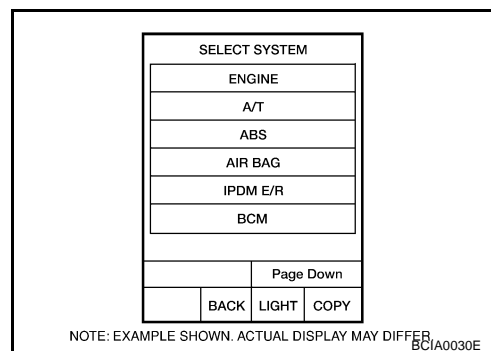


Connect CONSULT-II and CONSULT-II CONVERTER and touch "START".

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 [SRS-34, "Removal and Installation"](#).



### 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 [SRS-34, "Removal and Installation"](#).

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

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

GHS0000W

### 1. CHECK METER FUSE

Check the 10A fuse [No. 14, located in the fuse block (J/B)].  
Refer to [PG-4, "POWER SUPPLY ROUTING CIRCUIT"](#).

OK or NG

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

### 2. CHECK METER FUSE AGAIN

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

Does the fuse blow again?

- Yes >> Repair or replace the related harness.
- No >> Inspection End.

### 3. 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?

- Yes >> Replace the air bag diagnosis sensor unit. Refer to [SRS-34, "Removal and Installation"](#).
- No >> Check the combination meter power supply circuits and ground circuits. If OK, replace combination meter.

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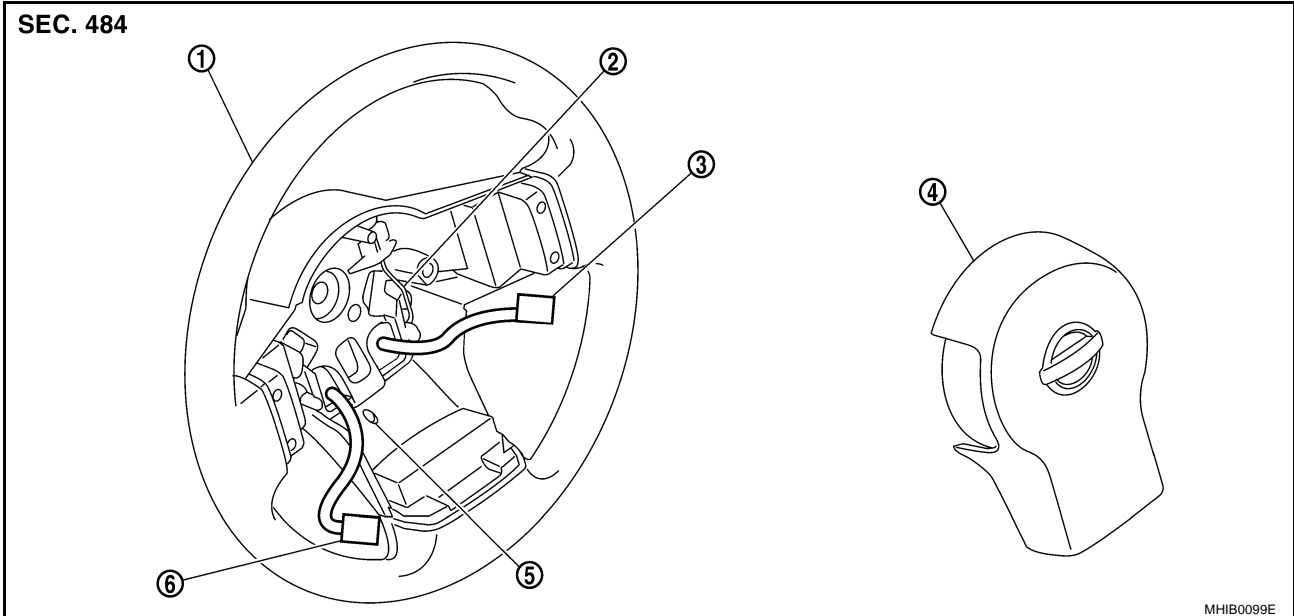
# DRIVER AIR BAG MODULE

## DRIVER AIR BAG MODULE

PFP:K8510

### Removal and Installation

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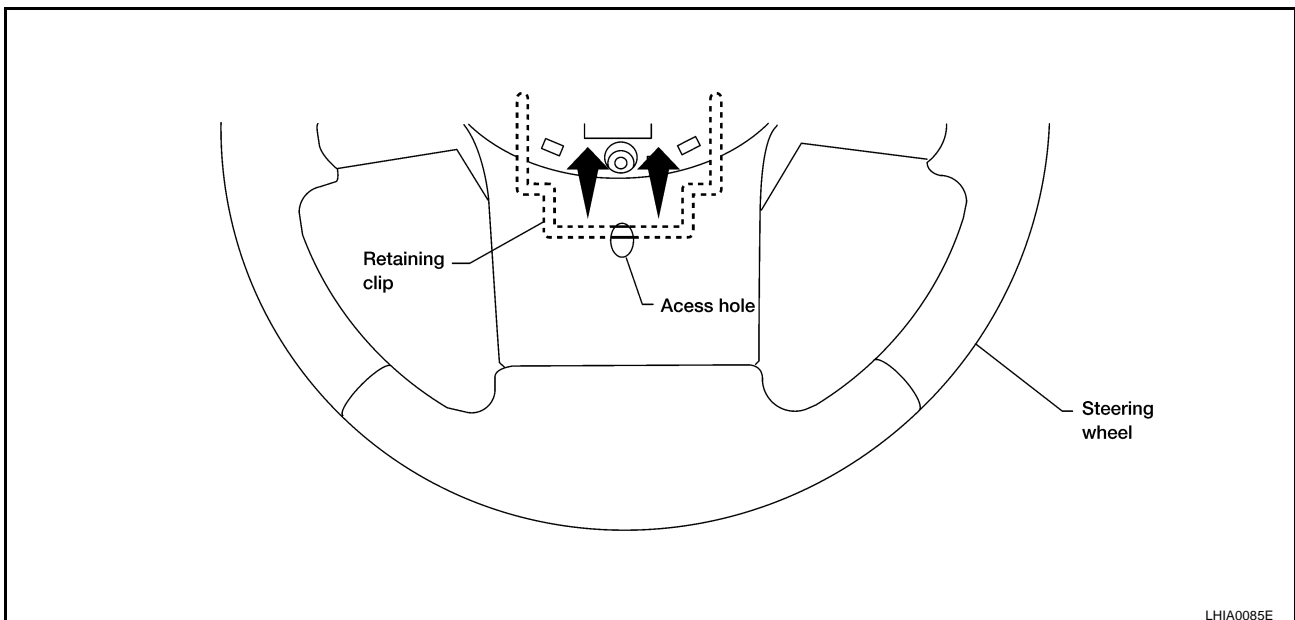


