

# Restraints

## **GENERAL**

### **SRSCM (SUPPLEMENTAL RESTRAINTS SYSTEM CONTROL MODULE)**

SRSCM (SRS CONTROL MODULE)

### **AIR BAG MODULE (DRIVE SIDE) AND CLOCK SPRING**

AIR BAG MODULE (DRIVER) AND CLOCK SPRING

### **AIR BAG MODULE (PASSENGER SIDE)**

AIR BAG MODULE (PASSENGER)

### **AIR BAG MODULE (SIDE AIR BAG)**

AIR BAG MODULE (SIDE AIR BAG)

AIR BAG MODULE (CURTAIN AIR BAG)

### **SEAT BELT PRETENSIONER**

SEAT BELT PRETENSIONER

### **SRS CONTROL SYSTEM**

FRONT IMPACT SENSOR (FIS)

SIDE IMPACT SENSOR (SIS)

### **TROUBLESHOOTING**

### **AIR BAG MODULE DISPOSAL**

## GENERAL

### GENERAL E815ED21

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 pre-tensioner 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 driver and passenger seat contain the folded cushion and an inflator unit. SRSCM located on the floor under the heater core which monitors the system, an accelerometer which senses the vehicle deceleration, a spring interconnection (clock spring) 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.

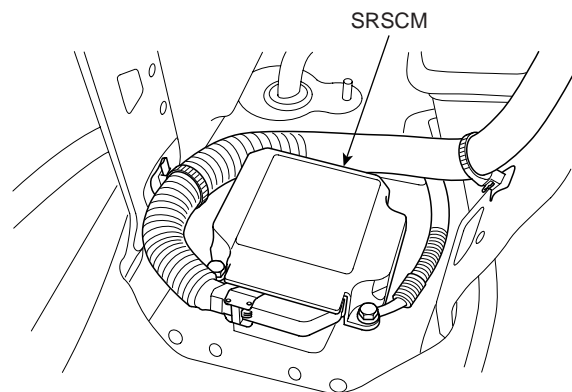
### SRSCM (SRS CONTROL MODULE)

The SRS airbag system consists of electrical and electronic. Be cautious in the airbag parts.

SRSCM will detect front impact with inside sensor, and side impact with side impact sensor, detect airbag deployment request signal, 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 inside operation voltage. If inside operation voltage is below critical value setting, it will perform re-setting.
2. Safety sensor: Safety sensor is located in airbag ignition circuit. Safety sensor will operate airbag circuit at any deployment condition and release airbag circuit safely at normal driving condition. Safety sensor is a double contact electro-mechanical switch that will close detecting deceleration above certain criteria.
3. 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.

4. Self diagnosis: SRSCM will constantly monitor current SRS operation status and detect system failure during vehicle power supply is on, system failure may be checked with trouble codes using scan too. (Hi-Scan)
5. 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 blink 7 times to indicate operation.
6. Trouble code registration: Upon error occurrence in system, SRSCM will store DTC corresponding to the error. DTC can be cleared only by Hi-Scan.
7. Self diagnostic connector: Data stored in SRSCM memory will be output to Hi-Scan or other external output devices through connector located below driver seat crash pad.
8. Once airbag is deployed, SRSCM should not be used again but replaced.
9. SRSCM will determine whether passenger has put on seat belt using built-in switch signal in seat belt buckle, and deploy front seat airbag at each set crash speed.
10. Side airbag deployment will be determined by SRSCM that will detect satellite sensor impact signal upon side crash, irrespective to seat belt condition.



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**GENERAL**

**RT -3**

**SPECIFICATION** EF676245

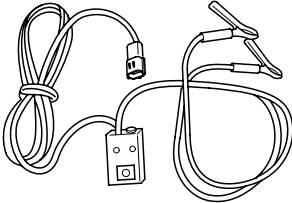
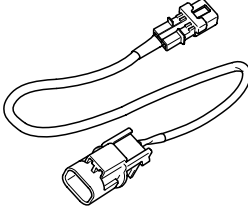
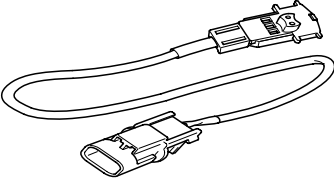
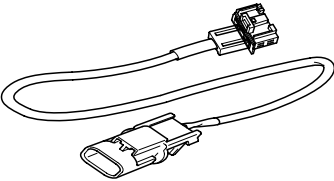
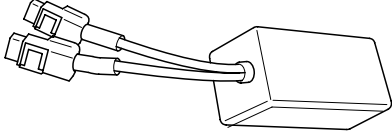
ITEM	SPECIFICATION	
Driver Airbag (DAB)	Resistance ( )	1.2 ~ 6.0
Passenger Airbag(PAB)	Resistance ( )	1.2 ~ 6.0
Side Airbag(SAB)	Resistance ( )	1.2 ~ 6.0
Curtain Airbag(CAB)	Resistance ( )	1.2 ~ 6.0
Seat Belt Pretensioner (BPT)	Resistance ( )	1.2 ~ 6.0

**TIGHTENING TORQUES** ED1FF7EE

ITEM	kgf.m	N.m	lbf.ft
Driver Airbag (DAB)	0.8 ~ 1.1	7.8 ~ 10.8	5.8 ~ 8.0
Passenger Airbag(PAB)	1.9 ~ 2.7	18.6 ~ 26.5	13.7 ~ 19.5
Side Airbag(SAB)	0.6 ~ 1	5.9 ~ 9.8	4.3 ~ 7.2
Curtain Airbag(CAB)	0.7 ~ 0.9	7 ~ 9	5.1 ~ 6.6
Seat Belt Lower Anchor Bolt (BPT)	4.0 ~ 5.5	39 ~ 54	29 ~ 40
SRSCM Mounting Bolt	0.7 ~ 0.9	7 ~ 9	5.2 ~ 6.6
Front Impact Sensor(FIS) Mounting Bolt	0.9 ~ 1.1	9 ~ 11	6.6 ~ 8.1
Side Impact Sensor(SIS) Mounting Bolt	0.9 ~ 1.1	9 ~ 11	6.6 ~ 8.1

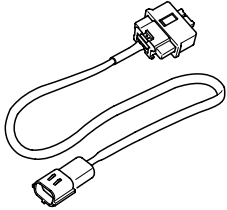
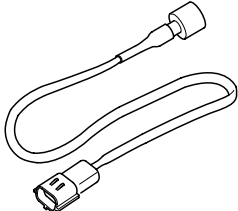
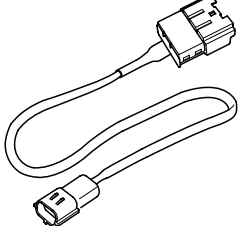
**SPECIAL SERVICE TOOLS**

EB782800

Tool(Number and Name)	Illustration	Use
Deployment tool 0957A-34100A	 <p>ARIE500A</p>	Airbag deployment tool
Deployment adapter 0957A-38100	 <p>ARIE500B</p>	Use with deployment tool.(PAB,SAB)
Deployment adapter 0957A-38500	 <p>ARIE500C</p>	Use with deployment tool.(DAB,CAB,BPT)
Deployment adapter 0957A-2E210	 <p>ARIE501B</p>	Use with deployment tool.(BUPT)
Dummy 0957A-38200	 <p>ARIE500D</p>	Simulator to check the resistance of each wiring harness

**GENERAL**

**RT -5**

Tool(Number and Name)	Illustration	Use
Dummy adapter 0957A-38300	  <p style="text-align: right;">ARIE500E</p>	Use with dummy(PAB,SAB)
Dummy adapter 0957A-1C000	  <p style="text-align: right;">ARIE500F</p>	Use with dummy(DAB,CAB,BPT)
Dummy adapter 0957A-2E200	  <p style="text-align: right;">ARIE501C</p>	Use with dummy(BUPT)

DAB : Driver Airbag  
PAB : Passenger Airbag  
SAB : Side Airbag  
BPT : Belt Pretensioner  
BUPT: Buckle Pretensioner

**PRECAUTIONS** EA7AE1BC

**GENERAL PRECAUTIONS**

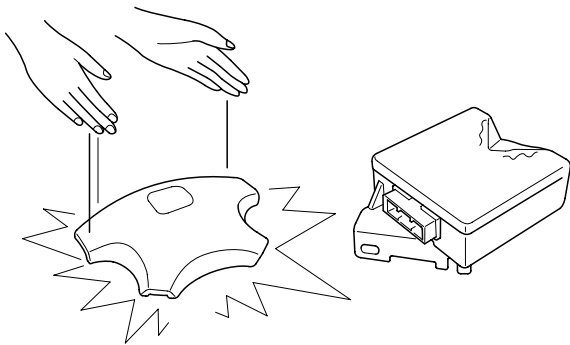
Please read the following precautions carefully before performing the airbag system service. Observe the instructions described in this manual, or the airbags could accidentally deploy and cause damage or injuries.

- 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.

 **NOTE**

*The contents in the memory is 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.



ERKD002V

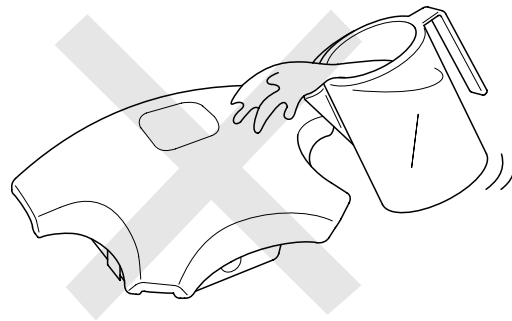
- Before removing any of the SRS parts (including the disconnection of the connectors), always disconnect the SRS connector.

**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.



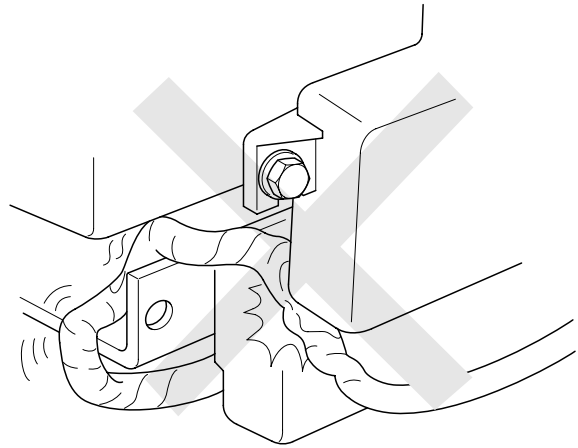
ERKD002Z

- Store the removed airbag on secure, flat surface away from any high heat source (exceeding 200°F/93°C).
- 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 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. The airbags could accidentally deploy and cause damage or injury.
- After a collision in which the airbags were deployed, replace the front airbags and the SRS unit. After a collision in which the side airbag was deployed, replace the side airbag, the front impact sensor and side impact sensor on the side where the side airbag deployed and the SRS unit. 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 (less than 104°F/40°C) and dry (less than 80% relative humidity, no moisture) area.

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

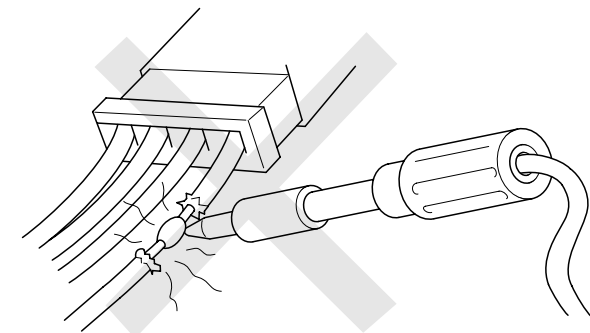


### WIRING PRECAUTIONS

SRS wiring can be identified by special yellow outer covering (except the SRS circuits under the front seats). Observe the instructions described in this section.

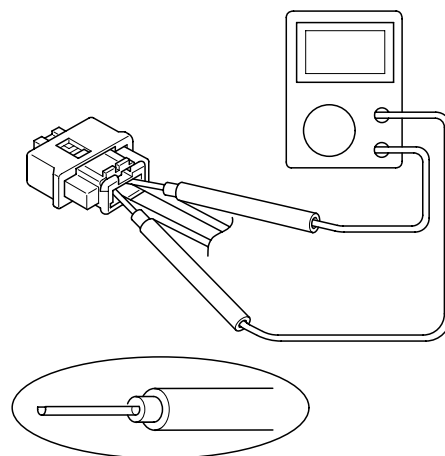
- Never attempt to modify, splice, or repair SRS wiring. If there is an open or damage in SRS wiring, replace the harness.

- 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.



ERKD002Y

ERKD002X

ERKD002W

- 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.

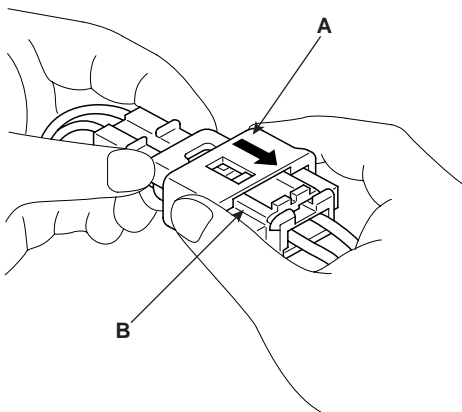
### SPRING-LOADED LOCK CONNECTOR

Some SRS system connectors have a spring-loaded lock.

### AIRBAG CONNECTOR(I)

#### DISCONNECTING

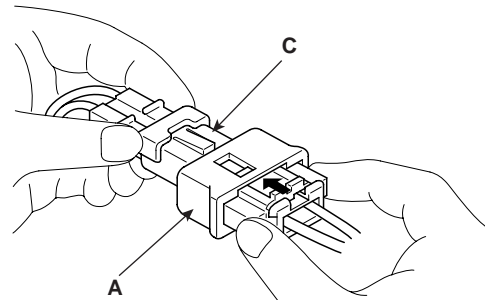
To release the lock, pull the spring-loaded sleeve (A) toward the stop (B) while holding the opposite half of the connector. Then pull the connector halves apart. Be sure to pull on the sleeve and not on the connector half.



ERKD511A

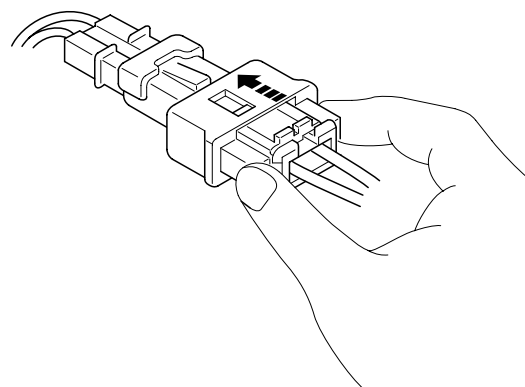
#### CONNECTING

1. To reconnect, hold the pawl-side connector half, and press on the back of the sleeve-side connector half in the direction shown. As the two connector halves are pressed together, the sleeve (A) is pushed back by the pawl (C). Do not touch the sleeve.



ERKD511B

2. When the connector halves are completely connected, the pawl is released, and the spring-loaded sleeve locks the connector.

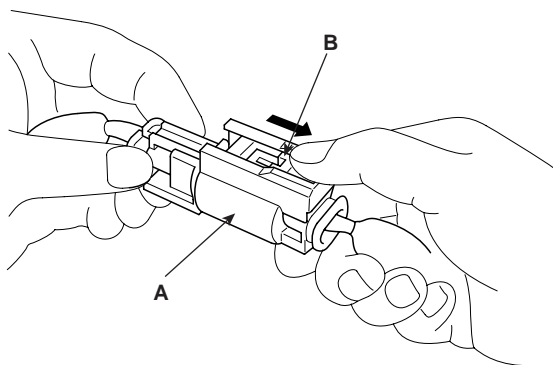


ERKD511C

**AIRBAG CONNECTOR(II)**

**DISCONNECTING**

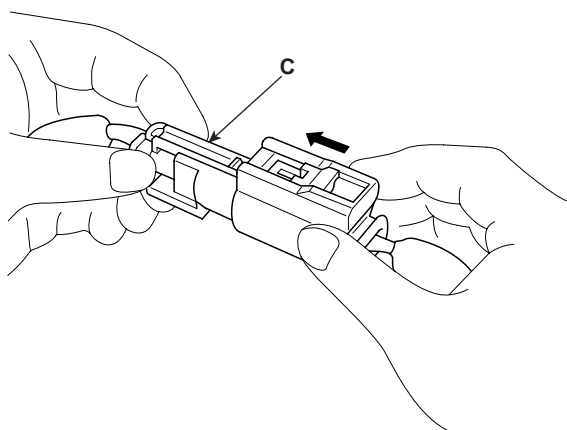
To release the lock, pull the spring-loaded sleeve (A) while pressing the slider (B), while holding the opposite half of the connector. Pull the connector halves apart. Be sure to pull on the sleeve and not on the connector half.



ERKD511D

**CONNECTING**

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

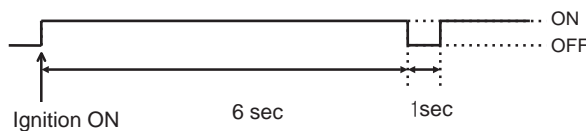


ERKD511E

**WARNING LAMP ACTIVATION**

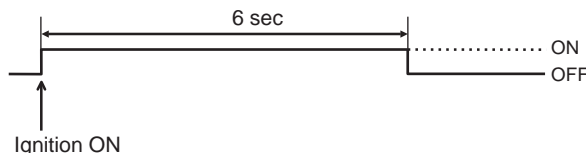
E5401ABF

1. active fault or more than 10 faults are memorized
  - a. warning lamp turns on continuously after IG ON.
  - b. warning lamp turns off for 1 second.
  - c. warning lamp turns on continuously.



