

SUPPLEMENTAL RESTRAINT SYSTEM (SRS AIRBAG)

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GENERAL

The supplemental restraint system (SRS) is designed to supplement the driver's seat belt to help reduce the risk or severity of injury to the driver by activating and deploying a drivers-side air bag in certain frontal collisions.

The SRS (Air-bag) consists of; a driver side air bag module located in the center of the steering wheel, which contains the folded air-bag and an inflator unit; SRSCM (SRS control module) located under the rear console assembly, which monitors the system, and an accelerometer which senses the vehicle deceleration an SRS SRI (Service reminder Indicator) located on the cluster, which indicates the operational status of the SRS; a clock spring interconnection located within the steering column; system wiring and wiring connector; and a knee bolster located under the steering column. The impact sensing function of the SRSCM is carried out by electronic accelerometer that continuously measure the vehicle's acceleration and delivers a corresponding signal through amplifying and filtering circuitry to the microprocessor. That is designed to occur in frontal or near-frontal impacts of moderate to severe force.

Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work. Extreme care must be used when servicing the SRS, to avoid injury to the service personnel (by inadvertent deployment of the air bag) or the driver (by rendering the SRS inoperative)

CUSTOMER CAUTIONS

Failure to carry out service operations in the correct sequence could cause the airbag system to unexpectedly deploy during servicing, possibly leading to a serious accident.

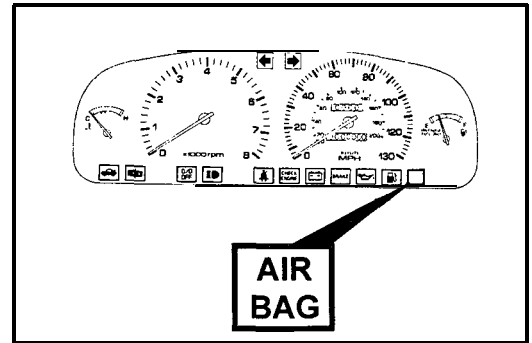
Further, if a mistake is made in servicing the airbag system, it is possible the airbag may fail to operate when required. Before performing servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully, then follow the correct procedure described in the repair manual.

1. Work must be started after approx. 30 seconds or longer from the time the ignition switch is turned to the LOCK position and the negative (-) terminal cable is disconnected from the battery. (The airbag system is equipped with a back-up power source so that if work is started within 30 seconds of disconnecting the negative (-) terminal cable of the battery, the airbag may be deployed.)
When the negative (-) terminal cable is disconnected from the battery, memory of the clock and audio systems will be cancelled. So before starting work, make a record of the contents memorized by the audio memory system. Then when work is finished, reset the audio system as before and adjust the clock.
2. Malfunction symptoms of the airbag system are difficult to confirm, so the diagnostic codes become the most important source of information when troubleshooting.
When troubleshooting the airbag system, always inspect the diagnostic codes before disconnecting the battery.
3. Never use airbag parts from another vehicle. When replacing parts, replace them with new parts.
4. Never attempt to disassemble and repair the airbag modules, SRSCM, Clock spring and Air-bag wiring harness in order to reuse it.
5. If the SRSCM or air-bag module have been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.
6. After work on the airbag system is completed, perform the SRS SRI check.

SRSCM INDEPENDENT LAMP ACTIVATION

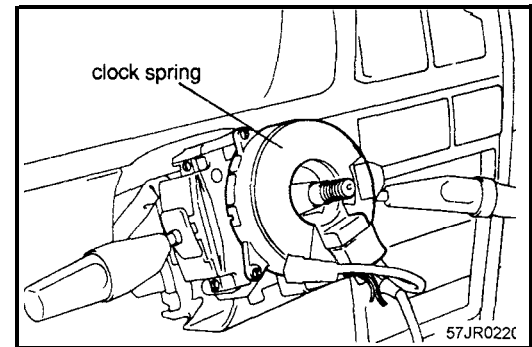
There are certain fault conditions in which the SRSCM (SRS Control Module) cannot function and thus cannot control the operation of the lamp. In these cases, the lamp is directly activated by appropriate circuitry that operates independently of the SRSCM, as follows:

1. Loss of ignition voltage supply to the SRSCM: lamp turned on continuously
2. Loss of internal operating voltage: lamp turned on continuously
3. Loss of SRSCM operation: lamp turned on continuously.
4. SRSCM not connected: lamp turned on continuously through shorting bar in wiring harness connector



CLOCK SPRING (in MULTI-FUNCTION SWITCH)

The steering wheel must be fitted correctly to the steering column with the clock spring at the neutral position, otherwise cable disconnection and other troubles may result. Refer to page 56A-13 of this manual concerning correct steering wheel installation.

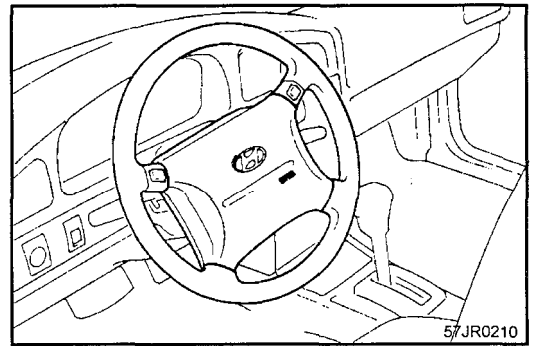


SPECIAL SERVICE TOOL

Tool	Name and Description
<p>A line drawing of an airbag wiring harness checker. It consists of a rectangular control box with a grid of indicator lights on top, connected by a cable to a smaller rectangular module with several electrical connectors.</p>	<p>Airbag wiring harness checker (0957A-34000)</p> <ul style="list-style-type: none"> - Harness inspection - SRSCM inspection with dummy terminals
<p>A line drawing of a deployment tool. It features a long, flexible cable with a handle at one end and a specialized connector at the other, used for accessing the airbag module.</p>	<p>Deployment tool (0957A-34100)</p> <ul style="list-style-type: none"> - Deployment of undeployed Air-bag module (When vehicle will not longer be driven)

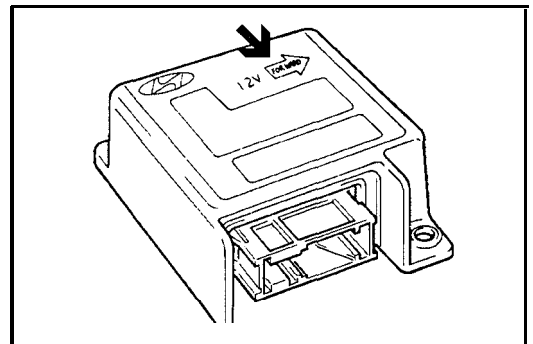
AIR-BAG MODULE (with AIRBAG)

1. When removing the air-bag module or handling a new air-bag module, it should be placed with the pad top surface facing up.
In this case, the twin-lock type connector lock lever should be in the lock state and care should be taken to place it so the connector will not be damaged. And do not store a steering wheel pad on top of another one. (Storing the pad with its metallic surface up may lead to a serious accident if the airbag inflates for some reason.)
2. Never measure the resistance of the airbag squib.
(This may cause the airbag to deploy, which is very dangerous.)
3. Store the air-bag module where the ambient temperature remains below 93°C (200°F) without high humidity and away from electrical noise.
4. When using electric welding, first disconnect the airbag connector (red color and 2 pins) under the steering column near the MULTI-FUNCTION SWITCH connector before starting work.



SRSCM (SRS Control Module)

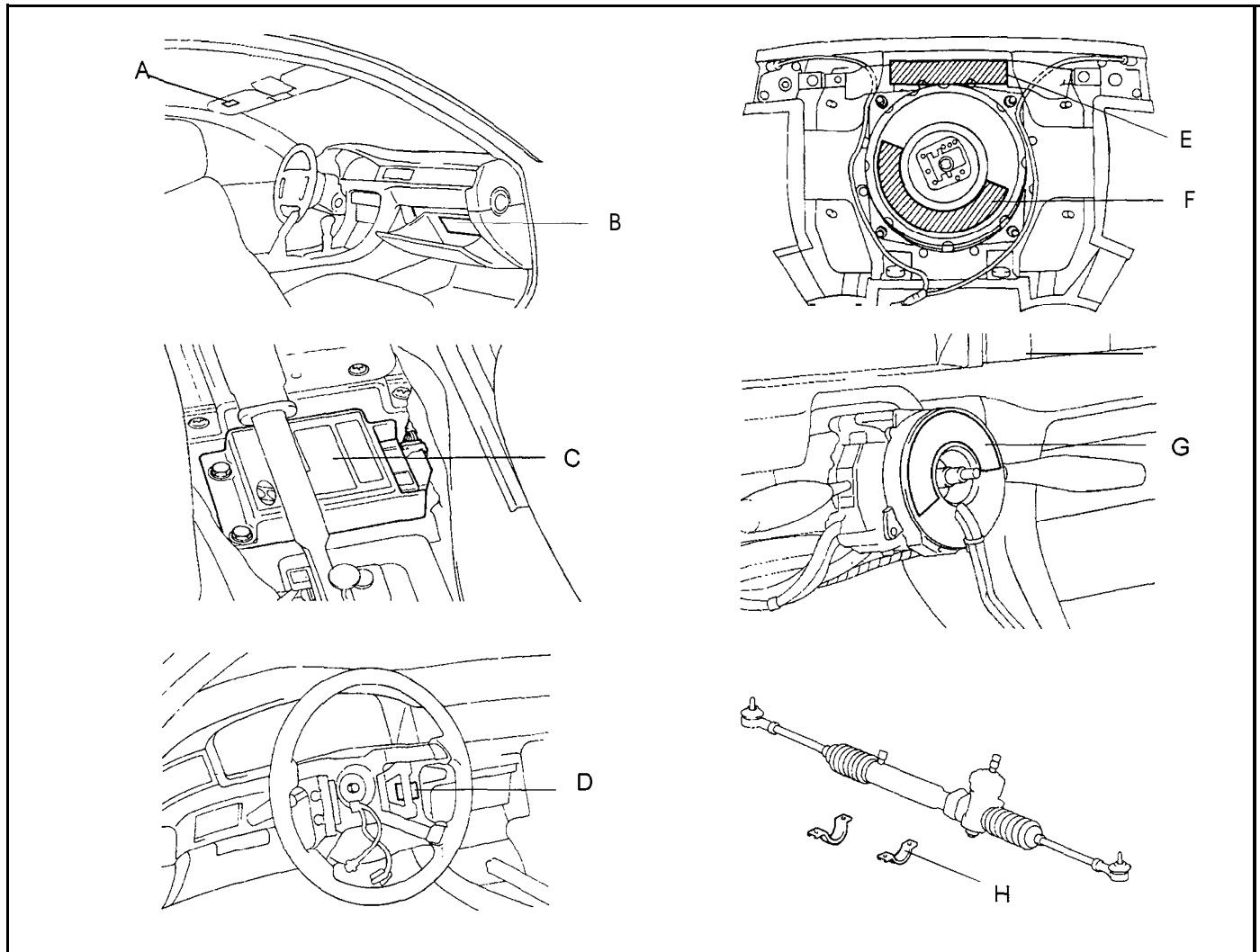
Install the SRSCM with the arrow on the SRSCM facing toward the front of the vehicle.



WARNING/CAUTION LABELS

A number of caution labels relating to the SRS are found in the vehicle, as shown in the following illustration. Follow label instructions when servicing SRS.

If labels are dirty or damaged, replace them with new ones.



A. DAB ONLY

CAUTION**TO AVOID SERIOUS INJURY:**

For maximum safety protection in all types of crashes, you must always wear your safety belt. Do not sit or lean unnecessarily close to the air bag. Do not place any objects over the air bag or between the air bag and yourself.

See the owner's manual for further information and explanation.

B. DAB ONLY

Air bag system is normal if "SRS" lamp, in cluster flashes approximately 6 times and then goes out after ignition key is turned on.

However, if any of the following conditions occur the system must be serviced.

1. "SRS" lamp does not light when key is turned on.
2. "SRS" lamp flashes or stays lit continuously.
3. The airbag has inflated.

Always fasten children in child-restraints placed in the rear seat.

Rear seating positions are safer for children.

WARNING! failure to follow above instruction can result in injury to you or other occupants and children in the vehicle.

See "SRS" section in Owners Manual for more information about airbag.

- F. **Danger! Poison.** Keep out of the reach of children. Contains sodium azide and potassium nitrate contents are poisonous and extremely flammable. Contact with acid, water, or heavy metals may produce harmful and irritating gases or explosive compounds. Do not dismantle, incinerate, bring into contact with electricity of store at temperature exceeding (93.3°C) 200°F.
- First aid: If contents are swallowed, induce vomiting. For eye contact flush eye with water for 15 minutes. If gases from acid or water contact are inhaled, seek fresh air. In every case, get prompt medical attention.
- For additional information, see material safety data sheet (MSDS) for this product.

- H. **CAUTION: SRS**
Before removal of steering gearbox, read service manual, center front wheels and remove ignition key.
Failure to do so may damage SRS clock spring and render SRS system inoperative, risking serious driver injury.

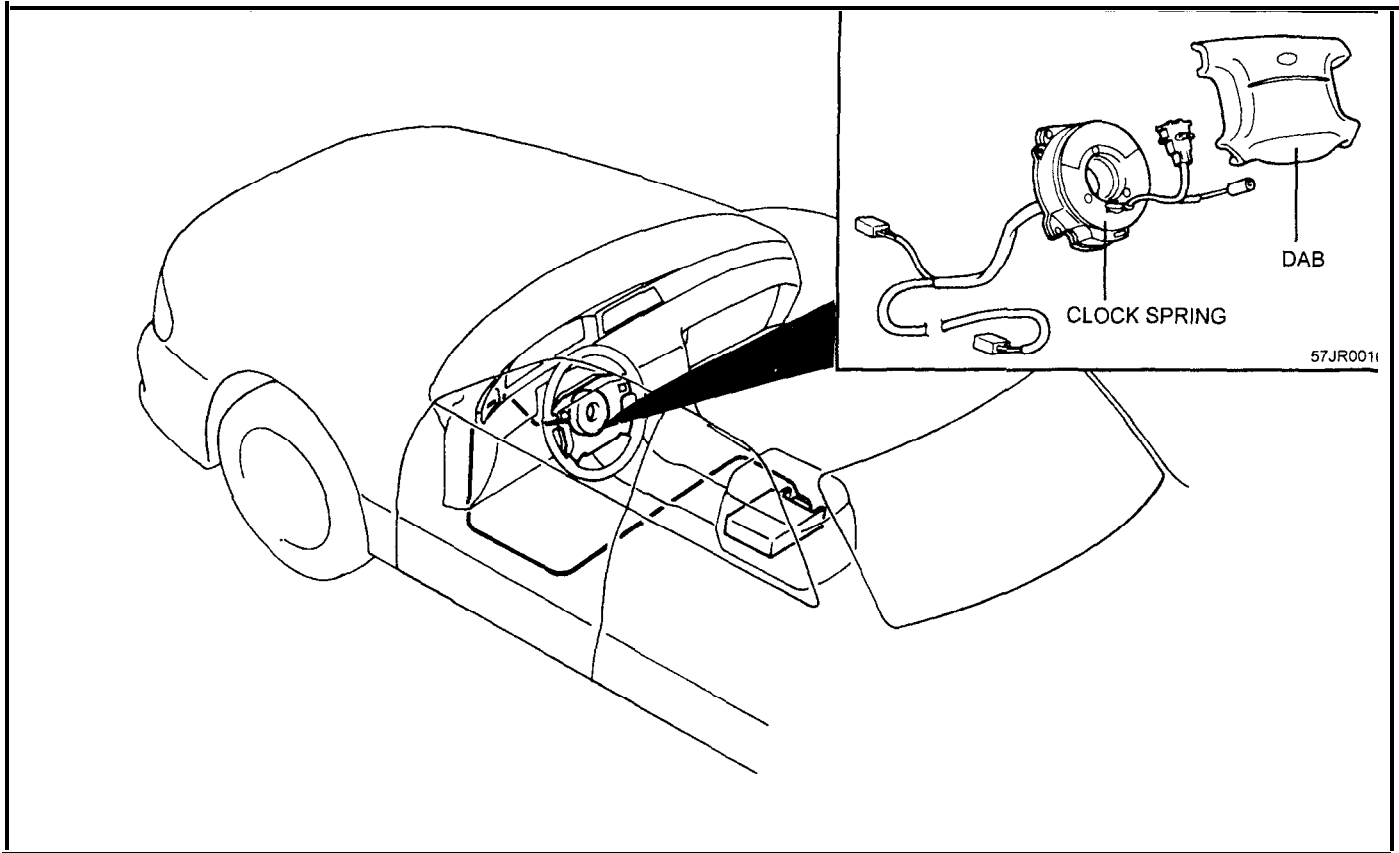
- C. **CAUTION: AIRBAG ESPS UNIT**
Detach connector before unmounting. Assemble strictly according to manual instructions.