- |                          |                               |                                    |
|--------------------------|-------------------------------|------------------------------------|
| 1. Steering wheel        | 2. Retaining clip             | 3. Driver air bag module connector |
| 4. Driver air bag module | 5. Retaining clip access hole | 6. Horn connector                  |

### 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. Locate retaining clip access hole and insert screwdriver.



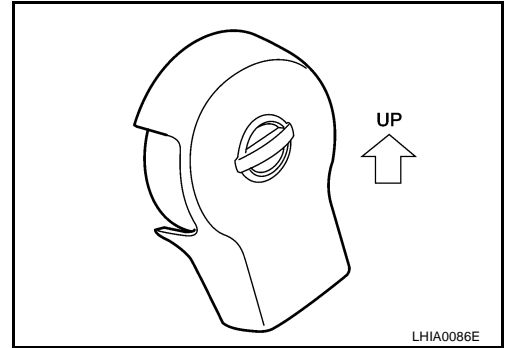
2. Press upward (toward center of steering wheel) on retaining clip until driver air bag module is released from steering wheel.
3. Lift the driver air bag module from the steering wheel.
4. Disconnect the driver air bag module and horn connectors, then remove the driver air bag module.

# DRIVER AIR BAG MODULE

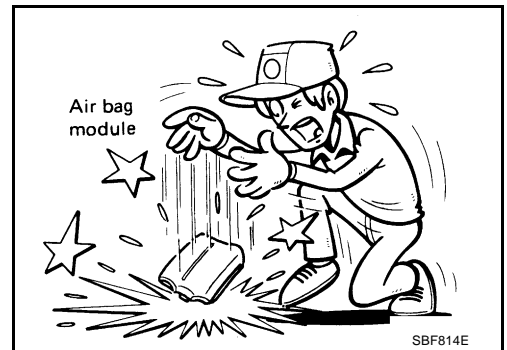
- For removal/installation of the direct-connect SRS connectors, refer to [SRS-6, "Direct-Connect SRS Component Connectors"](#) .

## 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 connectors.
- Do not disassemble air bag module.
- 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

Install 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 [SRS-28, "SPIRAL CABLE"](#) .
- For removal/installation of the direct-connect SRS connectors, refer to [SRS-6, "Direct-Connect SRS Component Connectors"](#) .
- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to [SRS-14, "SRS Operation Check"](#) .

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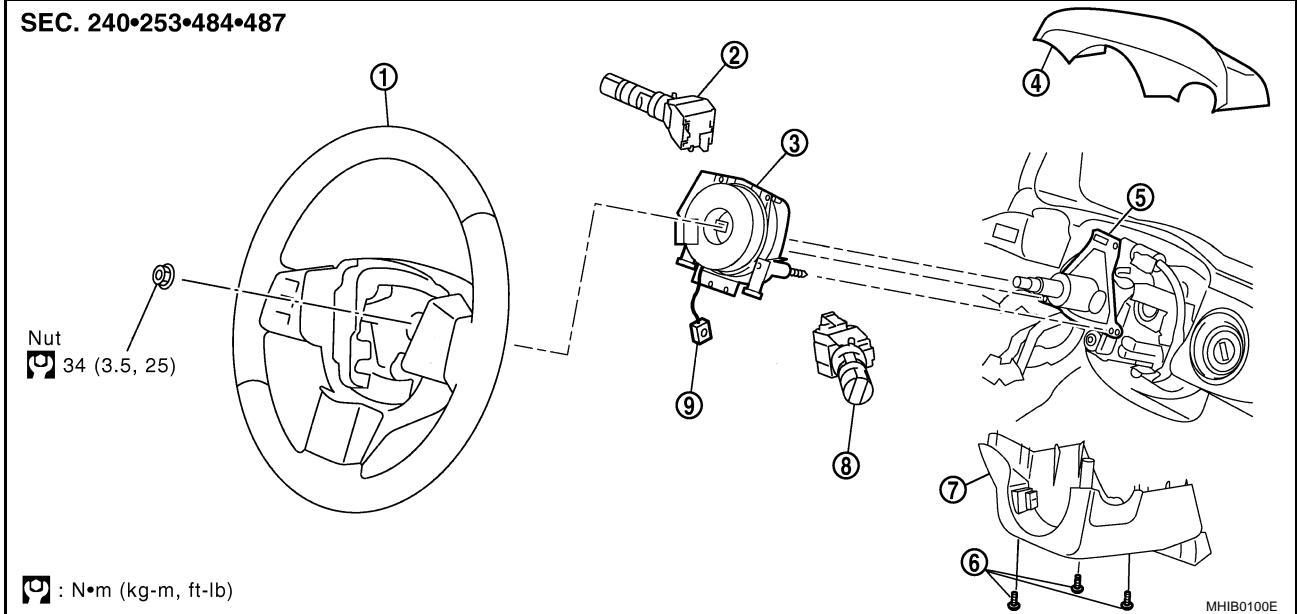
# SPIRAL CABLE

