General

The supplemental restraint system (SRS) is designed to supplement the seat belt to help reduce the risk or severity of injury to the driver and passenger by activating and deploying the driver, passenger, side airbag and belt pretensioner in certain frontal or side collisions.

The SRS (Airbag) consists of ; a driver side airbag module located in the center of the steering wheel, which contains the folded cushion and an inflator unit ; a passenger side airbag module located in the passenger side crash pad contains the folded cushion assembled with inflator unit ; side airbag modules located in the front seat contain the folded cushion and an inflator unit ; curtain airbag modules located inside of the headliner which contains folded cushions and inflator units. 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.

SRSCM (SRS Control Module)

SRSCM will detect front impact with front impact sensor, and side impact with side impact sensor, and determine airbag module deployment.

1. DC/DC converter: DC/DC converter in power supply unit includes up/down transformer converter, and provide ignition voltage for 2 front airbag ignition circuits and the internal operation voltage of the SRSCM. If the internal operation voltage is below critical value setting, it will perform resetting.
2. Back up power supply: SRSCM has separate back up power supply, that will supply deployment energy instantly in low voltage condition or upon power failure by front crash.
3. Self diagnosis: SRSCM will constantly monitor current SRS operation status and detect system failure while vehicle power supply is on, system failure may be checked with trouble codes using scan tool. (Hi- Scan)
4. Airbag warning lamp on: Upon detecting error, the module will transmit signal to SRSCM indicator lamp located at cluster. MIL lamp will indicate driver SRS error. Upon ignition key on, SRS lamp will turn on for about six seconds.
5. Trouble code registration: Upon error occurrence in system, SRSCM will store DTC corresponding to the error. DTC can be cleared only by Hi-Scan. However, if an internal fault code is logged or if a crash is recorded the fault clearing should not happen.
6. Self diagnostic connector: Data stored in SRSCM memory will be output to Hi-Scan or other external output devices through connector located below driver side crash pad.
7. Once airbag is deployed, SRSCM should not be used again but replaced.

Restraint

Specification

Item	Resistance (Ω)
Driver Airbag (DAB)	1.5 ~ 5.7
Passenger Airbag (PAB)	1.5 ~ 5.7
Side Airbag (SAB)	1.5 ~ 5.7
Curtain Airbag (CAB)	1.5 ~ 5.7
Seat Belt Retractor Pretensioner (BPT)	1.5 ~ 5.7

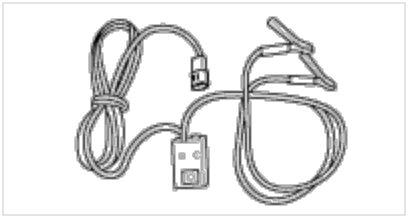
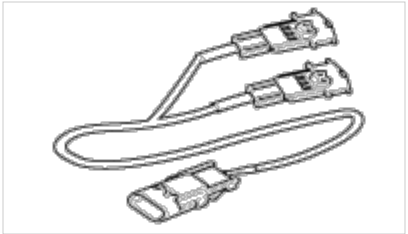
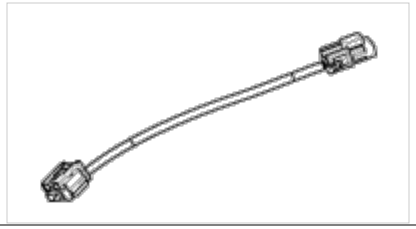
Tightening Torques

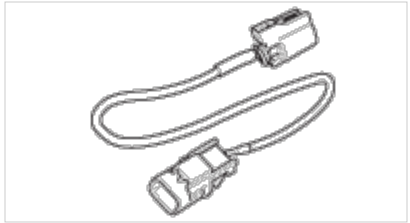
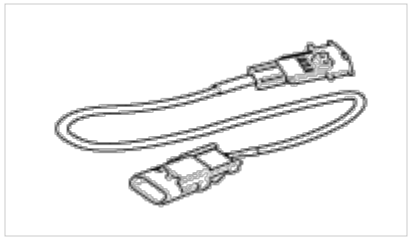
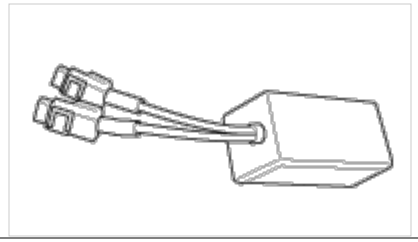
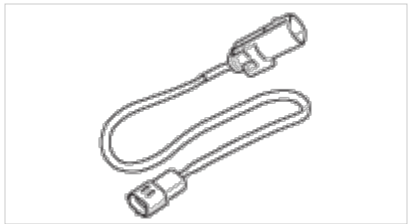
Item	N.m	kgf.m	lb-ft

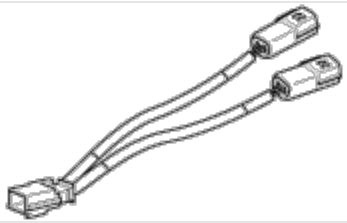
Driver Airbag (DAB)	7.8 ~ 10.8	0.8 ~ 1.1	5.8 ~ 8.0
Passenger Airbag (PAB)	6.9 ~ 10.8 3.9 ~ 6.9	Bolt :0.7 ~ 1.1 Nut : 0.4 ~ 0.7	5.1 ~ 8.0 2.9 ~ 5.0
Curtain Airbag (CAB)	18.6 ~ 26.5	1.9 ~ 2.7	13.7 ~ 19.5
Side Airbag (SAB)	5.9 ~ 7.8	0.6 ~ 0.8	4.3 ~ 5.8
Seat Belt Anchor Bolt (BPT)	39.2 ~53.9	4.0 ~ 5.5	28.9 ~ 39.8
SRSCM	6.9 ~8.8	0.7 ~ 0.9	5.1 ~ 6.5
Front Impact Sensor (FIS) Mounting nut	6.9 ~ 8.8	0.7 ~ 0.9	5.1 ~ 6.5
Side Impact Sensor (SIS) Mounting Bolt	6.9 ~ 8.8	0.7 ~ 0.9	5.1 ~ 6.5

Restraint

Special Service Tools

Tool(Number and Name)	Illustration	Use
Deployment tool 0957A-34100A		Airbag deployment tool
Deployment adapter 0957A-38510		Use with deployment tool. (DAB)
Deployment adapter 0957A-2E110		Use with deployment tool. (PAB)
Deployment adapter 0957A-3F100		Use with deployment tool. (SAB)

		
Deployment adapter 0957A-38500		Use with deployment tool. (CAB, BPT)
Dummy 0957A-38200		Simulator to check the resistanceof each wiring harness
Dummy adapter 0957A-3F000		Use with dummy (SAB)
Dummy adapter 0957A-2G000		Use with dummy (DAB, CAB, BPT)
Dummy adapter 0957A-2E100		Use with dummy (PAB)

DAB : Driver Airbag
PAB : Passenger Airbag
SAB : Side Airbag
CAB : Curtain Airbag
BPT : Seat Belt Retractor Pretensioner

Restraint

Precautions

General Precautions

Please read the following precautions carefully before performing the airbag system service.
Observe the instructions described in this manual, or the airbags could accidentally deploy and cause damage or injuries.

- Except when performing electrical inspections, always turn the ignition switch OFF and disconnect the negative cable from the battery, and wait at least three minutes before beginning work.

NOTICE

The contents in the memory are not erased even if the ignition switch is turned OFF or the battery cables are disconnected from the battery.

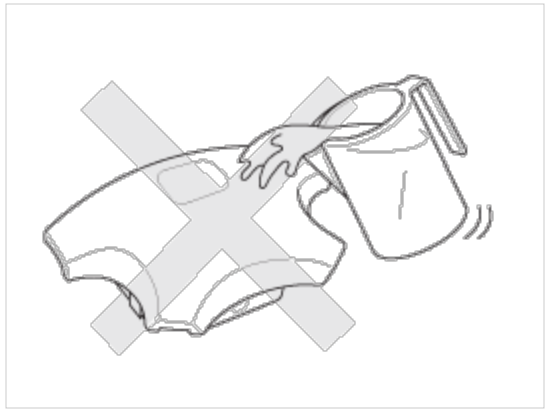
- Use the replacement parts which are manufactured to the same standards as the original parts and quality.
  Do not install used SRS parts from another vehicle. Use only new parts when making SRS repairs.
- Carefully inspect any SRS part before you install it. Do not install any part that shows signs of being dropped or improperly handled, such as dents, cracks or deformation.

- Before removing any of the SRS parts (including the disconnection of the connectors), always disconnect the SRS connector.

Airbag Handling and Storage

Do not disassemble the airbags; it has no serviceable parts. Once an airbag has been deployed, it cannot be repaired or reused.
For temporary storage of the air bag during service, please observe the following precautions.

- Store the removed airbag with the pad surface up.
- Keep free from any oil, grease, detergent, or water to prevent damage to the airbag assembly.



- Store the removed airbag on secure, flat surface away from any high heat source (exceeding 85 C/185 F).
- Never perform electrical inspections to the airbags, such as measuring resistance.
- Do not position yourself in front of the airbag assembly during removal, inspection, or replacement.
- Refer to the scrapping procedures for disposal of the damaged airbag.
- Be careful not to bump or impact the SRS unit or the side impact sensors or front impact sensors whenever the ignition switch is ON, wait at least three minutes after the ignition switch is turned OFF before begin work.
-

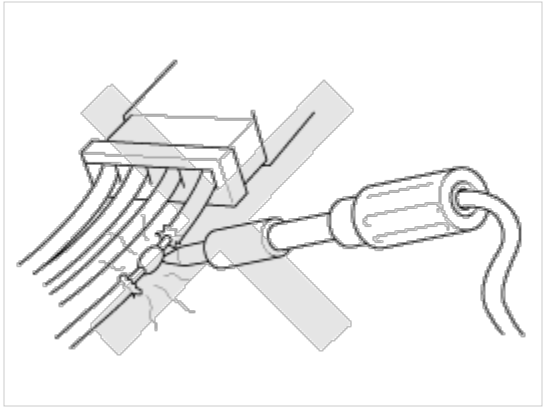
During installation or replacement, be careful not to bump (by impact wrench, hammer, etc.) the area around the SRS unit and the side impact sensor and the front impact sensors. The airbags could accidentally deploy and cause damage or injury.

- Replace the front airbag module, SRSCM, FIS when deploying the front airbag. Replace the airbag wiring when the airbag wiring get damaged. Replace the side airbag module, the curtain airbag module, SRSCM, SIS when deploying the side airbag. Replace the airbag when the airbag wiring get damaged.
- After a collision in which the airbags or the side air bags did not deploy, inspect for any damage or any deformation on the SRS unit and the side impact sensors. If there is any damage, replace the SRS unit, the front impact sensor and/or the side impact sensors.
- Do not disassemble the SRS unit, the front impact sensor or the side impact sensors.
- Turn the ignition switch OFF, disconnect the battery negative cable and wait at least three minutes before beginning installation or replacement of the SRS unit.
- Be sure the SRS unit, the front impact sensor and side impact sensors are installed securely with the mounting bolts.
- Do not spill water or oil on the SRS unit, or the front impact sensor or the side impact sensors and keep them away from dust.
- Store the SRS unit, the front impact sensor and the side impact sensors in a cool (15 ~ 25 C/ 59 ~ 77 F) and dry (30 ~ 80% relative humidity, no moisture) area.

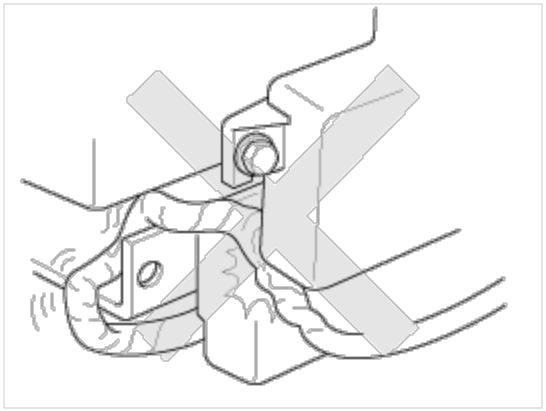
Wiring Precautions

SRS wiring can be identified by special yellow outer covering. Observe the instructions described in this section.

- Never attempt to modify, splice, or repair SRS wiring. If there is an open or damage in SRS wiring, replace the harness.



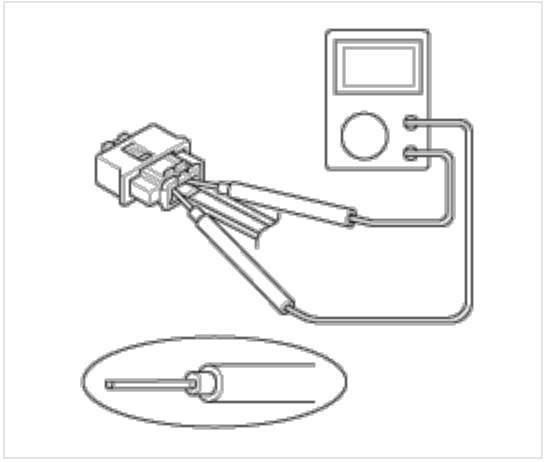
- Be sure to install the harness wires so that they are not pinched, or interfere with other parts.



- Make sure all SRS ground locations are clean, and grounds are securely fastened for optimum metal-to-metal contact. Poor grounding can cause intermittent problems that are difficult to diagnose.

Precautions for Electrical Inspections

- When using electrical test equipment, insert the probe of the tester into the wire side of the connector.
  Do not insert the probe of the tester into the terminal side of the connector, and do not tamper with the connector.



- Use a u-shaped probe. Do not insert the probe forcibly.
- Use specified service connectors for troubleshooting.
  Using improper tools could cause an error in inspection due to poor metal contact.

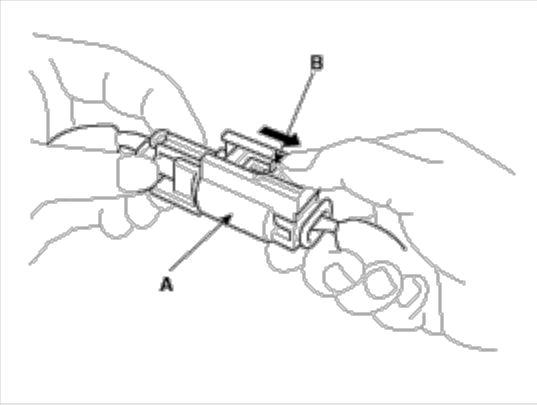
Spring-laded Lock Connector

Some SRS system connectors have a spring-loaded lock.

Airbag Connector

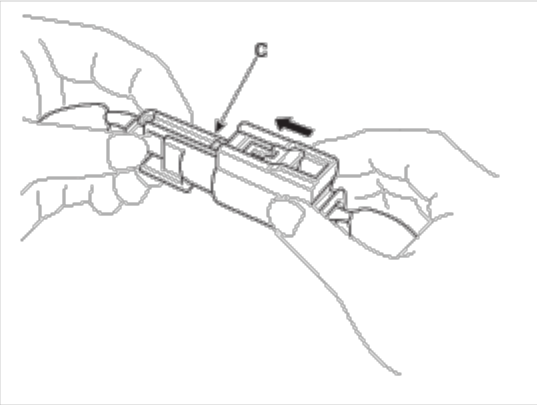
Disconnecting

To release the lock, pull the spring-loaded sleeve (A) and he slider (B), while holding the opposite half of the connector.
Pull the connector halves apart. Be sure to pull on the sleeve and not on the connector half.



Connecting

Hold both connector halves and press firmly until the projection(C) of the sleeve-side connector clicks to lock.