LRIF500A

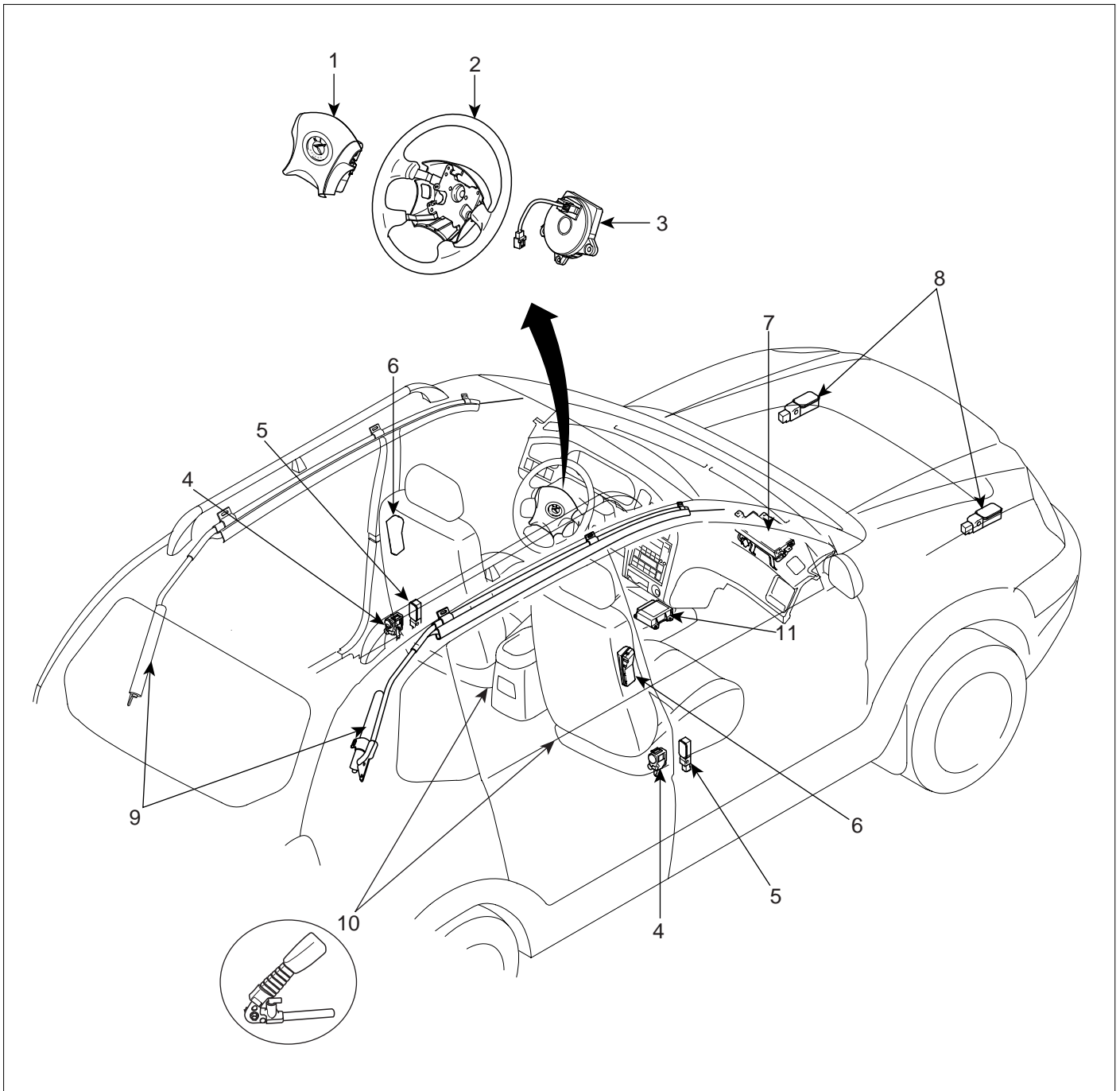
2. No current fault or Less than 10 faults are memorized
  - a. warning lamp turns on continuously after IG ON.
  - b. warning lamp turns off continuously.



LRIF500B

**AIRBAG SYSTEM** EFBCD158

**COMPONENTS**



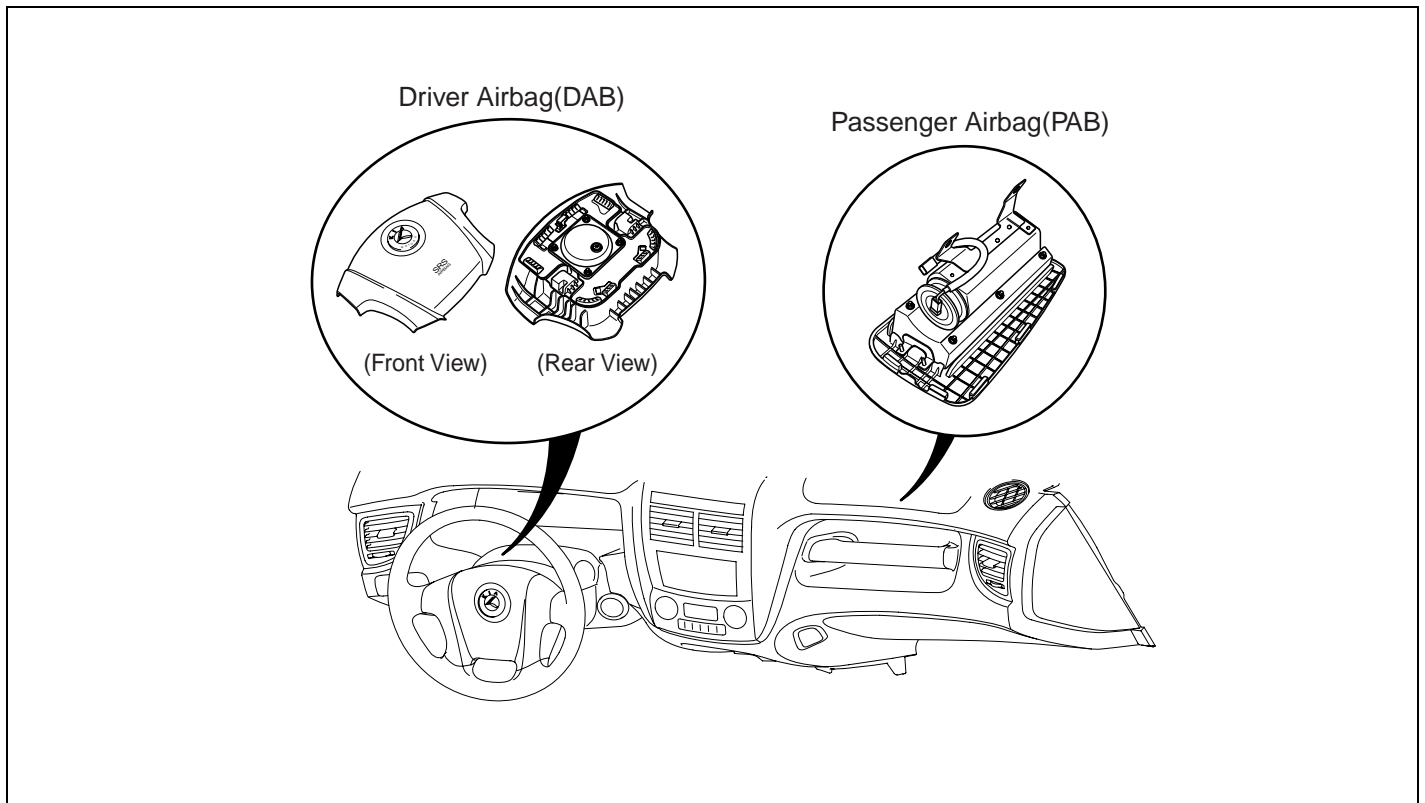
- 1. Driver Airbag (DAB)
- 2. Steering Wheel
- 3. Clock Spring
- 4. Seat Belt Pretensioner (BPT)
- 5. Side Impact Sensor (SIS)
- 6. Side Airbag (SAB)

- 7. Passenger Airbag (PAB)
- 8. Front Impact Sensor (FIS)
- 9. Curtain Airbag (CAB)
- 10. Buckle Pretensioner (BUPT)
- 11. Airbag Control Module (SRSCM)

LRIF500C

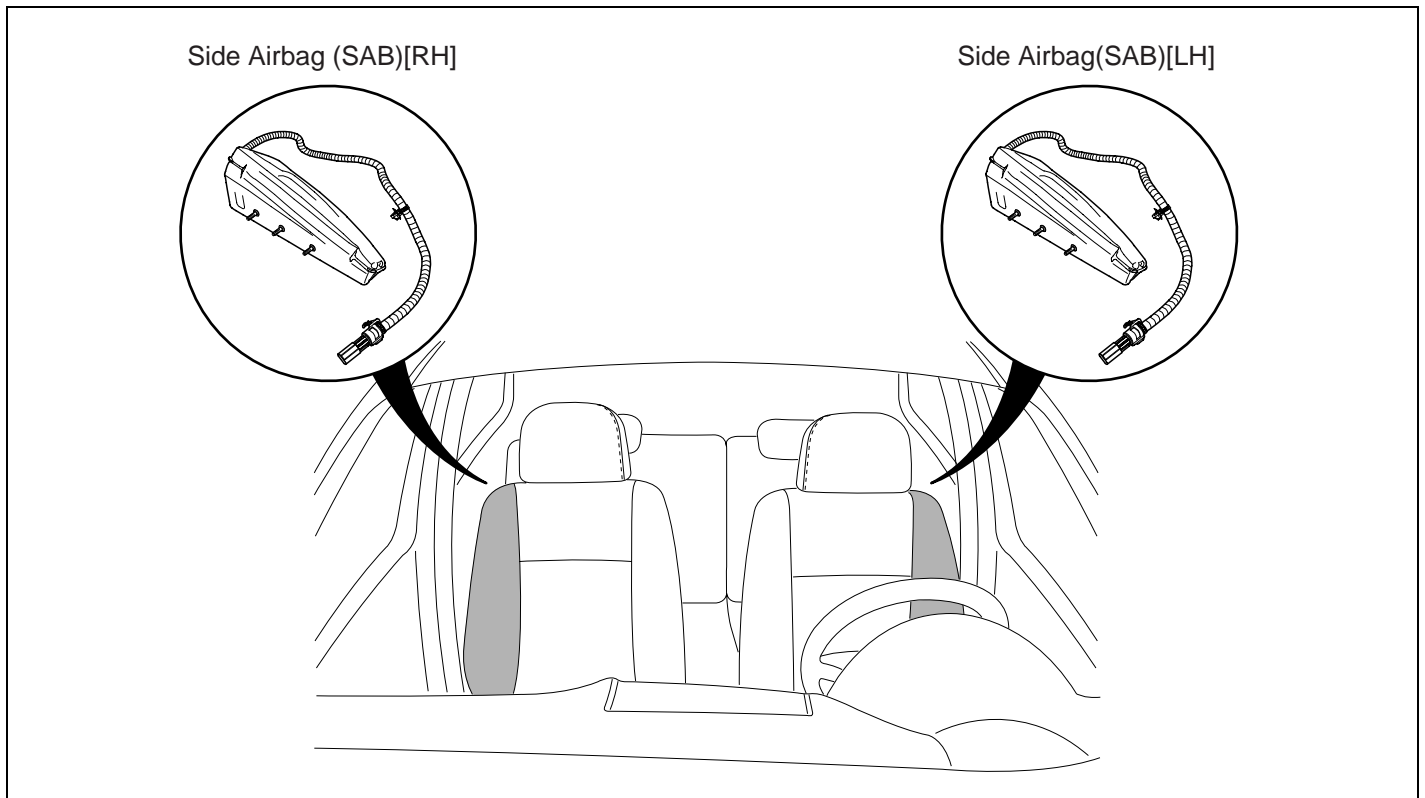
COMPONENTS LOCATION

DRIVER AIRBAG(DAB)/PASSENGER AIRBAG(PAB)



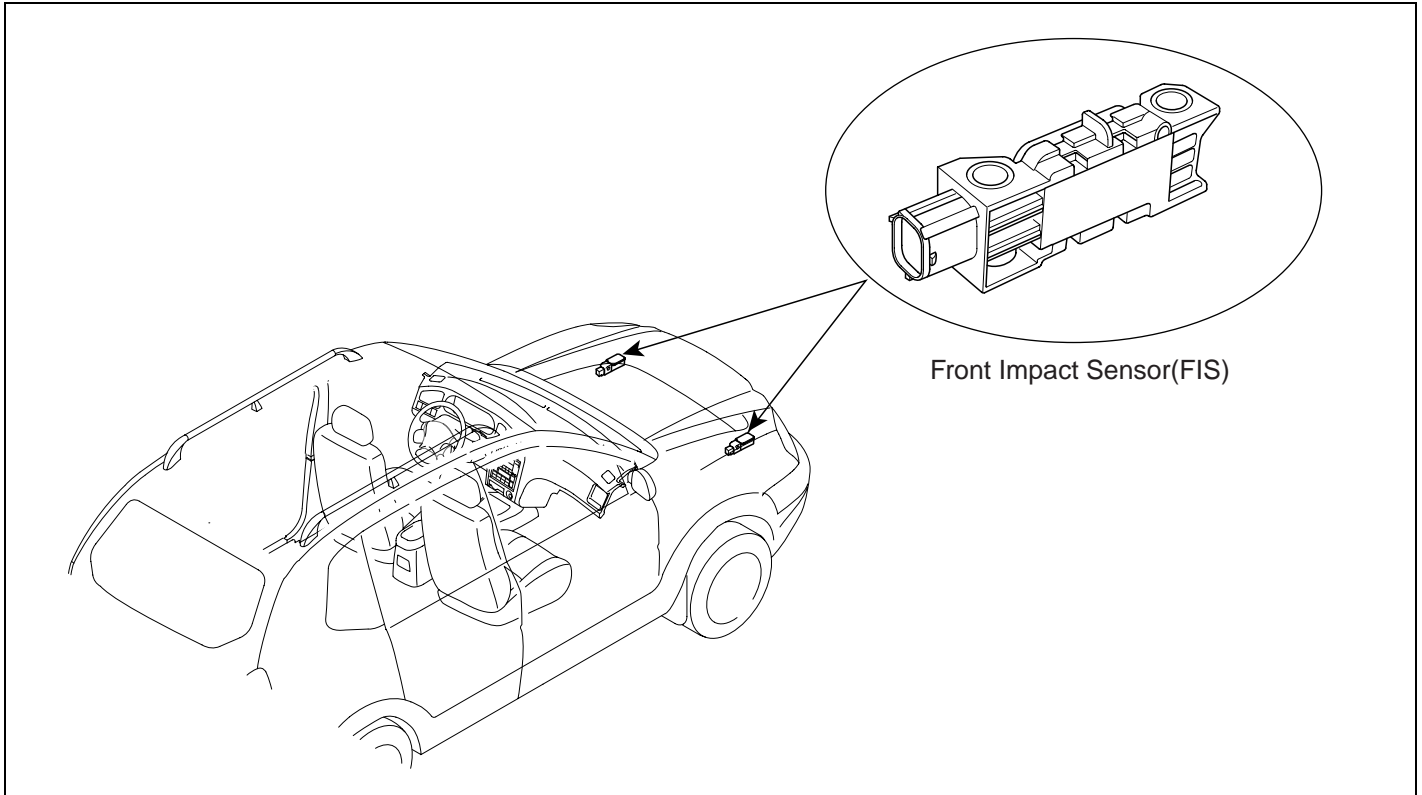
LRIF500D

SIDE AIRBAG (SAB)



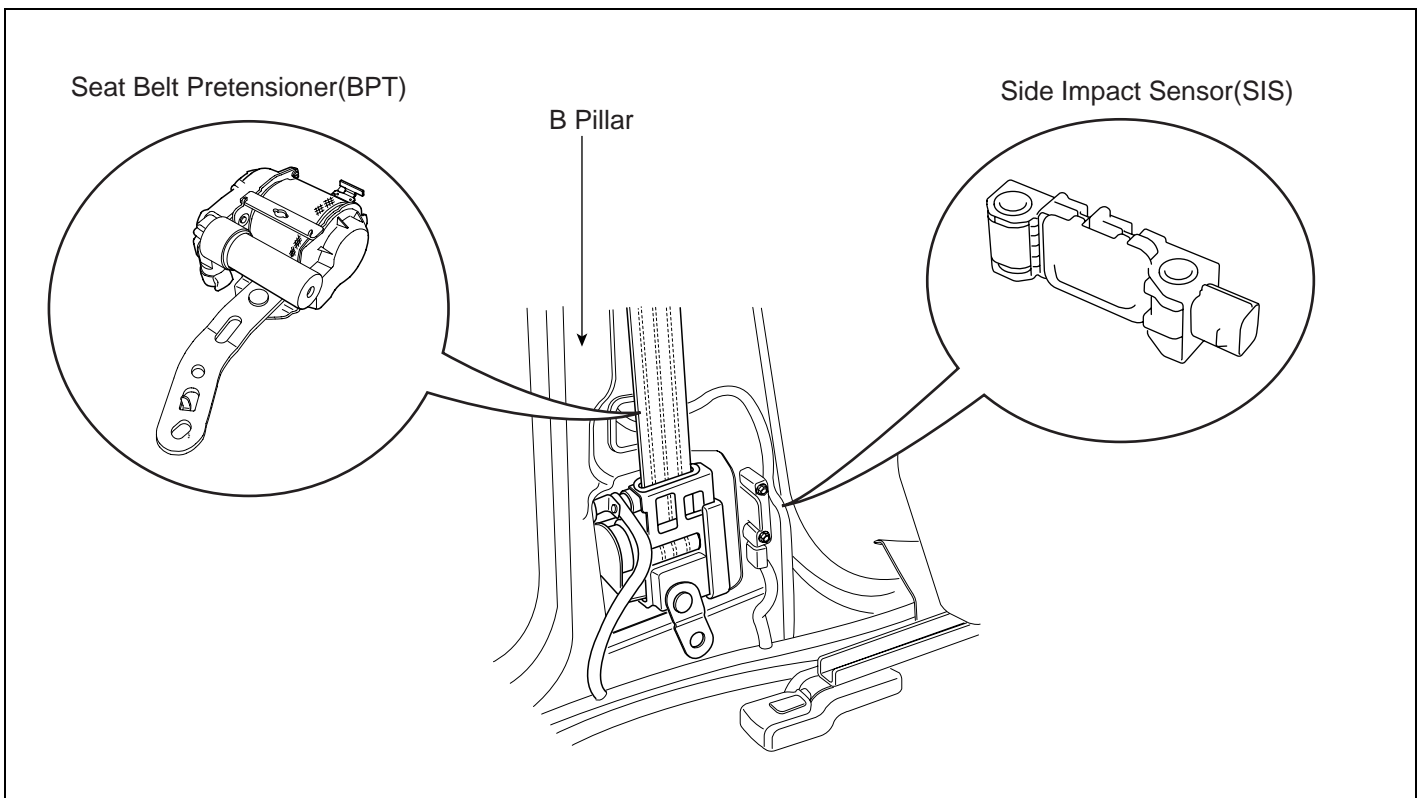
LRIF500E

FRONT IMPACT SENSOR(FIS)