PFP:25554

## SPIRAL CABLE

### Removal and Installation

GHS0000Y

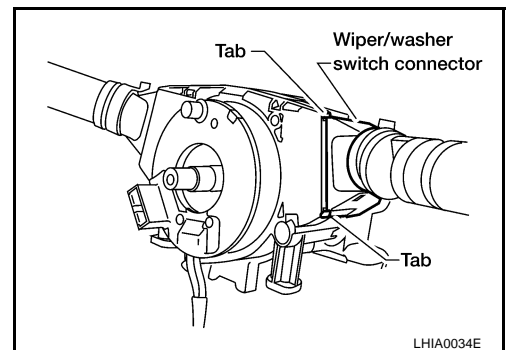


- |                       |                                    |                                    |
|-----------------------|------------------------------------|------------------------------------|
| 1. Steering wheel     | 2. Lighting and turn signal switch | 3. Spiral cable                    |
| 4. Column cover upper | 5. Steering column assembly        | 6. Screw                           |
| 7. Column cover lower | 8. Wiper and washer switch         | 9. Driver air bag module connector |

### REMOVAL

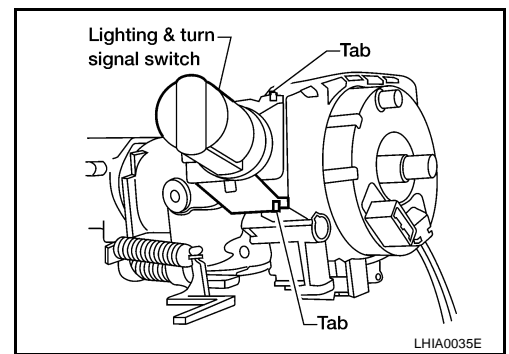
#### CAUTION:

- 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. Set the front wheels in the straight-ahead position.
  2. Remove the steering wheel. Refer to [PS-10, "Removal and Installation"](#).
  3. Remove the column cover upper and lower.
  4. Disconnect wiper and washer switch connector. Then while pressing tabs, pull wiper and washer switch away from spiral cable to remove.



# SPIRAL CABLE

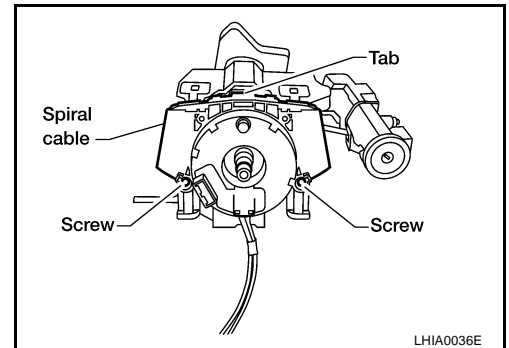
5. Disconnect lighting and turn signal switch connector. Then while pressing tabs, pull lighting and turn signal switch toward driver door to remove.



6. Remove the screws. Then while pressing the tab, pull the spiral cable away from steering column assembly.

**CAUTION:**

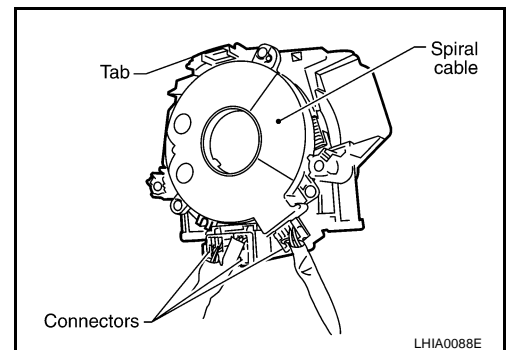
- Do not disassemble spiral cable.
- Do not apply lubricant to the spiral cable.



7. Disconnect 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 right end position.



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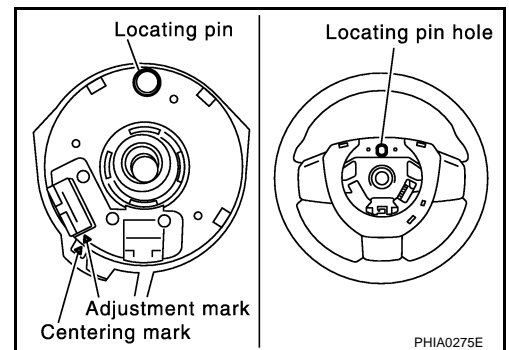
## INSTALLATION

Install in the reverse order of removal.

- Align spiral cable correctly when installing steering wheel, refer to [SRS-29, "INSTALLATION"](#). 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 locating pin at the top.
- Reset the steering angle sensor calibration after installing spiral cable.
- After the work is completed, perform self-diagnosis to make sure no malfunction is detected. Refer to [SRS-14, "SRS Operation Check"](#).

**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

## FRONT PASSENGER AIR BAG MODULE

PFK:K8515

### Removal and Installation

GHS0000Z

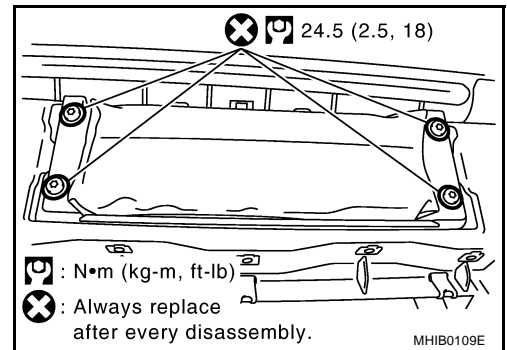
The passenger air bag module originally installed in the vehicle uses direct-connect style harness connectors. Service replacement passenger air bag modules use tab-locking style harness connectors. If the passenger air bag module is replaced or if the direct-connect harness connectors are damaged, the vehicle wiring harness must be modified to allow connection of the service replacement passenger air bag module. Refer to [SRS-31, "WIRING HARNESS MODIFICATION"](#) for wiring harness modification procedure.