Restraint

Warning Lamp Activation

Warning lamp behavior after ignition ON

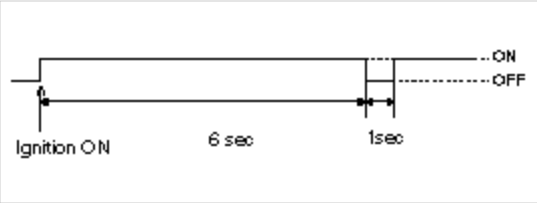
As soon as the operating voltage is applied to the SRSCM ignition input, the SRSCM activates the warning lamp for a bulb check.
The lamp shall turn on for 6 seconds during the initialization phase and be turned off afterward.

However, in order to indicate the driver, the warning lamp shall turn on for 6 seconds and off for one second then on continuously after the operating voltage is applied if any active fault exists.

If the variant coding is not performed, the airbag warning lamp is turned on for 4 seconds and the is blinking after IG ON.

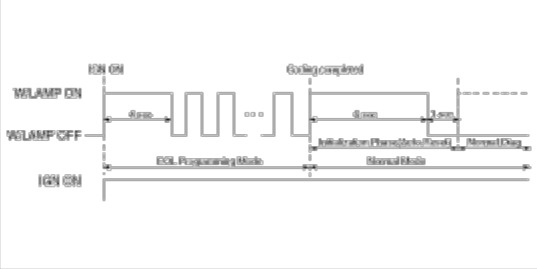
If the variant coding is normally performed, the airbag warning lamp normally operates.

1. Active fault or historical fault counter is greater or equal to 10



2. Normal or historical fault counter is less than 10.

3. SRSCM Variant Coding not performed.



SRSCM Independent warning lamp activation

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

1. Loss of battery supply to the SRSCM : warning lamp turned on continuously.
2. Loss of internal operating voltage : warning lamp turned on continuously.
3. Loss of Microprocessor operation : warning lamp turned on continuously.
4. SRSCM not connected : warning lamp turned on continuously through the shorting bar.

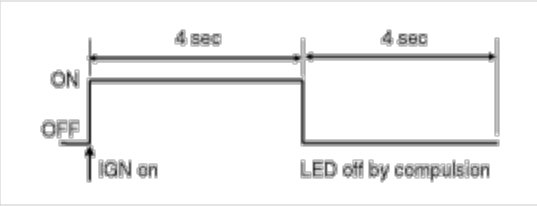
Telltale Lamp Activation

The Telltale Lamp indicates the Passenger Airbag(PAB) enabled and disabled status based on occupant status of passenger seat. If the passenger seat is empty or occupied with child (or child seat), the Passenger Airbag is disabled and the Telltale Lamp is turned ON to inform the driver that the PAB is disabled. As soon as operating voltage is applied to the SRSCM ignition input, the SRSCM activates telltale lamp prove out. OCS will send an defect status to the SRSCM as a default setting for passenger airbag deployment during the prove out period. Occupant status information and telltale status are as below table.

Occupant Status	Telltale Lamp	PAB
Empty	ON	Disabled
Child (Small Occupant)	ON	Disabled
Adult (Large Occupant)	OFF	Enabled
Defect	OFF	Enabled

After ignition on, telltale lamp will turn on for 4 seconds and turn off for 4 seconds during the initialization phase and be turned off afterward until receipt of first valid suppression message from OCS system.

It is possible to turn off the telltale lamp when the larger child than 6 years old sits on the passenger side seat.



Restraint

Component Replacement after Deployment

NOTICE

Before doing any SRS repairs, use the Hi-Scan Pro to check for DTCs. Refer to the Diagnostic Trouble Code list for repairing of the related DTCs.

When the front airbag(s) deployed after a collision, replace the following items.

- SRSCM
- Deployed airbag(s)
- Seat belt pretensioner(s)
- Front impact sensors
- SRS wiring harnesses
- Inspect the clock spring for heat damage.
  If any damage found, replace the clock spring.
  If any damage found, or problem to occupant detection, replace the Passenger seat with PODS system.

When the side/curtain airbag(s) deployed after a collision, replace the following items.

- SRSCM

- Deployed airbag(s)
- Side impact sensor(s) for the deployed side(s)
- SRS wiring harnesses

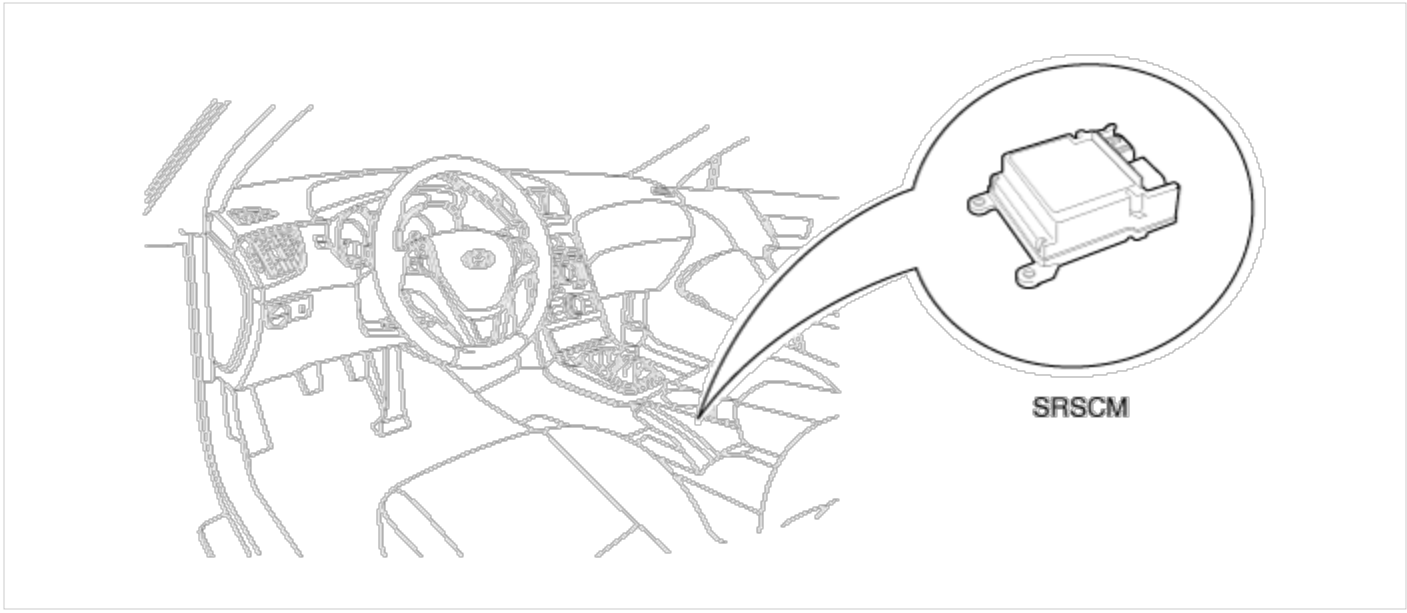
After the vehicle is completely repaired, confirm the SRS airbag system is OK.

- Turn the ignition switch ON, the SRS indicator should come on for about 6 seconds and then go off.

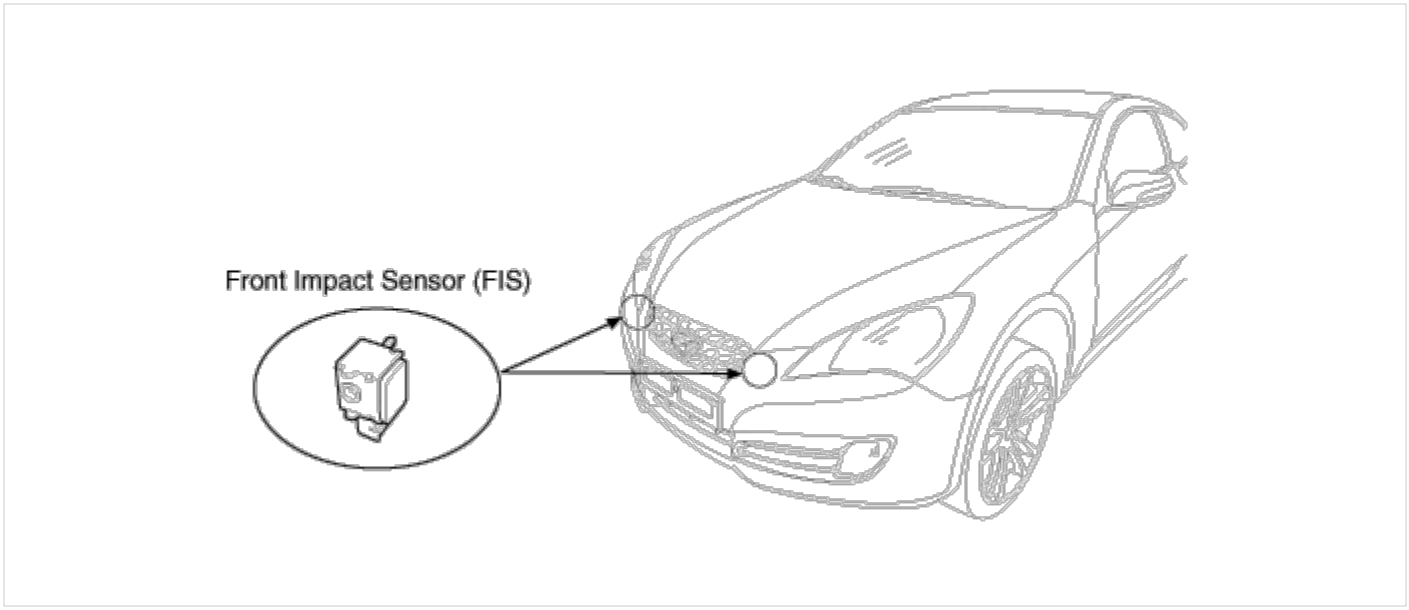
Restraint

Components Location

Supplemental Restraint System Control Module (SRSCM)



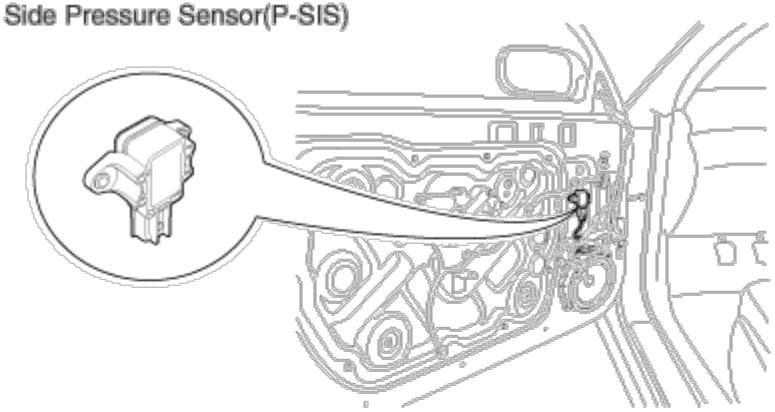
Front Impact Sensor (FIS)



Side Impact Sensor (SIS)

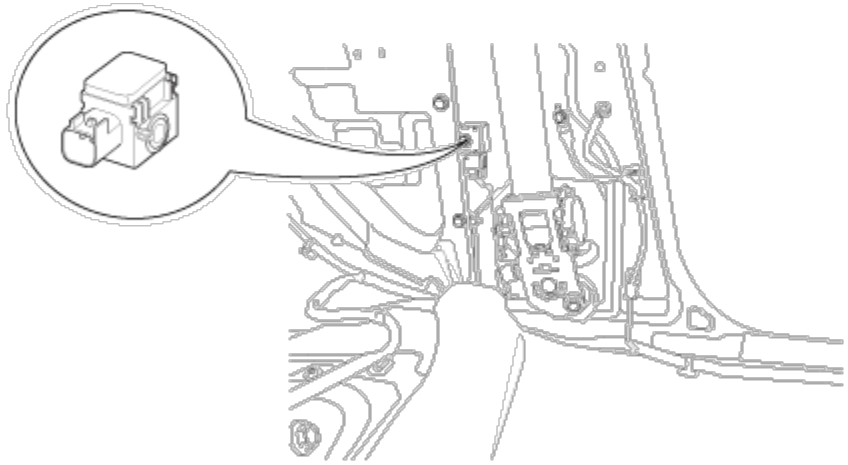
[Front]

Side Pressure Sensor(P-SIS)

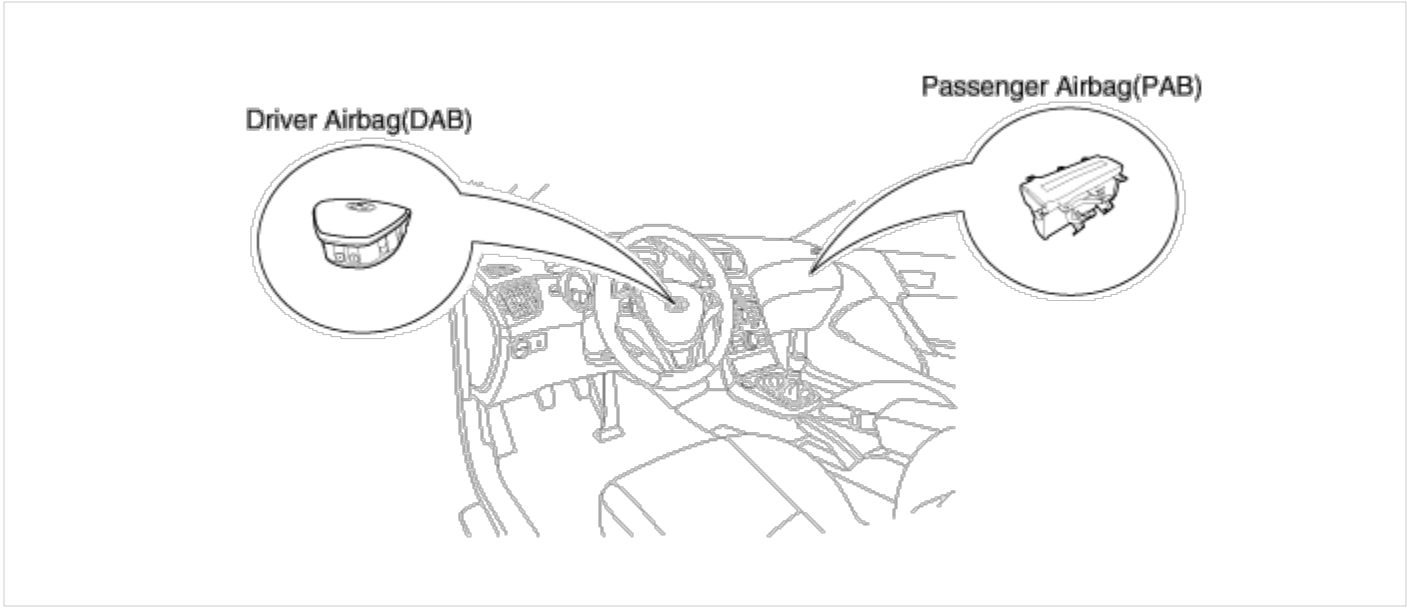


[Rear]