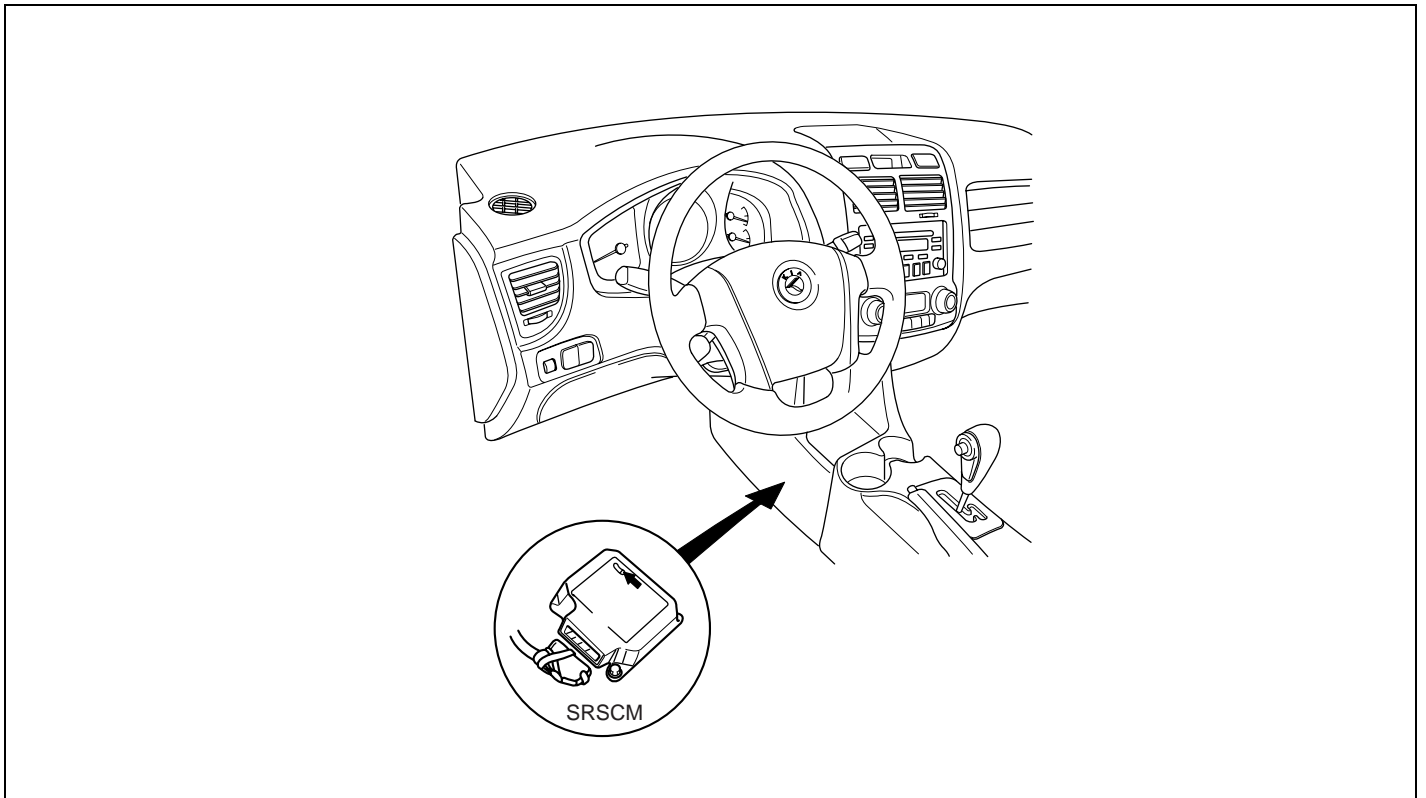
LRIF500F

SEAT BELT PRETENSIONER(BPT) / SIDE IMPACT SENSOR(SIS)



LRIF500G

SRSCM



ARIE102E

## SRSCM (SUPPLEMENTAL RESTRAINTS SYSTEM CONTROL MODULE)

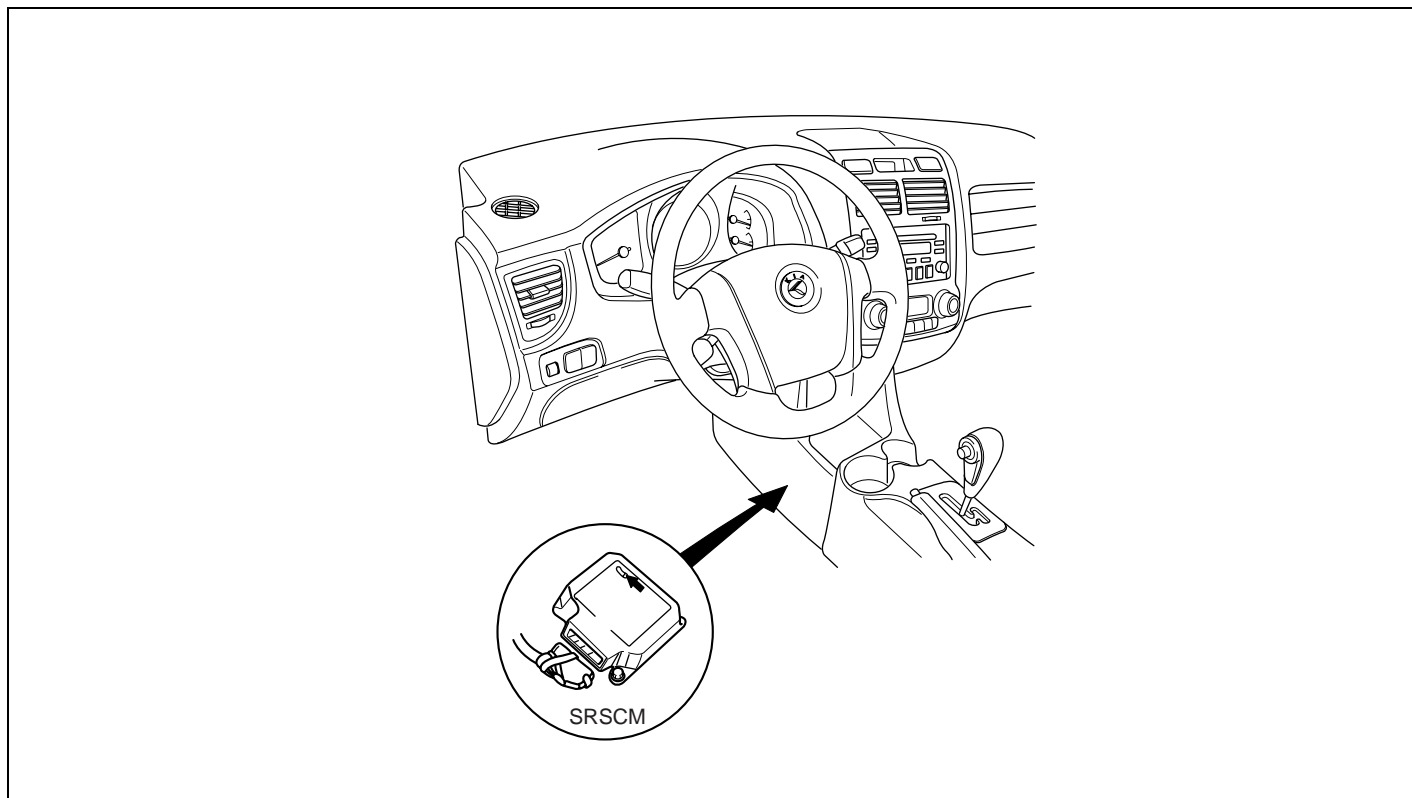
### SRSCM (SRS CONTROL MODULE)

#### DESCRIPTION EA74D00E

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 if and when to deploy the restraint system pretensioners and airbags. 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.

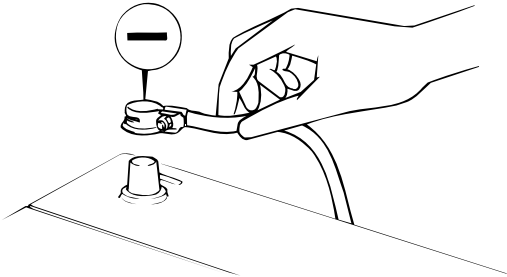
#### COMPONENTS



ARIE102E

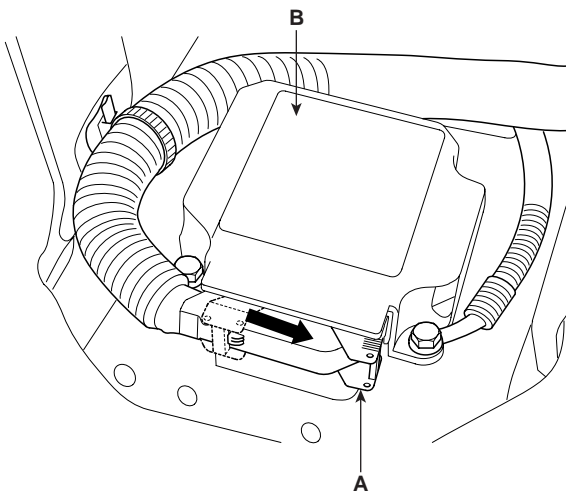
**REMOVAL** E79AAD5E

1. Disconnect the negative(-) cable from battery and wait for at least 30 seconds.



ARCD512A

2. Remove ignition key from the vehicle.
3. Remove the center console.(Refer to "BD" group in this Workshop Manual).
4. Disconnect the SRSCM harness connector (A) from the SRSCM(B).Then remove the SRSCM(B).



LRIF501W

**INSTALLATION** EB0A09BA

1. Install the new SRSCM.
2. Install the console.
3. Reconnect the airbag connectors.
4. Reconnect the battery negative cable.
5. After installing the SRSCM, confirm proper system operation :
  - Turn the ignition switch ON; the SRS indicator light should blink for about six seconds and then go off.

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SRSCM mounting bolt :  
0.7~0.9 kgf.m(7~9N.m ,5.2~6.6lb.ft)

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## AIR BAG MODULE (DRIVE SIDE) AND CLOCK SPRING

## AIR BAG MODULE (DRIVER) AND CLOCK SPRING

### DESCRIPTION E6EDD2BE

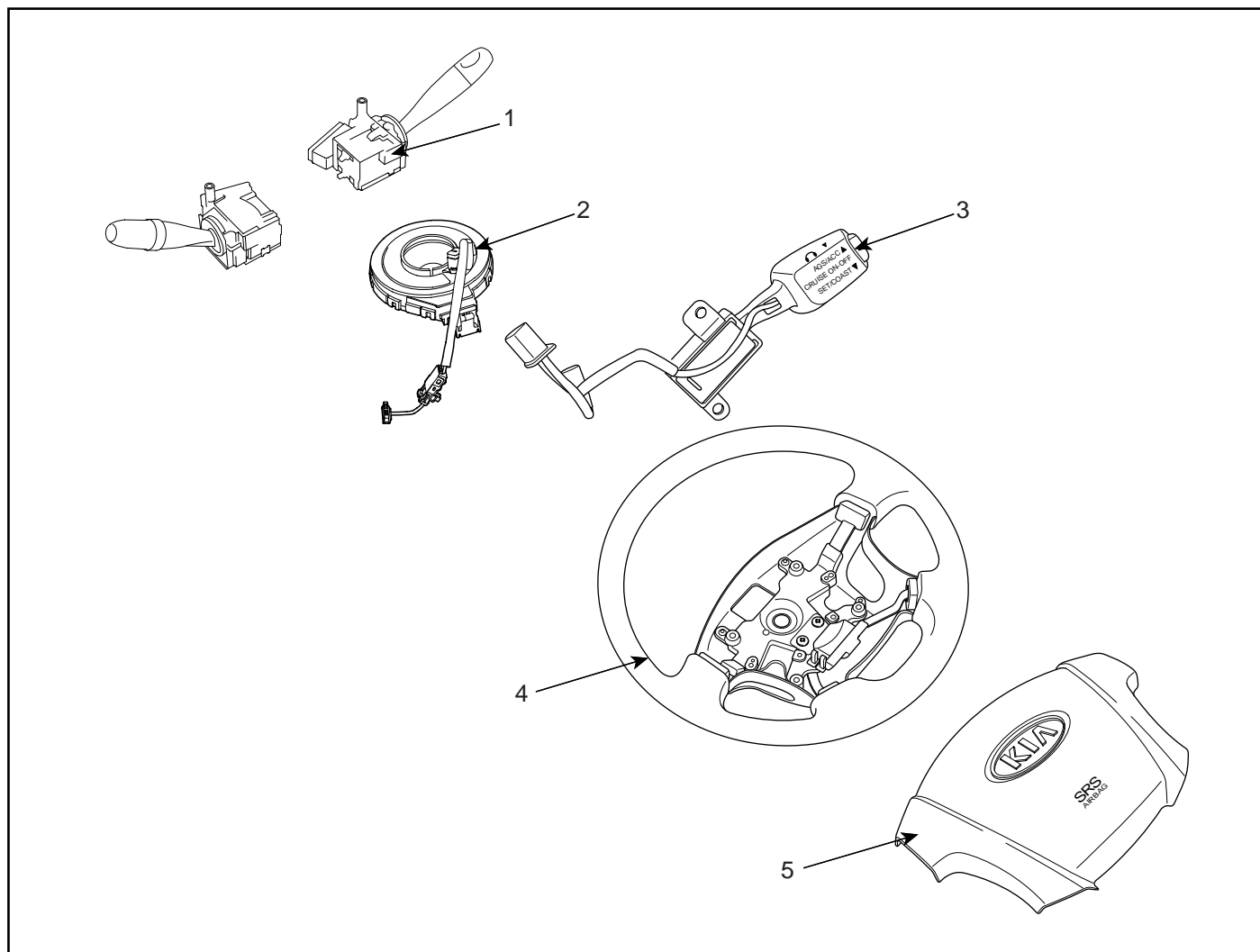
Driver Airbag (DAB) is installed in steering wheel and electrically connected to SRSCM via clockspring. It protects the driver from danger with deploying a bag

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.*

### COMPONENTS EE3D5DDC



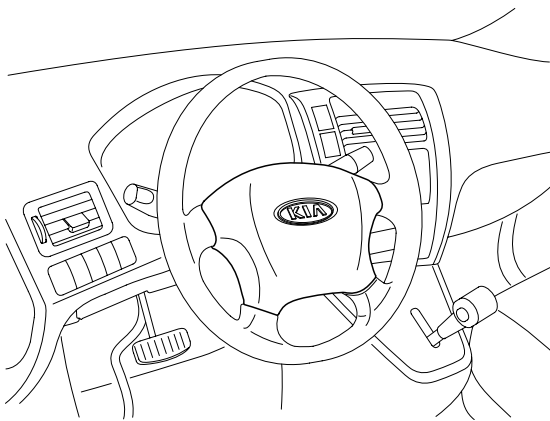
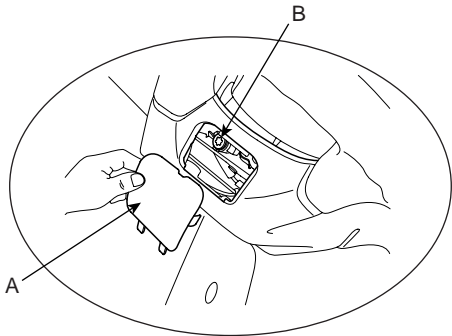
- 1. Multi-Function Switch
- 2. Clock Spring
- 3. Auto Cruise Switch

- 4. Steering Wheel
- 5. Driver Airbag(DAB)

**REMOVAL** EA2E37E8

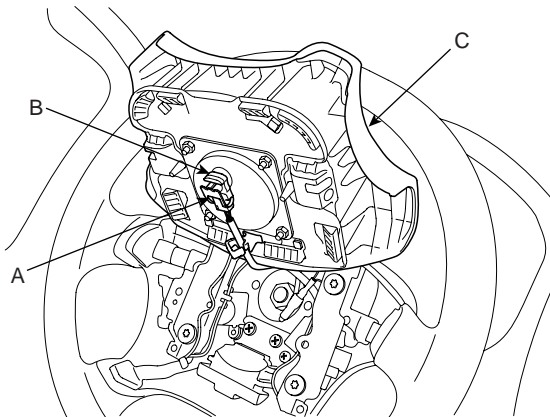
**DAB REMOVAL**

1. Disconnect the battery negative cable and wait at least three minutes before beginning work.
2. After removing the cover (A), then loosen the two Torx bolt (B).



LRIF500J

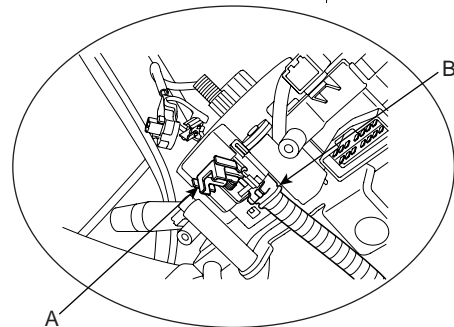
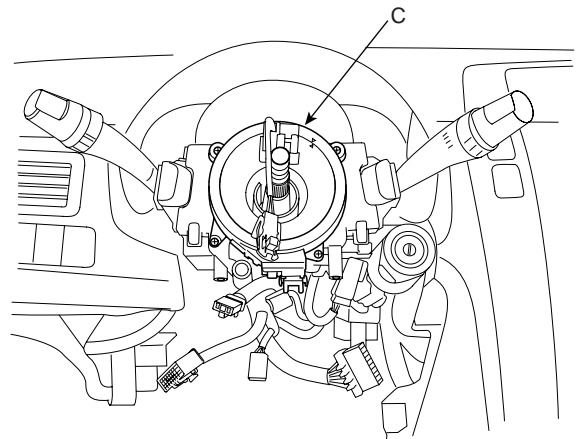
3. Remove the driver's airbag from the steering wheel, then disconnect the driver's airbag connectors.



LRIF500K

**CLOCK SPRING REMOVAL**

1. Disconnect the negative battery cable, and wait at least 30 seconds before beginning work.
2. Remove the DAB (See page RT- 18).
3. Remove the steering wheel (See page ST- Steering wheel group).
4. After disconnecting the lock pin (A), disconnect the connector (B).
5. Loosen the mounting screw (C), then remove the clock spring (D).



LRIF500L

6. Installation is the reverse of removal.

**NOTE**

After installing the clock spring, confirm proper system operation; Turn the ignition switch ON: the SRS indicator light should blink for about 6 seconds and then go off.

**INSTALLATION** EDB94EEB

1. Connect the driver's airbag connectors, then install the driver's airbag on the steering wheel.
2. Secure the airbag with the new Torx bolts.
3. Connect the battery negative cable.
4. After installing the airbag, confirm proper system operation:
  - Turn the ignition switch ON; the SRS indicator light should blink for about six seconds and then go off.
  - Make sure both horn buttons work.
5. Enter the customer's preset radio stations.

**INSPECTION** EAC957FD

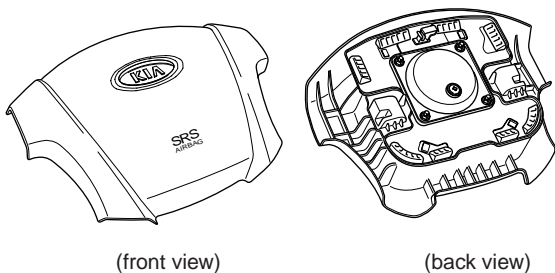
**DRIVER AIRBAG (DAB)**

If any improper parts are found during the following inspection, replace the airbag module with a new one.

**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.**

1. Check pad cover for dents, cracks or deformities.
2. Check the airbag module for denting, cracking or deformation.
3. Check hooks and connectors for damage, terminals for deformities, and harness for binds.
4. Check airbag inflator case for dents, cracks or deformities.