### REMOVAL

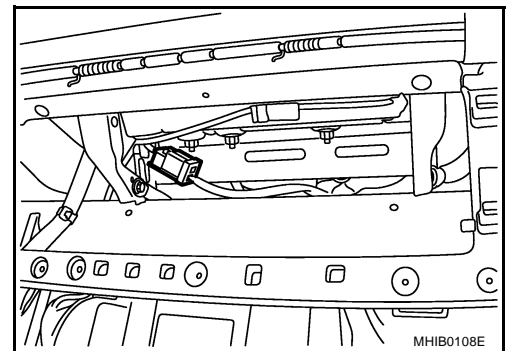
#### CAUTION:

- 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, then remove instrument panel. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#).
  2. Remove 4 bolts retaining front passenger air bag module to the steering member.

 TORX bolts (T30) :  24.5 N·m (2.5 kg-m, 18 ft-lb)

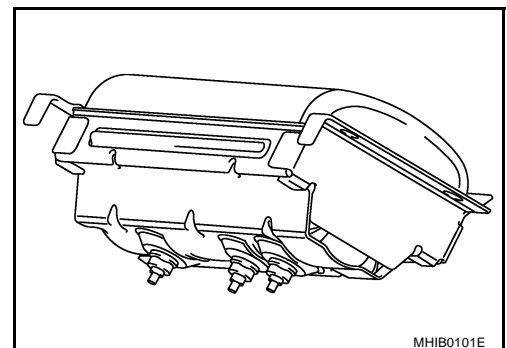


3. Disconnect the front passenger air bag module connector.



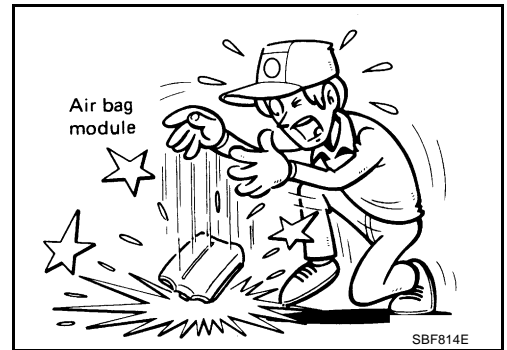
#### CAUTION:

- 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).



# FRONT PASSENGER AIR BAG MODULE

- 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 [SRS-6, "Direct-Connect SRS Component Connectors"](#) .



## INSTALLATION

### Original Passenger Air Bag Module

To install, reverse the removal procedure.

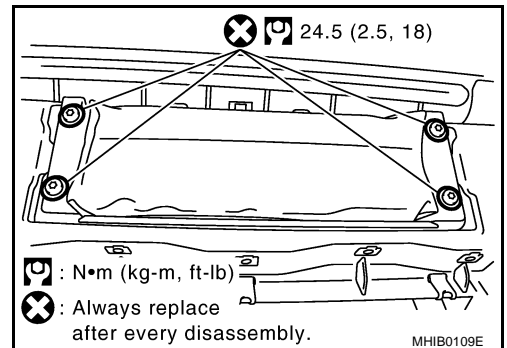
- For removal/installation of the direct-connect SRS connectors, refer to [SRS-6, "Direct-Connect SRS Component Connectors"](#) .

### 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 [SRS-14, "SRS Operation Check"](#) .

### Service Replacement Passenger Air Bag Module

1. Install the instrument panel assembly. Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
2. Install the front passenger air bag module to the steering member.



3. Connect the front passenger air bag module harness connector to yellow 4-pin service replacement air 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 [SRS-14, "SRS Operation Check"](#) .

## 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.

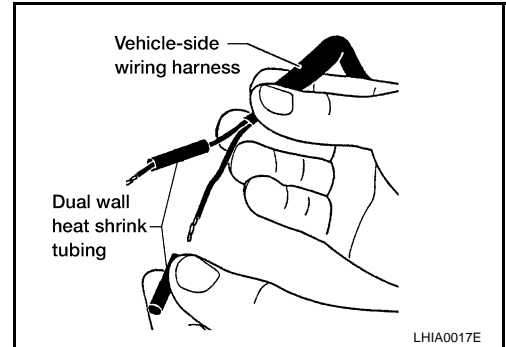
### CAUTION:

- 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.

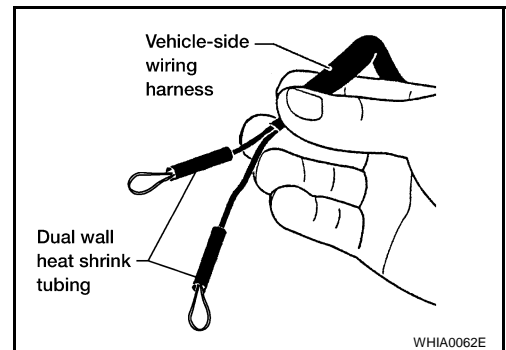
## FRONT PASSENGER AIR BAG MODULE

- 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 [SRS-14, "SRS Operation Check"](#).

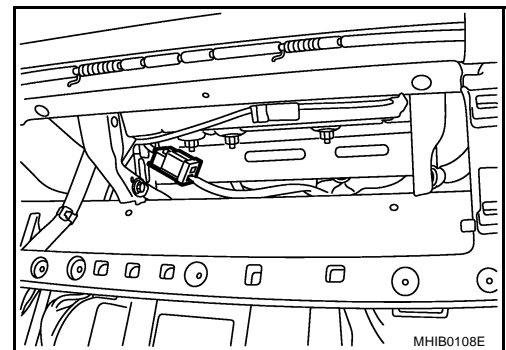
1. Locate the yellow and orange direct-connect passenger air bag module harness connectors.
2. Use wire cutters to cut back both previously used direct-connect passenger air bag module harness connectors from the vehicle wiring harness approximately 50 mm (1.9 in) from the connectors.
3. Remove approximately 150 mm (5.9 in) of the vehicle harness covering from the cut end.
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.



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.





# FRONT SEAT BELT PRE-TENSIONER

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## FRONT SEAT BELT PRE-TENSIONER

PFP:86884

### Removal and Installation

GHS00013

For removal and installation procedures, refer to [SB-3, "Removal and Installation of Front Seat Belt"](#) .