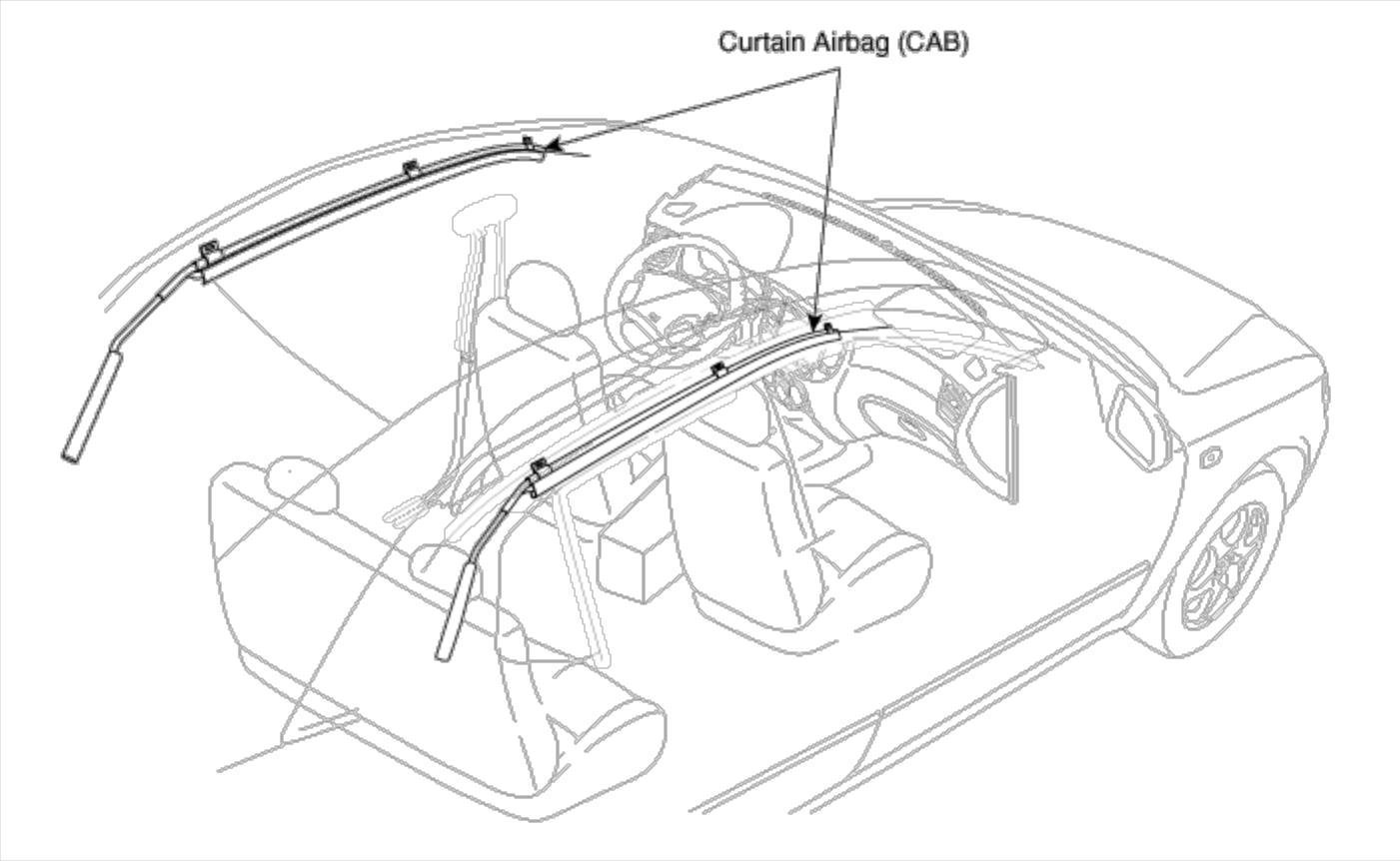
Side Impact Sensor (SIS)



Driver Airbag (DAB) / Passenger Airbag (PAB)

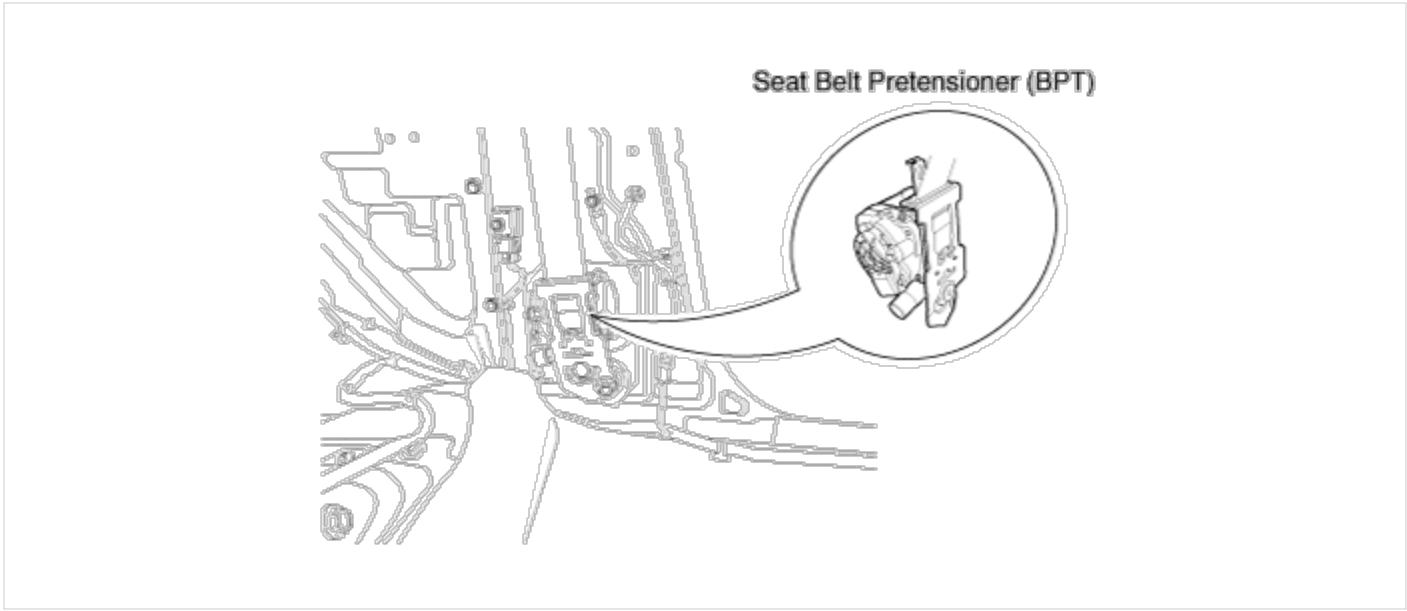


Curtain Airbag (CAB)



Side Airbag (SAB)

Seat Belt Pretensioner (BPT)



Restraint

Description

The primary purpose of the SRSCM (Supplemental Restraints System Control Module) is to discriminate between an event that warrants restraint system deployment and an event that does not. The SRSCM must decide whether to deploy the restraint system or not. After determining that pretensioners and/or airbag deployment is required, the SRSCM must supply sufficient power to the pretensioners and airbag igniters to initiate deployment.

The SRSCM determines that an impact may require deployment of the pretensioners and airbags from data obtained from impact sensors and other components in conjunction with a safing function.

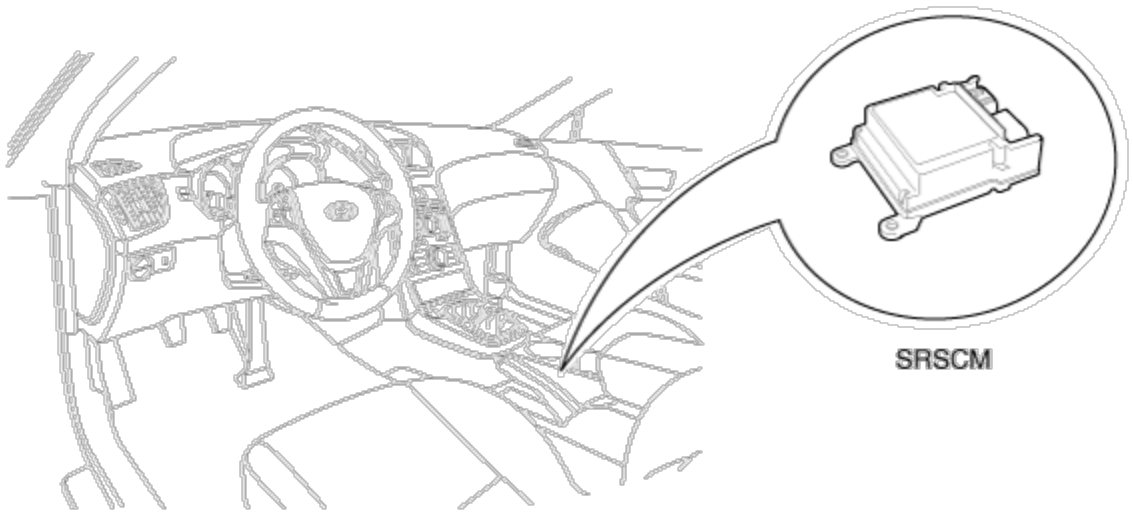
The SRSCM will not be ready to detect a crash or to activate the restraint system devices until the signals in the SRSCM circuitry stabilize.

It is possible that the SRSCM could activate the safety restraint devices in approximately 2 seconds but is guaranteed to fully function after prove-out is completed.

The SRSCM must perform a diagnostic routine and light a system readiness indicator at key-on. The system must perform a continuous diagnostic routine and provide fault annunciation through a warning lamp indicator in the event of fault detection. A serial diagnostic communication interface will be used to facilitate servicing of the restraint control system.

Restraint

Components



Restraint

Variant coding

After replacing the SRSCM with a new one, MUST perform the “Variant Coding” procedure.

NOTICE

1. On SRSCM variant coding mode, the airbag warning lamp is periodically blinking (ON: 0.5sec., OFF: 0.5sec.) until the coding is normally completed.

2. If the variant coding is failed, DTC B1762 (ACU Coding Error) will be displayed and the warning lamp will be turned on.
   In this case, perform the variant coding procedure again after confirming the cause in “DTC Fault State Information”.
   Variant Coding can be performed up to 255 times, but if the number of coding work exceeds 255 times, DTC B1683 (Exceed Maximum coding Number) will be displayed and SRSCM must be replaced.
3. If the battery voltage is low (less than 9V), DTC B1102 will be displayed. In this case, charge the battery before anything else, and then perform the variant coding procedure.
   Because, although Variant Coding is normally performed, DTC B1762 (ACU Coding Error) and B1102 (Battery Voltage Low) are displayed simultaneously.

Variant coding Procedure

■ On-Line type on GDS

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF" select vehicle name and airbag system.
3. Select Variant coding mode.
4. Follow steps on the screen as below.