- D. **CAUTION: SRS**
Before replacing steering wheel, read service manual, center front wheels and align SRS clock spring neutral marks.
Failure to do so may render SRS system inoperative, risking serious driver injury.

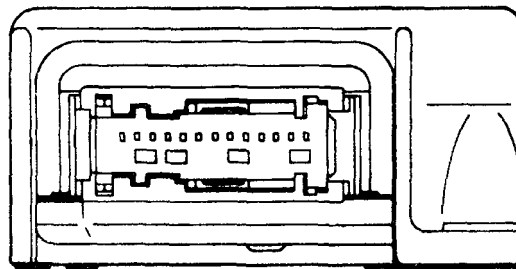
- E. **WARNING SRS**
To help avoid personal injury due to unwanted inflation do not service or dispose of this unit without following instructions in the service manual.

- G. **CAUTION: SRS clock spring**
This is not a repairable part. Do not disassemble or tamper.
If defective, remove and replace entire unit per service manual instructions.
Before replacement, read service manual, center front wheels and align neutral marks.
Failure to follow instructions may render SRS system inoperative, risking serious driver injury.

SYSTEM COMPONENT



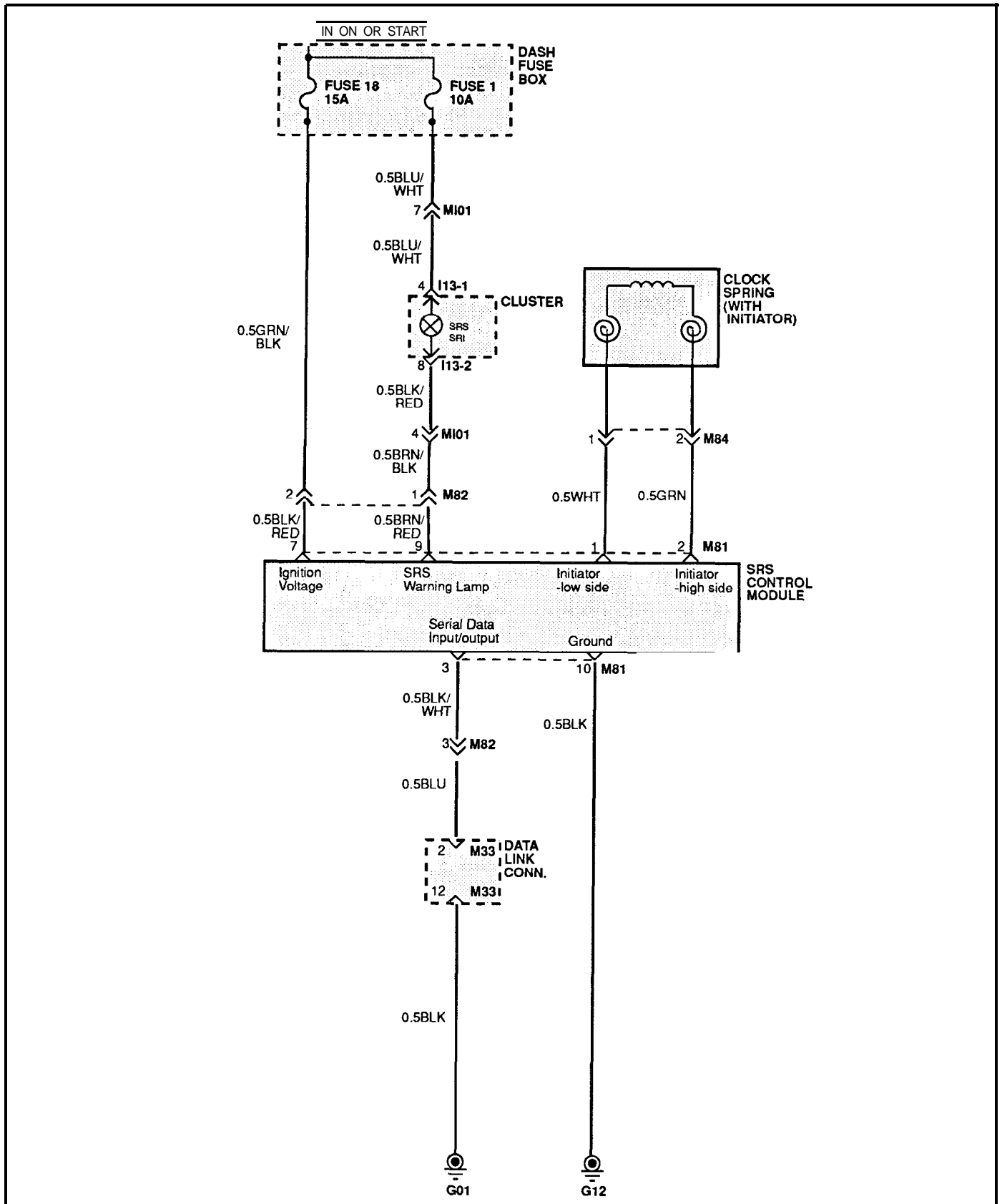
SRSCM CONNECTOR

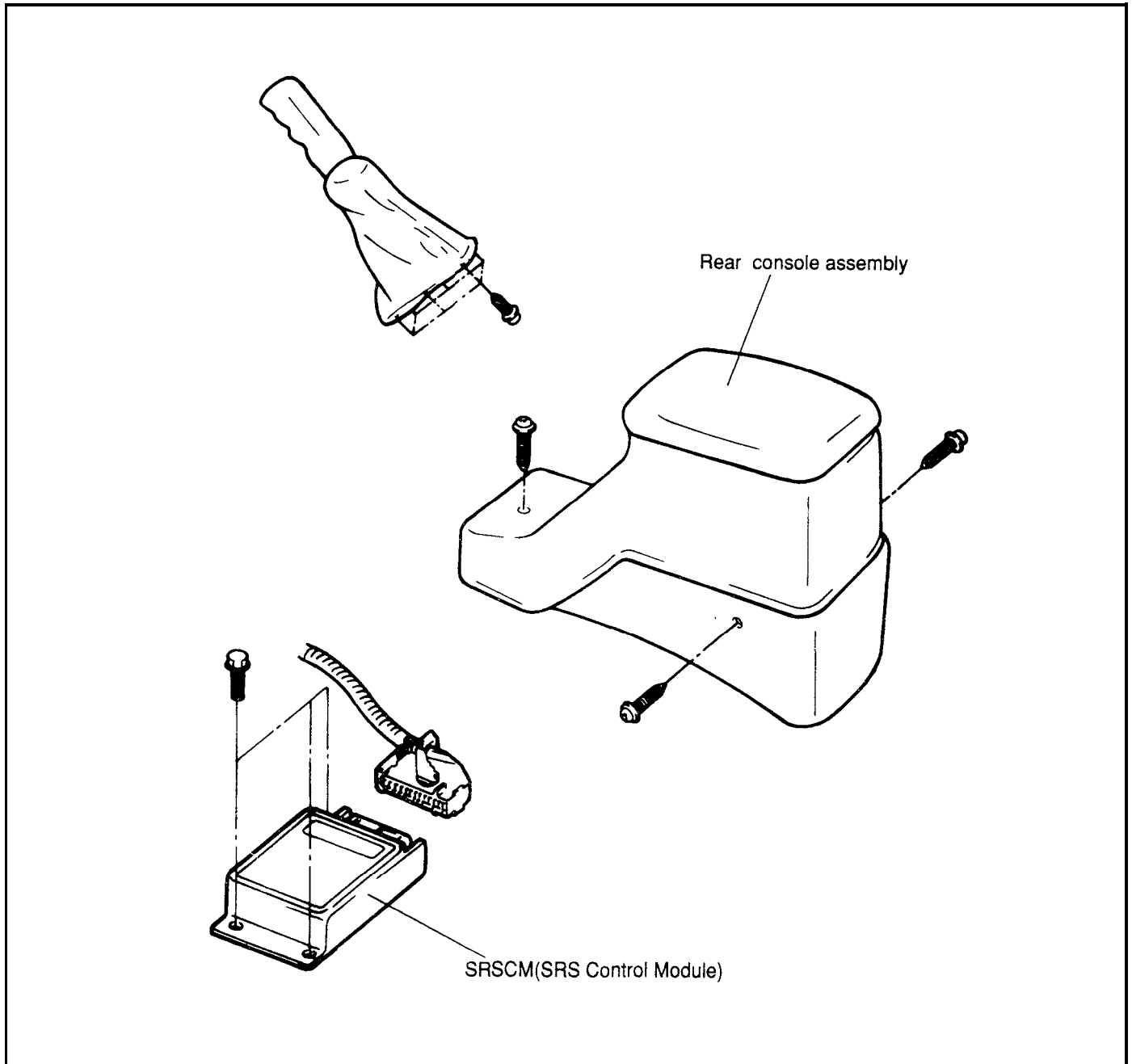


Connector pinout	
Pin 1	Driver inflator, low side
Pin 2	Driver inflator, high side
Pin 3	Serial data input, output
Pin 7	Ignition voltage
Pin 9	SRS SRI
Pin 10	Ground

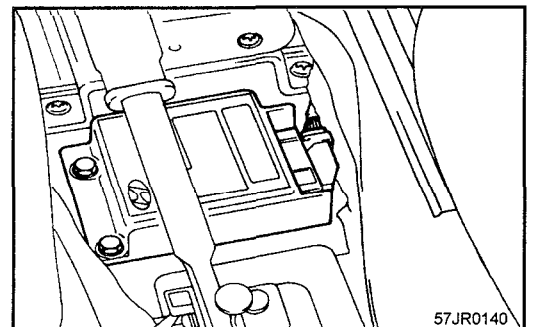
Shorting bar removal tab	
Pin 14,15	Driver side inflator
Pin 18,19	Not used
Pin 22,23	SRS SRI
Pin 24, 25	Not used

WIRING DIAGRAM



SRSCM (SRS CONTROL MODULE)

The SRSCM is mounted below rear console assembly. The electronic accelerometer which is located in the SRSCM sense the vehicle deceleration for determining the firing instant and discriminating between must-deploy and must-not-deploy impact conditions.



REMOVAL**CAUTION**

- o Never attempt to disassemble or repair the SRSCM. If faulty, replace it.
- o Do not drop or subject the SRSCM to impact or vibration.
If denting, cracking, deformation, or rust are discovered in the SRSCM, replace it with a new SRSCM. Discard the old one.
- o After deployment of an air bag, replace the SRSCM with a new one.
- o Never use an ohmmeter on or near the SRSCM and use only the Scan Tool.

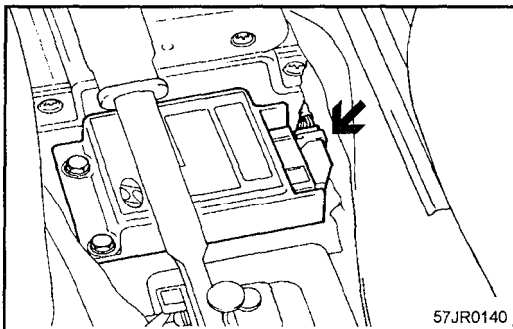
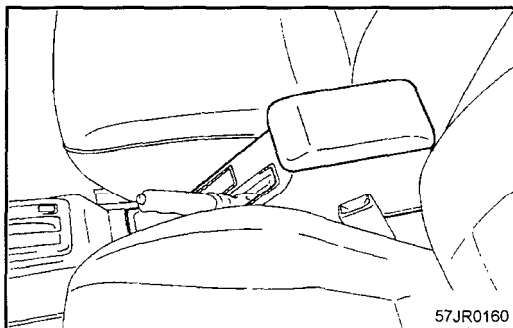
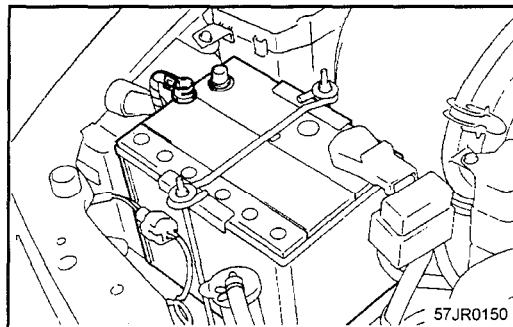
1. Disconnect the negative battery cable and keep it secure from the battery

CAUTION

Wait at least 30 seconds after disconnecting the battery cable before doing any further work.

2. Remove the rear console assembly,

3. Disconnect the SRSCM harness first before removing the Air-bag mounting bolt.
4. Remove the SRSCM.

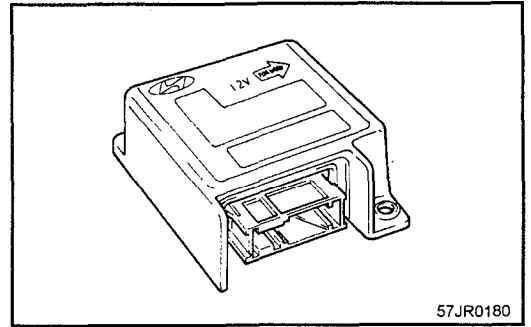


INSPECTION

1. Check the SRSCM case and brackets for dents, cracks or deformities.
2. Check connectors and the lock lever for damage, and terminals for deformities.