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# DIAGNOSIS SENSOR UNIT

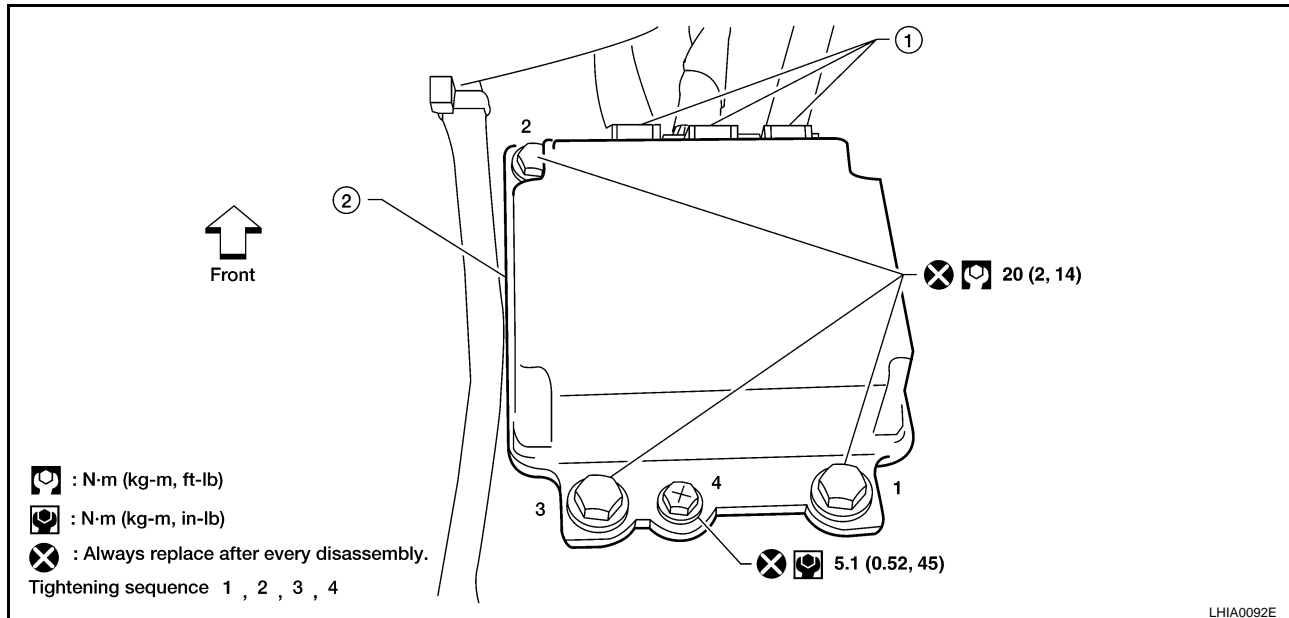
PFP:28556

## DIAGNOSIS SENSOR UNIT

### Removal and Installation

GHS00014

#### REMOVAL



1. Diagnosis sensor unit connectors    2. Diagnosis sensor unit

#### REMOVAL

##### CAUTION:

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

TORX bolts (T50) -1,2,3    : 20 N-m (2 kg-m, 14 ft-lb)

Ground bolt -4    : 5.1 N-m (0.52 kg-m, 45 in-lb)

##### 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

Install in the reverse order of removal.

- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to [SRS-14, "SRS Operation Check"](#).

##### 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 [SRS-12, "CONSULT-II Function"](#).

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

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

PFP:00014

### Caution for Air Bag Module and Seat Belt Pre-tensioner

GHS00015

- Before disposing of air bag module, seat belt pre-tensioner or vehicle equipped with such systems, deploy the systems. If such systems have already been deployed due to an accident, dispose of them as indicated in "[SRS-35, "DISPOSAL OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER"](#)".
- When deploying the air bag module or seat belt pre-tensioner, always use the Special Service Tool Deployment tool [KV99106400].
- When deploying the air bag module or seat belt pre-tensioner, stand at least 5 m (16 ft) away from the component being deployed.
- When deploying air bag module or seat belt pre-tensioner, a fairly loud noise is made, followed by smoke being released. The smoke is not poisonous, however, be careful not to inhale smoke since it irritates the throat and can cause choking.
- Only deploy one air bag module or seat belt pre-tensioner at a time.
- Due to heat, leave deployed air bag module unattended for at least 30 minutes after deployment. Leave deployed seat belt pre-tensioner unattended for at least 10 minutes after deployment.
- Be sure to wear gloves when handling a deployed air bag module or seat belt pre-tensioner.
- Never apply water to the deployed air bag module or seat belt pre-tensioner.
- Wash your hands thoroughly after finishing work.
- Place the vehicle outdoors with an open space of at least 6 m (20 ft) on all sides when deploying air bag module or seat belt pre-tensioner while mounted in vehicle.
- Use a voltmeter to make sure the vehicle battery is fully charged.
- Do not dispose of the air bag module or seat belt pre-tensioner undeployed.

### CHECKING DEPLOYMENT TOOL

#### Connecting to Battery

##### **CAUTION:**

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

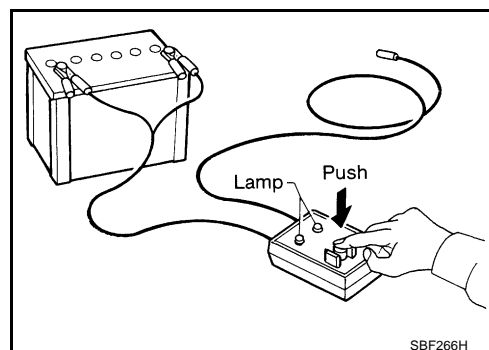
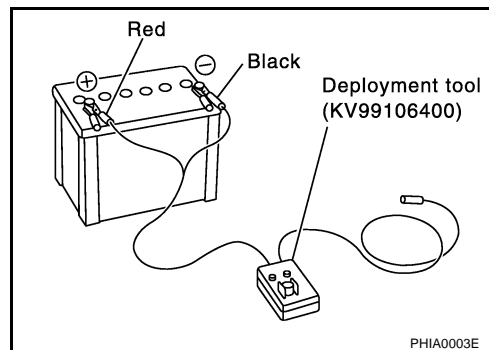
Remove the battery from the vehicle and place it on dry wood blocks approximately 5 m (16 ft) away from the vehicle.