1) Initial ACU Variant Coding screen

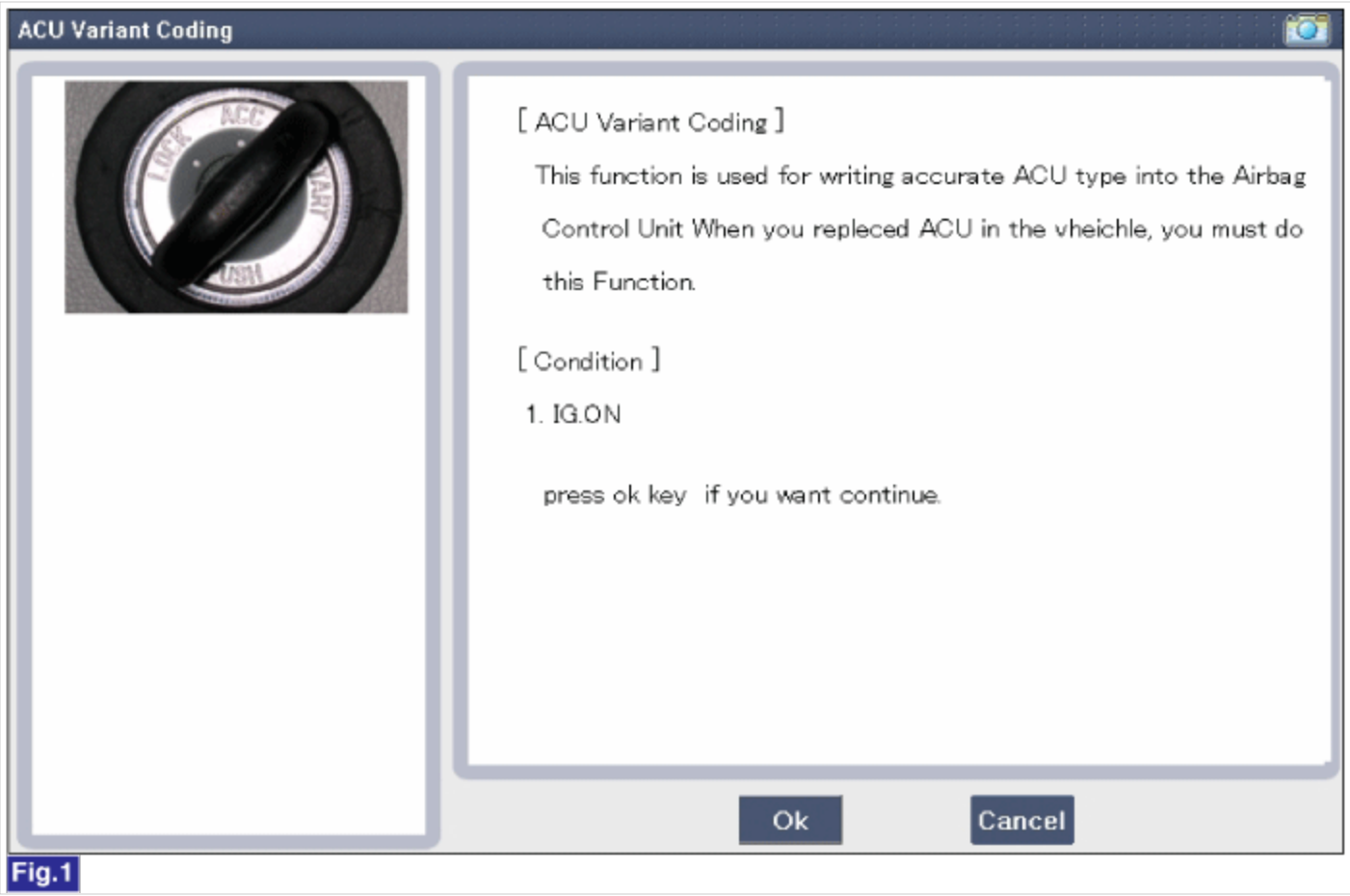


Fig.1

2) VIN Code entering screen

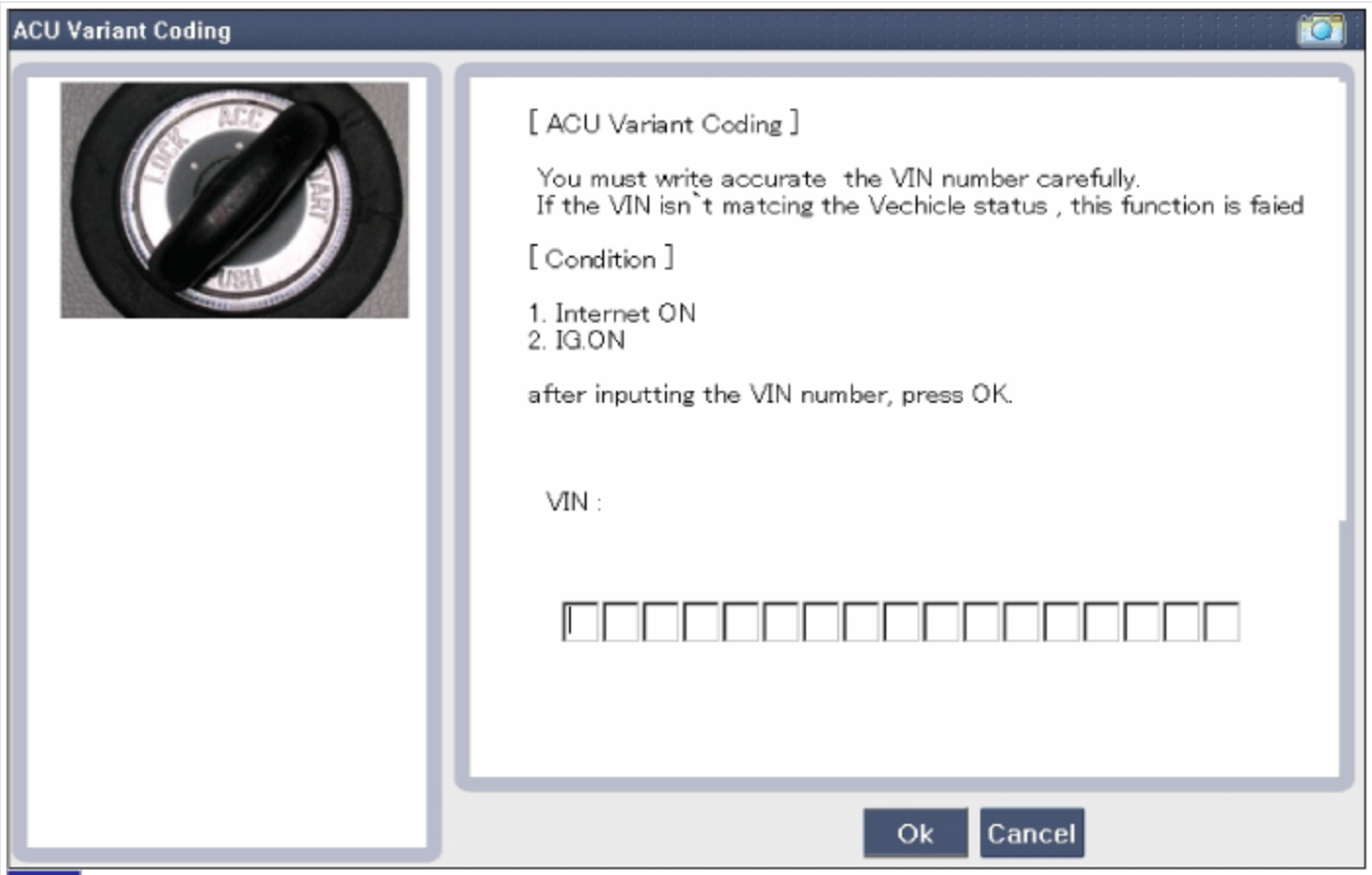


Fig.2

3) Variant coding's proceeding screen-1

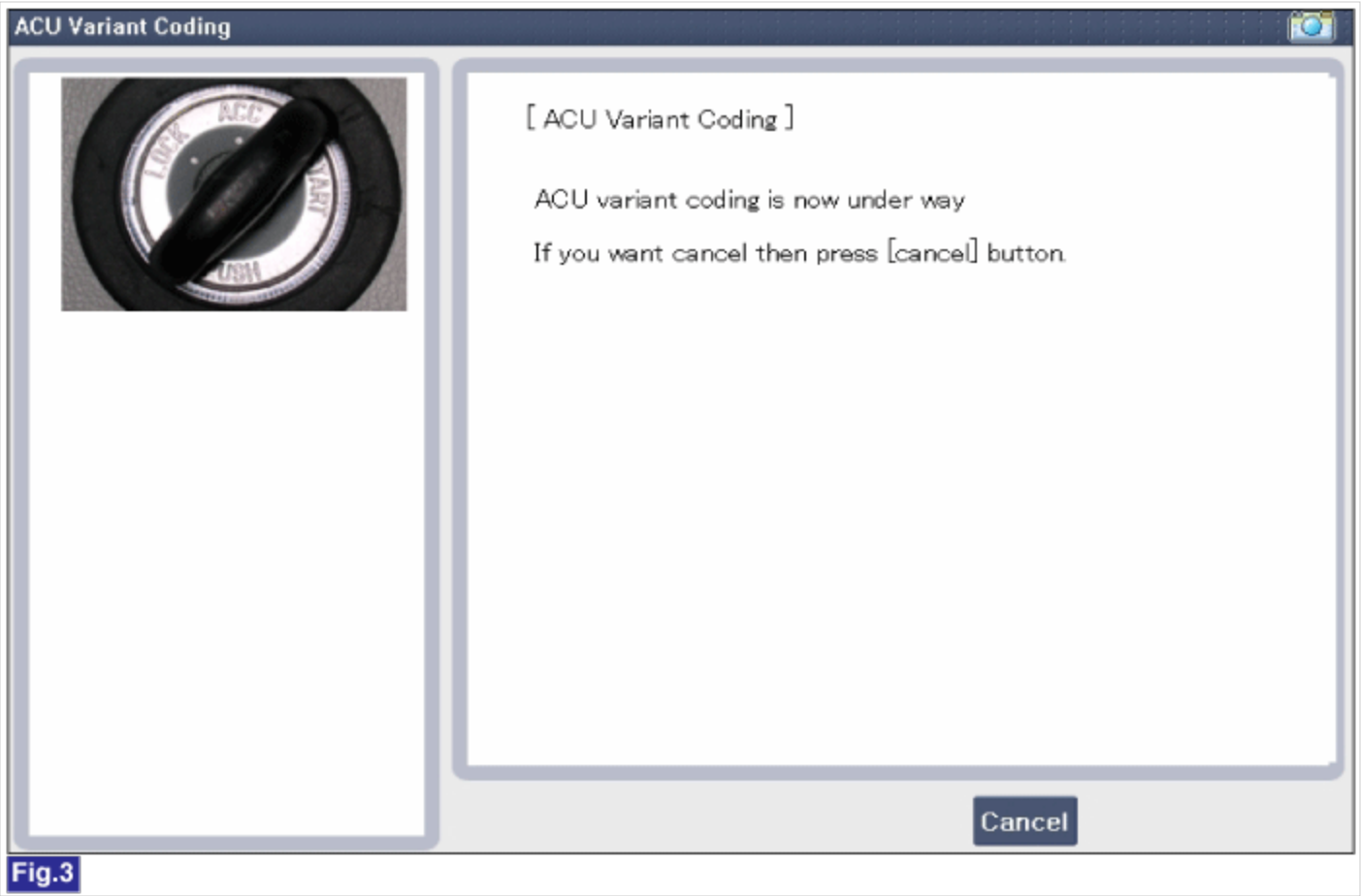


Fig.3

4) Variant coding's proceeding screen-2

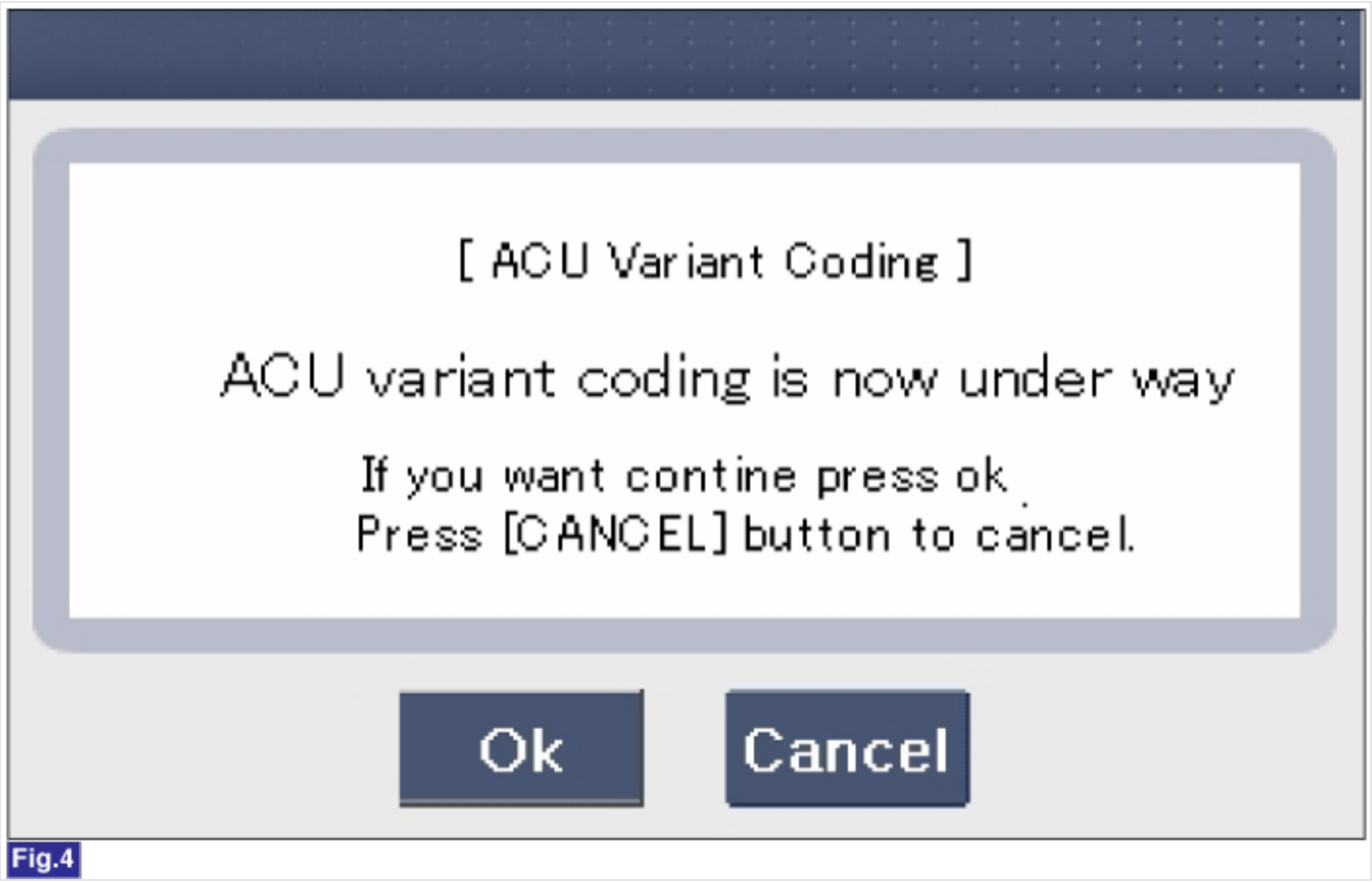


Fig.4

5) Variant coding is completed

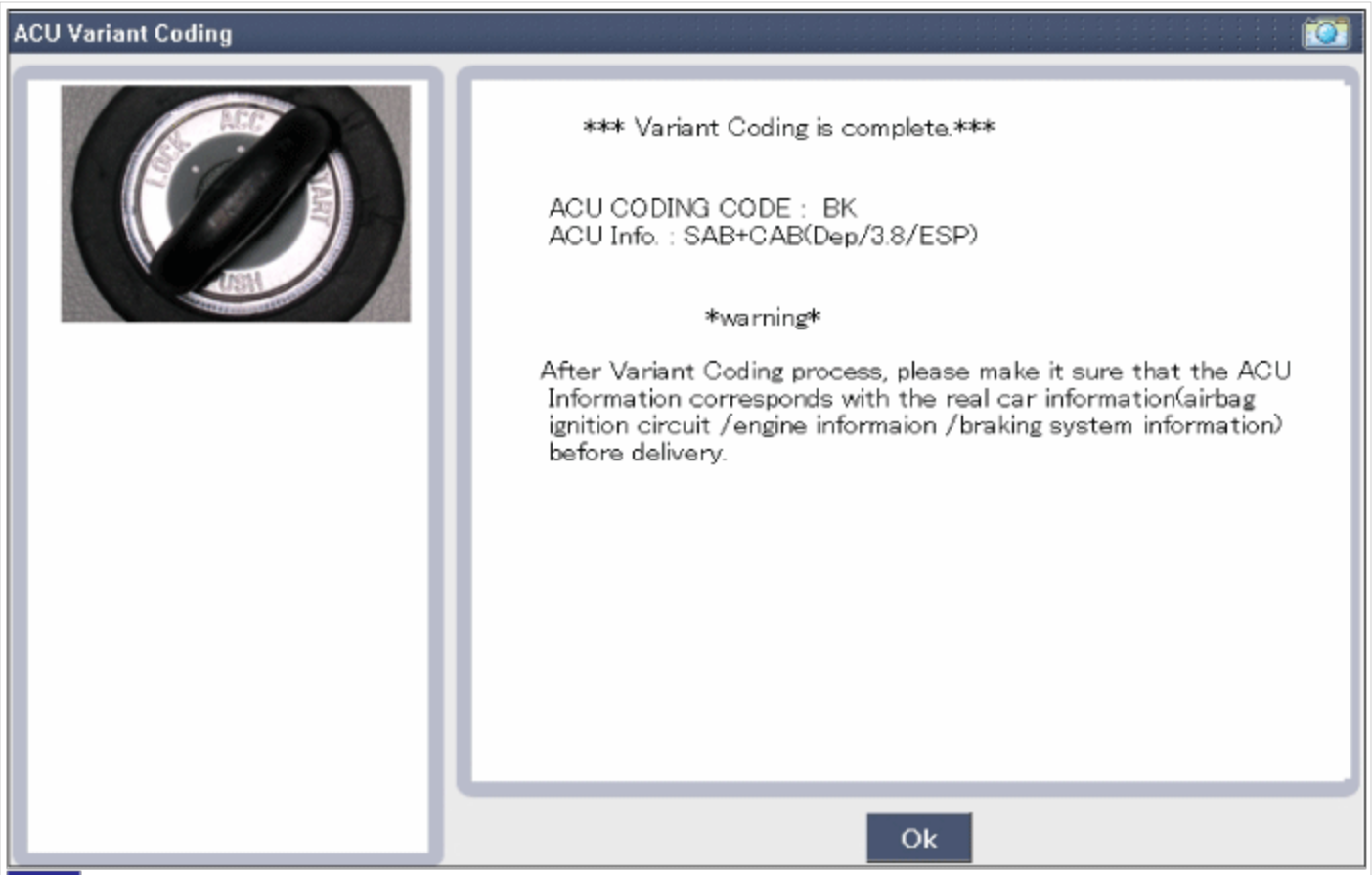


Fig.5

NOTICE

1) Screen of Retrying the Variant coding after finishing variant coding

Fig.6

2) Screen of communication failure

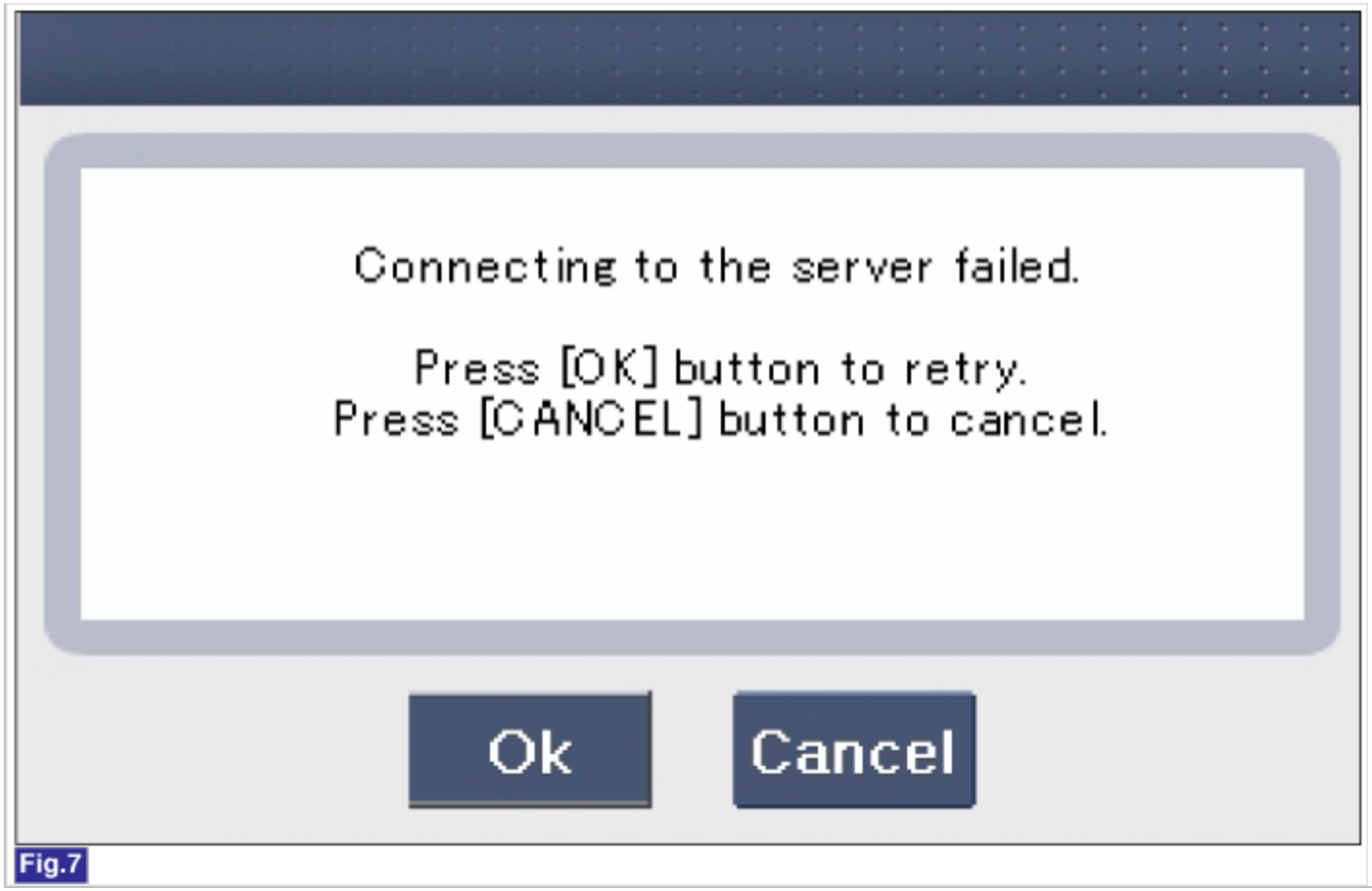