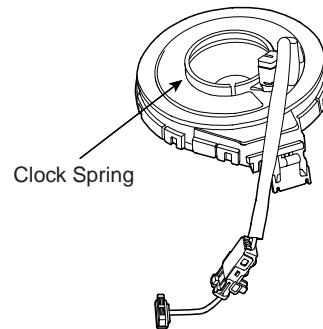
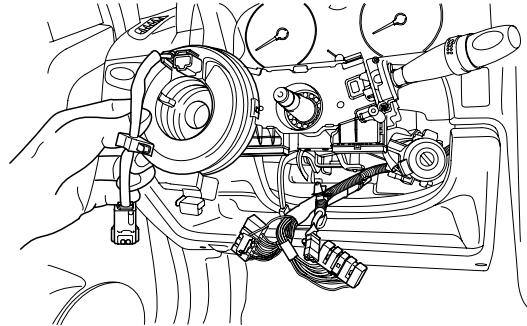


LRIF500M

5. Install the airbag module to the steering wheel to check for fit or alignment with the wheel.

**CLOCKSPRING**

1. If, as a result of the following checks, even one abnormal point is discovered, replace the clock spring with a new one.
2. Check connectors and protective tube for damage, and terminals for deformities.



LRIF501R

## AIR BAG MODULE (PASSENGER SIDE)

### AIR BAG MODULE (PASSENGER)

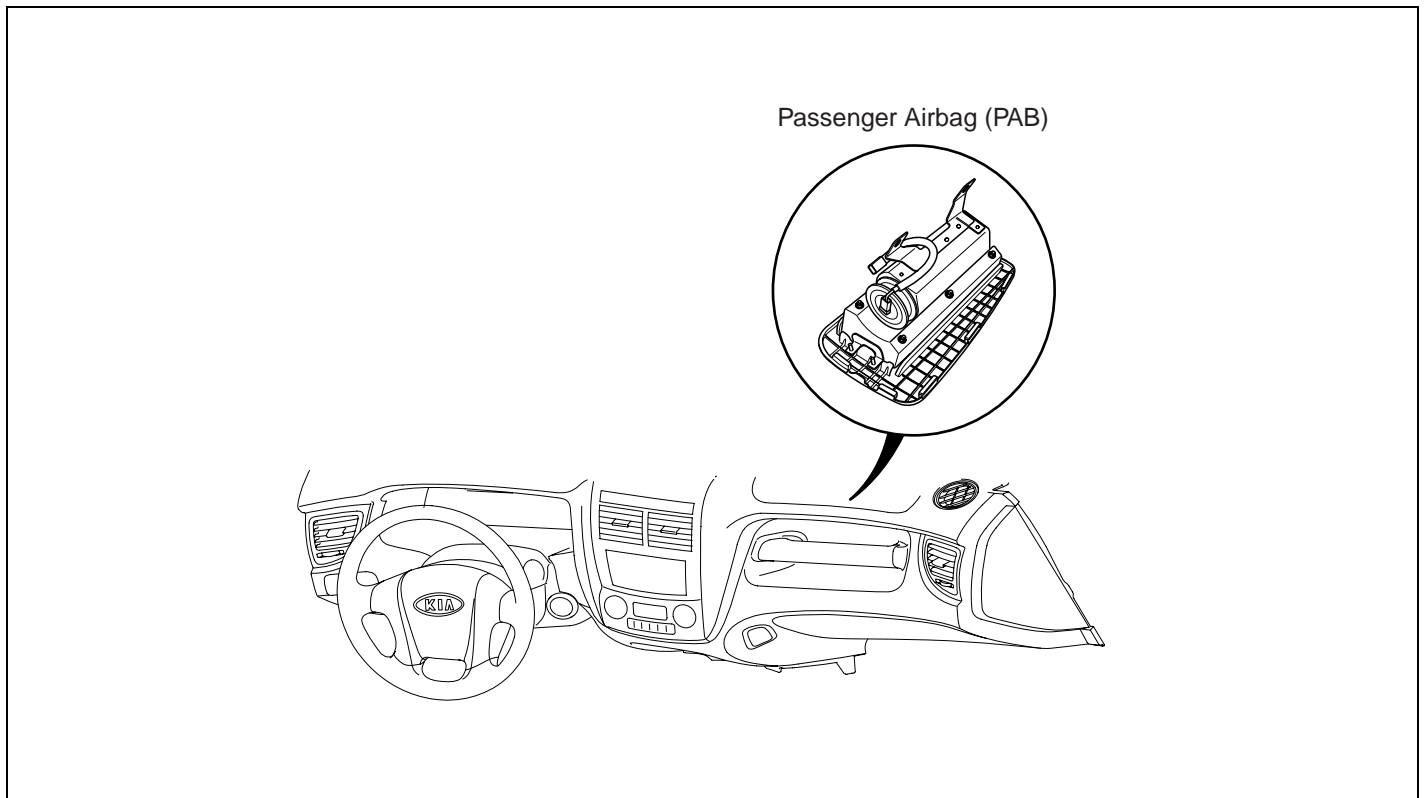
#### DESCRIPTION E7EE133C

The passenger Airbag (PAB) is installed inside the dash 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.*

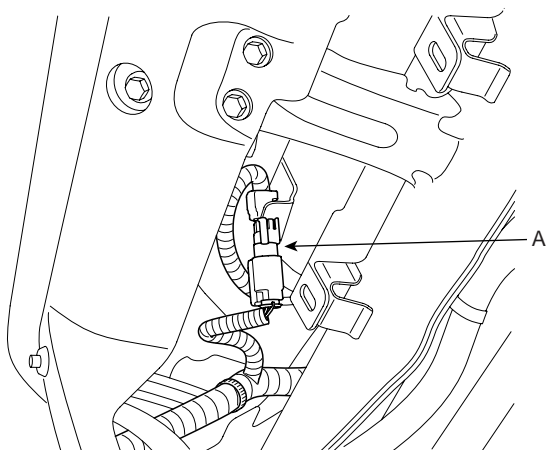
#### COMPONENTS E9CECC9B



LRIF500N

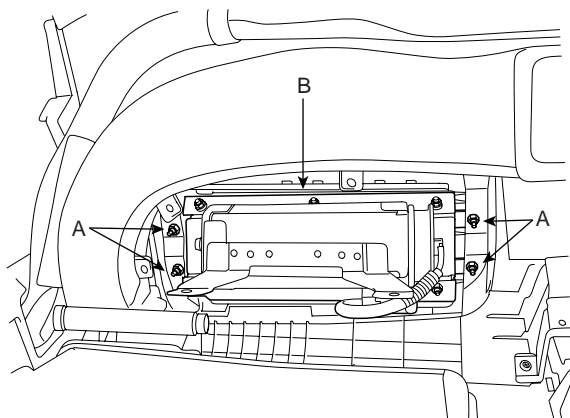
**REMOVAL** EDE25BA9

1. Disconnect the battery negative cable and wait at least three minutes before beginning work.
2. Remove the glove box (see BD group - glove box) , then disconnect the connector between the SRS main harness connector (A) and front passenger's airbag connector (B).



LRIF500O

3. Remove the crash pad. (see BD group - crash pad)
4. Remove the mounting nuts (A) from the crash pad. Then remove the passenger's airbag (B).



LRIF500P

5. Installation is the reverse of removal.



**NOTE**

After installing the clock spring, confirm proper system operation; Turn the ignition switch ON: the SRS indicator light should blink for about 6 seconds and then go off.

## AIR BAG MODULE (SIDE AIR BAG)

determines deployment of side airbag by using Side Impact Sensor (SIS) signal.

## AIR BAG MODULE (SIDE AIR BAG)

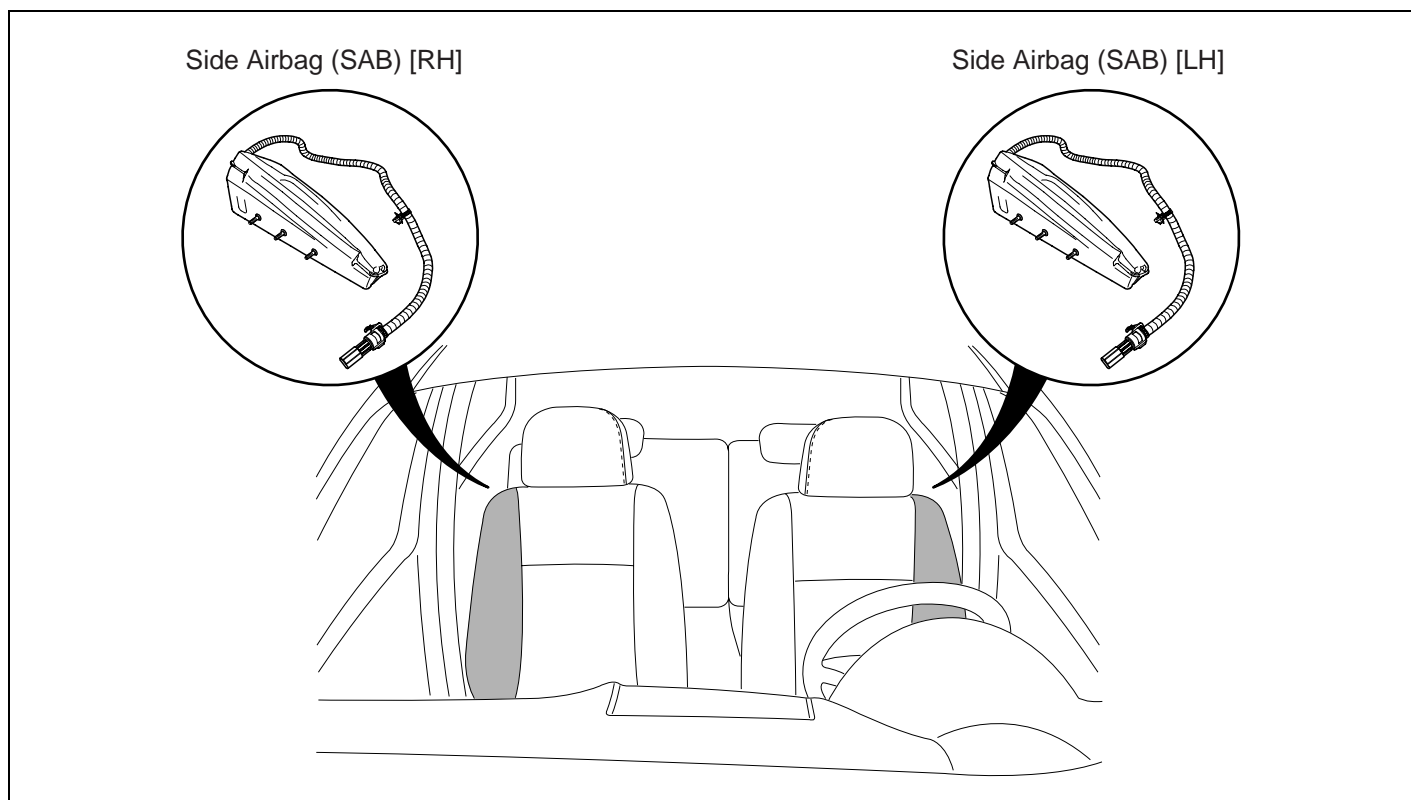
 **CAUTION**

*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.*

### DESCRIPTION EC9A8BCB

The two Side Airbags (SAB) are installed inside the driver and passenger seat and protects the driver and front passenger from danger when side crash occurs. The SRSCM

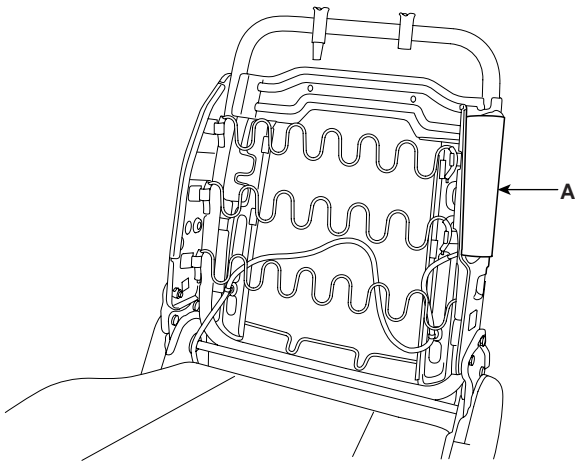
### COMPONENTS E143E423



LRHE102B

**REMOVAL** E AAB61DD

1. Disconnect the battery negative cable and wait at least 30 seconds before beginning work.
2. Remove the front seat assembly(See page BD-Front Seat)
3. Remove the seat-back cover.(See page BD-Front Seat)
4. Loosen the nuts and remove the SAB(A) module.



ARIE500U

5. Installation is the reverse of removal.

 **NOTE**

*After installing the side airbag, confirm proper system operation: Turn the ignition switch ON; the SRS indicator light should blink for about six seconds and then go off.*

**AIR BAG MODULE (CURTAIN AIR BAG)**

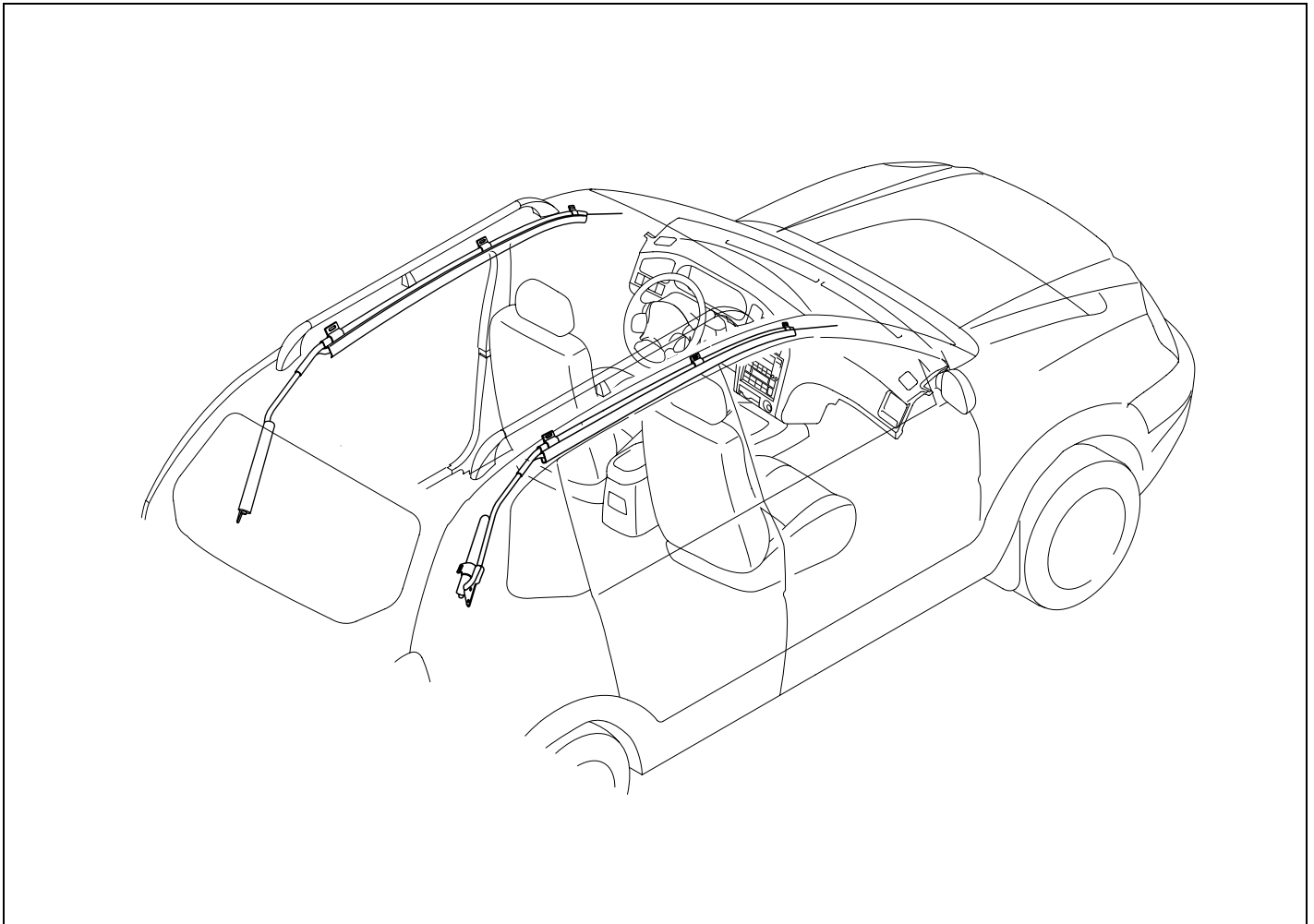
**⚠ CAUTION**

*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.*

**DESCRIPTION** E1AE6BCE

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.

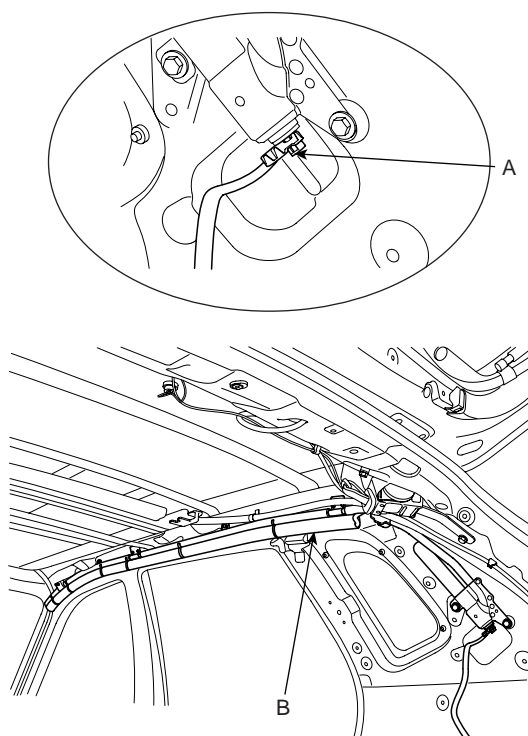
**COMPONENTS** EA1427F8



ARIE102J

**REMOVAL** EBBCBBAD

1. Disconnect the battery negative cable and wait of least 30 second before beginning work.
2. Remove the following parts (See page BD- group).
  - Front and rear seat
  - Interior trim
  - Trunk trim
  - Headlining
3. Disconnect the connector (A).
4. After loosening the mounting bolts, remove the curtain airbag.



LRIF500Q

5. Installation is the reverse of removal

**NOTE**

After installing the curtain airbag, confirm proper system operation: Turn the ignition switch ON; the SRS indicator light should blink for about seconds and then go off.