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

**Make sure the polarity is correct. The right side lamp in the tool marked "deployment tool power" should glow with a green light. If the right side lamp glows red, reverse the connections to the battery.**

#### Deployment Tool Check

Place the deployment tool switch to the ON position. The left side lamp in the tool, marked "air bag connector voltage" should illuminate. If it does not illuminate, replace the tool.



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

## Air Bag Deployment Tool Lamp Illumination Chart (Battery connected)

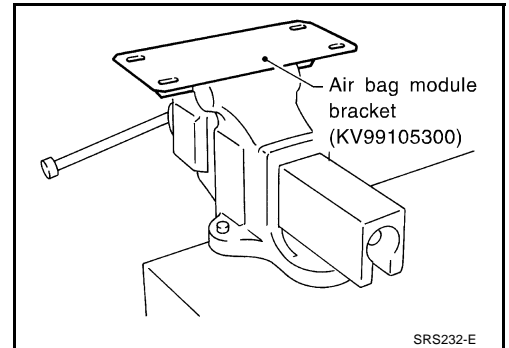
Switch operation	Left side lamp, green "AIR BAG CONNECTOR VOLTAGE"	Right side lamp, green* "DEPLOYMENT TOOL POWER"
OFF	OFF	ON
ON	ON	ON

\*: If this lamp glows red, the tool is connected to the battery incorrectly. Reverse the connections and make sure the lamp glows green.

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

Unless the vehicle is being scrapped, deploying the air bag in the vehicle is not recommended. This may cause damage to the vehicle interior.

Anchor air bag module bracket in a vise secured to a firm foundation during deployment.



### Deployment of Driver Air Bag Module (Outside of vehicle)

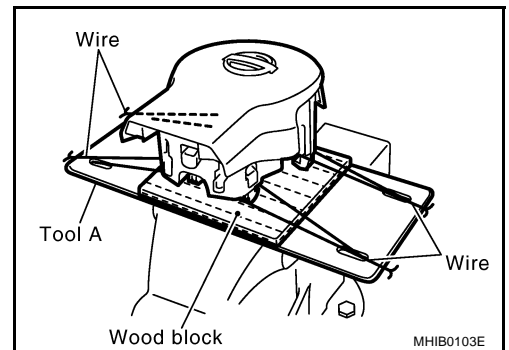
- Using wire, secure air bag module to the Tool at 4 places.

**CAUTION:**

**Use wire of at least 1 mm (0.04 in) diameter.**

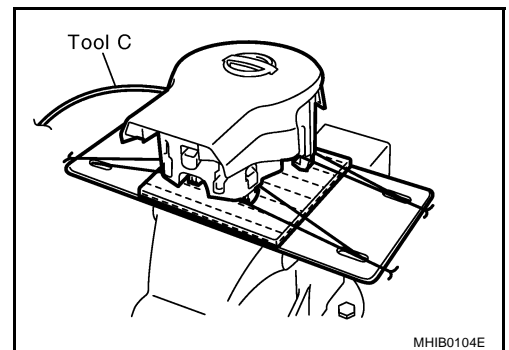
- Firmly secure Tool with air bag module attached, in a vise.

**Tool A : KV99105300**



- Connect deployment Tool to air bag module connector using Tool C.

**Tool C : KV99109700**



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

- Connect red clip of Tool to battery positive terminal and black clip to negative terminal.

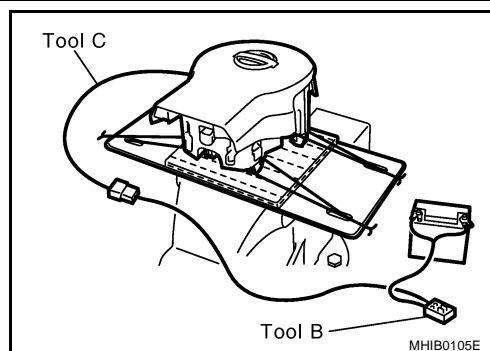
**Tool B** : KV99106400

**Tool C** : KV99109700

- The lamp on the right side of the tool, marked “deployment tool power”, should glow green, not red.
- Press the button on the deployment tool. The left side lamp on the tool, marked “air bag connector voltage”, will illuminate and the air bag module will deploy.

**CAUTION:**

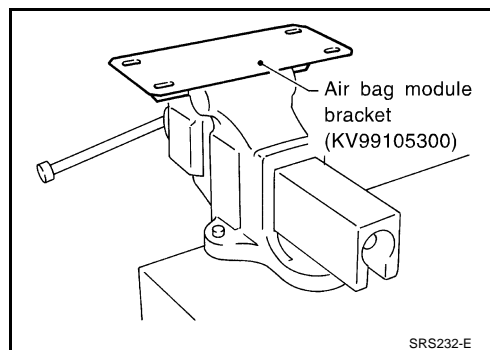
When deploying the driver air bag module, stand at least 5 m (16 ft) away from the air bag module.



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## Deployment of Front Passenger Air Bag Module (Outside of vehicle)

- Firmly secure the Tool in a vise.



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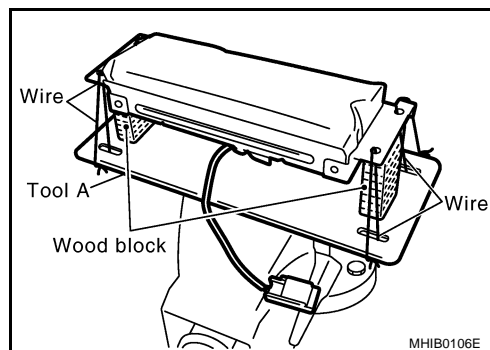
- Using wire, secure air bag module to the Tool at 4 places.