Fig.7

■ **Off-line type on GDS (This can be used when not connecting to internet)**

1) Initial ACU Variant Coding screen

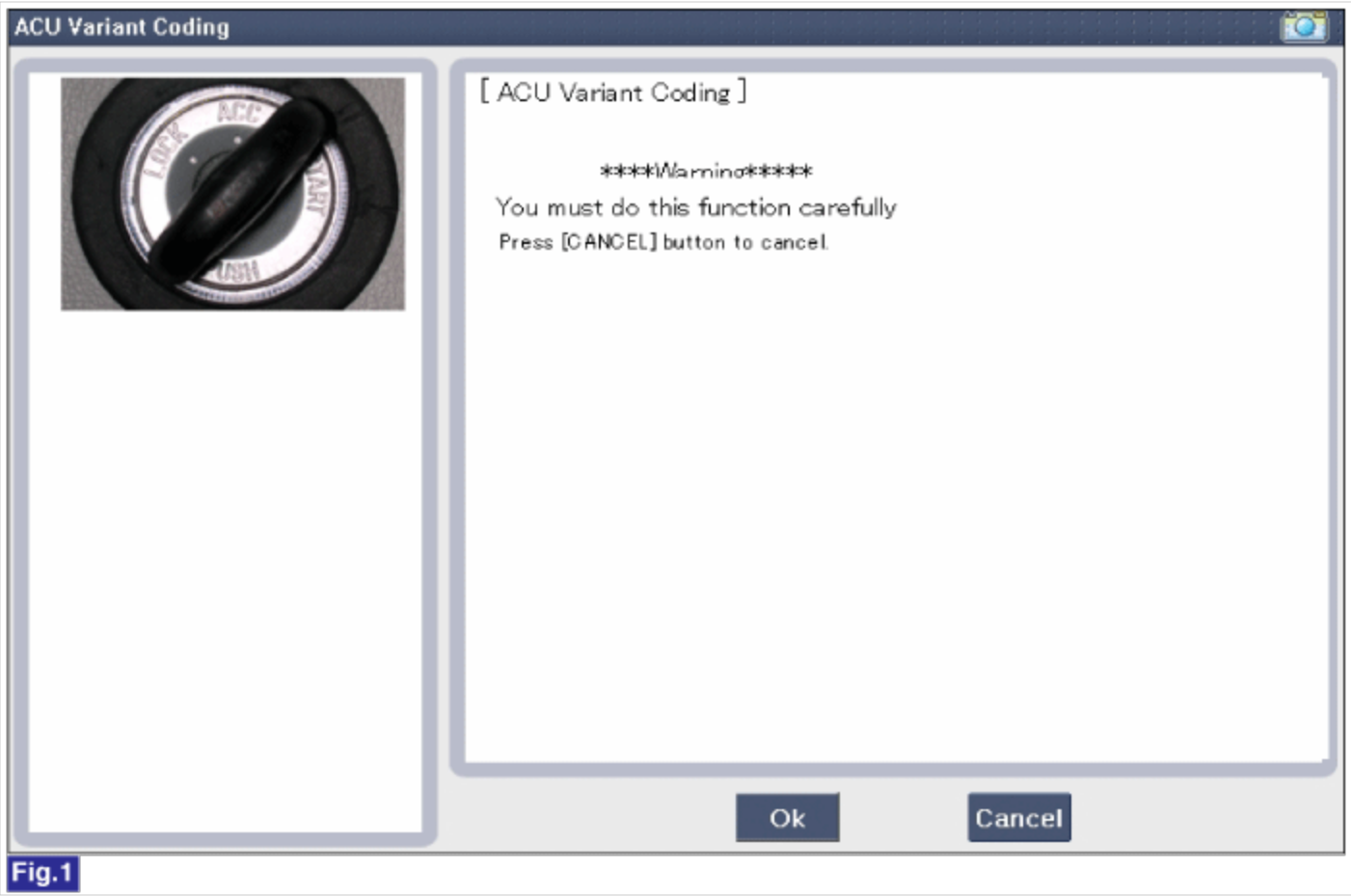


Fig.1

2) ACU CODING Code entering screen

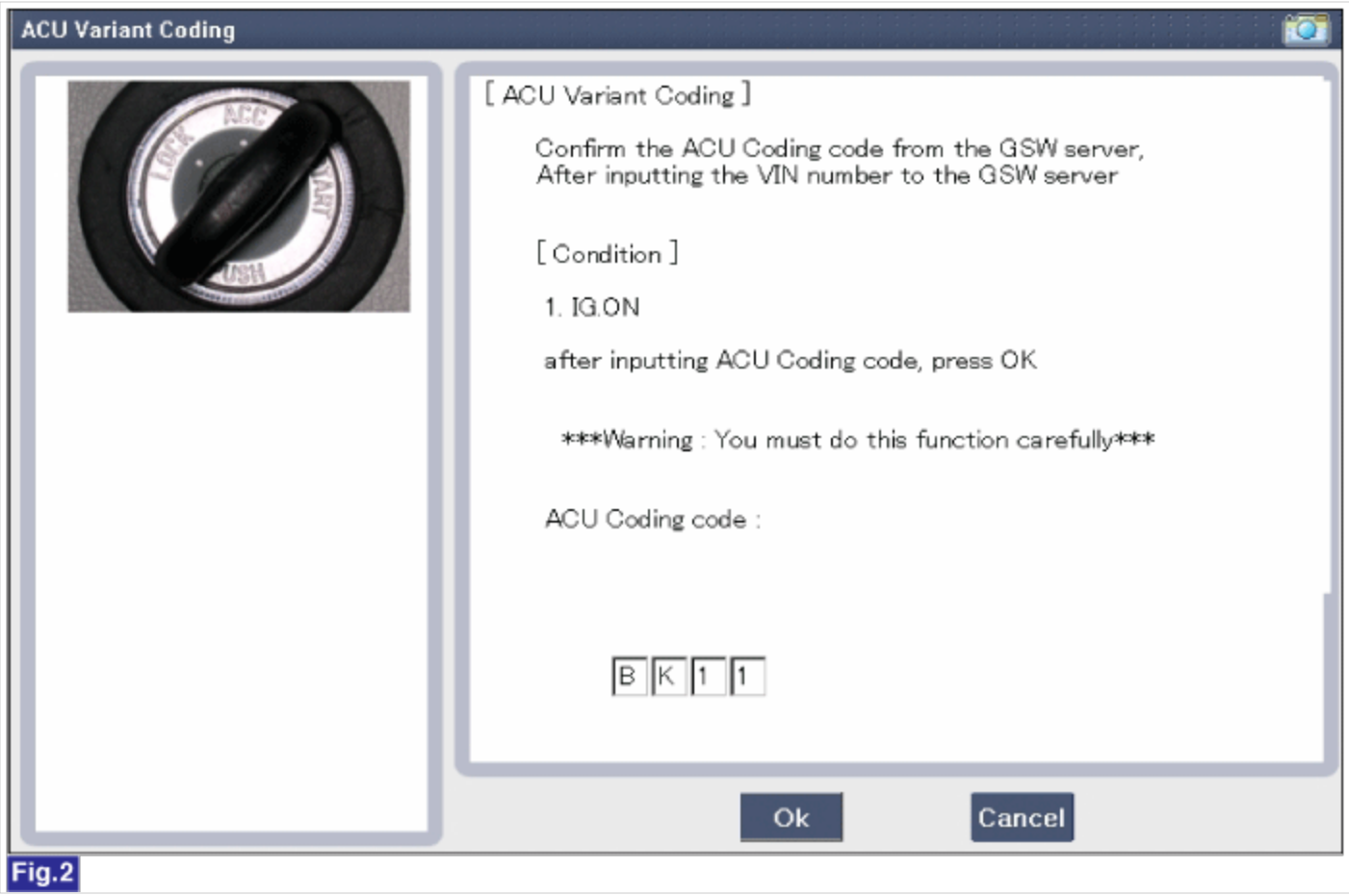


Fig.2

3) Screen of rechecking ACU CODING code's entering

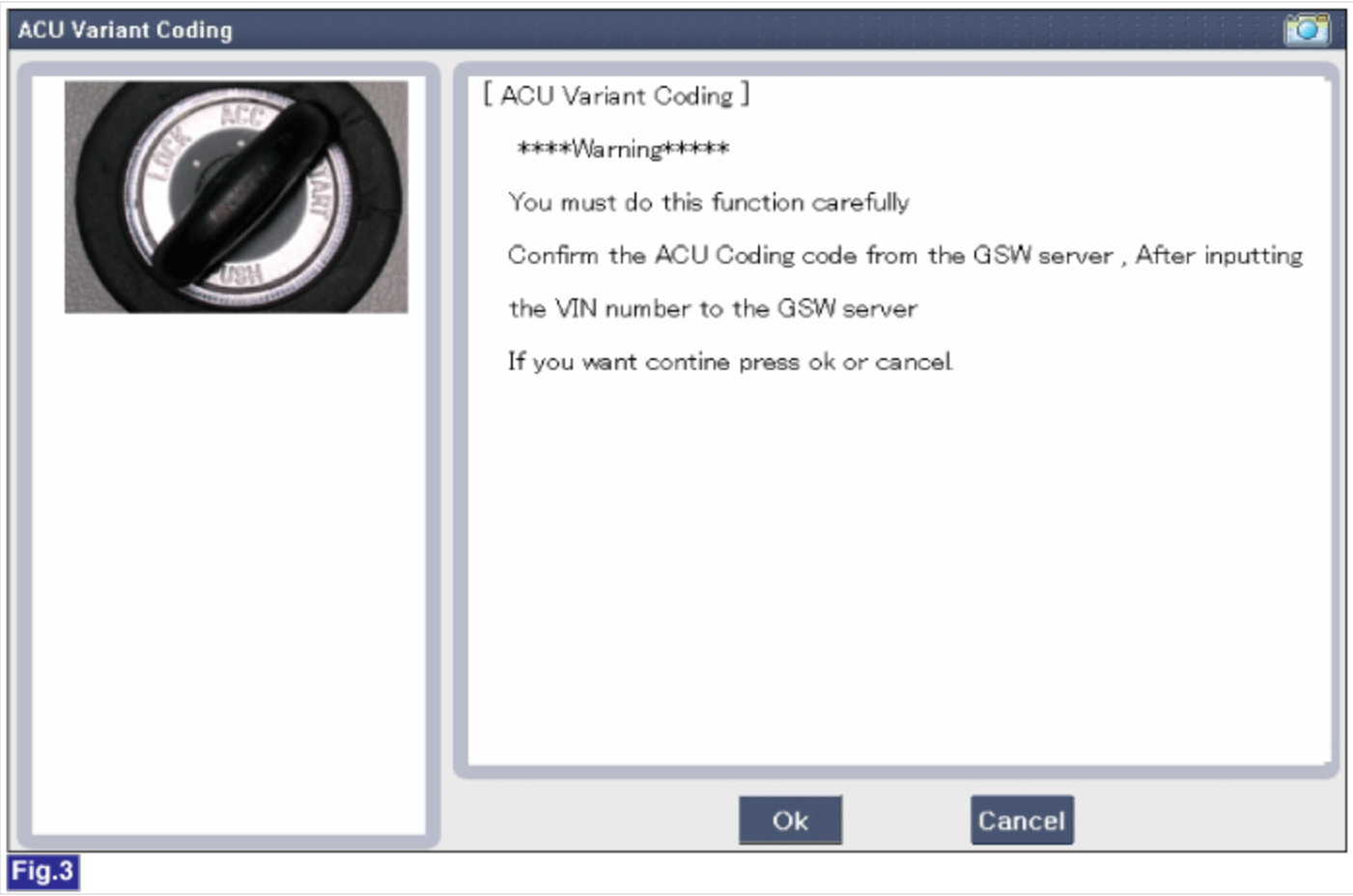


Fig.3

4) Variant coding's proceeding screen-1

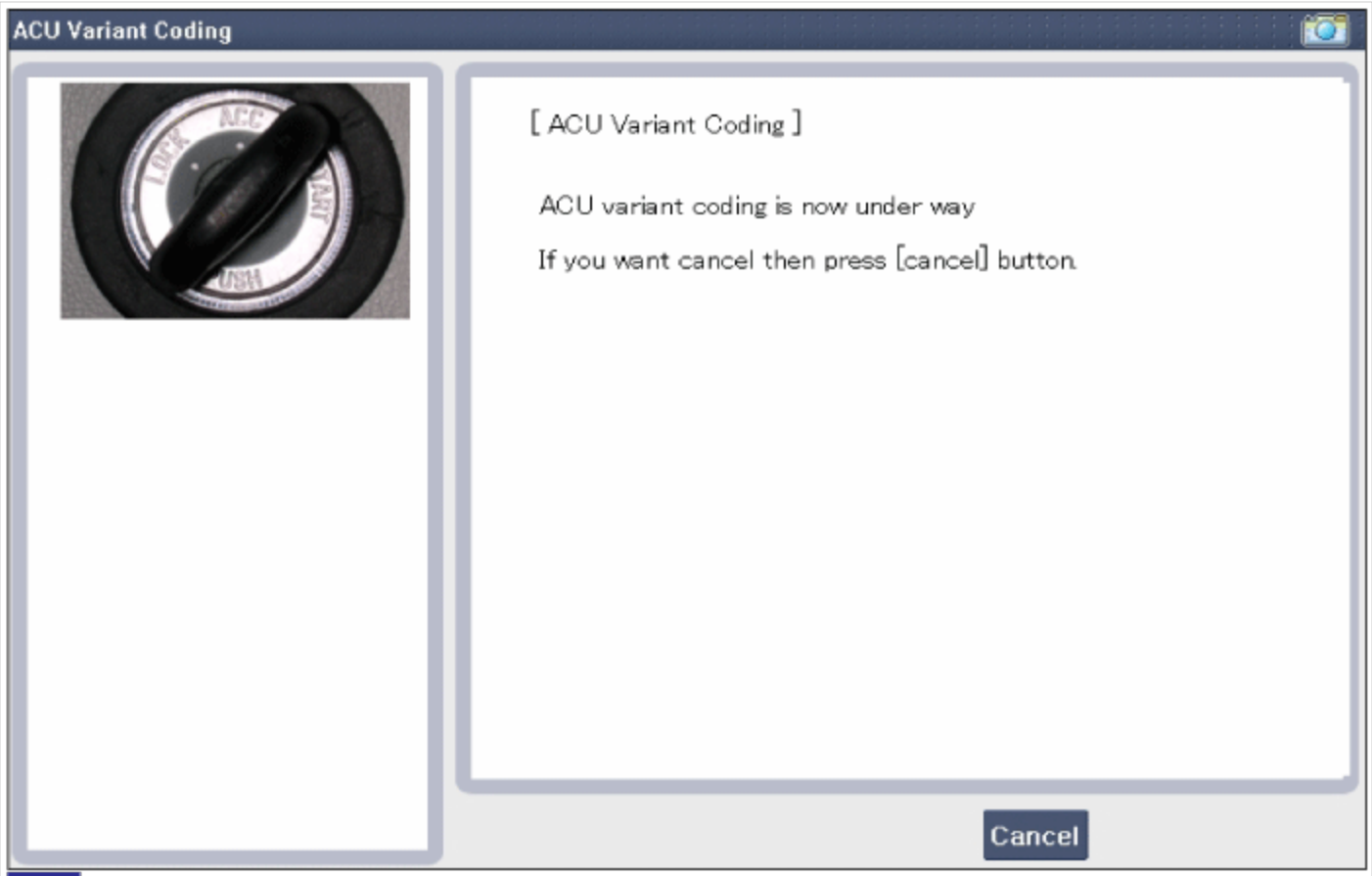


Fig.4

5) Variant coding's proceeding screen-2

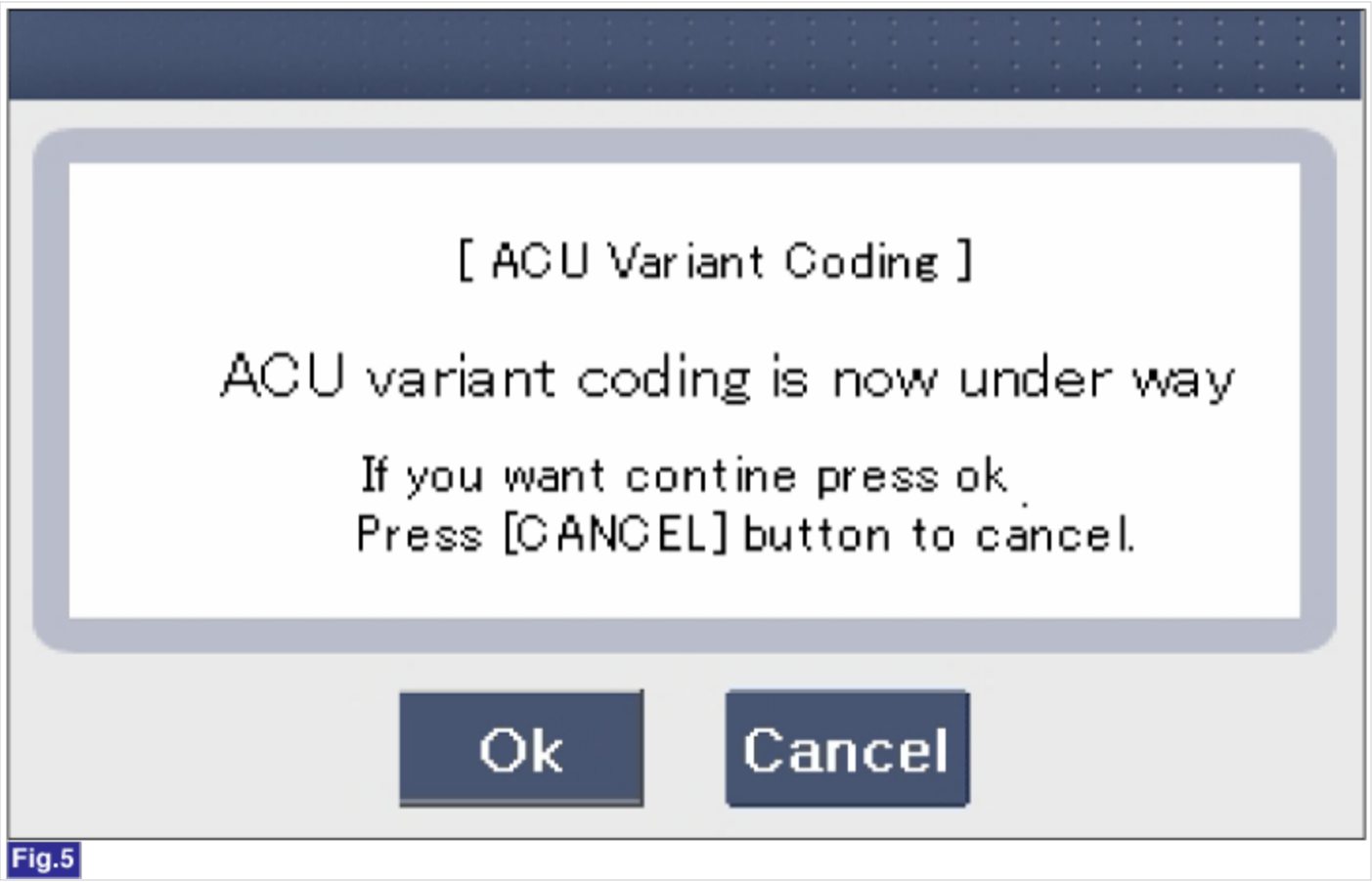


Fig.5

6) Variant coding is completed