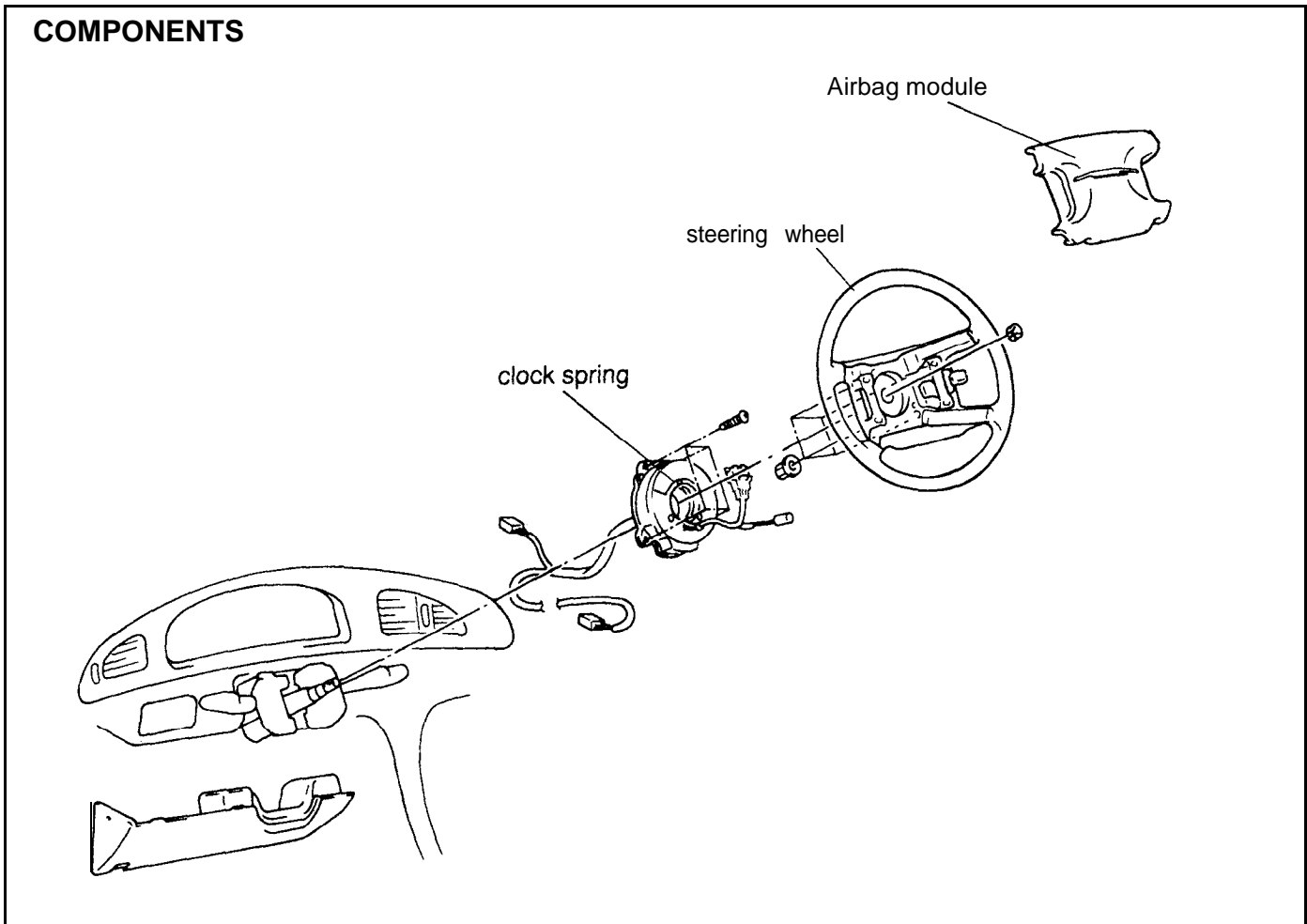
CAUTION

If a dent, cracks, deformation or rust are discovered, replace the SRSCM with a new one.



AIR BAG MODULE (DRIVER) AND CLOCK SPRING

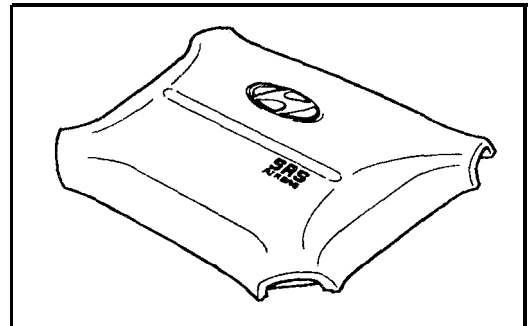
COMPONENTS



AIR-BAG MODULE (with AIRBAG)

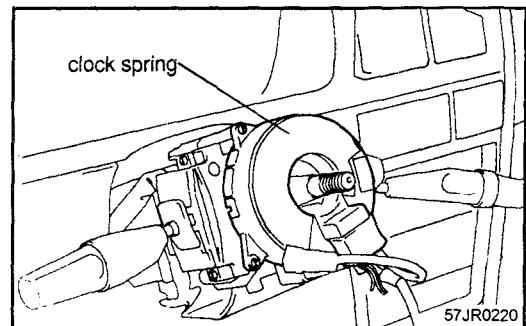
The inflator and bag of the airbag system are stored in the air-bag module and cannot be disassembled.

The inflator contains a squib, igniter charge, gas generant, etc., and will inflate the bag in case of a frontal collision.



CLOCK SPRING (in MULTI-FUNCTION SWITCH)

A clock spring is used as an electrical joint from the vehicle body side to the steering wheel.



REMOVAL

CAUTION

1. Never attempt to disassemble or repair the air bag module or clock spring.
If faulty, replace it.
 2. Do not drop the air bag module or clockspring or allow contact with water, grease or oil.
Replace it if a dent, crack, deformation or rust are detected.
 3. The air bag module should be stored on a flat surface and placed so that the pad surface is facing upward.
Do not place anything on top of it.
 4. Do not expose the air bag module to temperature over 93°C (200°F).
 5. After deployment of an air bag, replace the clock spring with a new one.
 6. Wear gloves and safety glasses when handling an air bag that has already deployed.
 7. An undeployed air bag module should only be disposed of in accordance with the procedures
1. Disconnect the negative battery cable and keep secure from battery.

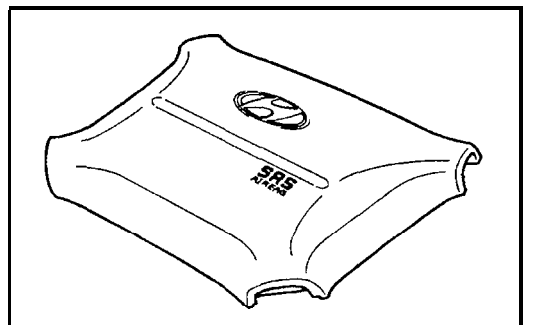
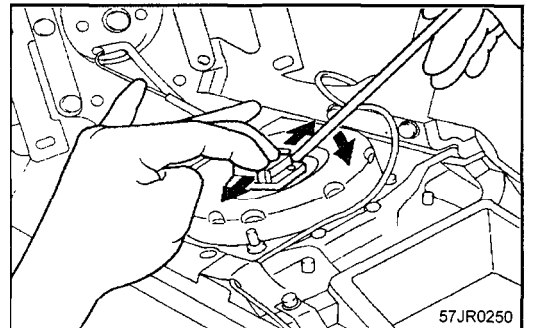
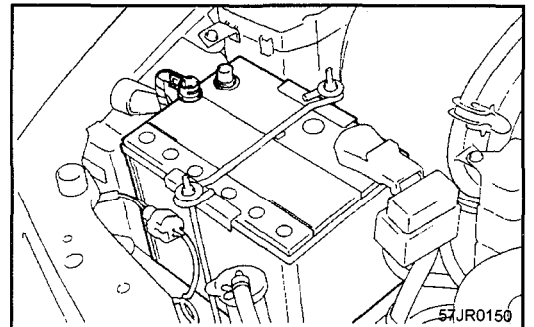
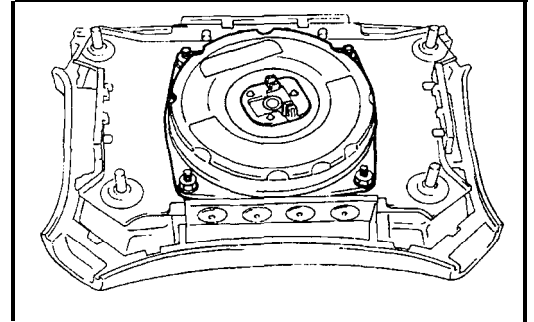
CAUTION

Wait at least 30 seconds after disconnecting the battery cable before doing any further work.

2. Remove the air bag module mounting nut using a socket wrench from the back side.
3. When disconnecting the connector of the clock spring from the air bag module, press the air bag's lock toward the outer side to spread it open. Use a screwdriver, as shown in the figure, to pry so as to remove the connector gently.

CAUTION

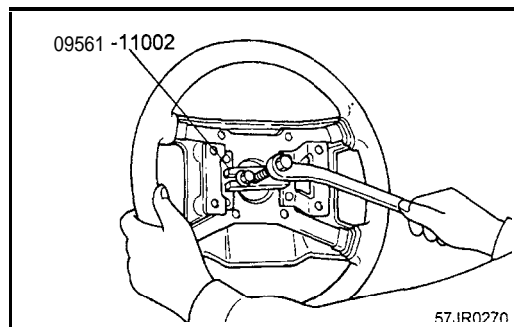
- o When disconnecting the air bag module-clock spring connector, take care not to apply excessive force to it.
- o The removed air bag module should be stored in a clean, dry place with the pad cover face up.



- Remove the steering wheel by using a special tool (09561-11002).

CAUTION

Do not hammer on the steering wheel. Doing so may damage the collapsible column mechanism.

**INSPECTION****AIR BAG MODULE**

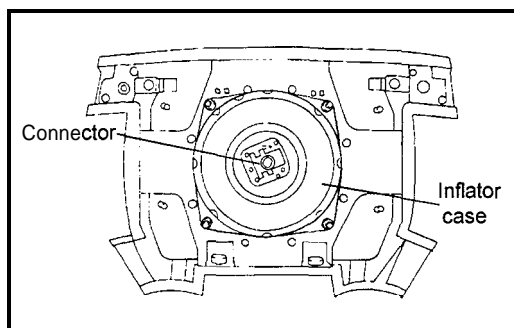
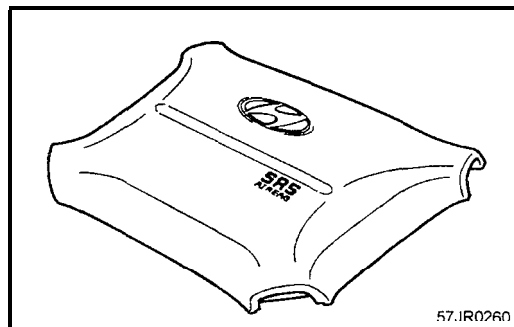
If any improper part are found during the following inspection, replace the air bag module with a new one.

Dispose of the old one according to the specified procedure.

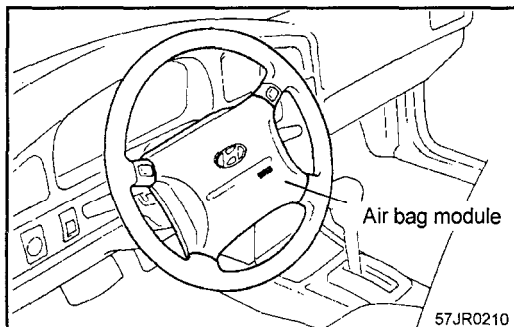
CAUTION

Never attempt to measure the circuit resistance of the air bag module (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result in serious personal injury.

- Check pad cover for dents, cracks or deformities.
- Check the air bag module for denting, cracking or deformation.
- Check hooks and connectors for damage, terminals for deformities, and harness for binds.
- Check air bag inflator case for dents, cracks or deformities.

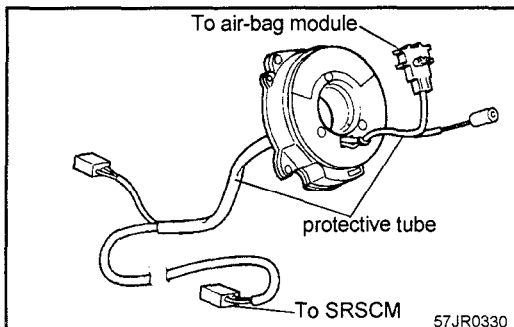


- Install the air bag module to steering wheel to check fit or alignment with the wheel.

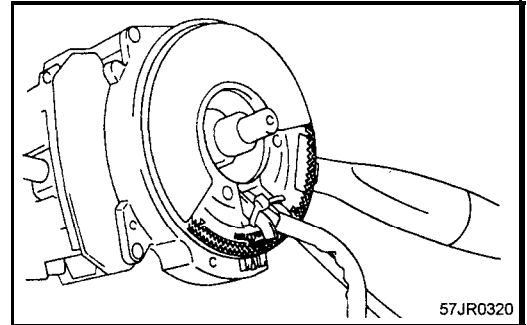
**CLOCK SPRING**

If, as a result of the following checks, even one abnormal point is discovered, replace the clock spring with a new one.

- Check connectors and protective tube for damage, and terminals for deformities.

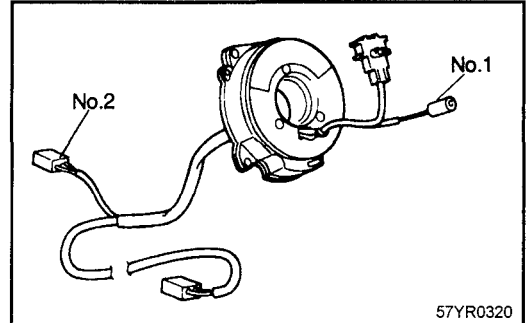


2. Visually check the case and the gears for damage.



3. Check for continuity between No.1 connector of the clock spring and connectors No.2.

Limit : Continuity

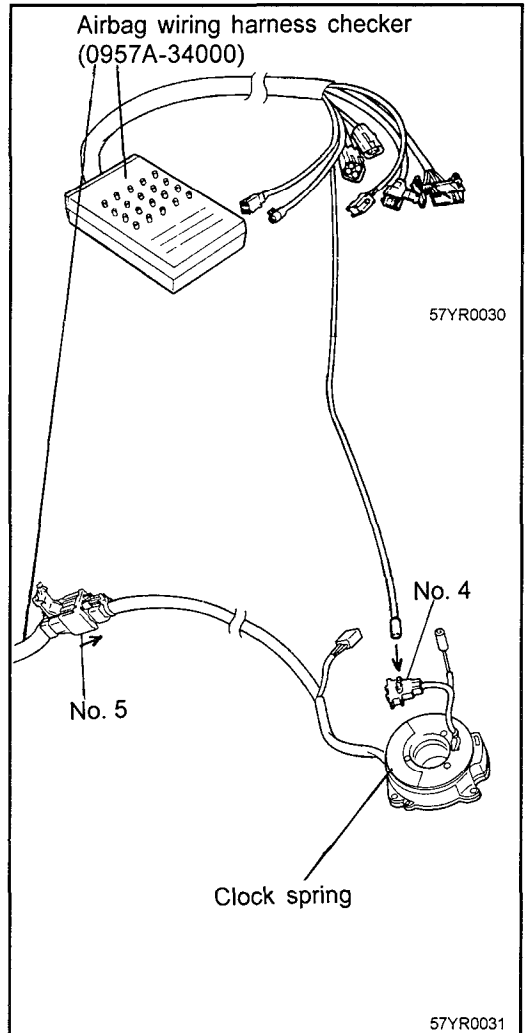


4. Check of resistance between the terminals.
 - (1) Join the No.4 connector of the clock spring to the Airbag wiring harness checker.
 - (2) Check continuity between terminals 1 and 2 of the Airbag wiring harness checker.

Limit : Continuity

- (3) Join the No.4 and No. 5 connectors of clock spring to the Airbag wiring harness checker.
- (4) Check continuity between terminals 1 and 2 of the Airbag wiring harness checker.