## SEAT BELT PRETENSIONER

### SEAT BELT PRETENSIONER

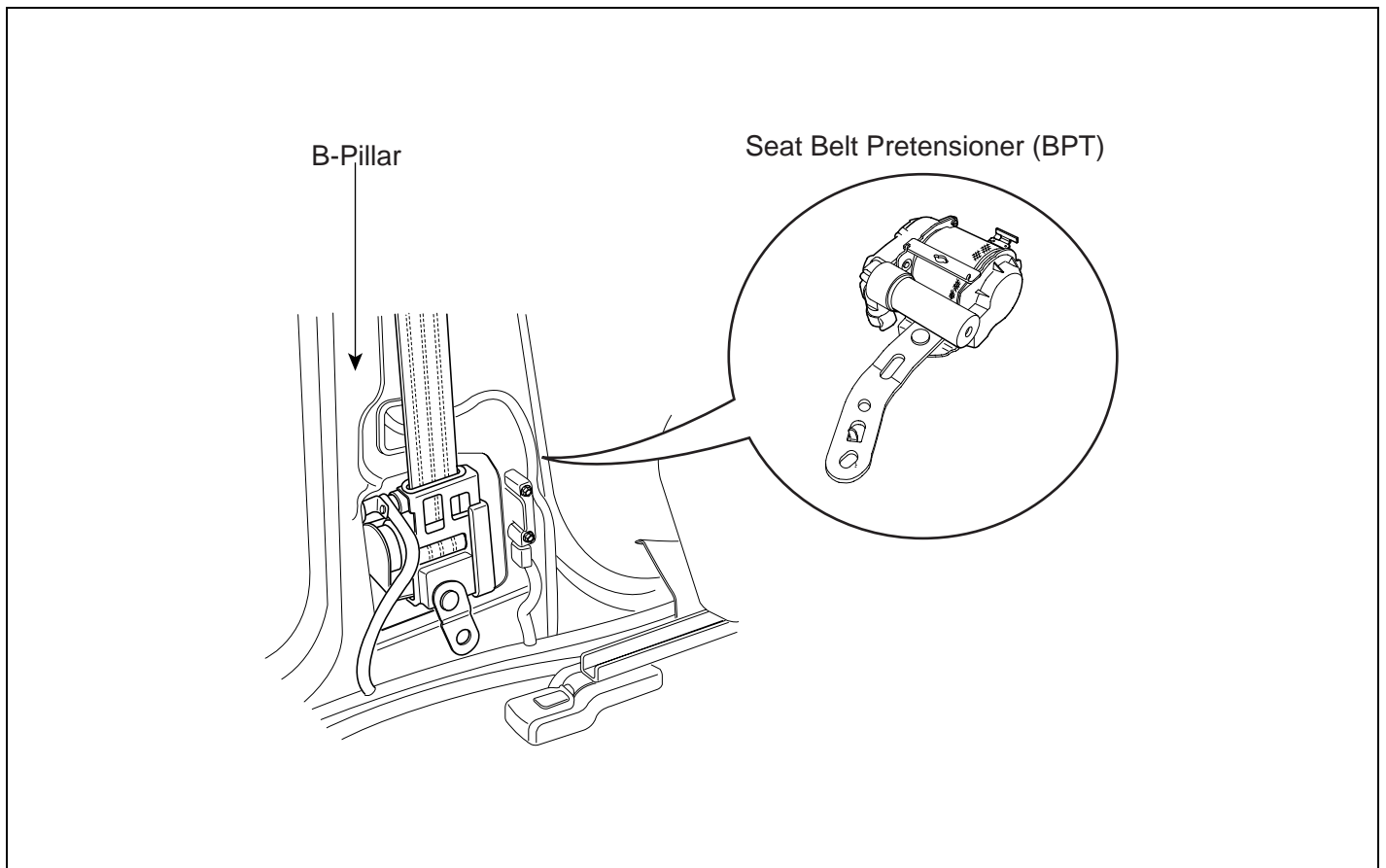
#### DESCRIPTION EFE88AFB

The Seat Belt Pretensioners (BPT) are installed inside B-Pillar (LH & RH). When a vehicle crashes with a certain degree of frontal impact, the pretensioner seat belt helps to reduce the severity of injury to the front seat occupants by retraction the seat belt webbing. This prevents the front occupants from thrusting forward and hitting the steering wheel or the instrument panel when the vehicle crashes.

#### CAUTION

*Never attempt to measure the circuit resistance of the Seat Belt Pretensioner (BPT) even if you are using the specified tester. If the circuit resistance is measured with a tester, the pretensioner will be ignited accidentally. This will result in serious personal injury.*

#### COMPONENTS E0FAECDD



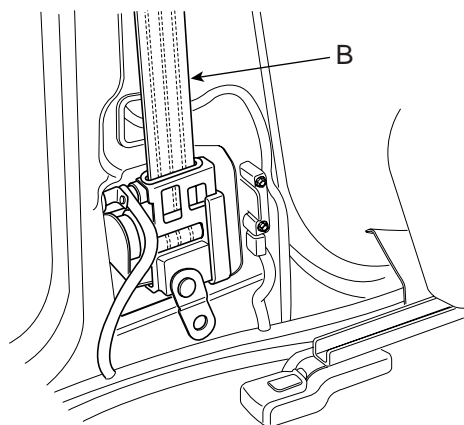
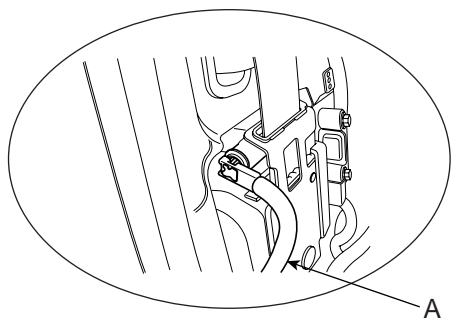
LRIF500R

**REMOVAL** EC696F6D

1. Disconnect the battery negative cable, and wait at least three minutes before beginning work.
2. Remove the seat assembly (see BD group - seat)
3. Remove the front door scuff trim (see BD group - interior)
4. Remove the center pillar trim (see BD group - interior)
5. Remove the lower anchor bolt (see BD group - belt)
6. Remove the upper anchor bolt (see BD group - belt)
7. Disconnect the connector (A).
8. Loosen the mounting bolt.  
Remove the pretensioner (B).

**INSTALLATION** E3AA4EBB

1. Install the new belt pretension with bolt.
2. Install the upper anchor bolt.
3. Install the lower anchor bolt.
4. Install the center pillar trim.
5. Install the front door scuff trim.
6. Install the seat assembly.
7. Reconnect the negative battery cable.
8. After installing the belt pretensioner, confirm proper system operation: Turn the ignition switch ON: the SRS indicator light should blink for about six seconds and then go off.



ARIE102L

## SRS CONTROL SYSTEM

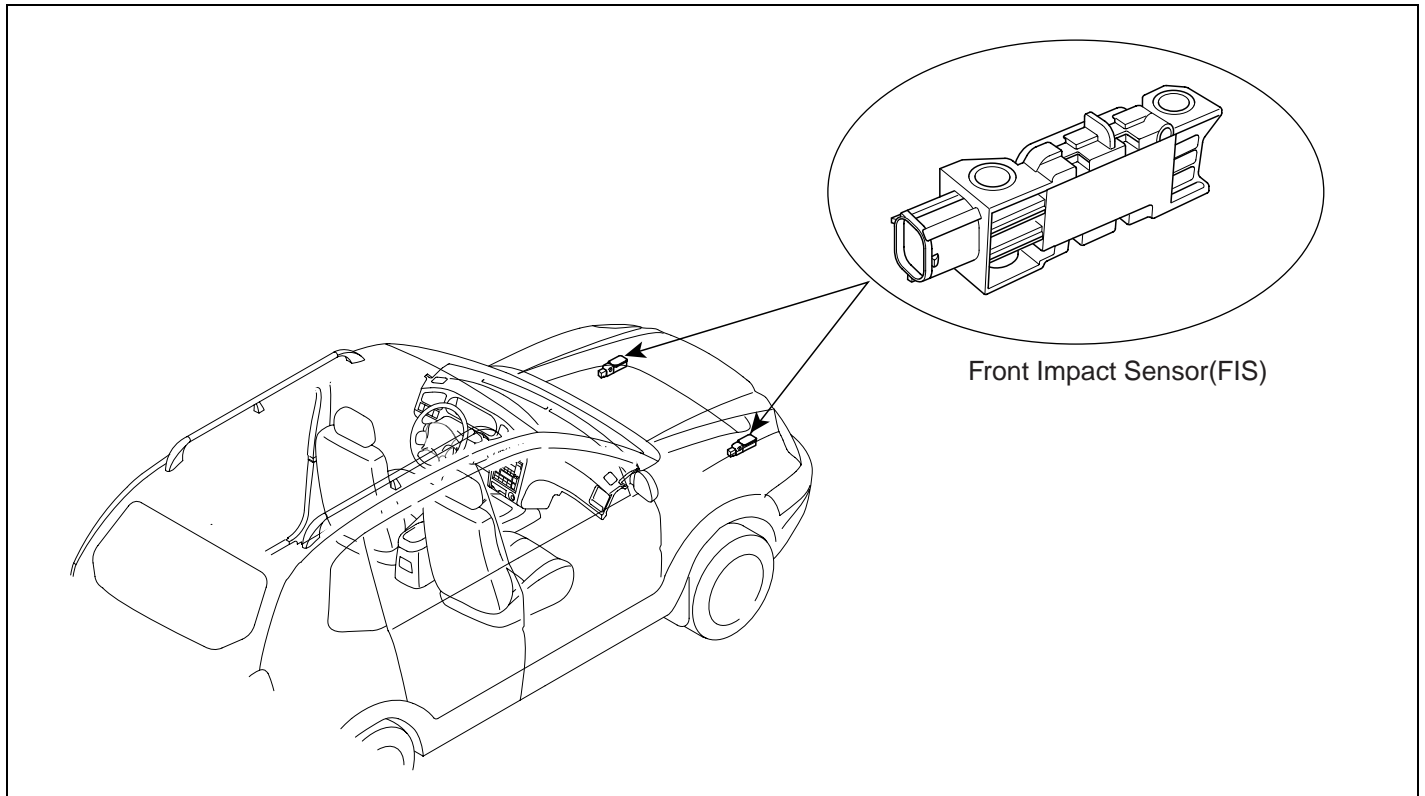
### FRONT IMPACT SENSOR (FIS)

to collision at their mounting locations. 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.

#### DESCRIPTION EAE6FE5E

The front impact sensors are installed inside the member inner. They are remote sensor that detect acceleration due

#### COMPONENTS E2C5F664



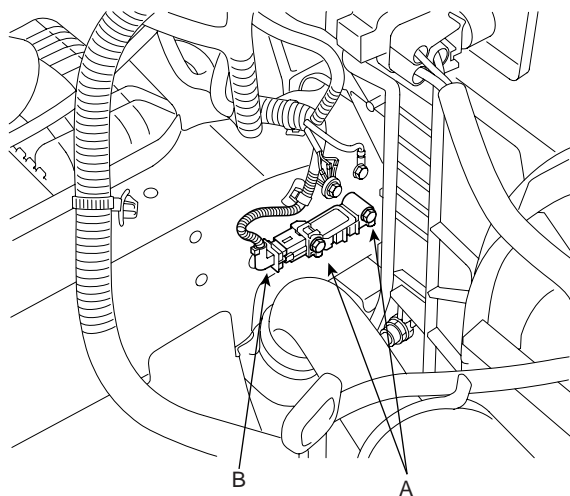
LRIF500S

**REMOVAL** E90B2980

**CAUTION**

- **Removal of the airbag must be performed according to the precautions/ procedures described previously.**
- **Before disconnecting the front impact sensor connector, disconnect the front airbag connector(s).**
- **Do not turn the ignition switch ON and do not connect the battery cable while replacing the front impact sensor.**

1. Disconnect the negative battery cable, and wait at least three minutes before beginning work.
2. Remove the radiator guard (see BD group-exterior).
3. Remove the bolt then remove the front impact sensor.
4. Disconnect the SRS harness connector (A) from the front impact sensor (B).



LRIF501S

**INSTALLATION**

**CAUTION**

- **Be sure to install the harness wire so that they are not pinched or interfere with other parts.**
- **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 with bolt then connect the SRS harness connector to the front impact sensor.
2. Install the radiator guard.
3. Reconnect the negative battery cable.
4. After installing the front impact sensor, confirm proper system operation: Turn the ignition switch ON: the SRS indicator light should blink for about six seconds and then go off.

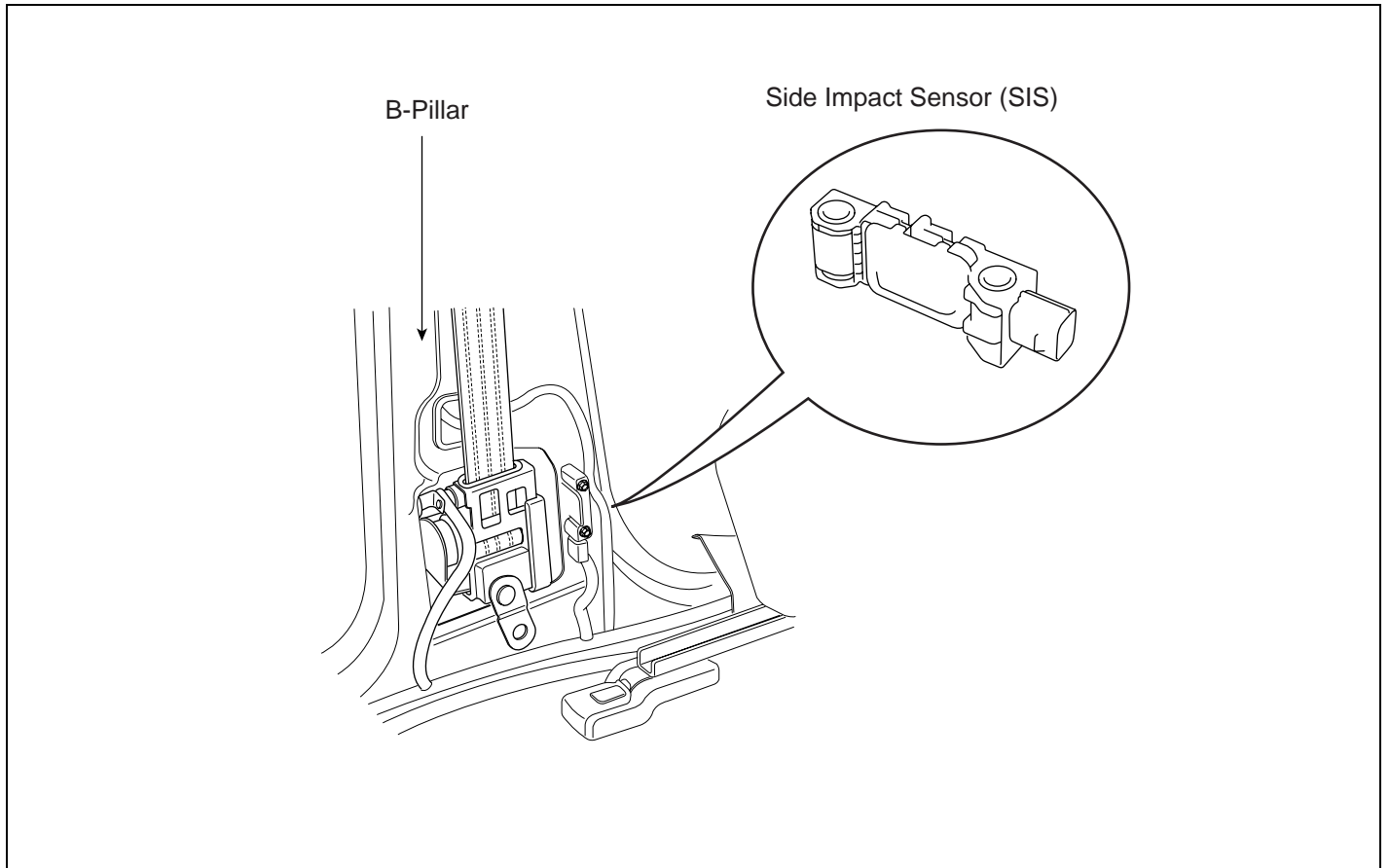
**SIDE IMPACT SENSOR (SIS)**

**DESCRIPTION** E5652CBF

The Side Impact Sensor (SIS) system consist of two front SIS which are installed inside the B-Pillar (LH and RH). They are remote sensor that detect acceleration due to

collision at their mounting locations. The primary purpose of the Side Impact Sensor (SIS) is to provide an indication of a collision. The Side Impact Sensor (SIS) sends acceleration data to the SRSCM.

**COMPONENTS** EF5BEA8C



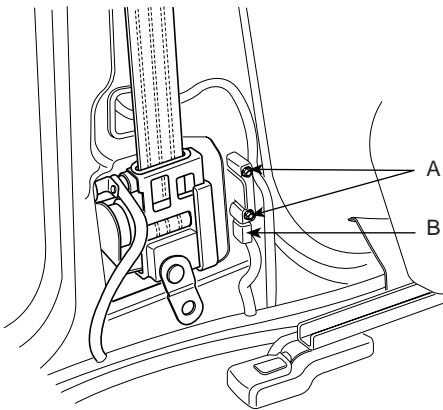
LRIF500T

**REMOVAL** ECC8A7E7

 **CAUTION**

- **Removal of the airbag must be performed according to the precautions/procedures described previously.**
- **Before disconnecting the side impact sensor connector(s), disconnect the side airbag connector(s).**
- **Do not turn the ignition switch ON and do not connect the battery cable while replacing the side impact sensor.**

1. Disconnect the negative battery cable, and wait at least three minutes before beginning work.
2. Remove the seat assembly (see BD group - seat).
3. Remove the front door sill trim (see BD group - interior).
4. Remove the center pillar trim (see BD group - interior).
5. Remove the lower anchor bolt (see BD group - belt).
6. Remove the belt pretensioner.
7. Remove the two bolts then remove the side impact sensor (A).



ARIE102N

8. Disconnect the SRS harness connector from the side impact sensor.

**INSTALLATION**

 **CAUTION**

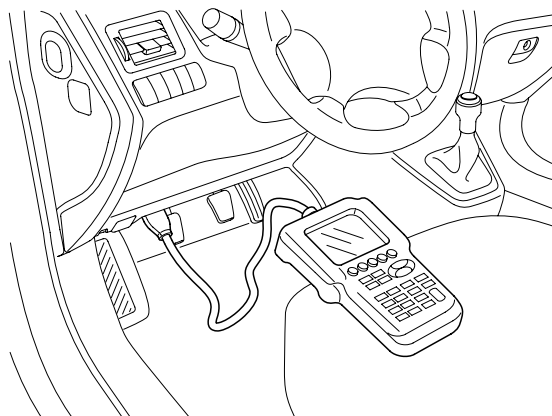
- **Be sure to install the harness wires so that they are not pinched or interfere with other parts.**
- **Do not turn the ignition switch ON and do not connect the battery cable while replacing the side impact sensor.**

1. Install the new side impact sensor with the two bolts then connect the SRS harness connector to the side impact sensor.
2. Reinstall belt pretensioner.
3. Reconnect the negative battery cable.
4. After installing the side impact sensor, confirm proper system operation: Turn the ignition switch ON: the SRS indicator light should blink for about six seconds and then go off.