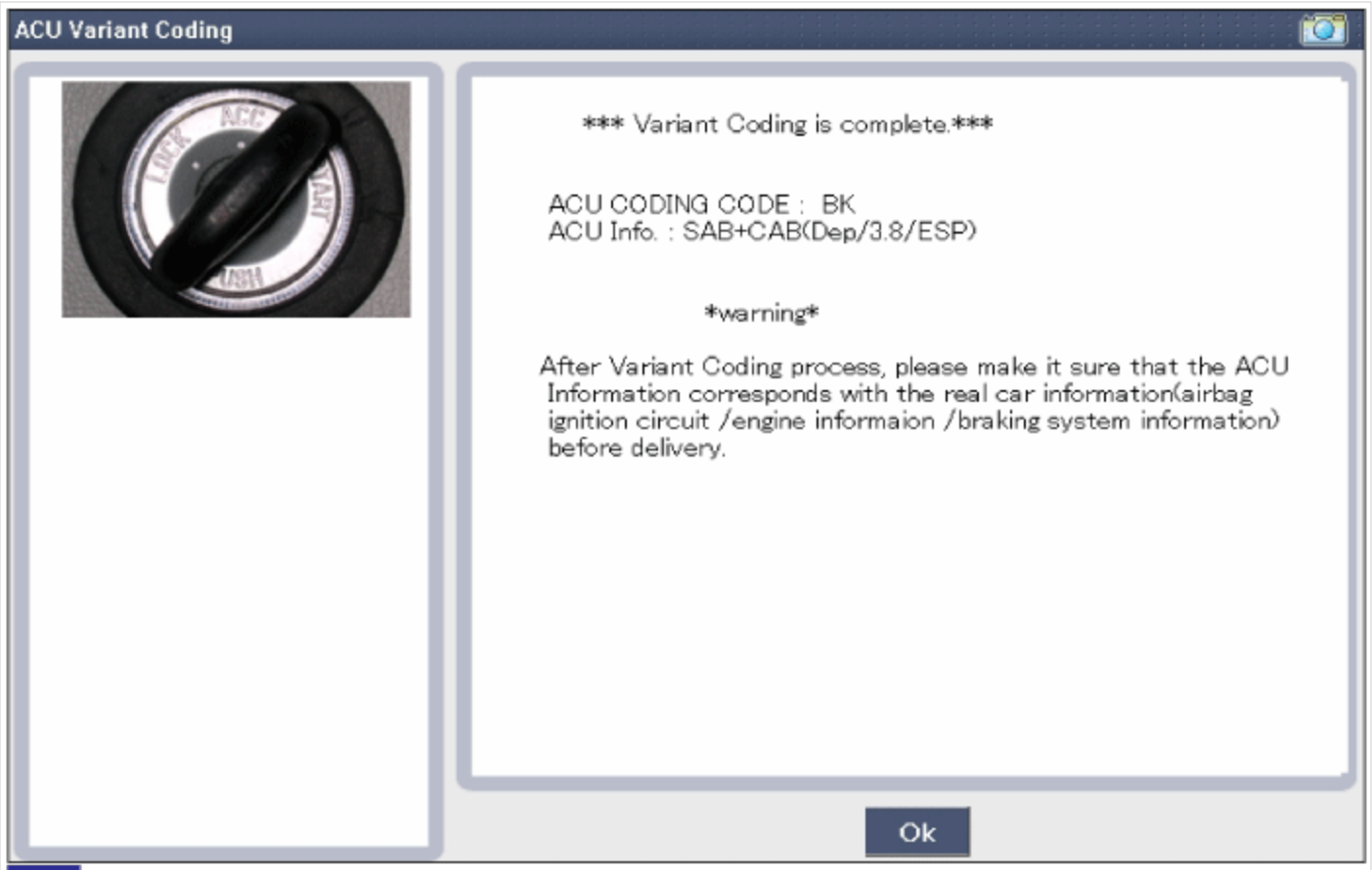


Fig.6

NOTICE

1) Screen of Retrying the Variant coding after finishing variant coding

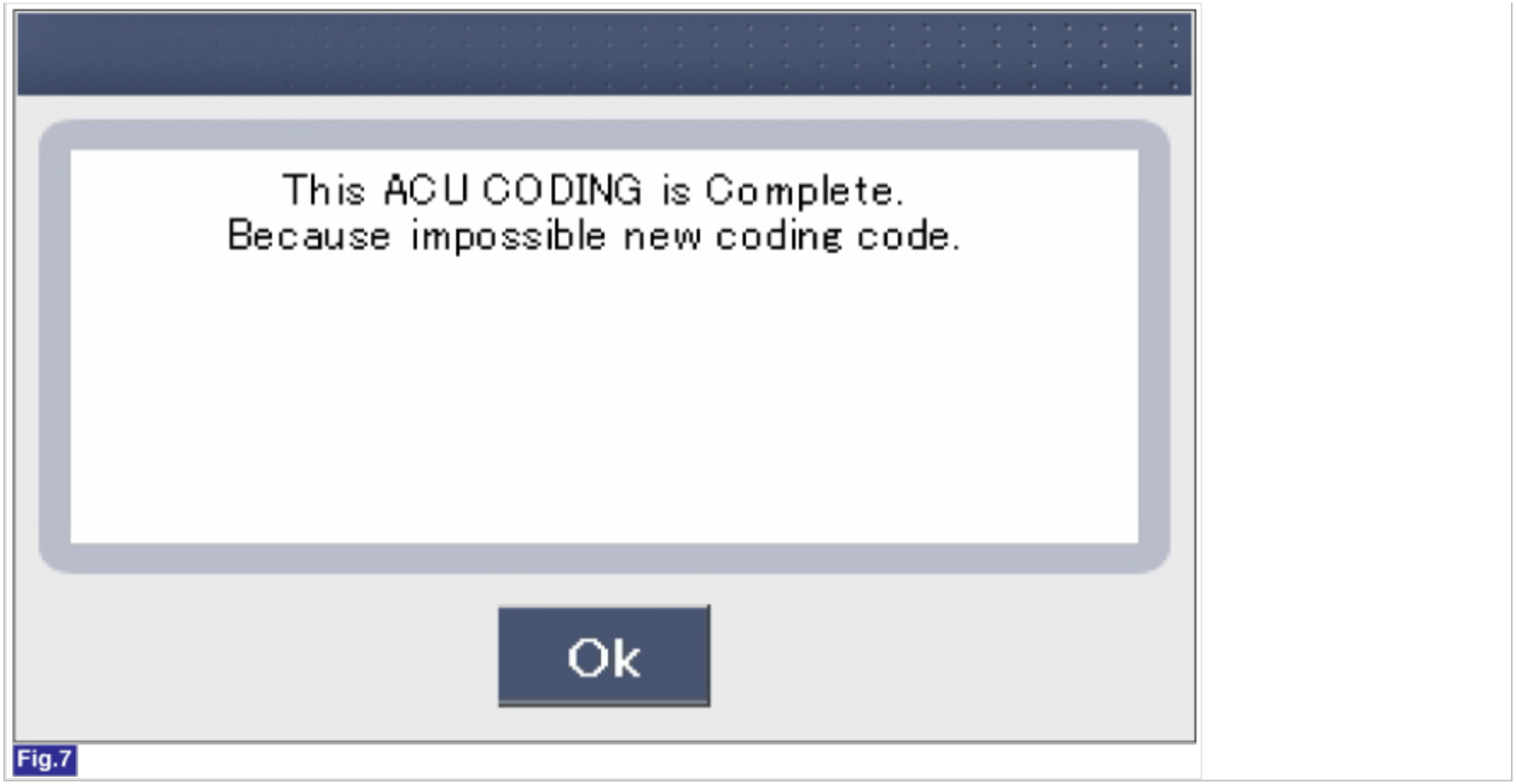
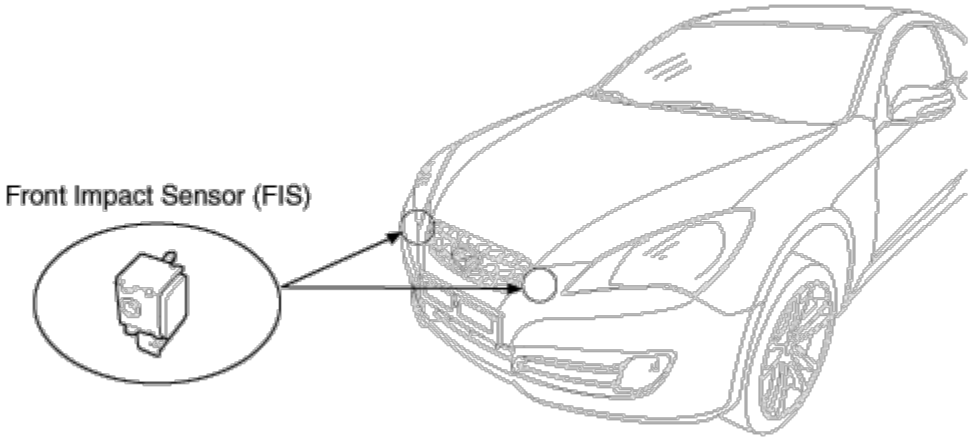


Fig.7

Description

The front impact sensor (FIS) is installed in the Front End Module (FEM). They are remote sensors that detect acceleration due to a collision at its mounting location. The primary purpose of the Front Impact Sensor (FIS) is to provide an indication of a collision. The Front Impact Sensor (FIS) sends acceleration data to the SRSCM.