Limit : No continuity

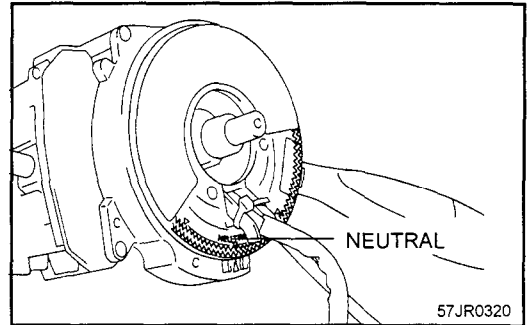


INSTALLATION**1. Installation of clock spring**

Align the mating mark and "NEUTRAL" position indicator of the clock spring, and, after turning the front wheels to the straight-ahead position, install the clock spring to the column switch.

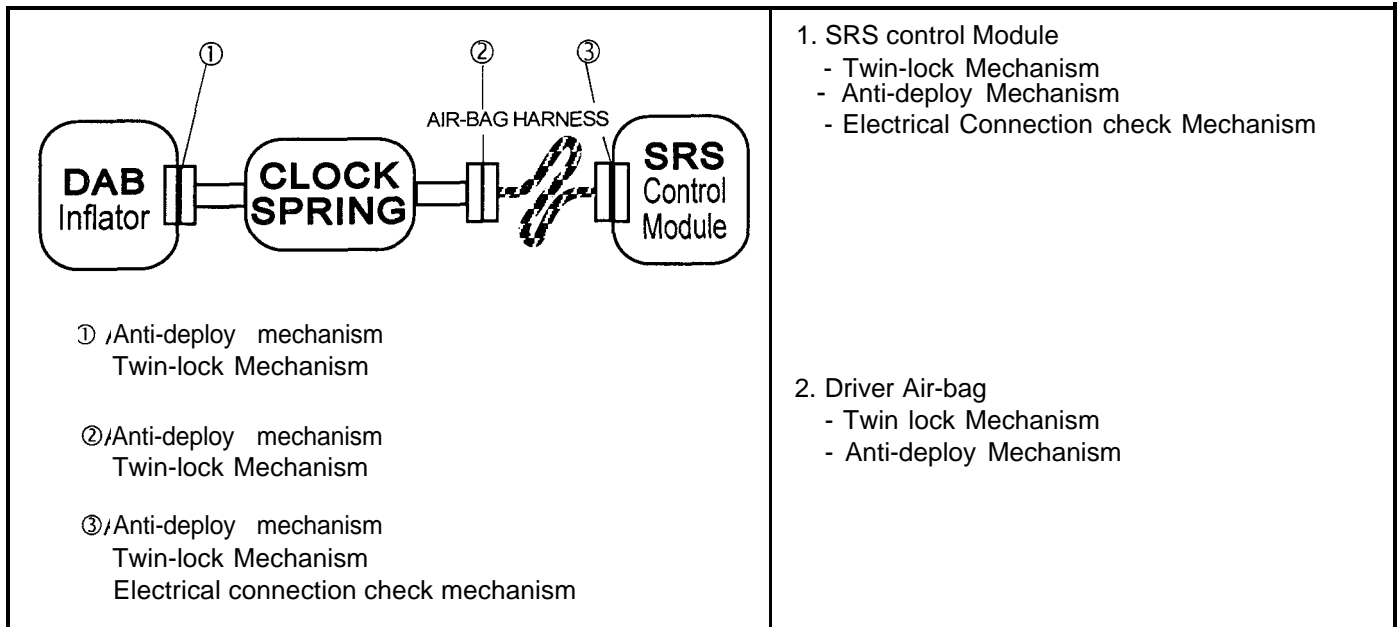
CAUTION

If the clock spring's mating mark is not properly aligned, the steering wheel may not be completely rotational during a turn, or the flat cable within the clock spring may be severed, obstructing normal operation of the SRS and possibly leading to serious injury to the vehicle's driver.



CONNECTORS

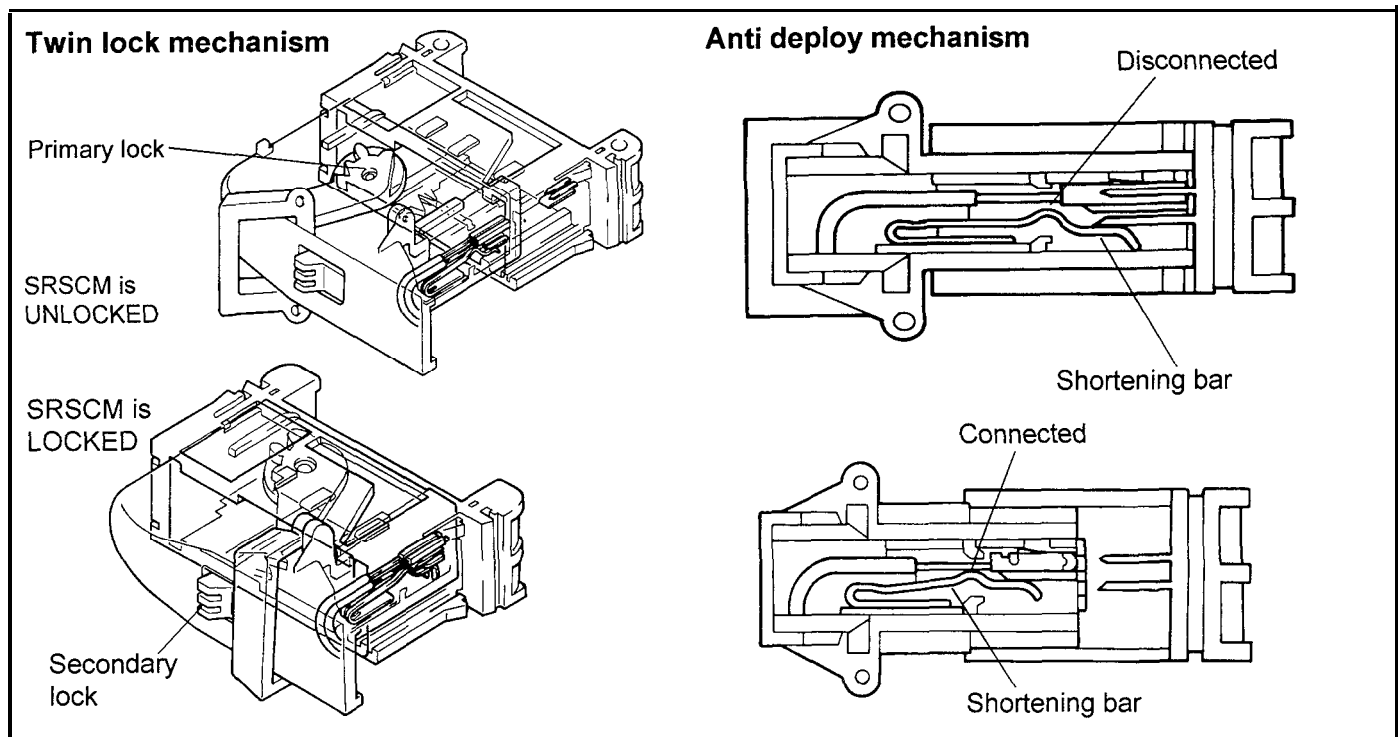
All wiring in the airbag system is wrapped in yellow type to distinguish it from others. For ensuring high reliability, air-bag connectors have special functions and specifically designed. The connectors use gold-plated terminals.



SRS Control Module Connector (SRSCM Connector)

SRSCM Connector is designed with 3 security systems for preventing unexpected deployment because of poor connections.

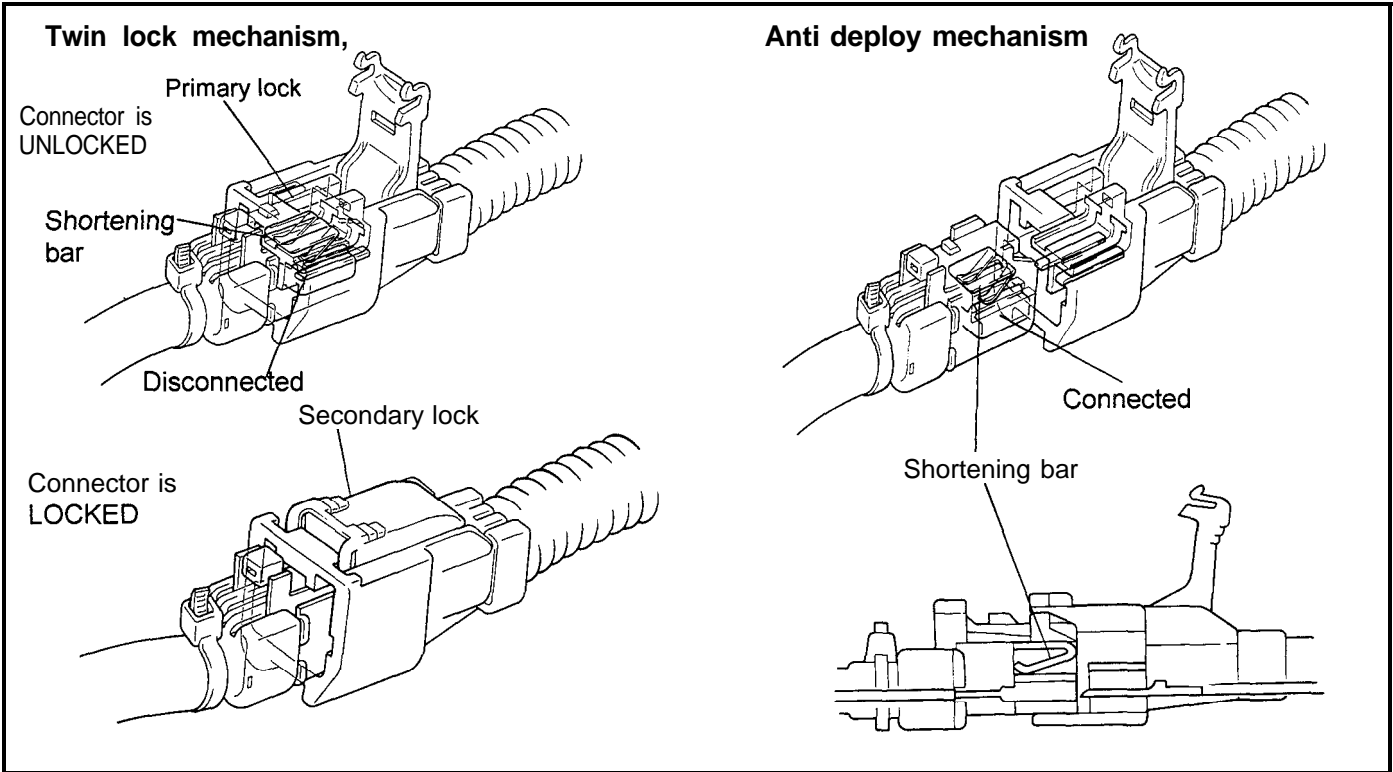
1. Twin Lock mechanism secures the locking of the terminal by locking device to prevent terminal from coming out.
2. Anti-deploy mechanism to prevent unexpected deployment by shortening of the two squib terminals.
3. Electrical Connection check mechanism is designed for finding poor connections at the SRSCM connector.
If it occurs SRS SRI (Service Reminder Indicator) lights up permanently.



Driver Air-Bag Module (DAB)

Two security mechanism of the DAB is twin-lock mechanism and anti-deploy mechanism. The anti-deploy mechanism prevents unexpected deployment by the shortening of the two squib terminals.

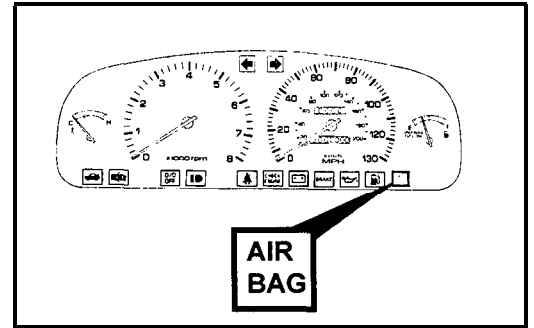
The twin-lock mechanism connectors (male and female) are fastened locked by two locking devices to increase connection reliability. If the primary lock is incomplete, ribs interfere and prevent the secondary lock.



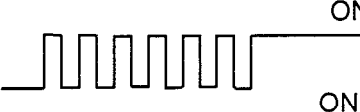
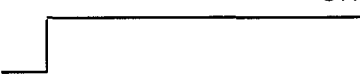

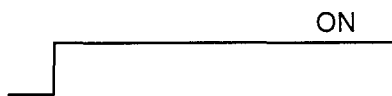


DIAGNOSIS SYSTEM

SERVICE REMINDER INDICATOR CHECK

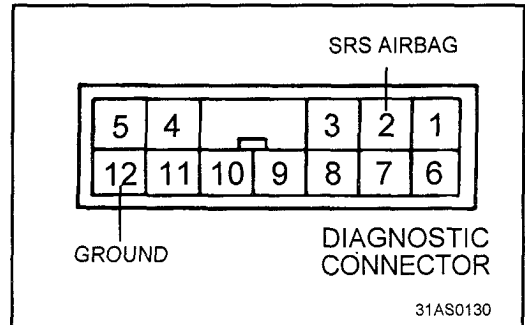
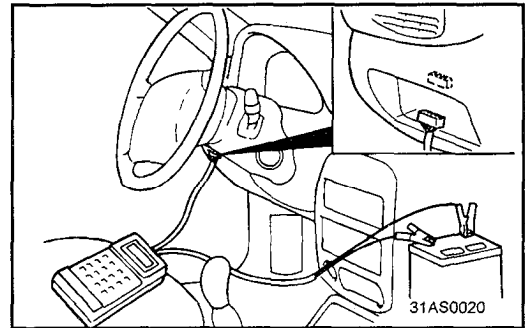
When the ignition switch is turned on, check that the SRS SRI goes ON for 6 seconds, if the SRI is not illuminated immediately after the ignition is turned ON, a failure in the area of SRI circuit has occurred .



FAULT STATUS	SRI STATUS
NO FAULT	<p>SRI </p> <p>I.G-key </p>
ACTIVE and HISTORYFAULT	<p>SRI </p> <p>I.G-Key </p>
<p>Exception : If an "Ignition input voltage too low" (Fault Code#7) is detected, the SRI will turn off at the end of the current ignition cycle. The fault will also be recorded in the history fault code #57.</p> <p>SRI </p> <p>Second Ignition </p>	

SCAN TOOL CHECK

1. Turn the ignition OFF.
2. Connect the scan tool to the data link connector in the fuse box.
3. Connect the power-source terminal of the scan tool to the cigarette lighter socket.
4. Turn the ignition ON.
5. Use the scan tool to check the diagnostic trouble codes.
6. Complete the repair or correction of the problems, after turning OFF the ignition switch; then erase the stored diagnostic trouble codes using the SCAN TOOL.
7. Disconnect the scan tool.