**CAUTION:**

Use wire of at least 1 mm (0.04 in) diameter.

- Firmly secure Tool with air bag module attached, in a vise.

**Tool A** : KV99105300



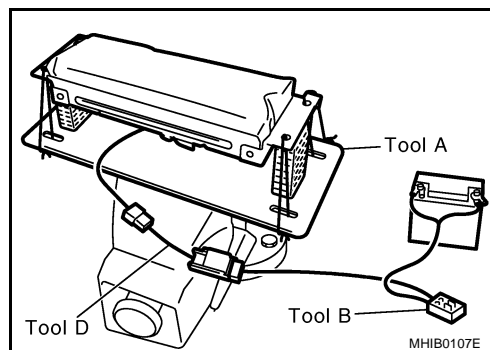
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- Connect deployment Tool A to front passenger air bag module using Tool B.

**Tool A** : KV99105300

**Tool B** : KV99106400

**Tool D** : KV99108300



M

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

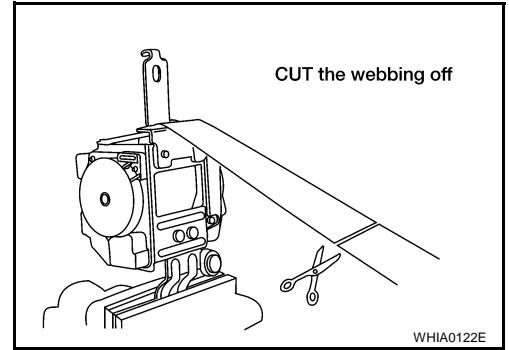
**CAUTION:**

- When deploying the front passenger air bag module, do not stand on the deploying side.
- Stand at least 5 m (16 ft) away from the air bag module.

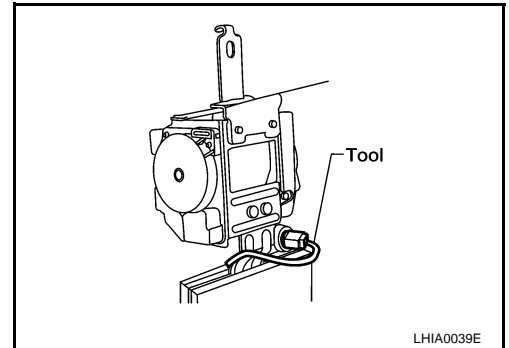
# DISPOSAL OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER

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

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



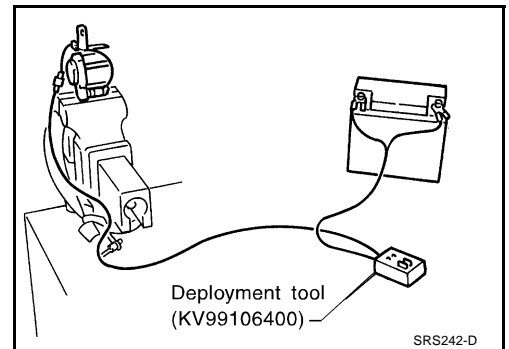
2. Connect deployment tool [SST: KV99106400] connector to front seat belt pre-tensioner using deployment tool adapter [SST: KV99109700].



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

**CAUTION:**

**When deploying the front seat belt pre-tensioner, stand at least 5 m (16 ft) away from the seat belt pre-tensioner.**



## DEPLOYMENT OF AIR BAG MODULES AND SEAT BELT PRE-TENSIONERS WHILE MOUNTED IN VEHICLE

When disposing of a vehicle, deploy air bag modules and seat belt pre-tensioners while they are mounted in vehicle.

**CAUTION:**

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

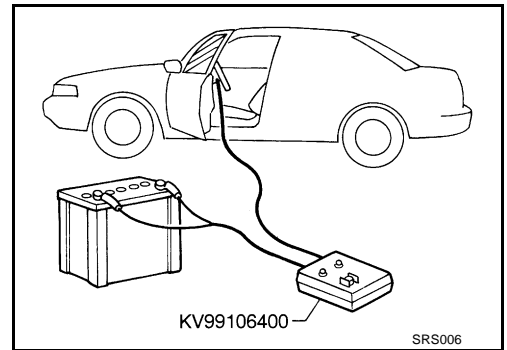
1. Disconnect both the vehicle battery cables and wait 3 minutes.
2. Disconnect all air bag module and seat belt pre-tensioner harness connectors.
3. Connect deployment tool [SST: KV99106400] to air bag module or seat belt pre-tensioner. For driver air bag module, use deployment tool adapter [SST: KV99109700]. For front passenger air bag module, use deployment tool adapter [SST: KV99108300].

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

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

**CAUTION:**

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

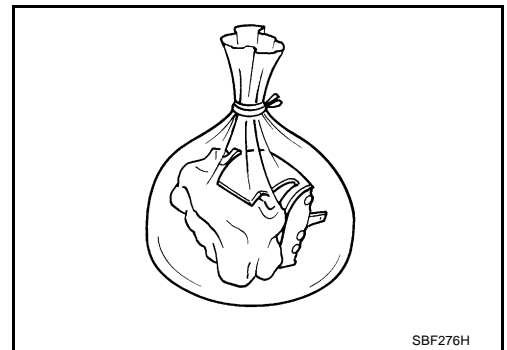


### DISPOSING OF AIR BAG MODULE AND SEAT BELT PRE-TENSIONER

Deployed air bag modules and seat belt pre-tensioners are very hot. Before disposing of air bag module or seat belt pre-tensioner, wait at least 30 minutes or 10 minutes, respectively. Seal them in a plastic bag before disposal.

**CAUTION:**

- Never apply water to a deployed air bag module or seat belt pre-tensioner.
- Be sure to wear gloves when handling a deployed air bag module or seat belt pre-tensioner.
- No poisonous gas is produced upon air bag module deployment. However, be careful not to inhale gas since it irritates the throat and can cause choking.
- Do not disassemble air bag module or seat belt pre-tensioner.
- Air bag modules and seat belt pre-tensioners cannot be reused.
- Wash your hands thoroughly after finishing work.