Components



Installation

⚠ CAUTION

- Do not turn the ignition switch ON and do not contact the battery cable while replacing the front impact sensor.

1. Install the new Front Impact Sensor.
2. Tighten the Front Impact Sensor mounting nut.

   Tightening torque

   : 6.8 ~ 8.8 N.m (0.7 ~ 0.9 kgf.m, 5.1 ~ 6.5 lb.ft)
3. Connect the Front Impact Sensor connector and install the front bumper.
   (Refer to Body group - "Bumper")
4. Reconnect the battery negative cable.
5. After installing the Front Impact Sensor, confirm proper system operation:
   A. Turn the ignition switch ON the SRS indicator light should be turned on for about six seconds and then go off.

Description

Side Impact Sensor (SIS) system consists of two Front-SIS which are installed at each center of the front door module (LH and RH) and two Rear-SIS which are installed at each rear pillar nearby (LH and RH).

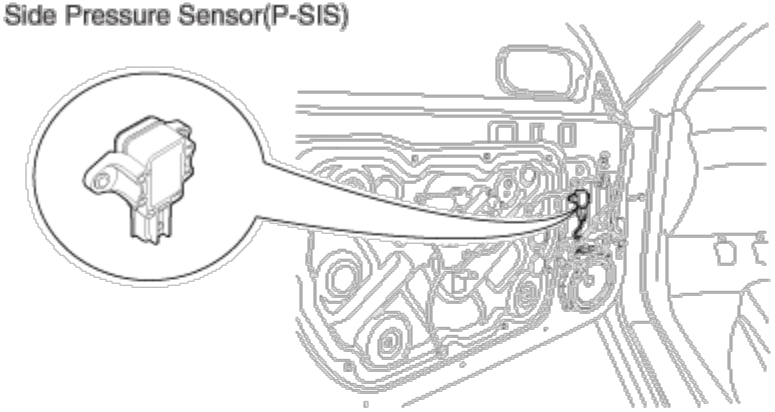
Front-Side Impact Sensor (F-SIS) is also called P-SIS because that detects pressure due to collision at its mounting location.

Rear-Side Impact Sensor (R-SIS) is also called A-SIS because that detects acceleration.
SRSCM decides deployment or not of the airbag and the time of deployment through the collision signal of SIS when the collision occurred.

Components

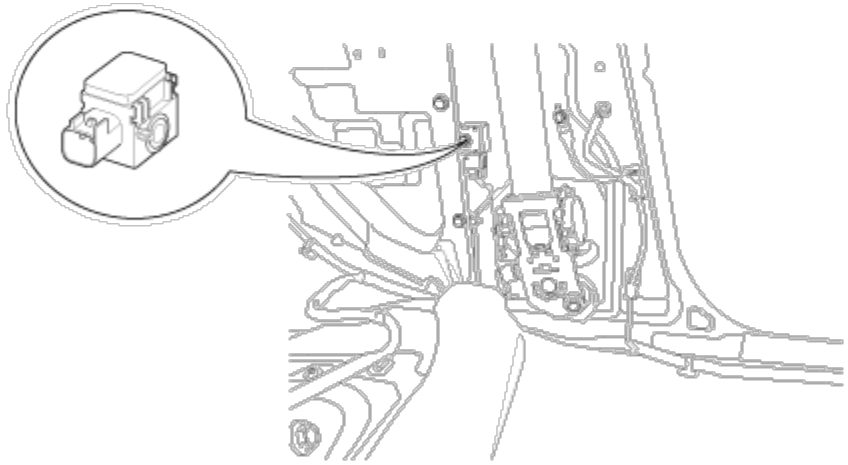
[Front]

Side Pressure Sensor(P-SIS)



[Rear]

Side Impact Sensor (SIS)



Installation

Side Pressure Sensor

⚠ CAUTION

- Do not turn the ignition switch ON and do not connect the battery cable while replacing the side impact sensor.

1. Install the new side pressure sensor with 2 rivets then connect the side pressure sensor connector.
2. Install the front door trim.
   (Refer to Body group - "Front door")
3. Reconnect the battery negative cable.
4. After installing the side pressure sensor, confirm proper system operation:
   A. Turn the ignition switch ON, the SRS indicator light should be turned on for about six seconds and then go off.

Side Impact Sensor

⚠ CAUTION

- Do not turn the ignition switch ON and do not connect the battery cable while replacing the side impact sensor.

1. Install the new side impact sensor with the bolt then connect the SRS harness connector to the side impact sensor.

   Tightening torque
   : 6.8 ~ 8.8 N.m (0.7 ~ 0.9 kgf.m, 5.1 ~ 6.5 lb.ft)
2. Install the luggage side trim.
   (Refer to Body group - "Interior trim")
3. Install the rear seat.
   (Refer to Body group - "Seat")
4. Reconnect the battery negative cable.
5. After installing the side impact sensor, confirm proper system operation:
   A. Turn the ignition switch ON, the SRS indicator light should be turned on for about six seconds and then go off.

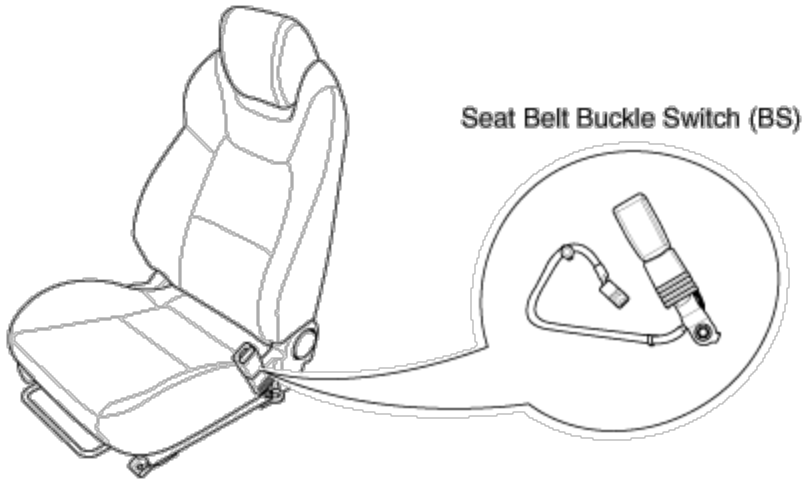
Restraint

Description

The SRSCM shall monitor the status of the driver and front passenger seat belt buckle. The SRSCM provides one pin each for the driver and front passenger seat belt buckle status input. The seat belt buckle circuit operates from internal boost voltage supplied by the SRSCM, and uses chassis ground for the signal return. The buckle status shall modify the SRSCM deployment. If the buckle status is unbuckled, the corresponding pretensioner will be deactivated.

Restraint

Components



Installation

⚠ CAUTION

Be sure to install the harness wires not to be pinched or interfered with other parts.

1. Disconnect the battery negative cable, and wait for at least three minutes before beginning work.
2. Remove the ignition key from the vehicle.
3. Install the seat belt buckle switch.

   Tightening Torque

   : 39.2 ~ 53.9 N.m (4.0 ~ 5.5 kgf.m, 28.9 ~ 39.8 lb.ft)
4. Install the front seat assembly.
   (Refer to Body group - "Seat")
5. Reconnect the battery negative cable.
6. After installing the Seat Belt Buckle Switch, confirm proper system operation:
   A. Turn the ignition switch ON; the SRS indicator should be turned on for about six seconds and then go off.

Description

The system is intended to classify the occupancy status of the front passenger seat in a motor vehicle based upon the measured force on the bottom seat cushion.

The system also communicates to the SRSCM whether to allow or inhibit the deployment of the passenger airbags and/or pretensioner based upon this status.

The System also measured dynamic responses of the occupant. This information is used to identify when a child seat is cinched down tightly with the seat belt, and to also determine if the seat is unoccupied.

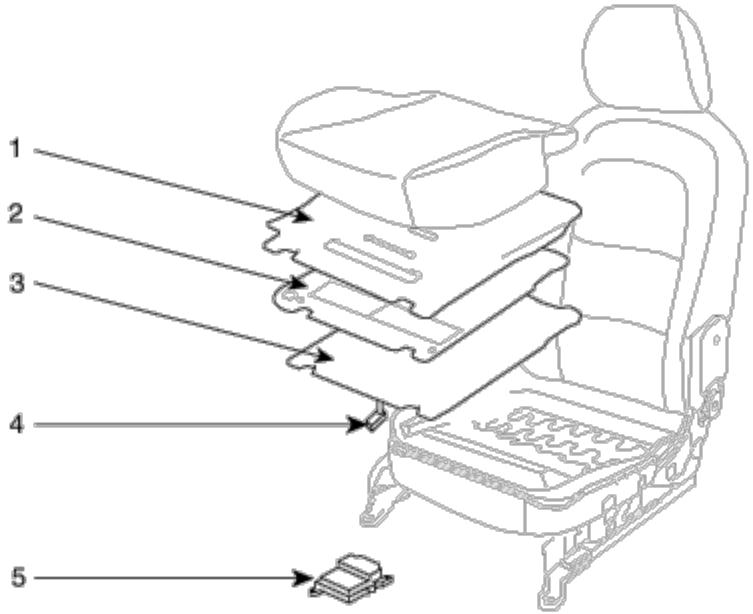
However, the dynamic measurements are not intended, nor capable of monitoring the seating position of the occupant, nor can they determine the proximity of the occupant to the inflator modules.

The system should not be confused with an occupant position recognition system, or any other occupant proximity sensor.

The Passive Occupant Detecting System (PODS) utilizes bladder placed between the passenger seat cushion and suspension to measure the occupant's loading force on the vehicle seat. The bladder is connected to pressure sensor and ultimately to an electronic control unit (ECU), both of which are mounted under the seat pan. The quantitative force determined by the system is compared to a given threshold for determination of passenger airbag suppression.

Restraint

Components



1. Bladder : Sense occupant weight and provide fluid pressure input to Pressure Sensor.
2. Backer Board : Provide stable and smooth reaction surface for Bladder, together with Felt Pad.

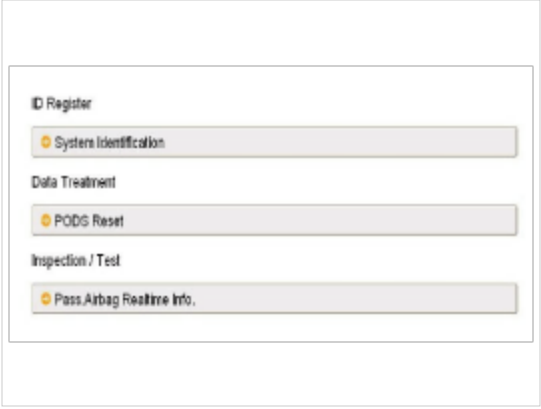
3. Felt Pad : Provide stable reaction surface for Bladder, together with Backer Board, and protect BladderAssembly from the seat frame environment.
4. Pressure Sensor : Sense pressure input from Bladder and convert the pressure input to a voltage signalfor ECU.
5. ECU : Utilizing data from the Pressure Sensor, BTS (Belt Tension sensor), and Compensation Tables,determine if PAB (Passenger Airbag) will be suppressed.

Restraint

PODS Re-zero procedure

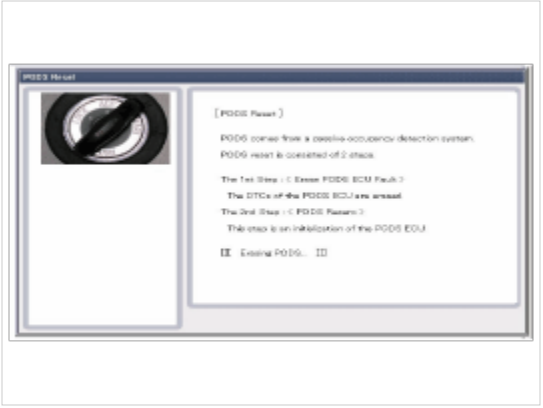
You should perform PODS Re-zero procedure after service or replacement about all part of the passenger seat.

1. Ignition “OFF”, connect scantool.
2. Ignition “ON” & Engine “OFF”, select Airbag system and “PODS Reset” mode.



3. The scantool will show the two PODS RESET function steps.
   (1) Erase PODS ECU diagnostic codes.
   (2) PODS ECU initialization.

4. Press the OK button to erase the PODS related diagnostic codes.



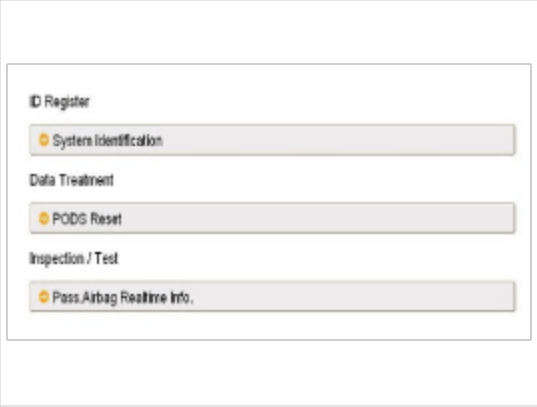
5. Press OK button to initialize the PODS.

⚠ CAUTION

This step must be done PODS re-zero, when the front passenger seat is empty.

6. The PODS initialization procedure will be performed.

7. Check PODS situation with selecting " Pass. Airbag Realtime Info" after performing PODS Reset procedure.



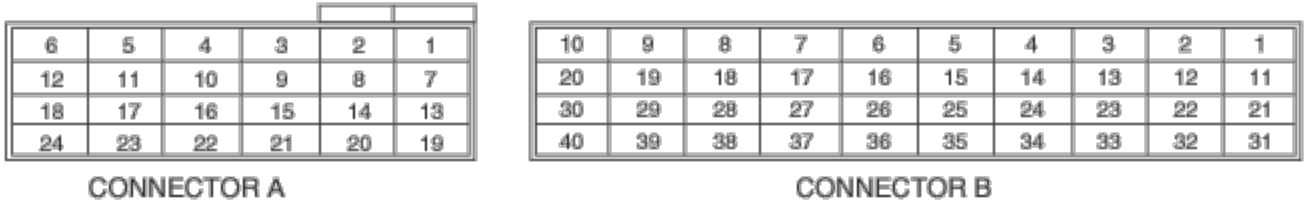
8. Perform inspection with pressing OK button.