Diagnostic Trouble Code(DTC) Chart

DTC	Trouble status	Scan tool (MUT) display	See page	Description
1	A	INFLT SHRT GND	23	Driver inflator short circuit to ground
51	H			
2	A	INFLT SHRT BAT	27	Driver inflator short circuit to battery
52	H			
3	A	DRV INFLT-OPEN	31	Driver inflator circuit open (Resistance too high)
53	H			
5	A	D/INFLT R-LOW	35	Driver inflator circuit short (Resistance too low)
55	H			
7	A	IG INPUT V-LOW	39	Ignition input voltage too low
57	H			
8	A	IG INPUT V-HI	39	Ignition input voltage too high
58	H			
13	A	SRS SRI FAIL	42	Supplemental restraint system(Air bag)service reminder indicator short to ground or to battery, open circuit
63	H			
14	A	SRSCM	45	Service restraint system (Air bag) control module internal fault.
64	H			
15	A	SRSCM CRASH	45	Crash recorded without being erased
65	H			
16	A	SRSCM PARAMET	45	Parameter configuration missing/incorrect
66	H			

A : Active

H : Histroy

SERVICE DATA

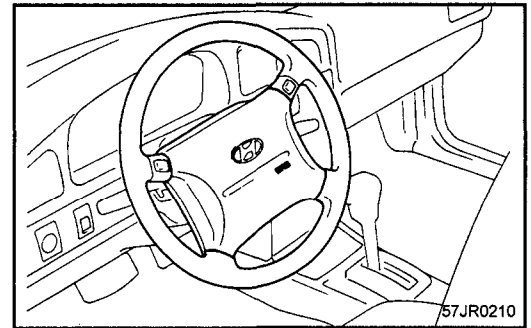
SCAN TOOL (SCAN TOOL) DISPLAY	DESCRIPTION OF TROUBLE CODE
01. CRASH NUMBERS **	Numbers of airbag activation (inflation)
02. SRI STATUS ON or OFF	The ON-OFF status of service reminder indicator
03. SRI TIME *** MIN.	The driving time after service reminder indicator "ON" is recorded for forty two hours by the minutes interval.
04.1G CYCLE ***	The engine starting numbers after service reminder indicator "ON" can be recorded 100 times.

NOTE

The above service data information can be recorded in non-volatile memory by the SRSCM in case of deployment event, for retrieval at a later time.

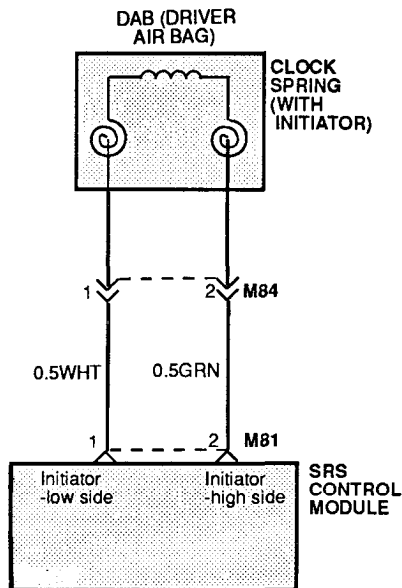
AIR-BAG MODULE CIRCUIT (Short to Ground)

The Air-Bag Module circuit consists of SRSCM, spiral cable (clock spring), driver side airbag module.



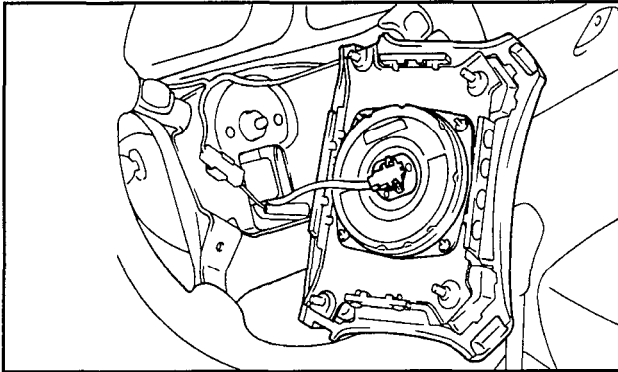
Code No.	Symptom	Trouble cause
1 (Active) 51 (History)	DAB (Driver side air-bag module) circuit short to ground.	<ul style="list-style-type: none"> o Short circuit in DAB wire harness o Air-bag module malfunction. o Clock spring cable malfunction (DAB only) o SRSCM.

WIRING-DIAGRAM



INSPECTION PROCEDURE

1. Before inspection



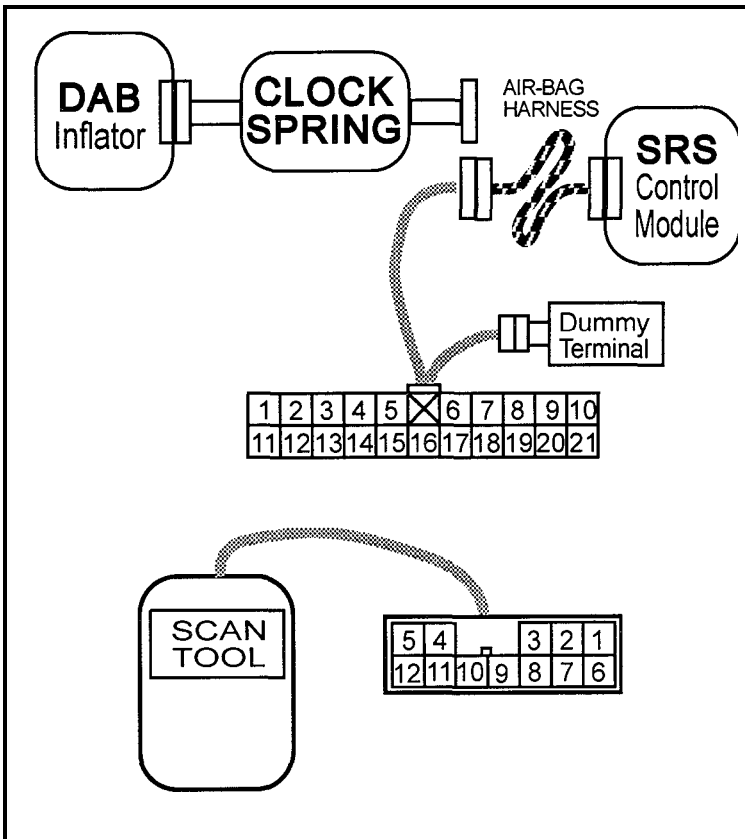
1. Disconnect battery negative (-) terminal cable

Caution !
Wait at least 30 seconds.

2. Remove the air-bag module.

Caution !
When storing air-bag module, keep the pad surface facing upward.

2. Check Air-bag SRSCM



1. Disconnect clock spring connector.
2. Connect dummy-terminal to harness side of the inflator connector with SRS harness checker.
3. Connect negative (-) terminal cable to battery, and wait at least 5 seconds.
4. Connect the SCAN TOOL terminal, and turn ignition switch ON.

LIMIT

Diagnostic code 1 is not displayed.

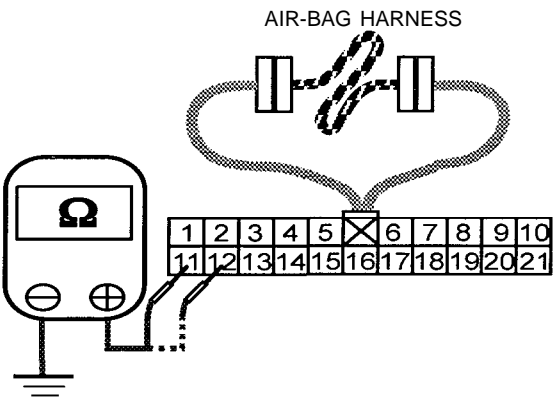
NOTE

Code other than code 1 may be displayed at this time, but this is not relevant to this check.

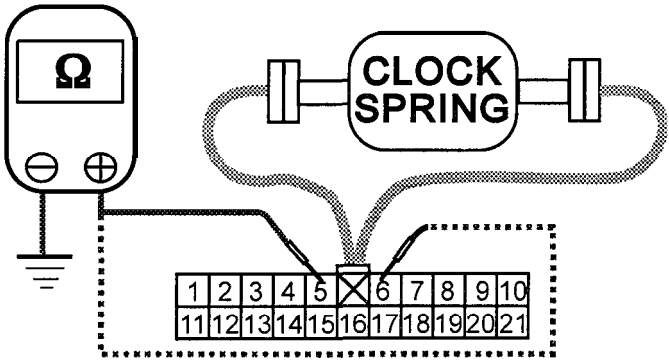
OK → 4

NG → 3

3. Check inflator circuit (Driver)

	<ol style="list-style-type: none"> 1. Disconnect SRSCM harness connector and clock spring connector. 2. Connect SRS harness checker to the SRSCM harness connector and clock spring harness side connector. 3. Check continuity between terminals 11, 12 and body ground. <p>LIMIT No continuity</p>
<p>OK → Replace SRSCM</p>	<p>NG → Replace Air-bag harness</p>

4. Check clock spring

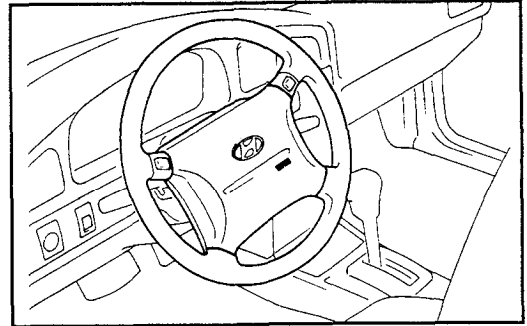
	<ol style="list-style-type: none"> 1. Disconnect DAB and clock spring connector. 2. Connect the SRS harness checker to clock spring connector. 3. Check continuity between terminals 5, 6 and body ground. <p>LIMIT No continuity</p>
<p>OK → 5</p>	<p>NG → Replace clock spring</p>

5. Check Inflator

<p>The diagram illustrates the electrical connection for the inflator system. It shows a DAB Inflator connected to a Clock Spring, which is connected to an Air-Bag Harness. The Air-Bag Harness is connected to the SRS Control Module. A Scan Tool is connected to a diagnostic connector with 12 pins, numbered 1 through 12.</p>	<ol style="list-style-type: none"> 1. Turn ignition switch to lock, and disconnect the negative (-) terminal cable from battery and wait at least 30 seconds. 2. Connect inflator connector. 3. Connect negative (-) terminal cable to battery and wait at least 5 seconds. 4. Connect the SCAN TOOL terminal, and turn ignition switch ON. <p>Diagnostic code 1 is not displayed.</p> <p>NOTE Code other than code 1 may be displayed at this time, but this is not relevant to this check</p>
<p>OK → Connect all system and recheck</p>	<p>NG → Replace DAB</p>

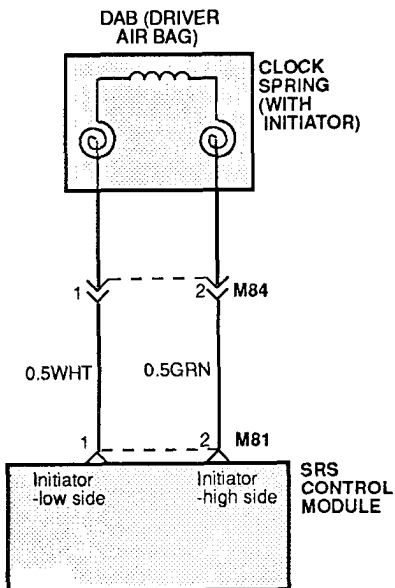
**AIR-BAG MODULE CIRCUIT
(Short to Battery +)**

The DAB circuit consists of Air-bag SRSCM, clock spring and the Air-bag module.



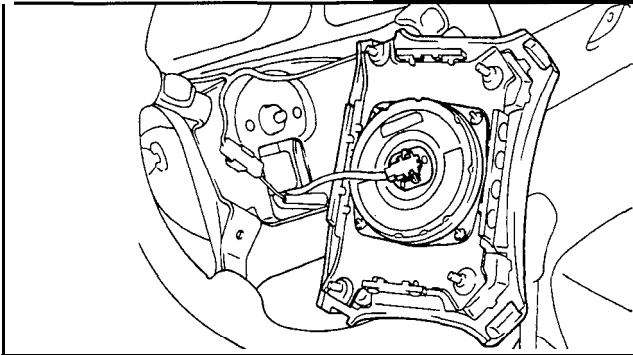
Code No.	Symptom	Trouble Area
2 (Active) 52 (History)	DAB (Driver side Air-bag modulator) circuit short to Battery + (12V)	<ul style="list-style-type: none"> o Short circuit in DAB wire harness (to battery + (12V)) o Air-bag modulator malfunction o Clock spring cable malfunction o SRSCM

WIRING DIAGRAM



INSPECTION PROCEDURE

1. Before inspection



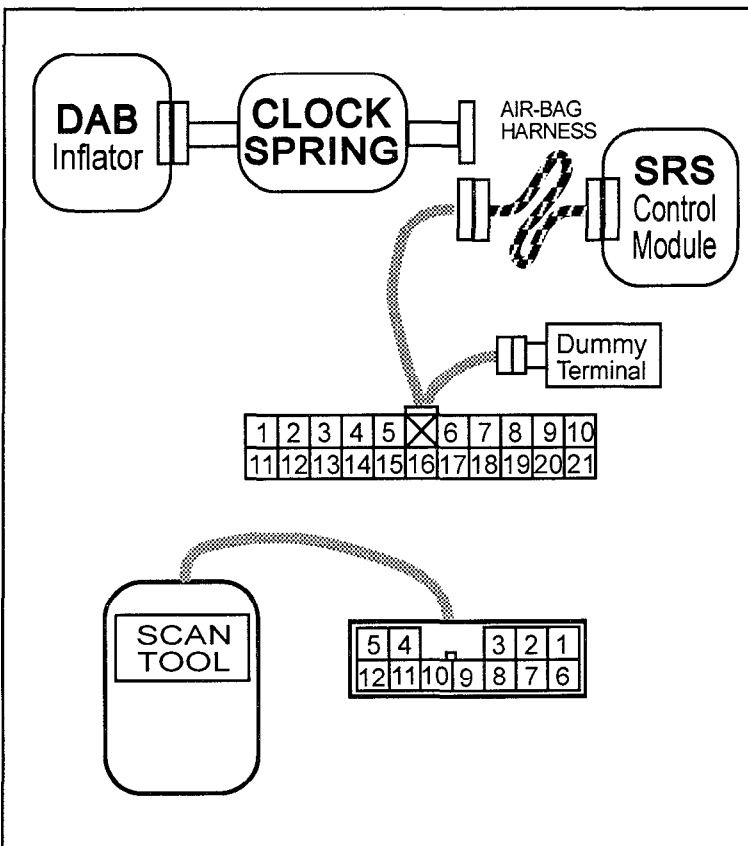
1. Disconnect battery negative (-) terminal cable

Caution !
Wait at least 30 seconds.

2. Remove the air-bag module.

Caution !
When storing air-bag module, keep the pad surface facing upward.

2. Check Air-bag SRSCM



1. Remove clock spring connector.
2. Connect dummy-terminal to harness side of the inflator connector with SRS harness checker.
3. Connect negative (-) terminal cable to battery, and wait at least 5 seconds.
4. Connect the SCAN TOOL terminal, and turn ignition switch ON

LIMIT

Diagnostic code 2 is not displayed

NOTE

Code other than code 2 may be displayed at this time, but this is not relevant to this check.

OK → 4

OK → 3

3. Check inflator circuit

AIR-BAG HARNESS

V

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20 21

OK → Replace SRSCM

1. Turn ignition switch to lock, and disconnect the negative (-) terminal cable from the battery and wait at least 30 seconds.
2. Disconnect SRSCM harness connector and clock spring.
3. Connect SRS harness checker to the SRSCM harness connector and clock spring harness side connector.
4. Connect battery and turn ignition "ON"
5. Check voltage between terminals 11, 12 and body ground.