# TROUBLESHOOTING

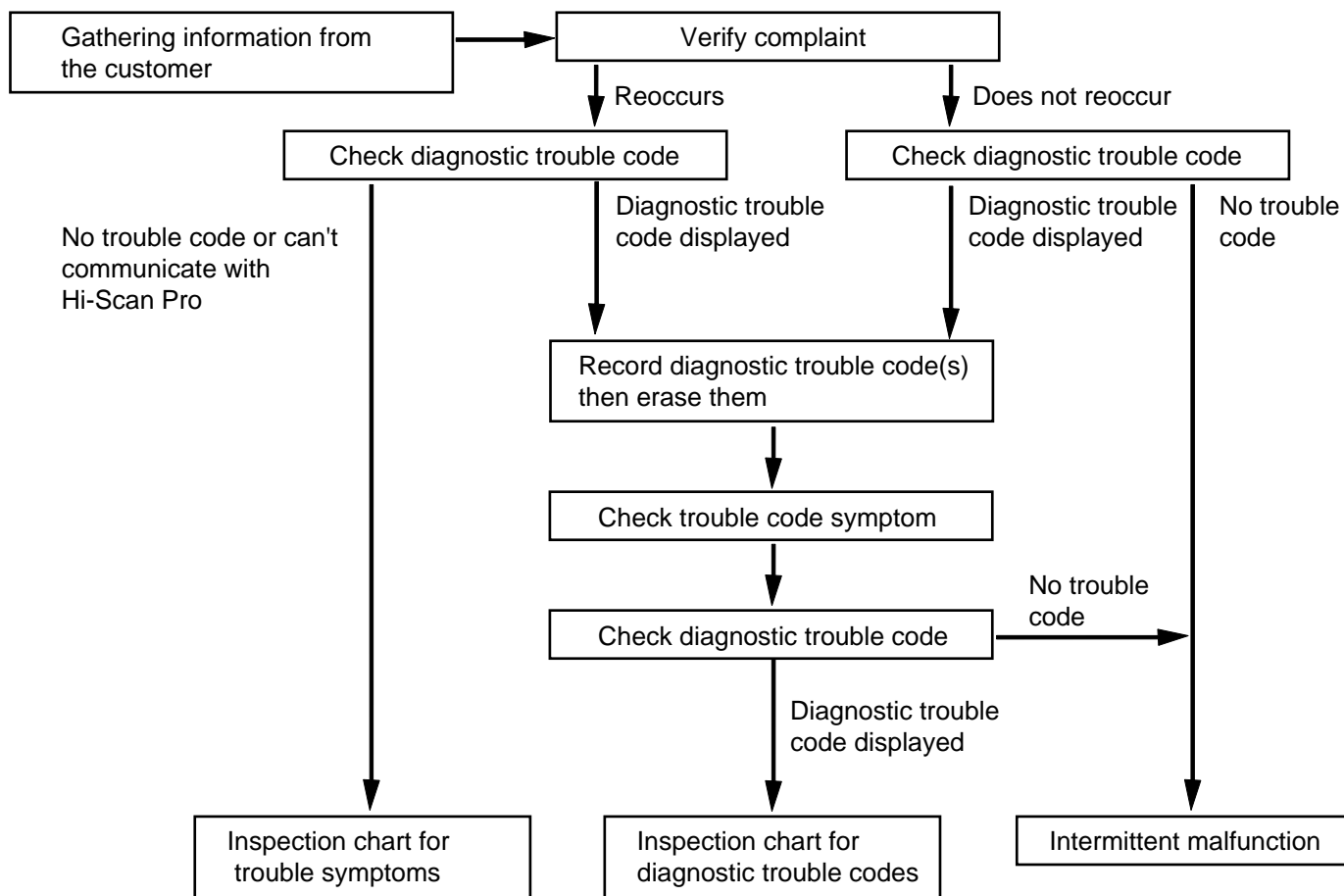
## HI-SCAN CHECK ECC76A5F

1. Turn the ignition switch off.
2. Connect the Hi-Scan Pro connector to the datalink connector located under the crash pad.
3. Connect the Hi-Scan Pro power cable.
4. Turn the ignition switch on and power on the Hi-Scan Pro.
5. Read DTCs.
6. Find and repair the trouble, and clear the DTCs using Hi-Scan Pro.
7. Disconnect the Hi-Scan Pro.



KRQE900A

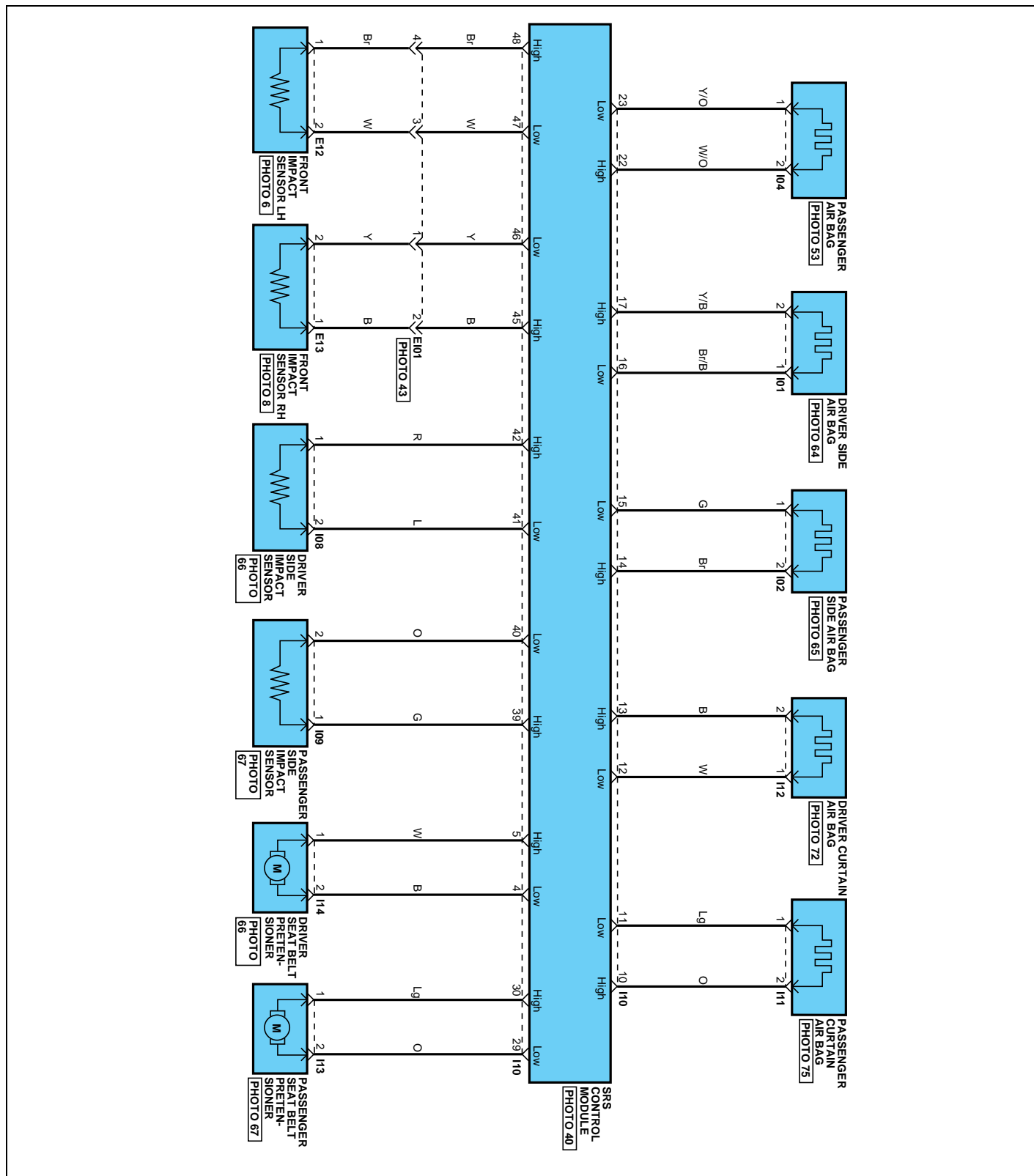
### DIAGNOSTIC TROUBLESHOOTING FLOW



ERA9035A



CIRCUIT DIAGRAM(2)



LRF501U

**SRSCM CONNECTOR TERMINAL** E854FAA4

SRSCM CONNECTOR

25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26

 Shorting Bar

LRIF500V

PIN	Function	Input/Output	PIN	Function	Input/Output
1	Shorting Bar	-	26	Warning Lamp	Output
2	Shorting Bar	-	27	Ground	-
3	Battery Supply(Vbat)	Input	28	Diagnosis Line ( K-Line)	Input/Output
4	Seat Belt Pretensioner [Driver] (-)	Output	29	Seat Belt Pretensioner [Passenger] (-)	Output
5	Seat Belt Pretensioner [Driver] (+)	Output	30	Seat Belt Pretensioner [Passenger] (+)	Output
6	-	-	31	-	-
7	-	-	32	-	-
8	-	-	33	-	-
9	-	-	34	-	-
10	Curtain Airbag [Right] (+)	Output	35	-	-
11	Curtain Airbag [Right] (-)	Output	36	-	-
12	Curtain Airbag [Left] (-)	Output	37	-	-
13	Curtain Airbag [Left] (+)	Output	38	-	-
14	Side Airbag [Passenger] (+)	Output	39	Side Impact Sensor [Right] (+)	Input
15	Side Airbag [Passenger] (-)	Output	40	Side Impact Sensor [Right] (-)	Input
16	Side Airbag [Driver] (-)	Output	41	Side Impact Sensor [Left] (-)	Input
17	Side Airbag [Driver] (+)	Output	42	Side Impact Sensor [Left] (+)	Input
18	Buckle Pretensioner [Passenger] (+)	Input	43	-	-
19	Buckle Pretensioner [Passenger] (-)	Input	44	-	-
20	Buckle Pretensioner [Driver] (-)	Input	45	Front Impact Sensor [Right] (+)	Input
21	Buckle Pretensioner [Driver] (+)	Input	46	Front Impact Sensor [Right] (-)	Input
22	Passenger Airbag (+)	Output	47	Front Impact Sensor [Left] (-)	Input
23	Passenger Airbag (-)	Output	48	Front Impact Sensor [Left] (+)	Input
24	Driver Airbag (-)	Output	49	Crash Output (to ETACS)	Output
25	Driver Airbag(+)	Output	50	-	-

**DIAGNOSTIC TROUBLE CODE (DTC)**

**TABLE** E5D9CD3A

<b>CODE</b>	<b>FAULT DESCRIPTION</b>	<b>PAGE</b>
B1101	Battery voltage high	RT - 37
B1102	Battery voltage low	RT - 37
B1326	Driver frontal impact sensor circuit leakage to ground	RT - 41
B1327	Driver frontal impact sensor circuit leakage to battery	RT - 44
B1328	Driver frontal impact sensor defect	RT - 47
B1329	Driver frontal impact sensor communication error	RT - 47
B1330	Driver frontal impact sensor wrong ID	RT - 50
B1331	Passenger frontal impact sensor circuit leakage to ground	RT - 41
B1332	Passenger frontal impact sensor circuit leakage to battery	RT - 44
B1333	Passenger frontal impact sensor defect	RT - 47
B1334	Passenger frontal impact sensor communication error	RT - 47
B1335	Passenger frontal impact sensor wrong ID	RT - 50
B1346	Driver airbag resistance too high	RT - 51
B1347	Driver airbag resistance too low	RT - 51
B1348	Driver airbag resistance circuit leakage to ground	RT - 55
B1349	Driver airbag resistance circuit leakage to battery	RT - 58
B1352	Passenger airbag resistance too high	RT - 61
B1353	Passenger airbag resistance too low	RT - 61
B1354	Passenger airbag resistance circuit leakage to ground	RT - 65
B1355	Passenger airbag resistance circuit leakage to battery	RT - 68
B1361	Driver belt pretensioner resistance too high	RT - 71
B1362	Driver belt pretensioner resistance too low	RT - 71
B1363	Driver belt pretensioner resistance circuit leakage to ground	RT - 75
B1364	Driver belt pretensioner resistance circuit leakage to battery	RT - 78
B1367	Passenger belt pretensioner resistance too high	RT - 71
B1368	Passenger belt pretensioner resistance too low	RT - 71
B1369	Passenger belt pretensioner resistance circuit leakage to ground	RT - 75
B1370	Passenger belt pretensioner resistance circuit leakage to battery	RT - 78
B1378	Driver side airbag resistance too high	RT - 81
B1379	Driver side airbag resistance too low	RT - 81
B1380	Driver side airbag resistance circuit leakage to ground	RT - 85
B1381	Driver side airbag resistance circuit leakage to battery	RT - 88
B1382	Passenger side airbag resistance too high	RT - 81
B1383	Passenger side airbag resistance too low	RT - 81
B1384	Passenger side airbag resistance circuit leakage to ground	RT - 85
B1385	Passenger side airbag resistance circuit leakage to battery	RT - 88

CODE	FAULT DESCRIPTION	PAGE
B1400	Driver side impact sensor defect	RT -91
B1401	Driver side impact sensor circuit leakage to ground	RT - 94
B1402	Driver side impact sensor circuit leakage to battery	RT - 97
B1403	Passenger side impact sensor defect	RT - 91
B1404	Passenger side impact sensor circuit leakage to ground	RT - 94
B1405	Passenger side impact sensor circuit leakage to battery	RT - 97
B1409	Driver side impact sensor communication error	RT - 91
B1410	Passenger side impact sensor communication error	RT - 91
B1414	Driver side impact sensor wrong ID	RT - 100
B1415	Passenger side impact sensor wrong ID	RT - 100
B1473	Driver curtain airbag resistance too high	RT - 101
B1474	Driver curtain airbag resistance too low	RT - 101
B1475	Driver curtain airbag resistance circuit leakage to ground	RT - 105
B1476	Driver curtain airbag resistance circuit leakage to battery	RT - 108
B1477	Passenger curtain airbag resistance too high	RT - 101
B1478	Passenger curtain airbag resistance too low	RT - 101
B1479	Passenger curtain airbag resistance circuit leakage to ground	RT - 105
B1480	Passenger curtain airbag resistance circuit leakage to battery	RT - 108
B1620	Airbag unit internal fault	RT - 111
B1650	Crash recorded in front airbag	RT - 111
B1651	Crash recorded driver side airbag	RT - 111
B1652	Crash recorded passenger side airbag	RT - 111
B1657	Crash recorded belt pretensioner only	RT - 111
B1658	Belt pretensioner 6times deployment	RT - 111
B1701	Driver buckle pretensioner resistance too high	RT - 112
B1702	Driver buckle pretensioner resistance too low	RT - 112
B1703	Driver buckle pretensioner resistance circuit leakage to ground	RT - 116
B1704	Driver buckle pretensioner resistance circuit leakage to battery	RT - 119
B1706	Passenger buckle pretensioner resistance too high	RT - 112
B1707	Passenger buckle pretensioner resistance too low	RT - 112
B1708	Passenger buckle pretensioner resistance circuit leakage to ground	RT - 116
B1709	Passenger buckle pretensioner resistance circuit leakage to battery	RT - 119
B2500	Warning lamp failure	RT - 122



**TERMINAL & CONNECTOR INSPECTION** E4449B7A

1. Check all the connectors related to the DTC for contact condition visually.
2. Check the connector and the terminal.
  - 1) Check the connector for connection securely.
  - 2) Check the terminal for contact condition, deterioration, erosion and elasticity.



**CAUTION**

***Do not deform the connector for revising contact.***

Are confirmed trouble on the connector and the terminal?

**NO**

Go to next step.

**YES**

After repairing the trouble part, check whether DTC occurs or not.

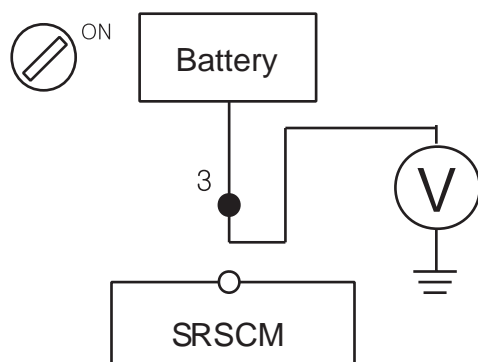
**INSPECTION PROCEDURE** E1FCAA5B

1. PREPARATION
  - 1) Turn the ignition switch to LOCK.
  - 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
  - 3) Remove the DAB module and disconnect the DAB connector.
  - 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
  - 5) Disconnect the SRSCM connector.
2. CHECK SOURCE VOLTAGE
  - 1) Turn the ignition switch to ON.
  - 2) Measure voltage between the terminal 3 of SRSCM harness connector and chassis ground.

---

specification(voltage) : 7.0 V 16.0 V

---



LRIF500X

Is the measured voltage within specification?

**NO**

Check the battery.

**YES**

Replace the SRSCM with a new one, and then check the vehicle again. At this time, if the vehicle normally operates with a new SRSCM, the fault may be the SRSCM(Replace SRSCM).

### 3. CHECK THE BATTERY

1) Check the battery.

Refer to "EE" group in this SERVICE MANUAL.

Is the battery normal?

**YES**

Check the alternator.

**YES**

Repair or replace the battery(Refer to "EE" group in this SERVICE MANUAL).

### 4. CHECK ALTERNATOR

1) Check the alternator.

Refer to "EE" group in this SERVICE MANUAL.

Is the alternator normal?

**YES**

Check wiring harness.

**NO**

Repair or replace the alternator(Refer to "EE" group in this SERVICE MANUAL).

5. CHECK WIRING HARNESS

- 1) Check the wiring harness between the battery and SRSCM.  
Is the wiring harness normal?

**YES**

Check the DTC again.

**NO**

Repair or Replace the wiring harness.

6. CHECK THE DTC AGAIN

- 1) Turn the ignition switch to LOCK and wait for at least 30 seconds.



**CAUTION**

**Check again that the battery negative (-) terminal is disconnected from the battery.**

- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC?

**YES**

Perform the troubleshooting procedures associated with those codes.

**NO**

Problem is intermittent or was repaired and SRSCM memory was not cleared.