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SRS

# COLLISION DIAGNOSIS

## COLLISION DIAGNOSIS

PFP:00015

### For Frontal Collision

GHS00016

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 [SRS-14, "SRS Operation Check"](#).

### SRS INSPECTION (FOR FRONTAL COLLISION)

Part	SRS is activated	SRS is NOT activated
Air bag module (driver and front passenger air bag module)	REPLACE Install with new fasteners.	<ol style="list-style-type: none"> <li>Remove air bag module. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.</li> <li>Install driver air bag module into the steering wheel to check fit and alignment with the wheel.</li> <li>Install passenger air bag module into the instrument panel to check fit with the instrument panel.</li> <li>If no damage is found, reinstall with new fasteners.</li> <li>If damaged—REPLACE. Install air bag modules with new fasteners. Air bag modules must be deployed before disposal.</li> </ol>
Seat belt pre-tensioner assemblies	REPLACE Install seat belt pre-tensioner with new fasteners.	<ol style="list-style-type: none"> <li>Remove seat belt pre-tensioners. Check harness cover and connectors for damage, terminals for deformities, and harness for binding.</li> <li>Check belts for damage and anchors for loose mounting.</li> <li>Check retractor for smooth operation.</li> <li>Check seat belt adjuster for damage.</li> <li>If no damage is found, reinstall seat belt pre-tensioner assembly.</li> <li>If damaged—REPLACE. Install the seat belt pre-tensioners with new fasteners. Seat belt pre-tensioners must be deployed before disposal.</li> </ol>
Diagnosis sensor unit	REPLACE Install with new fasteners.	<ol style="list-style-type: none"> <li>Check case for dents, cracks or deformities.</li> <li>Check connectors for damage, and terminals for deformities.</li> <li>If no damage is found, reinstall with new fasteners.</li> <li>If damaged—REPLACE. Install diagnosis sensor unit with new fasteners.</li> </ol>
Steering wheel		<ol style="list-style-type: none"> <li>Visually check steering wheel for deformities.</li> <li>Check harness (built into steering wheel) and connectors for damage, and terminals for deformities.</li> <li>Install driver air bag module into the steering wheel to check fit and alignment with the wheel.</li> <li>Check steering wheel for excessive free play.</li> <li>If no damage is found, reinstall.</li> <li>If damaged—REPLACE.</li> </ol>
Spiral cable	REPLACE the spiral cable.	<ol style="list-style-type: none"> <li>Visually check spiral cable and combination switch for damage.</li> <li>Check connectors and protective tape for damage.</li> <li>Check steering wheel for noise, binding or heavy operation.</li> <li>If no damage is found, reinstall.</li> <li>If damaged—REPLACE.</li> </ol>
Harness and connectors		<ol style="list-style-type: none"> <li>Check connectors for poor connection, damage, and terminals for deformities.</li> <li>Check harness for binding, chafing, cuts, or deformities.</li> <li>If no damage is found, reinstall the harness and connectors.</li> <li>If damaged—REPLACE the damaged harness. Do not attempt to repair, splice or modify any SRS harness.</li> </ol>
Instrument panel	REPLACE the instrument panel assembly.	<ol style="list-style-type: none"> <li>Visually check instrument panel for damage.</li> <li>If no damage is found, reinstall the instrument panel.</li> <li>If damaged—REPLACE the instrument panel.</li> </ol>

### For Side Collision

GHS00017

Check the SRS components using the following table.



# COLLISION DIAGNOSIS

- After the work is completed, perform self-diagnosis to check that no malfunction is detected. Refer to [SRS-14, "SRS Operation Check"](#).

## WHEN SRS IS ACTIVATED IN THE SIDE COLLISION

1. Replace the following components:
  - Diagnosis sensor unit
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 [SRS-14, "SRS Operation Check"](#) for details. Ensure entire SRS operates properly.

## WHEN SRS IS NOT ACTIVATED IN THE SIDE COLLISION

1. Check the SRS components and the related parts using the following table.
2. Conduct self-diagnosis using CONSULT-II and "AIR BAG" warning lamp. Refer to [SRS-14, "SRS Operation Check"](#) for details. Ensure entire SRS operates properly.

## SRS INSPECTION (FOR SIDE COLLISION)

Part	SRS is activated	SRS is NOT activated
Diagnosis sensor unit	REPLACE the diagnosis sensor unit with new fasteners.	1. Check case and bracket for dents, cracks or deformities. 2. Check connectors for damage, and terminals for deformities. 3. If no damage is found, reinstall the diagnosis sensor unit with new fasteners. 4. If damaged—REPLACE the diagnosis sensor unit with new fasteners.
Seat belt pre-tensioner assembly	1. Check if the seat belt can be extended smoothly. If the seat belt cannot be extended smoothly, <ul style="list-style-type: none"> <li>– Check for deformities of the center pillar inner.</li> <li>– If the center pillar inner has no damage, REPLACE the seat belt pre-tensioner assembly.</li> </ul> 2. Remove the seat belt pre-tensioner assembly on the collision side. Check harness cover and connectors for damage, terminals for deformities, and harness for binding. 3. Check for visible signs of damage (dents, cracks, deformation) of the seat belt pre-tensioner assembly. 4. Check seat belt adjuster for damage. 5. If no damage is found, reinstall the seat belt pre-tensioner assembly. 6. If damaged—REPLACE the seat belt pre-tensioner assembly with new fasteners. Seat belt pre-tensioners must be deployed before disposal.	
Center inner pillar	1. Check the center inner pillar on the collision side for damage (dents, cracks, deformation). 2. If damaged—REPAIR the center inner pillar.	
Trim/headlining	1. Check for visible signs of damage (dents, cracks, deformation) of the interior trim on the collision side. 2. If damaged—REPLACE the damaged trim parts.	

A  
B  
C  
D  
E  
F  
G  
SRS  
I  
J  
K  
L  
M

# COLLISION DIAGNOSIS

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