LIMIT 0V

OK → Replace Air-bag harness

4. Check Clock Spring

CLOCK SPRING

V

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20 21

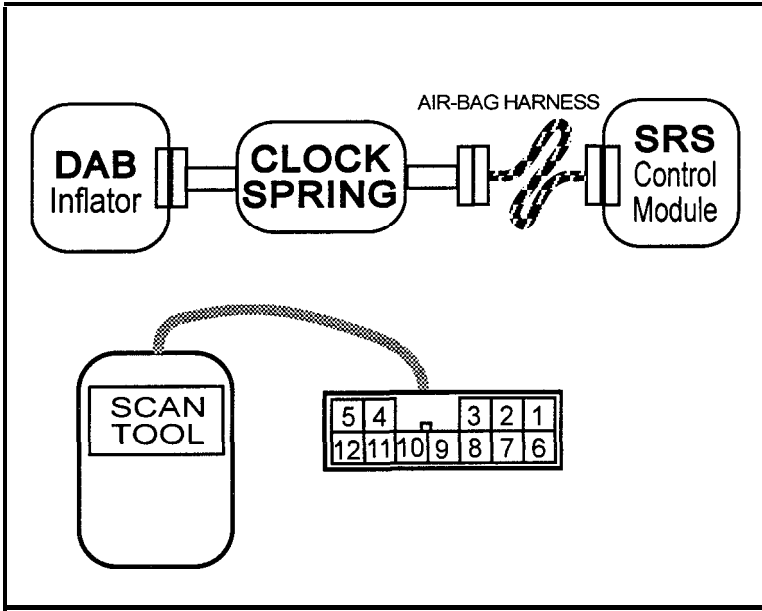
OK → 5

1. Disconnect DAB and clock spring connector and SRSCM connector.
2. Connect the SRS harness checker to the clock spring connector
3. Connect battery and turn ignition "ON".
4. Check voltage between terminals 5, 6 and body ground.

LIMIT 0V

OK → Replace clock spring

5. Check Inflator



1. Turn ignition switch to lock, and disconnect the negative (-) terminal cable from battery and wait
2. Connect inflator connector.
3. Connect negative (-) terminal cable to battery and wait at least 5 seconds.
4. Connect the SCAN TOOL terminal, and turn

LIMIT

Diagnostic code 2 is not displayed.

NOTE

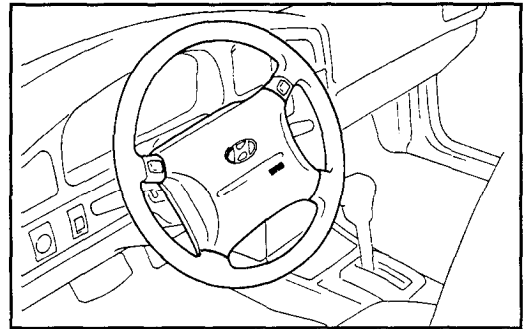
Code other than code 2 may be displayed at this time, but this is not relevant to this check.

OK → Connect all system and recheck

NG → Replace DAB

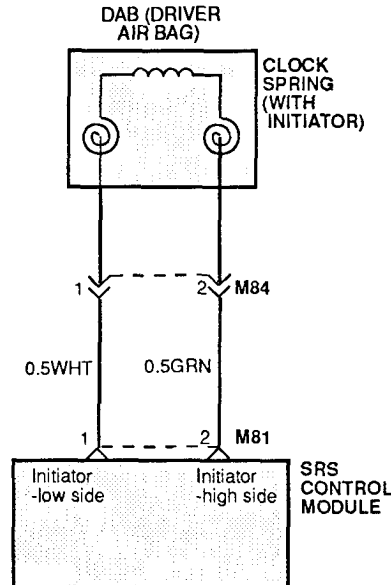
DRIVER AIR-BAG MODULE CIRCUIT
(Resistance too high, Open circuit)

The Air-bag SRSCM shall measure the resistance of the DAB (Driver Air-Bag module) to detect a resistance which lies outside the allowed range. Do not attempt to measure the resistance of DAB squib.



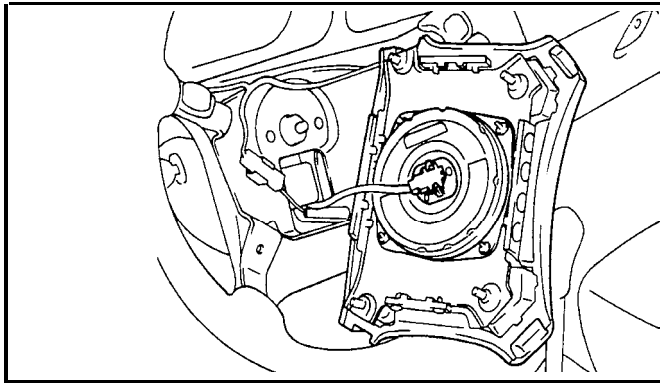
Code No.	Symptom	Trouble cause
3 (Active) 53 (History)	DAB (Driver Air-Bag module) circuit resistance too high, open circuit.	<ul style="list-style-type: none"> o Open circuit in DAB wire harness o Air-bag module malfunction (DAB) o Clock spring cable malfunction o SRSCM.

WIRING DIAGRAM



INSPECTION PROCEDURE

1. Before inspection



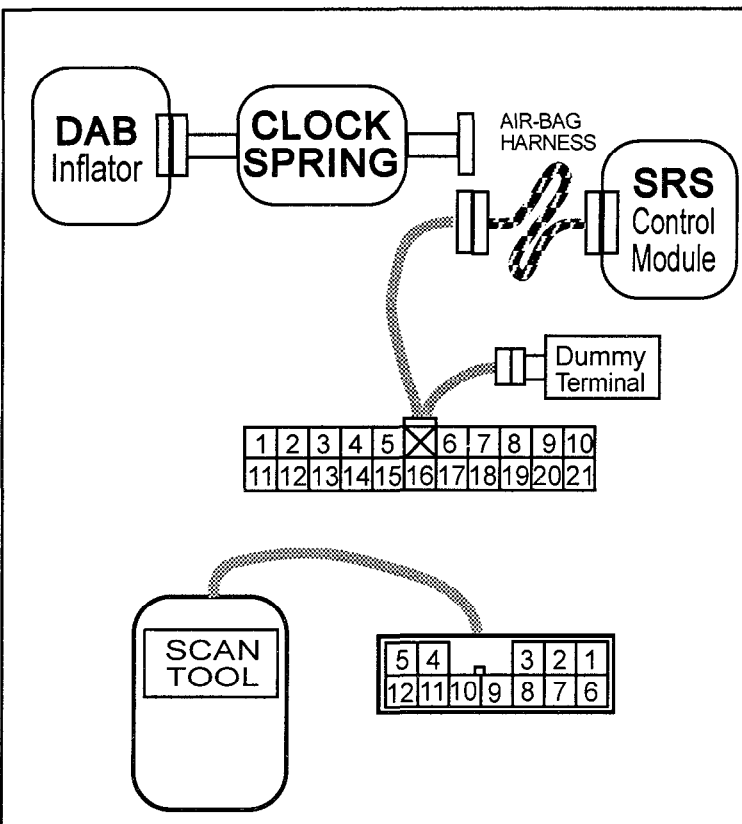
1. Disconnect battery negative (-) terminal cable

Caution !
Wait at least 30 seconds.

2. Remove the air-bag module.

Caution !
When storing air-bag module, keep the pad surface facing upward.

2. Check Air-bag SRSCM



1. Disconnect clock spring connector.
2. Connect dummy-terminal to the harness side of the inflator connector with SRS harness checker.
3. Connect negative (-) terminal cable to battery, and wait at least 5 seconds.
4. Connect the SCAN TOOL terminal, and turn ignition switch ON.

LIMIT

Diagnostic code 3 is not displayed.

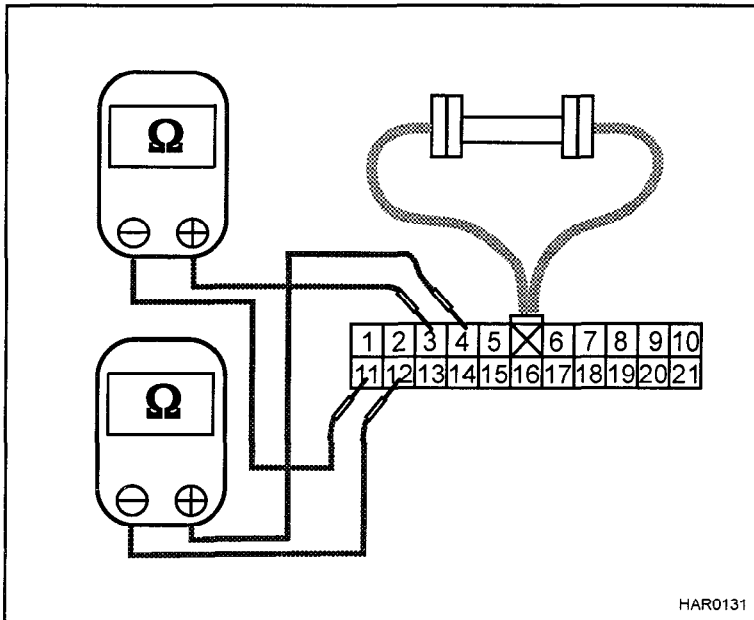
NOTE

Code other than code 3 may be displayed at this time, but this is not relevant to this check.

OK → 4

NG → 3

3. Check Inflator circuit



1. Disconnect SRSCM harness connector.
2. Connect Air-bag checker to the clock spring harness side connector & SRSCM side connector.
3. Check between checker terminals as follows.

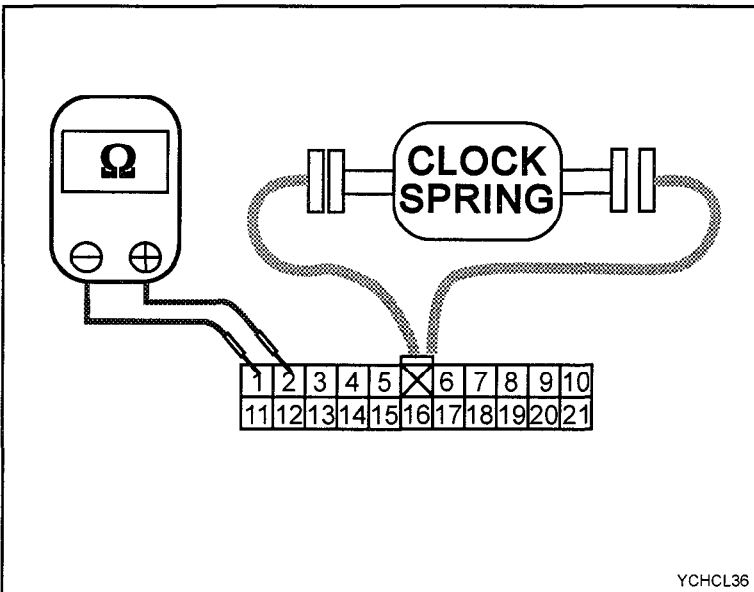
LIMIT

Terminals 3 and 11	Continuity
Terminals 4 and 12	Continuity

OK → Replace SRSCM.

NG → Replace Air-bag harness

4. Check Clock Spring



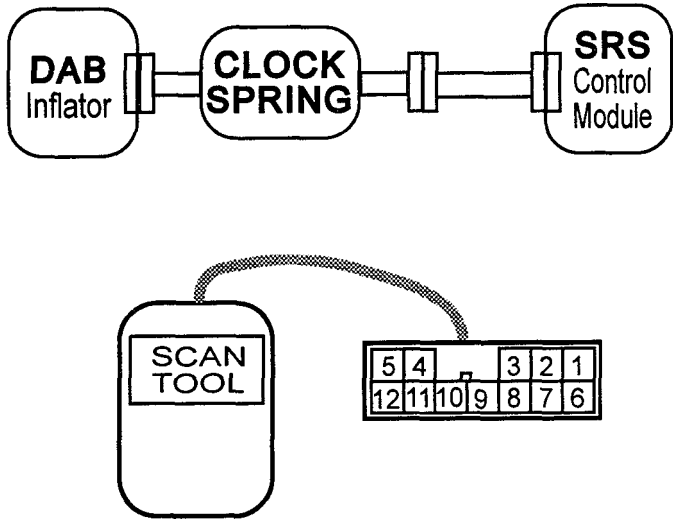
1. Remove the clock spring connectors.
2. Connect SRS harness checker to clock spring connector
3. Check continuity between checker terminal 1 and 2.

LIMIT Continuity

OK → **5**

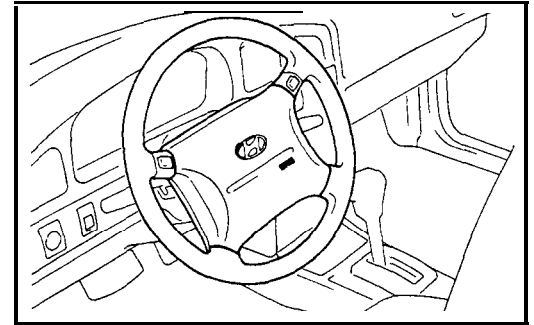
NG → Replace clock spring

5. Check Inflator

 <p>The diagram illustrates the electrical circuit for the inflator check. It shows three main components connected in a line: the DAB Inflator, the Clock Spring, and the SRS Control Module. The DAB Inflator is connected to the Clock Spring, which is in turn connected to the SRS Control Module. Below this main circuit, a Scan Tool is connected to the Clock Spring terminals. The Scan Tool's display shows a diagnostic code of 3.</p>	<ol style="list-style-type: none"> 1. Turn ignition switch to lock, and disconnect the negative (-) terminal cable from battery and wait at least 30 seconds. 2. Connect inflator connector. 3. Connect negative (-) terminal cable to battery and wait at least 5 seconds. 4. Connect the scan tool terminal, and turn ignition switch ON. <p>LIMIT</p> <p>Diagnostic code 3 is not displayed</p> <p>NOTE Code other than code 3 may be displayed at this time, but this is not relevant to this check.</p>
<p>OK → Connect all system and recheck</p>	<p>NG → Replace DAB.</p>

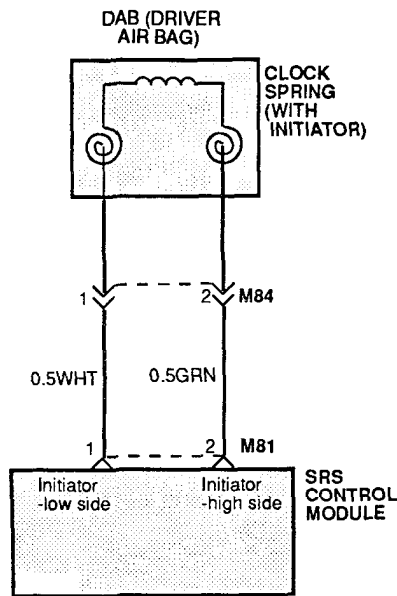
DRIVER AIR-BAG MODULE CIRCUIT
(Resistance too Low, Short Circuit)

The Air-bag SRSCM shall measure the resistance of the DAB (Driver-Air-Bag module) to detect a resistance which lies outside the allowed range. Never attempt to measure the resistance of the DAB squib.



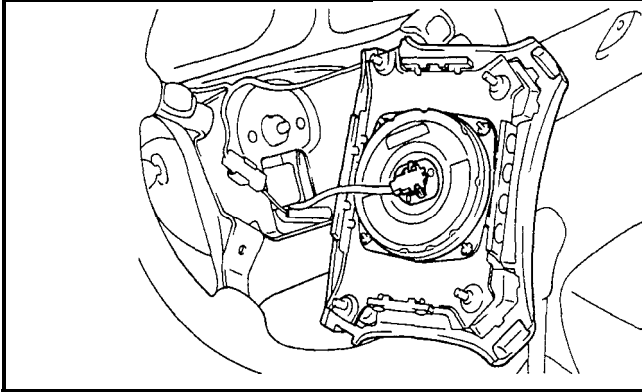
Code No.	Symptom	Trouble Area
5 (Active) 55 (History)	DAB (Driver Air-Bag module) circuit resistance too low, short circuit.	<ul style="list-style-type: none"> o Short circuit in DAB wire harness o Air-bag module malfunction (DAB) o Clock spring cable malfunction o SRSCM.