**DTC B1326 DFIS SHORT TO GROUND, B1331 PFIS SHORT TO GROUND**

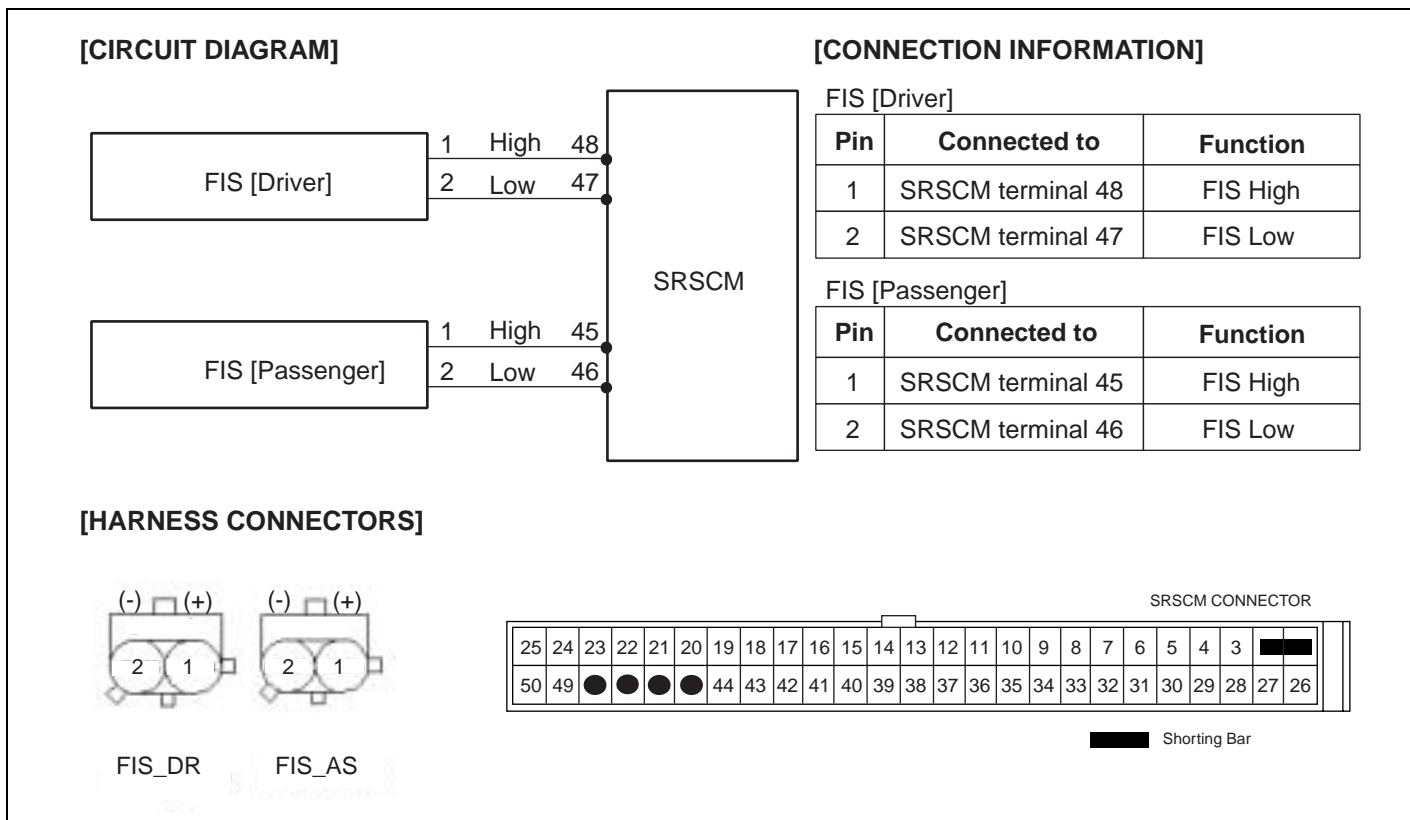
**DTC DESCRIPTION** EE9D6A78

The detecting system for front crash consists of the SRSCM and two Front Impact Sensor (FIS). The SRSCM sets above DTC(s) if it detects that any FIS is defective or there is communication error between any FIS and the SRSCM.

**DTC DETECTING CONDITION** E509B8AB

DTC	Condition	Probable cause
B1326 B1331	<ul style="list-style-type: none"> <li>Short to ground between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to ground on Wiring Harness</li> <li>Front Impact Sensor(FIS) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EF56E1DF



LRIF500Y

**TERMINAL & CONNECTOR INSPECTION** E9ECDDEA

Refer to DTC B1101.

**INSPECTION PROCEDURE** E21D77E3

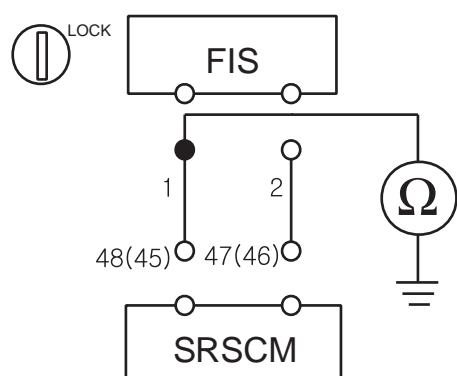
1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

2. CHECK FIS CIRCUIT

- 1) Measure resistance between the terminal 1 of FIS harness connector and chassis ground(-).

specification(resistance) :



ARIE005J

Is the measured resistance within specification?

**YES**

Check Front Impact Sensor.

**NO**

Repair or replace the wiring harness between the FIS and the SRSCM.

3. CHECK FRONT IMPACT SENSOR

- 1) Replace the front impact sensor(FIS) with a new one.  
Refer to "Front Impact Sensor(FIS)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.

- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to FIS?

**YES**

Go to next step.

**NO**

Replace the Front Impact Sensor(FIS).

4. CHECK THE DTC AGAIN  
Refer to DTC B1101.

**DTC B1327 DFIS SHORT TO BATTERY, B1332 PFIS SHORT TO BATTERY**

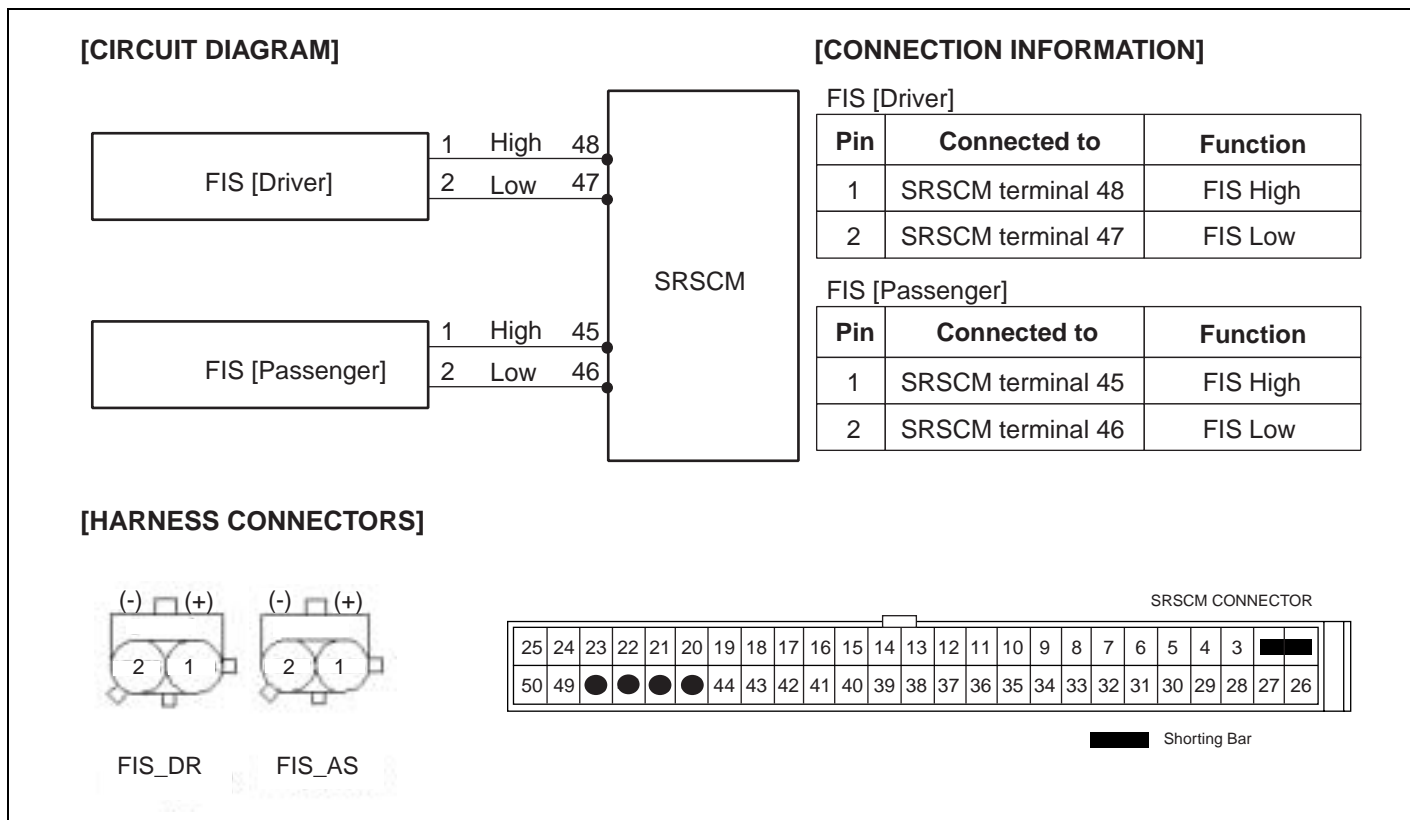
**DTC DESCRIPTION** E74C4CE1

The detecting system for front crash consists of the SRSCM and two Front Impact Sensor (FIS). The SRSCM sets above DTC(s) if it detects that any FIS is defective or there is communication error between any FIS and the SRSCM.

**DTC DETECTING CONDITION** EBA45DF0

DTC	Condition	Probable cause
B1327 B1332	<ul style="list-style-type: none"> <li>• Short to battery line between FIS and SRSCM</li> <li>• Front Impact Sensor(FIS) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Short to battery line on Wiring Harness</li> <li>• Front Impact Sensor(FIS) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E23017F0



LRIF500Y

**TERMINAL & CONNECTOR INSPECTION** EA54BC93

Refer to DTC B1101.

**INSPECTION PROCEDURE** EF7A8C06

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

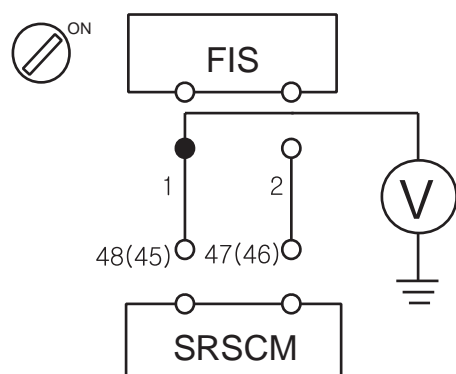
2. CHECK FIS CIRCUIT

- 1) Connect the negative (-) terminal to the battery.
- 2) Turn the ignition switch to ON.
- 3) Measure voltage between the terminal 1 of FIS harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE005K

Is the measured voltage within specification?

**YES**

Check Front Impact Sensor.

**NO**

Repair the short to battery line circuit on wiring harness between the FIS and the SRSCM.

3. CHECK FRONT IMPACT SENSOR

- 1) Replace the front impact sensor(FIS) with a new one.  
Refer to "Front Impact Sensor(FIS)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.

- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to FIS?

**YES**

Go to next step.

**NO**

Replace the Front Impact Sensor(FIS).

4. CHECK THE DTC AGAIN  
Refer to DTC B1101.

**DTC B1328 DFIS DEFECT, B1329 DFIS COMMUNICATION ERROR, B1333 PFIS DEFECT, B1334 PFIS COMMUNICATION ERROR**

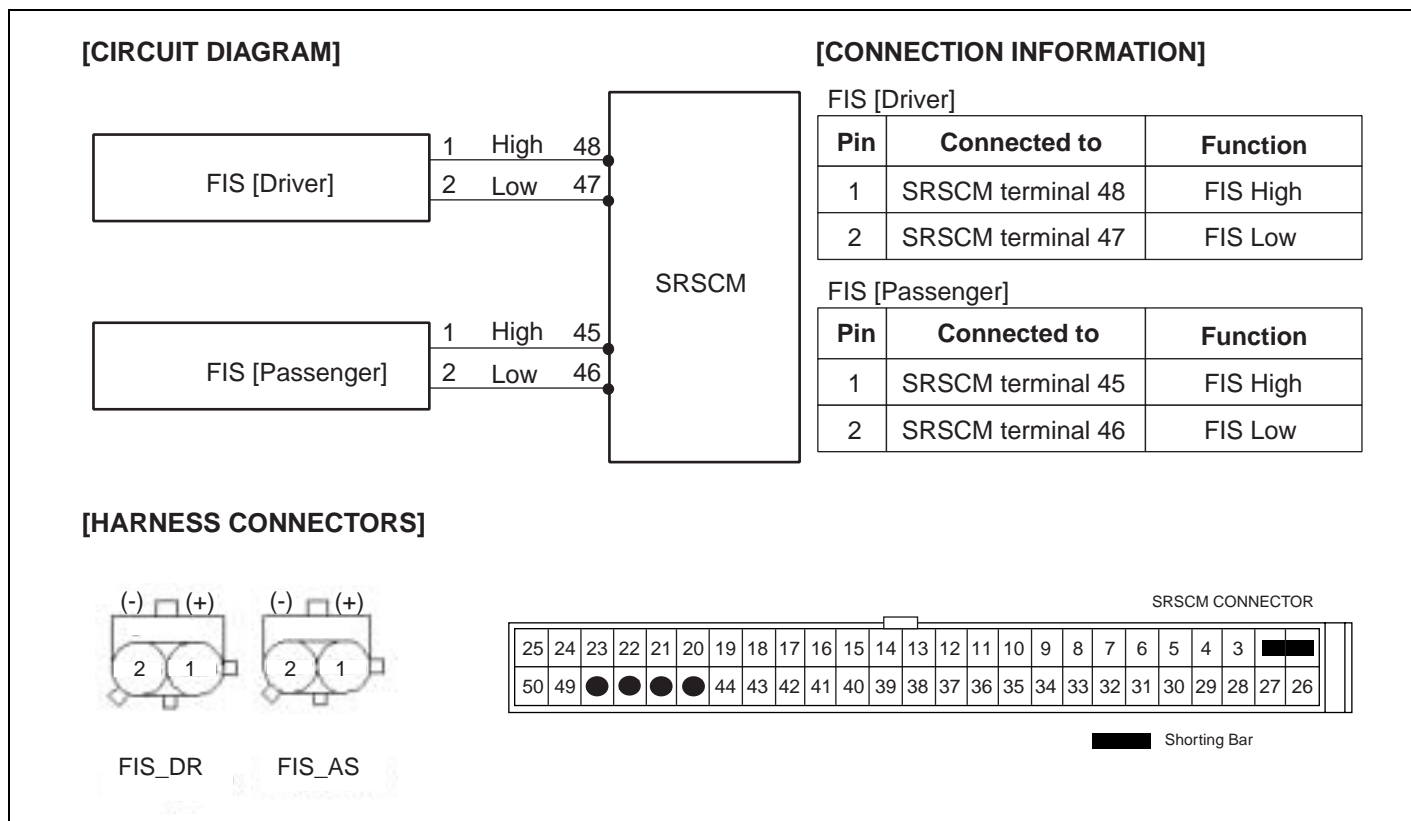
**DTC DESCRIPTION** E6F0CA99

The detecting system for front crash consists of the SRSCM and two Front Impact Sensor (FIS). The SRSCM sets above DTC(s) if it detects that any FIS is defective or there is communication error between any FIS and the SRSCM.

**DTC DETECTING CONDITION** EC0ED433

DTC	Condition	Probable cause
B1328 B1329 B1333 B1334	<ul style="list-style-type: none"> <li>• Open between FIS and SRSCM</li> <li>• Front Impact Sensor(FIS) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Wiring Harness</li> <li>• Front Impact Sensor(FIS) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EA9CB5B3



**TERMINAL & CONNECTOR INSPECTION** E84E0442

Refer to DTC B1101.

**INSPECTION PROCEDURE** E99DBE2E

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

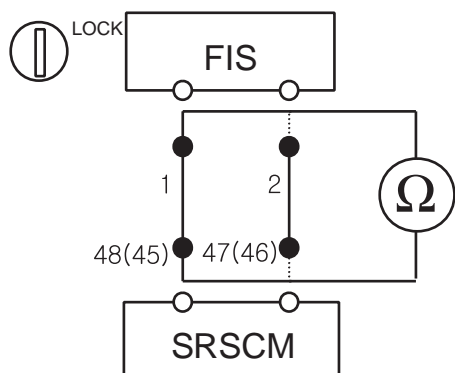
2. CHECK FIS CIRCUIT

- 1) Measure resistance between the terminal 1 of FIS harness connector and the terminal 48(45) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of FIS harness connector and the terminal 47(46) of SRSCM harness connector.

---

specification(resistance) : below 1

---



ARIE005I

Is the measured resistance within specification?

**YES**

Check Front Impact Sensor.

**NO**

Repair or replace the wiring harness between the FIS and the SRSCM.

3. CHECK FRONT IMPACT SENSOR

- 1) Replace the front impact sensor(FIS) with a new one.  
Refer to "Front Impact Sensor(FIS)" section in this SERVICE MANUAL.

- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to FIS?

**YES**

Go to next step.

**NO**

Replace the Front Impact Sensor(FIS).

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1101.

**DTC B1330 DFIS WRONG ID, B1335 PFIS WRONG ID**

**DTC DESCRIPTION** EEEEBAFD

The detecting system for front crash consists of the SRSCM and two Front Impact Sensor (FIS).

**INSPECTION PROCEDURE** E02EB6EA

If above DTC is detected , replace two Front Impact Sensors(FIS).

**DTC B1346 DAB RESISTANCE TOO HIGH, B1347 DAB RESISTANCE TOO LOW**

**DTC DESCRIPTION** EEBB853C

The Driver Airbag circuit consists of the SRSCM, Clockspring and the Driver Airbag (DAB) which has two squib circuits. The SRSCM sets above DTC(s) if it detects that the resistance of DAB squib is too high or low.

**DTC DETECTING CONDITION** EAEB5F0C

DTC	Condition	Probable cause
B1346 B1347	<ul style="list-style-type: none"> <li>• Too high or low resistance between DAB high(+) and DAB low (-)</li> <li>• Driver Airbag (DAB) Malfunction</li> <li>• Clockspring Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Open or short circuit on wiring harness</li> <li>• Driver Airbag (DAB) squib</li> <li>• Clockspring</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** ED01DEFD

**[CIRCUIT DIAGRAM]**

**[CONNECTION INFORMATION]**

Pin	Connected to	Function
1	SRSCM Terminal 25	DAB High
2	SRSCM Terminal 24	DAB Low

**[HARNESS CONNECTORS]**

SRSCM CONNECTOR

●	●	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	■	■
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26

■ Shorting Bar

LRIF500Z

**SPECIFICATION** EE8749FF

DAB resistance : 1.5 R 5.7

**TERMINAL & CONNECTOR INSPECTION** EEAB969A

Refer to DTC B1101.

**INSPECTION PROCEDURE** EEB26A7F

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

2. CHECK DAB RESISTANCE

 **CAUTION**

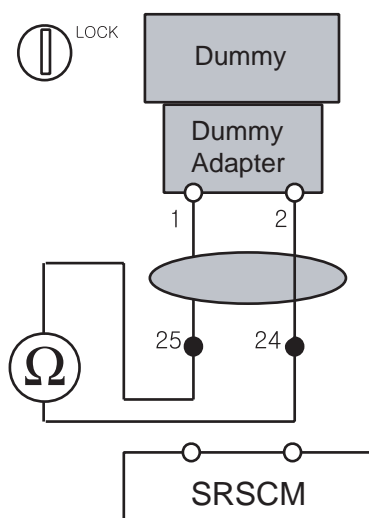
**Never attempt to measure the circuit resistance of the airbag module(squib) even if you are using the specified tester.**

- 1) Connect the Dummy and the Dummy Adapter on DAB harness connector.  
Refer to "SPECIAL SERVICE TOOL" section in this SERVICE MANUAL for the SST No. of Dummy and Dummy Adapter.
- 2) Measure resistance between the terminal 24 and 25 of SRSCM harness connector.

---

DAB resistance : 1.5 R 5.7

---



LRIF501A

- 3) Is the measured resistance within specification?

**NO**

Check open circuit.

**YES**

Replace the Driver Airbag(DAB) module.