9. Finish the procedure with pressing cancel button if there is no problem after inspecting each status as below.

Restraint

SRSCM Connector Terminal

Harness Connector



Pin	Function (Connector A)	Pin	Function (Connector B)
1	Airbag Warning Lamp (Shorting bar opener)	1	Curtain Airbag [Driver] Low
2	Power Ground (Shorting bar opener)	2	Curtain Airbag [Driver] High
3	(2nd stage) Driver Airbag Low	3	-
4	(2nd stage) Driver Airbag High	4	-
5	(1st stage) Driver Airbag High	5	-
6	(1st stage) Driver Airbag Low	6	-
7	-	7	Side Airbag [Passenger] High
8	-	8	Side Airbag [Passenger] Low
9	(2nd stage) Passenger Airbag Low	9	Seat Belt Pretensioner [Passenger] Low
10	(2nd stage) Passenger Airbag High	10	Seat Belt Pretensioner [Passenger] High

11	(1st stage) Passenger Airbag High	11	Curtain Airbag [Passenger] Low
12	(1st stage) Passenger Airbag Low	12	Curtain Airbag [Passenger] High
13	Crash Output	13	-
14	-	14	-
15	Front Impact Sensor [Driver] Low	15	-
16	Front Impact Sensor [Driver] High	16	-
17	Front Impact Sensor [Passenger] High	17	Seat Belt Pretensioner [Driver] High
18	Front Impact Sensor [Passenger] Low	18	Seat Belt Pretensioner [Driver] Low
19	CAN High (PODS and OBD)	19	Side Airbag [Driver] Low
20	CAN High (PODS and OBD)	20	Side Airbag [Driver] High
21	-	21	Side Impact Sensor [Driver] Low
22	-	22	Side Impact Sensor [Driver] High
23	Telltale Warning Lamp	23	Side Impact Sensor [Passenger] High
24	Power supply (Ignition)	24	Side Impact Sensor [Passenger] Low
		25	Seat Belt Buckle Switch [Driver] High
		26	Side Impact Sensor [Driver] High
		27	Side Impact Sensor [Driver] Low
		28	Side Impact Sensor [Passenger] Low
		29	Side Impact Sensor [Passenger] High
		30	Seat Belt Buckle Switch [Passenger] High
		31	-
		32	-
		33	-
		34	-
		35	Seat Belt Buckle Switch [Driver] Low
		36	-
		37	-
		38	-
		39	-
		40	Seat Belt Buckle Switch [Passenger] Low

Restraint

Description

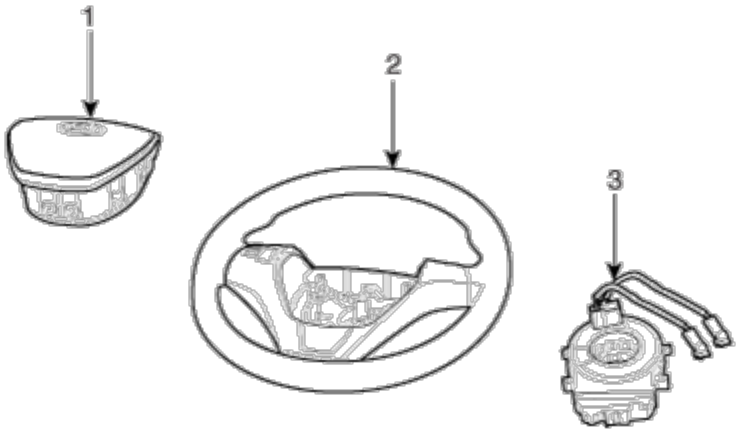
Driver Airbag (DAB) is installed in steering wheel and electrically connected to SRSCM via clock spring. It protects the driver from danger by deploying a bag when frontal crash occurs. The SRSCM determines deployment of Driver Airbag (DAB).

⚠ CAUTION

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

Restraint

Components



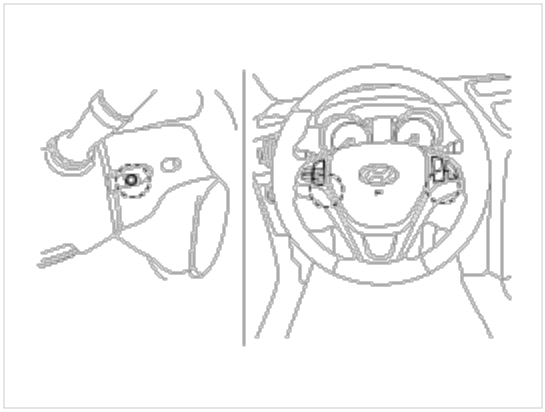
1. Driver Airbag (DAB)
2. Steering Wheel
3. Clock Spring

Restraint

Installation

1. Remove the ignition key from the vehicle.
2. Disconnect the battery negative cable from battery and wait for at least three minutes before beginning work.
3. Connect the clock spring harness connector and horn harness connector to the clock spring.
4. Set the center position by getting marks between the clock spring and the cover into line. Make an array the mark (▸◂) by turning the clock spring clockwise to the stop and then 3 revolutions counterclockwise.
5. Install the steering wheel column cover and the steering wheel. (Refer to Steering System group- Steering Column and Shaft)
6. Connect the Driver Airbag (DAB) module connector and horn connector, and then install the Driver Airbag (DAB) module on the steering wheel.
7. Secure the Driver Airbag (DAB) with the new mounting bolts.

Tightening torque
: 7.8 ~ 10.8 N.m (0.8 ~ 1.1 kgf.m, 5.8 ~ 8.0 lb.ft)



8. Connect the battery negative cable.
9. After installing the airbag, confirm proper system operation:
   A. Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.
   B. Make sure horn button works.

Restraint

Description

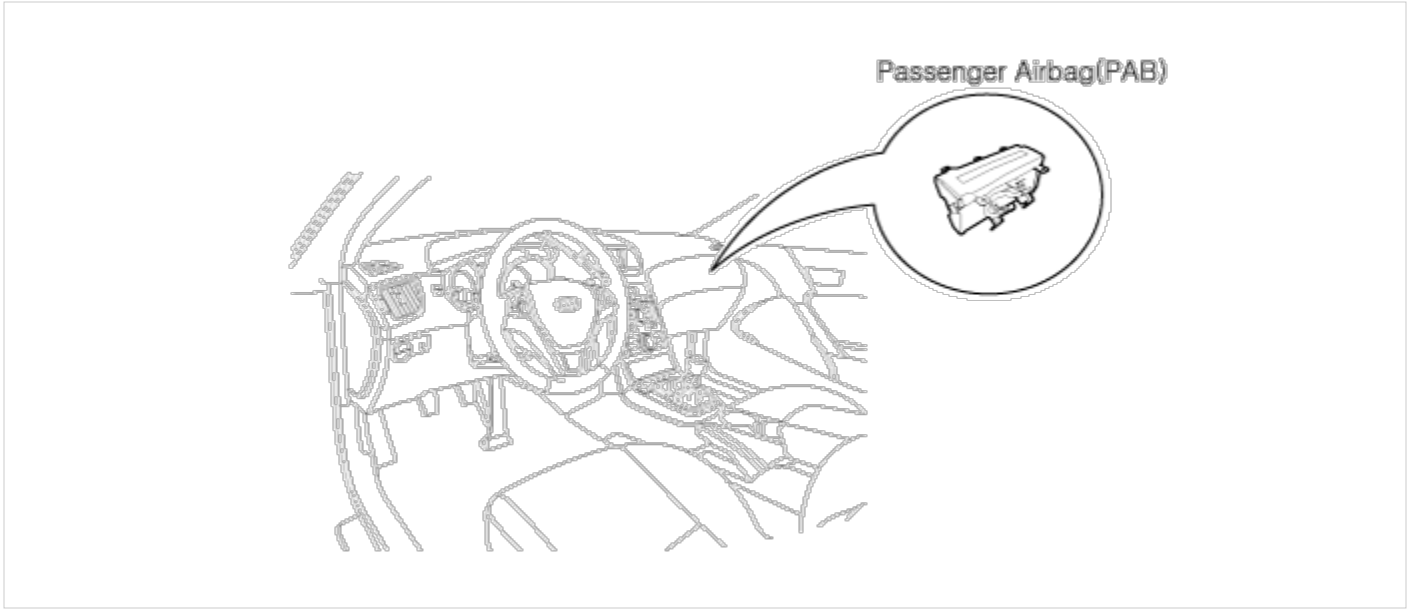
The passenger Airbag (PAB) is installed inside the crash pad and protects the front passenger in the event of a frontal crash. The SRSCM determines if and when to deploy the PAB.

⚠ CAUTION

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

Restraint

Components



Installation

1. Remove the ignition key from the vehicle.
2. Disconnect the battery negative cable from battery and wait for at least three minutes before beginning work.
3. Place a Passenger Airbag (PAB) on the crash pad and tighten the Passenger Airbag (PAB) mounting nuts.

   Tightening torque

   : 3.9 ~ 6.9 N.m (0.4 ~ 0.7 kgf.m, 2.9 ~ 5.0 lb.ft)
4. Install the heater duct to the crash pad.
5. Install the crash pad.

   (Refer to Body group - "Crash pad")
6. Tighten the PAB mounting bolt.

   Tightening torque

   : 6.9 ~ 10.8 N.m (0.7 ~ 1.1 kgf.m, 5.1 ~ 8.0 lb.ft)
7. Connect the Passenger Airbag (PAB) harness connector to the SRS main harness connector.
8. Reinstall the glove box assembly.

   (Refer to Body group - "Crash pad")
9. Reconnect the battery negative cable.
10. After installing the Passenger Airbag (PAB), confirm proper system operation:

    A. Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.

Restraint

Description

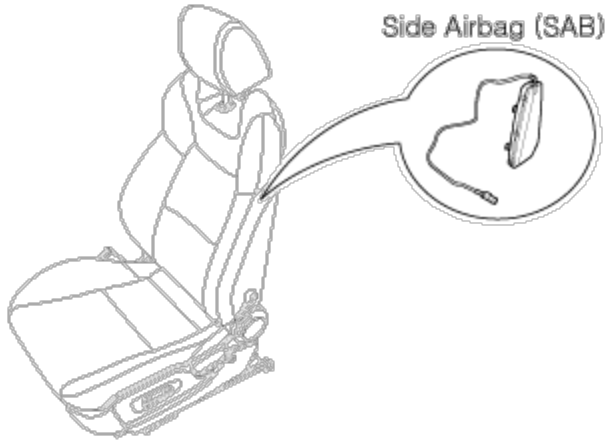
The Side Airbags (SAB) are installed inside the front seat and protect the driver and front passenger from danger when side crash occurs. The SRSCM determines deployment of side airbag by using Side Impact Sensor (SIS) signal.

⚠ CAUTION

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

Restraint

Components



Restraint

Installation

⚠ CAUTION

Be sure to install the harness wires not to be pinched or interfered with other parts.

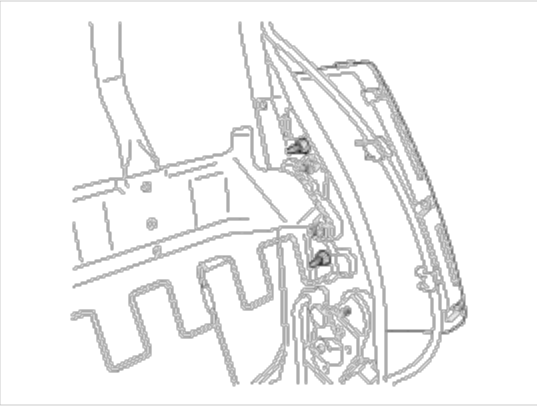
NOTICE

- Do not open the lid of the side airbag cover.
- Use a new mounting nuts when you replace a side airbag.

• Make sure that the airbag assembly cover is installed properly. Improper installation may prevent the proper deployment.

1. Remove the ignition key from the vehicle.
2. Disconnect the battery negative cable and wait for at least three minutes.
3. Place a Side Airbag (SAB) on the side airbag frame and tighten the side airbag mounting nuts (2EA).

Tightening torque
: 5.9 ~ 7.8 N.m (0.6 ~ 0.8 kgf.m , 4.3 ~ 5.8 lb.ft)



4. Install the new seat back cover.
   (Refer to Body group - "Seat")
5. Install the front seat assembly, and then connect the Side Airbag (SAB) harness connector.
6. Recline and slide the front seat forward fully, make sure the harness wires are not pinched of interfering with other parts.
7. Reconnect the battery negative cable.
8. After installing the Side Airbag (SAB), confirm proper system operation:
   A. Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.

Restraint

Description

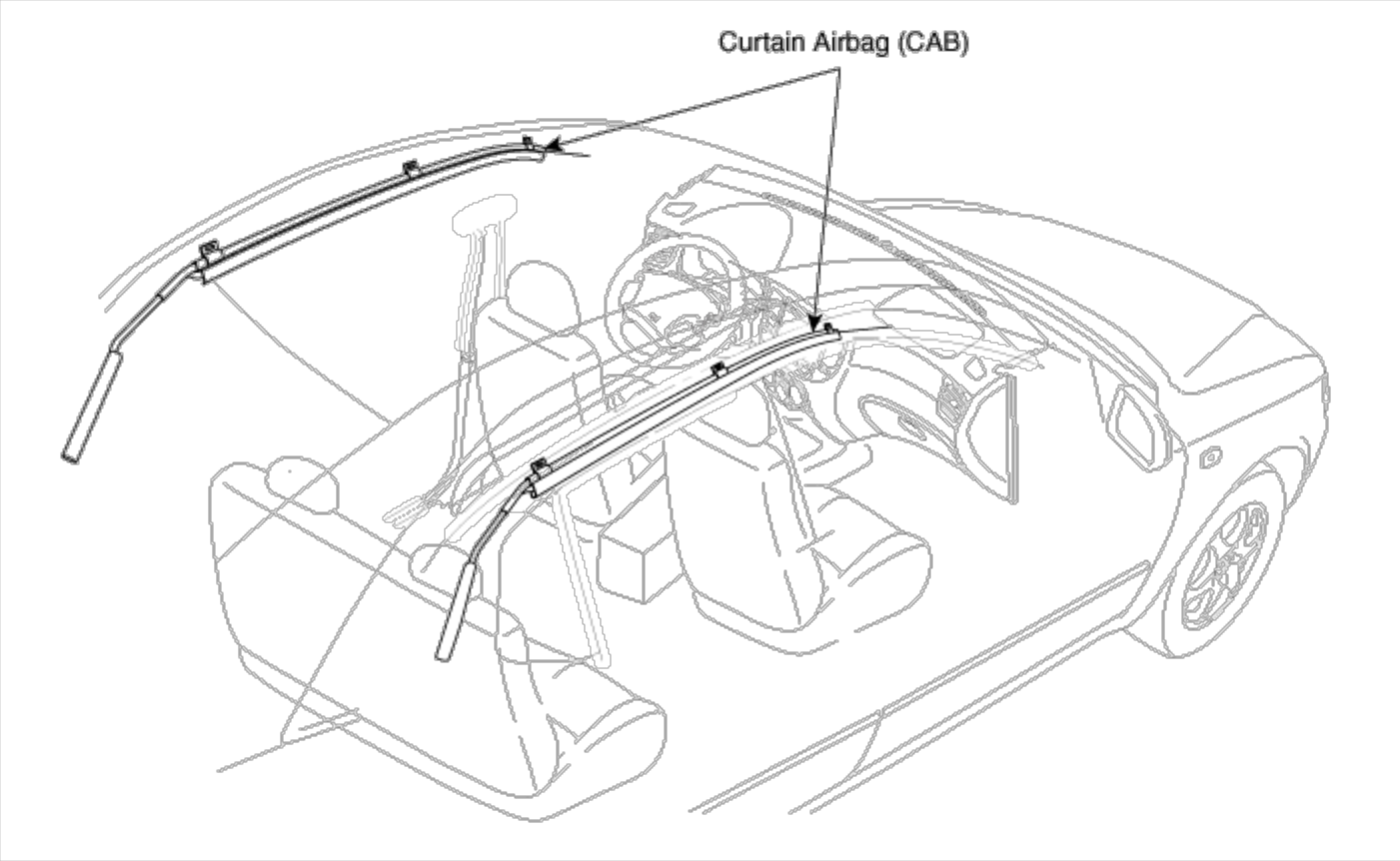
Curtain airbags are installed inside the headliner (LH and RH) and protect the driver and passenger from danger when side crash occurs. The SRSCM determines deployment of curtain airbag by using side impact sensor (SIS) signal.

⚠ CAUTION

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

Restraint

Components



Installation

1. Remove the ignition key from the vehicle.
2. Disconnect the battery negative cable and wait for at least three minutes.
3. Tighten the Curtain Airbag (CAB) mounting bolts.

   Tightening torque

   : 18.6 ~ 26.5 N.m (1.9 ~ 2.7 kgf.m, 13.7 ~ 19.5 lb.ft)

   ⚠ CAUTION

   • Never twist the airbag module when installing it. If the module is twisted, airbag module may operate abnormally.
4. Connect the CAB connector.
5. Install the following parts.