WIRING DIAGRAM



INSPECTION PROCEDURE

1. Before inspection



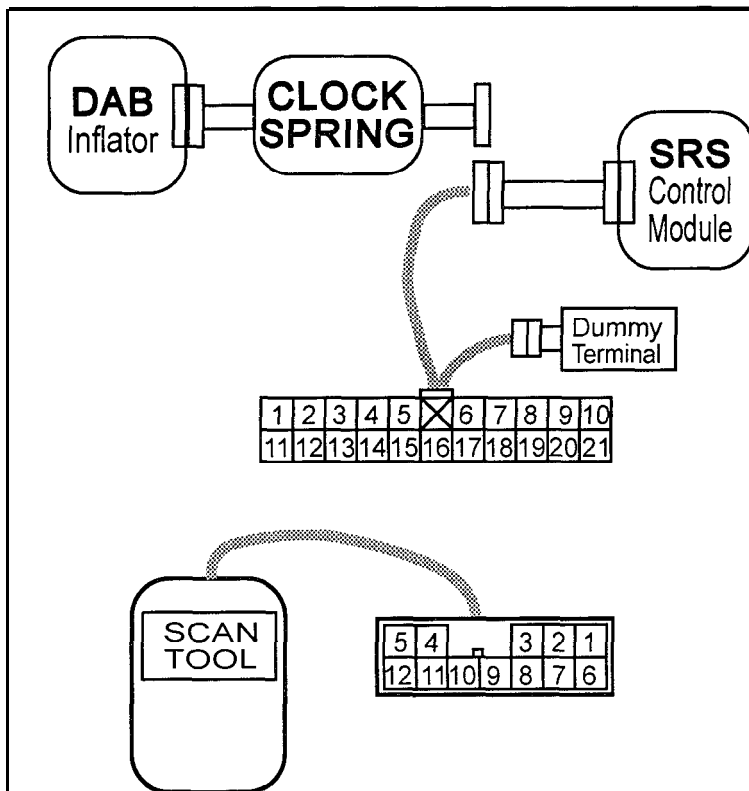
1. Disconnect battery negative (-) terminal cable

Caution !
Wait at least 30 seconds.

2. Remove the air-bag module.

Caution !
When storing air-bag module, keep the pad surface facing upward.

2. Check Air-bag SRSCM



1. Disconnect clock spring connector.
2. Connect dummy-terminal to harness side of the inflator connector with Airbag wiring harness checker.
3. Connect negative (-) terminal cable to battery, and wait at least 5 seconds.
4. Connect the SCAN TOOL terminal, and turn ignition switch ON.

LIMIT

Diagnostic code 5 is not displayed.

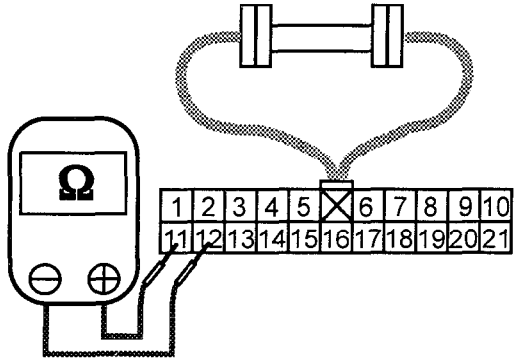
NOTE

Code other than code 5 may be displayed at this time, but this is not relevant to this check.

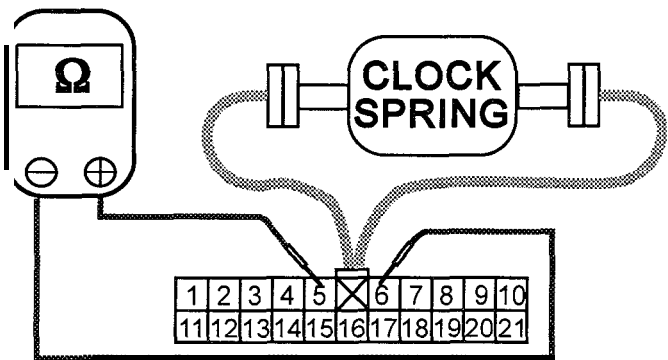
OK → 4

NG → 3

3. Check Inflator circuit (Driver)

 <p style="text-align: right; margin-top: 20px;">HAR0135</p>	<ol style="list-style-type: none"> 1. Disconnect SRSCM harness connector. 2. Connect the SRS harness checker to the SRSCM connector. 3. Check between checker terminal 11 and 12. <p style="margin-top: 20px;">LIMIT No continuity</p>
<p>OK → Replace SRSCM</p>	<p>NG → Replace Air-bag harness</p>

4. Check Clock Spring

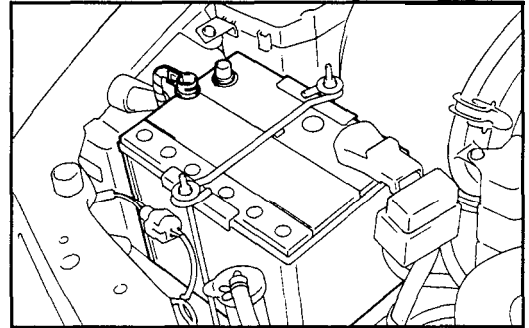
	<ol style="list-style-type: none"> 1. Remove the clock spring connectors. 2. Connect SRS harness checker to clock spring connector 3. Check continuity between checker terminal 5 and 6 <p style="margin-top: 20px;">LIMIT No continuity</p>
<p>OK → 5</p>	<p>NG → Replace clock spring.</p>

5. Check Inflator

<p>The diagram illustrates the electrical connection for the inflator check. On the left, a rounded rectangle labeled 'DAB Inflator' is connected to a 'CLOCK SPRING' component. The 'CLOCK SPRING' is connected to an 'AIR-BAG HARNESS', which is represented by a bundle of wires. This harness is connected to an 'SRS Control Module' on the right. Below this, a 'SCAN TOOL' is connected to a diagnostic connector. The connector has two rows of terminals: the top row is labeled 5, 4, 3, 2, 1 and the bottom row is labeled 12, 11, 10, 9, 8, 7, 6.</p>	<ol style="list-style-type: none"> 1. Turn ignition switch to lock, and disconnect the negative (-) terminal cable from the battery and wait at least 30 seconds. 2. Connect inflator connector. 3. Connect negative (-) terminal cable to battery and wait at least 5 seconds. 4. Connect the scan tool terminal, and turn ignition switch ON. <p style="text-align: center;">LIMIT</p> <p>Diagnostic code 5 is not displayed</p> <p>NOTE Code other than code 5 may be displayed at this time, but this is not relevant to this check</p>
<p>OK → Connect all system and recheck</p>	<p>NG → Replace DAB</p>

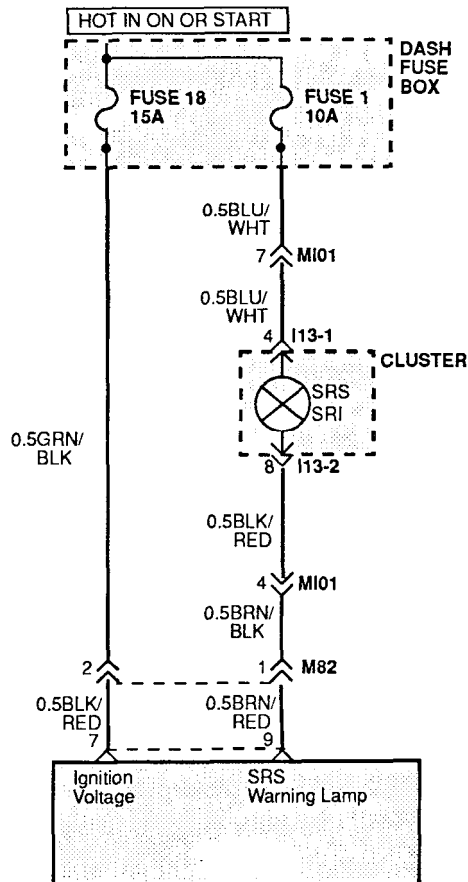
IGNITION POWER VOLTAGE CIRCUIT

The Air-bag SRSCM shall measure the voltage at the ignition input to detect an operating voltage which is out of the normal operating range.

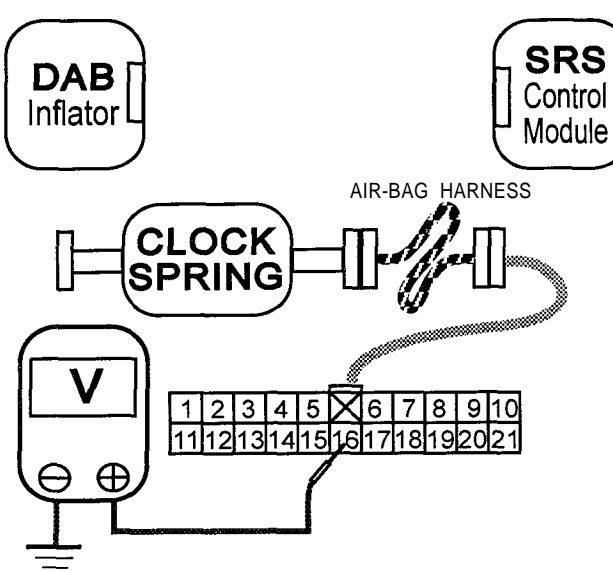


Code No.	Symptom	Trouble Area
7 (Active) 57 (History)	Ignition input voltage too low	<ul style="list-style-type: none"> o Fuse 9 in dash fuse box o Air-bag harness o Charging system
8 (Active) 58 (History)	Ignition input voltage too high	

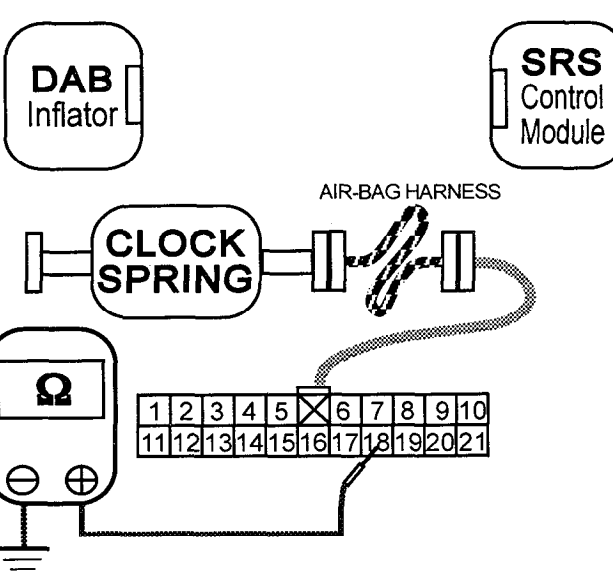
WIRING DIAGRAM



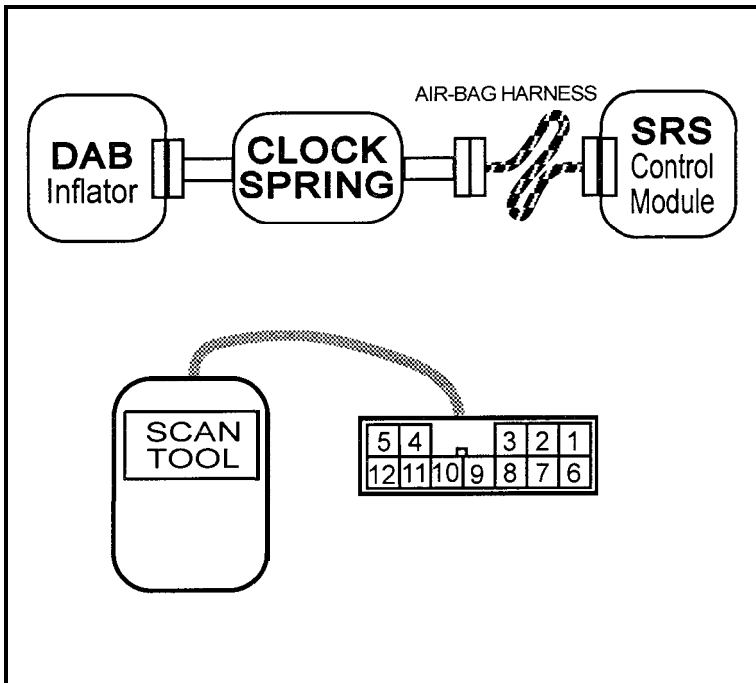
1. Power source

	<ol style="list-style-type: none"> 1. Disconnect battery negative (-) terminal cable Caution ! Wait at least 30 seconds 2. Turn ignition switch to LOCK. 3. Disconnect SRSCM connector. 4. Connect SRS harness checker to SRSCM connector and connect battery negative (-) terminal cable. 5. Turn ignition switch to ON (Engine stop). 6. Measure voltage between checker terminal 16 and body ground. <p>LIMIT 9.0 V to 16.0 V</p>
<p>OK → 3</p>	<p>NG → 2</p>

2. Ground connection

 <p style="text-align: right; font-size: small;">CH-GND</p>	<ol style="list-style-type: none"> 1. Turn ignition switch to LOCK. 2. Check continuity between SRS harness checker terminal 18 and body ground. <p>LIMIT Continuity</p>
<p>OK → 3</p>	<p>NG → Replace harness.</p>

3. Check SCAN TOOL display



1. Remove battery negative (-) terminal cable.
2. Connect SRSCM connector.
3. Connect battery negative (-) terminal cable.
4. Turn ignition switch ON and wait at least 30 second, and check that the air bag SRS SRI goes off
5. Turn ignition switch to lock.
6. Connect SCAN TOOL and turn ignition switch ON.

LIMIT

Diagnostic code 7, 8 is not displayed

NOTE

If the fault disappears or is corrected between two ignition cycles (i.e. while the Air-bag SRSCM is off), the warning lamp shall remain on for 15 second after the bulb check in the sub sequent ignition cycle.

NG → Check battery and charging system

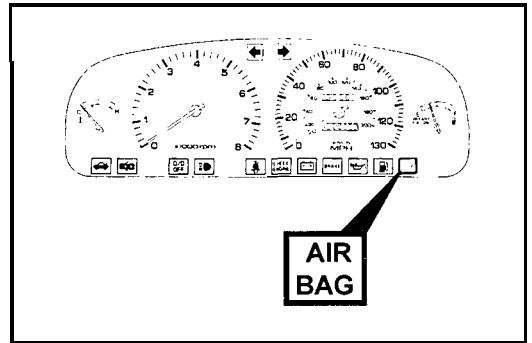
SERVICE REMINDER INDICATOR CIRCUIT

The SRI is located on the cluster.

When the air bag system is normal, the SRI flashes for approx. 6 seconds after the ignition switch is turned ON, and then turns off automatically.

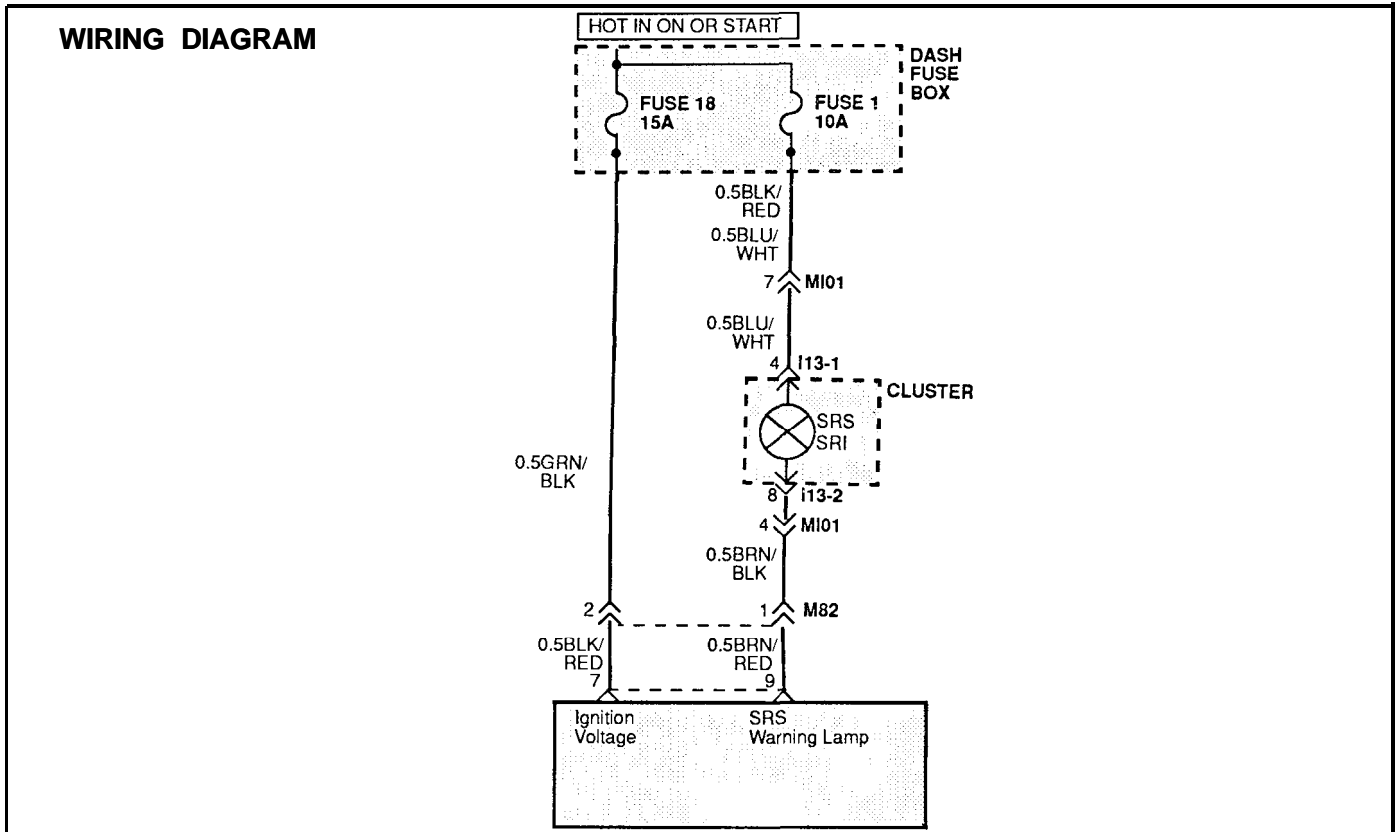
If there is a malfunction in the air bag system, the SRI lights up to inform the driver of the abnormality.

The SRSCM shall measure the voltage at the air-bag SRI (Malfunction Indicator Light) output pin, both when the lamp is on and when the lamp is off, to detect whether the commanded state matches the actual state.



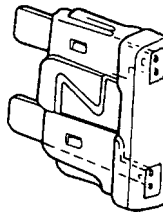
Diag. No.	Symptom	Trouble Area
13 (Active) 63 (History)	SRS SRI short to ground or to battery voltage, open circuit	o SRI circuit o SRSCM

SRI does not light up	GO TO 43
SRI light up permanently	GO TO 44

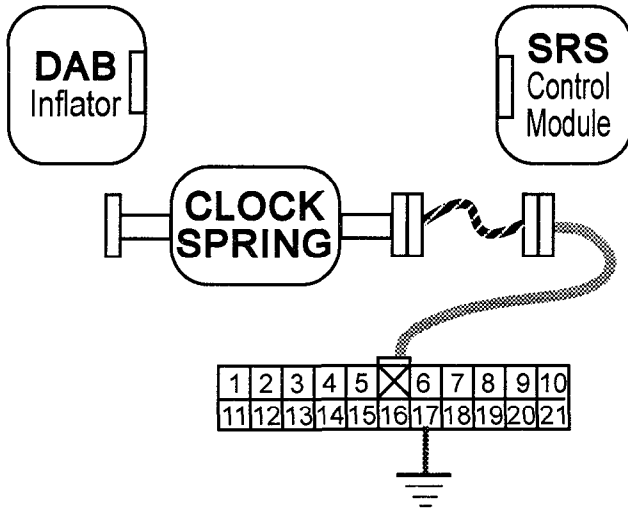


INSPECTION PROCEDURE (DOES NOT LIGHT UP)

1. Check Air-bag Fuse

	<ol style="list-style-type: none"> 1. Remove fuse 10 and 18 located in dash fuse box 2. Check continuity of fuse 10 and 18. <p>LIMIT Continuity</p>
<p>OK → 2</p>	<p>NG → Replace fuse</p>

2. Check SRS SRI circuit

 <p style="text-align: right;">SR</p>	<ol style="list-style-type: none"> 1. Disconnect battery negative (-) terminal cable, and wait 30 seconds. 2. Remove the DAB connector. 3. Disconnect SRSCM connector and connect Airbag wiring harness checker to SRSCM connector. 4. Connect battery negative (-) terminal cable. 5. Ground the Airbag wiring harness checker terminal 17. 6. Turn ignition switch to "ON" position. <p>LIMIT SRS SRI is on.</p>
<p>NG → First check cluster connector. If ok, replace Air bag harness.</p>	<p>OK → Replace SRSCM</p>

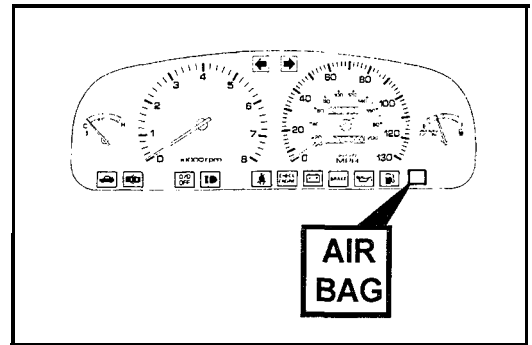
INSPECTION PROCEDURE (Light up permanently)

NOTE

AIR-BAG SRSCM INDEPENDENT LAMP ACTIVATION

There are certain fault conditions in which the SRSCM cannot function and thus cannot control the operation of the lamp. In these cases, the lamp is directly activated by appropriate circuitry that operates independently of the SRSCM as follows:

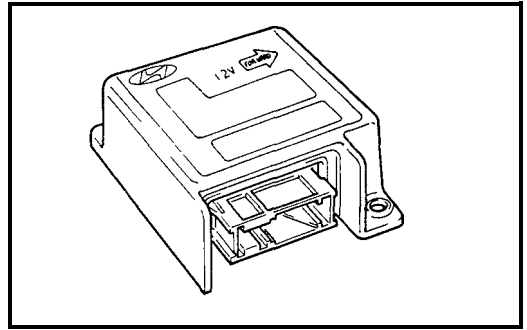
1. Loss of ignition voltage supply to the SRSCM: lamp turned on continuously
2. Loss of internal operating voltage: lamp turned on continuously.
3. Loss of SRSCM operation: lamp turned on continuously.
4. SRSCM not connected: lamp turned on through shorting bar in wiring harness connector.



1. Check Air-bag SRSCM connector

<p>The diagram illustrates the electrical connection between the DAB Inflator and the SRS Control Module. A central component labeled "CLOCK SPRING" is connected to a multi-pin connector. A cable from the SRS Control Module is plugged into this connector. Below the connector is a grid of 21 pins, numbered 1 through 21. Pin 6 is marked with an 'X', indicating the specific connection point for the SRS system.</p>	<ol style="list-style-type: none"> 1. Turn ignition switch "ON" to "LOCK". 2. Disconnect battery negative (-) terminal cable and wait at least 30 seconds. 3. Disconnect SRSCM connector and DAB connector. 4. Connect Air bag checker connector to SRSCM harness side connector. 5. Connect battery negative (-) terminal cable. 6. Turn ignition switch "ON". <p>LIMIT Does not light up</p>
<p>CH-SRIB</p>	
<p>NG → First check cluster connector and if good Replace Air bag harness</p>	<p>OK → Replace SRSCM.</p>

SRSCM MALFUNCTION



The SRSCM shall also cyclically monitor the following:

- a) Functional readiness of the firing circuit activation transistors (driver and passenger side)
- b) Adequacy of deployment energy reserves (driver and passenger-side)
- c) Safing sensor integrity: detection of faulty closure (longer than 4 seconds)
- d) Plausibility of accelerometer signal
- e) Operation of SRSCM components (AID-converter, etc.)

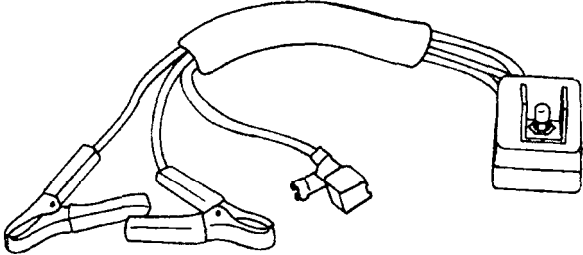
The timely completion of all tests is monitored by a separate hardware watchdog. During normal operation, the watchdog is triggered periodically by the SRSCM; if the SRSCM fails to trigger the watchdog, the watchdog will reset the SRSCM and activate the SRI (Service Reminder Indicator)

Diag. NO.	Symptom	Trouble area	
14 (Active) 64 (History)	Internal fault	SRSCM	Replace SRSCM
15 (Active) 65 (History)	Crash recorded	SRSCM	Replace SRSCM
16 (Active) 66 (History)	Parameter configuration missing/incorrect	SRSCM	Replace SRSCM

AIR BAG MODULE DISPOSAL PROCEDURES

Before either disposing of a vehicle equipped with an air bag, or prior to disposing of the air bag module, 'be sure to first follow the procedures described below to deploy the air bag.

AIR BAG REMOTE DEPLOYMENT DEVICES

Tool, Number, Name	Use
Deployment tool(0957A-34100) 	<ul style="list-style-type: none"> o Deployment inside the vehicle (when vehicle will not longer be driven)

DISPOSAL PLAN

When the problem occurs, take disposal steps as follows.

CASE	DISPOSAL PLAN
Abnormal problems in air bag module	Return to HMC dealer
Car scrapping	Deploy the air bag module in the scrapper yard with SST
Crash (Deployed)	Service station disposes the Air-bag module

UNDEPLOYED AIR BAG MODULE DISPOSAL

Caution

1. **If the vehicle is to be scrapped, junked, or otherwise disposed of, deploy the air bag inside the vehicle.**
2. **Since there is a loud noise when the air bag is deployed, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.**
3. **Since a large amount of smoke is produced when the air bag is deployed, select a well-ventilated site. Moreover, never attempt the test near a fire or smoke sensor.**

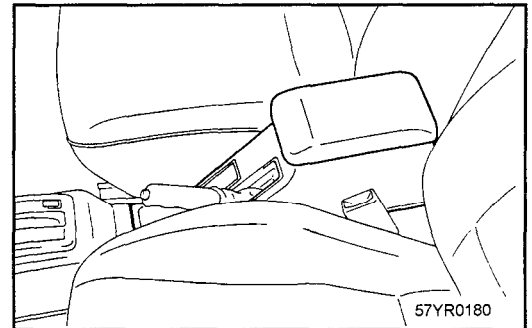
DEPLOYMENT INSIDE THE VEHICLE (when vehicle will no longer be driven)

1. Open all windows and doors of the vehicle. Move the vehicle to an isolated spot.
2. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

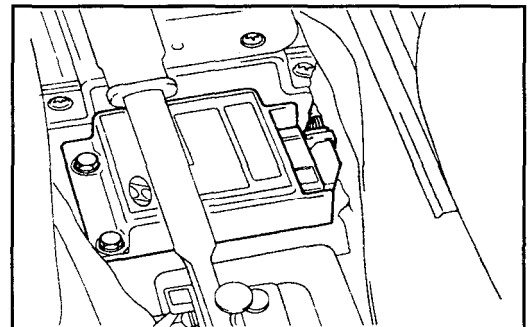
Caution

Wait at least 30 seconds after disconnecting the battery cable before doing any further work.

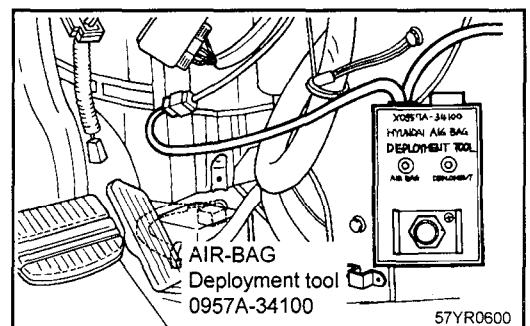
3. Remove the rear console assembly.



4. Remove Air-bag SRSCM connector
5. Connect disposal tool to the air bag checker R-terminal.



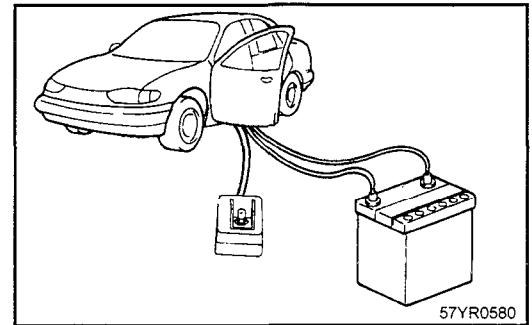
6. Connect SRS air bag adapter harness battery (+) and (-) when the SRS harness checker still disconnected, to prevent sudden unexpected deployment of the air bag. Connect the SRS harness checker to SRSCM harness side connector.



- At location as far away from the vehicle as possible, press the push button (removed from the vehicle) to deploy the air bag.

Caution

- Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. **Wear safety glasses.**
- The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. **Although not poisonous, do not inhale gas from air bag deployment.**
See Deployed Air Bag Module Disposal Procedures for post-deployment handling instructions.
- If the air bag fails to deploy when the procedures above are followed, do not go near the module.



DEPLOYED AIR BAG MODULE DISPOSAL PROCEDURES

After deployment, the air bag module should be disposed of in the same manner as any other scrap parts, except that the following points should be carefully noted during disposal.

- The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it.
- Do not put water or oil on the air bag after deployment.
- There may be, adhered to the deployed air bag module, material that could irritate the eyes and/or skin, so wear gloves and safety glasses when handling a deployed air bag module. **IF DESPITE THESE PRECAUTIONS, THE MATERIAL DOES, GET INTO THE EYES OR ON THE SKIN, IMMEDIATELY RINSE THE AFFECTED AREA WITH A LARGE AMOUNT OF CLEAN WATER.**
IF ANY IRRITATION DEVELOPS, SEEK MEDICAL ATTENTION.
- Tightly seal the air bag module in a strong vinyl bag for disposal.
- Be sure to always wash your hands after completing this operation.