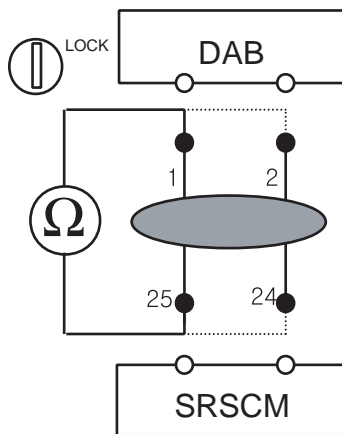
**3. CHECK OPEN CIRCUIT**

- 1) Measure resistance between the terminal 1 of DAB harness connector and the terminal 25 of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of DAB harness connector and the terminal 24 of SRSCM harness connector.

---

specification(resistance) : below 1

---



ARIE003E

Is the measured resistance within specification?

**YES**

Check short circuit.

**NO**

Repair or replace the wiring harness between the DAB and the clockspring or between the clockspring and the SRSCM.

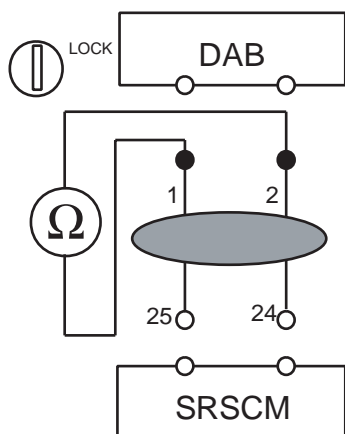
**4. CHECK SHORT CIRCUIT**

- 1) Measure resistance between the terminal 1 and 2 of DAB harness connector.

---

specification(resistance) :

---



ARIE003F

Is the measured resistance within specification?

**YES**

Go to next step.

**NO**

Repair or replace the wiring harness between the DAB and the clockspring or between the clockspring and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN

- 1) Install the DAB module and connect the DAB connector.
- 2) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 3) Connect the SRSCM connector.
- 4) Connect the negative (-) terminal to the battery.
- 5) Connect a Hi-Scan(Pro) to the data link connector.
- 6) Turn the ignition switch to ON .
- 7) Clear the DTC stored in the SRSCM memory with the Hi-Scan(Pro).
- 8) Turn the ignition switch to LOCK and wait for at least 30 seconds.
- 9) Turn the ignition switch to ON and wait for at least 30 seconds.
- 10) Check the vehicle again with the Hi-Scan(Pro).  
Does the above DTC(s) go off?

**YES**

Problem is intermittent or was repaired and SRSCM memory was not cleared.

**NO**

Replace the SRSCM with a new one, and then check the vehicle again. At this time, if the vehicle normally operates with a new SRSCM, the fault may be the SRSCM(Replace SRSCM).

**DTC B1348 DAB SHORT TO GROUND**

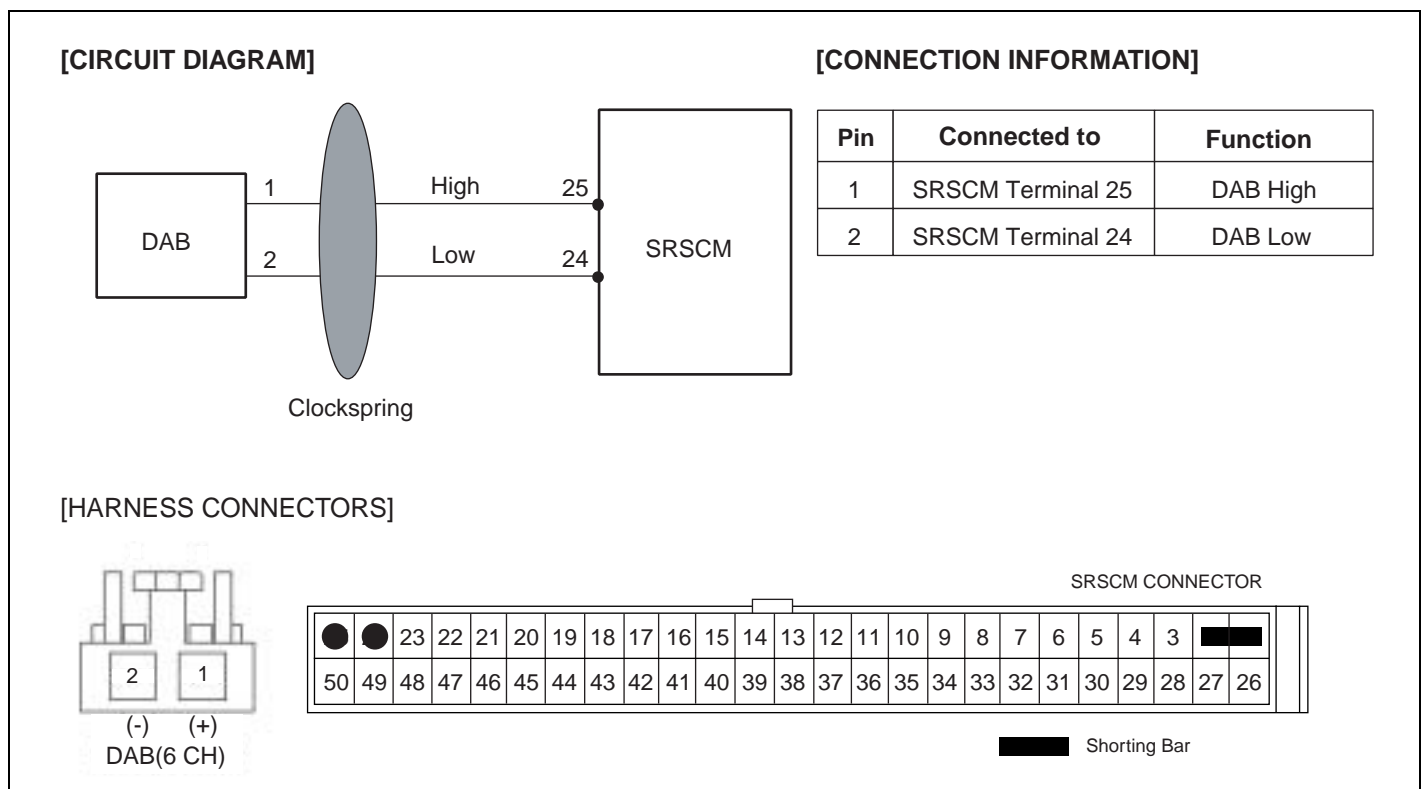
**DTC DESCRIPTION** E4789D87

The Driver Airbag circuit consists of the SRSCM, Clockspring and the Driver Airbag (DAB) which has two squib circuits. The SRSCM sets above DTC(s) if it detects short to ground on the DAB circuit.

**DTC DETECTING CONDITION** E2AC686D

DTC	Condition	Probable cause
B1348	<ul style="list-style-type: none"> <li>Short to ground between DAB and clockspring</li> <li>Short to ground between clockspring and SRSCM</li> <li>Driver Airbag (DAB) Malfunction</li> <li>Clockspring Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to ground circuit on wiring harness</li> <li>Driver Airbag (DAB) squib</li> <li>Clockspring</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E6ABFF52



LRIF500Z

**TERMINAL & CONNECTOR INSPECTION** EDFB7F8F

Refer to DTC B1101.

**INSPECTION PROCEDURE** EDF5D2DE

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

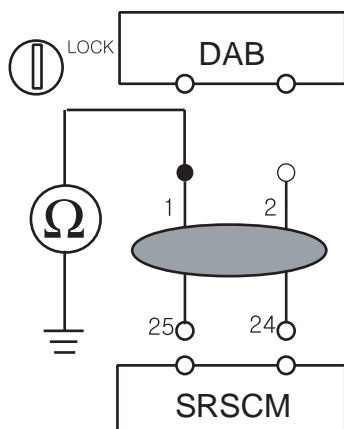
2. CHECK SHORT TO GROUND

- 1) Measure resistance between the terminal 1 of DAB harness connector and chassis ground.

---

specification(resistance) : infinite

---



ARIE003G

- 2) Is the measured resistance within specification?

**YES**

Check the DAB Module.

**NO**

Repair or replace the wiring harness between the DAB and the clockspring or between the clockspring and the SRSCM.

3. CHECK THE DAB MODULE

- 1) Replace the Driver Airbag(DAB) with a new one.  
Refer to "Driver Airbag(DAB)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.

- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to DAB?

**YES**

Check the clockspring.

**NO**

Replace the Driver Airbag(DAB).

**4. CHECK THE CLOCKSPRING**

- 1) Check the clockspring.  
Is the clockspring normal?

**YES**

Go to next step.

**NO**

Replace the clockspring.

5. **CLEAR THE DTC AND CHECK THE VEHICLE AGAIN**  
Refer to DTC B1346.

**DTC B1349 DAB SHORT TO BATTERY**

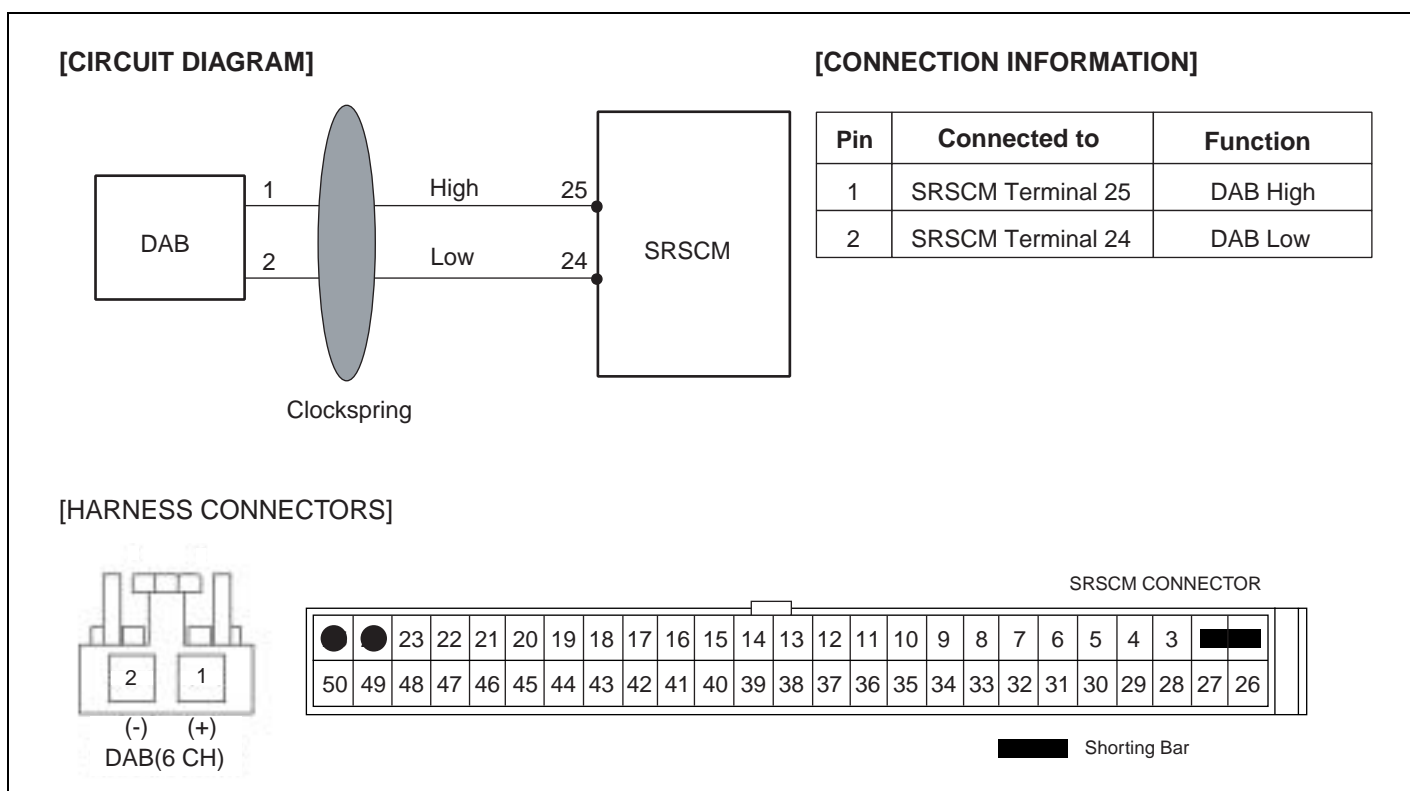
**DTC DESCRIPTION** E873A5BA

The Driver Airbag circuit consists of the SRSCM, Clockspring and the Driver Airbag (DAB) which has two squib circuits. The SRSCM sets above DTC(s) if it detects short to battery line on the DAB circuit.

**DTC DETECTING CONDITION** ECBC8FFF

DTC	Condition	Probable cause
B1349	<ul style="list-style-type: none"> <li>Short to battery line between DAB and clockspring</li> <li>Short to battery line between clockspring and SRSCM</li> <li>Driver Airbag (DAB) Malfunction</li> <li>Clockspring Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to battery line on wiring harness</li> <li>Driver Airbag (DAB) squib</li> <li>Clockspring</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** ED0B6DF7



LRIF500Z

**TERMINAL & CONNECTOR INSPECTION** EDF7EDF0

Refer to DTC B1101.

**INSPECTION PROCEDURE** EADD9AD4

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

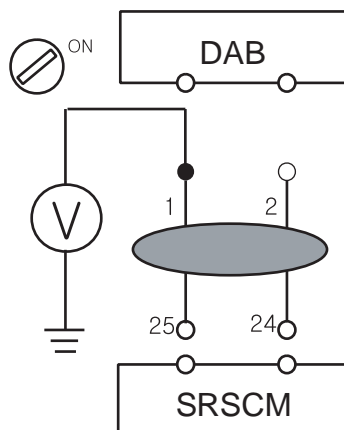
2. CHECK SHORT TO BATTERY LINE

- 1) Connect the negative (-) terminal to the battery.
- 2) Turn the ignition switch to ON.
- 3) Measure voltage between the terminal 1 of DAB harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE003H

Is the measured voltage within specification?

**YES**

Check the DAB module.

**NO**

Repair or replace the wiring harness between the DAB and the clockspring or between the clockspring and the SRSCM.

3. CHECK THE DAB MODULE

- 1) Replace the Driver Airbag(DAB) with a new one.  
"Refer to "Driver Airbag(DAB)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to DAB?

**YES**

Check the clockspring.

**NO**

Replace the Driver Airbag(DAB).

4. CHECK THE CLOCKSPRING

- 1) Check the clockspring.  
Is the clockspring normal?

**YES**

Go to next step.

**NO**

Replace the clockspring.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1352 PAB RESISTANCE TOO HIGH, B1353 PAB RESISTANCE TOO LOW**

**DTC DESCRIPTION** ED93CA4C

The Passenger Airbag circuit consists of the SRSCM and the Passenger Airbag (PAB) which has two squib circuits. The SRSCM sets above DTC(s) if it detects that the resistance of PAB squib is too high or low.

**DTC DETECTING CONDITION** E60E2A0A

DTC	Condition	Probable cause
B1352 B1353	<ul style="list-style-type: none"> <li>• Too high or low resistance between PAB high(+) and PAB low (-)</li> <li>• Passenger Airbag (PAB) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Open or short circuit on wiring harness</li> <li>• Passenger Airbag (PAB) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E4AB5317

**[CIRCUIT DIAGRAM]**

**[CONNECTION INFORMATION]**

Pin	Connected to	Function
1	SRSCM Terminal 23	PAB Low
2	SRSCM Terminal 22	PAB High

**[HARNESS CONNECTORS]**

PAB

SRSCM CONNECTOR

25	24	●	●	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	■			
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26		

■ Shorting Bar

LRIF501B

**SPECIFICATION** ECCFD7BE

PAB resistance : 1.5 R 5.7

**TERMINAL & CONNECTOR INSPECTION** E3FE6EFF

Refer to DTC B1101.

**INSPECTION PROCEDURE** E44AC78D

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

2. CHECK PAB RESISTANCE

 **CAUTION**

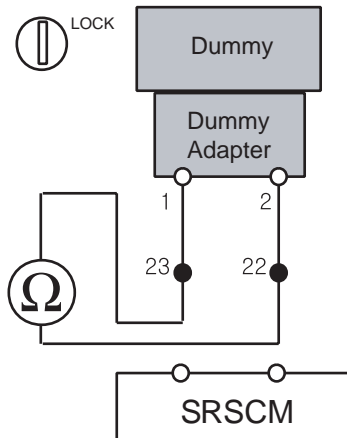
**Never attempt to measure the circuit resistance of the airbag module(squib) even if you are using the specified tester.**

- 1) Connect the Dummy and the Dummy Adapter on PAB harness connector.  
Refer to "SPECIAL SERVICE TOOL" section in this SERVICE MANUAL for the SST No. of Dummy and Dummy Adapter.
- 2) Measure resistance between the terminal 22 and 23 of SRSCM harness connector.

---

PAB resistance : 1.5 R 5.7

---



LRIF501C

- 3) Is the measured resistance within specification?

**YES**

Replace the Passenger Airbag(PAB) module.

**NO**

Check open circuit.

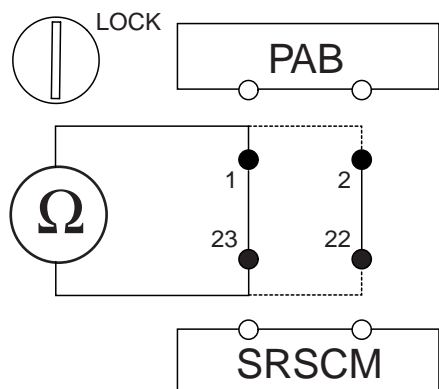
**3. CHECK OPEN CIRCUIT**

- 1) Measure resistance between the terminal 1 of PAB harness connector and the terminal 23 of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of PAB harness connector and the terminal 22 of SRSCM harness connector.

---

specification(resistance) : below 1

---



LRIF501D

Is the measured resistance within specification?

**YES**

Check short circuit.

**NO**

Repair or replace the wiring harness between the PAB and the SRSCM.

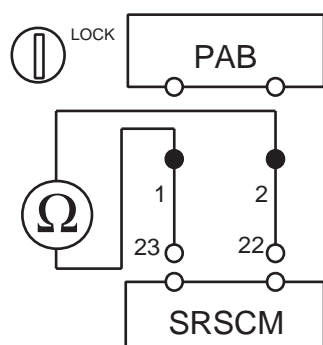
**4. CHECK SHORT CIRCUIT**

- 1) Measure resistance between the terminal 1 and 2 of PAB harness connector.

---

specification(resistance) : infinite

---



ARIE003L

Is the measured resistance within specification?

**YES**

Go to next step.

**NO**

Repair or replace the wiring harness between the PAB and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1354 PAB SHORT TO GROUND**

**DTC DESCRIPTION** E4FC9C1D

The Passenger Airbag circuit consists of the SRSCM and the Passenger Airbag (PAB) which has two squib circuits. The SRSCM sets above DTC(s) if it detects short to ground on the PAB circuit.

**DTC DETECTING CONDITION** ECFAC44E

DTC	Condition	Probable cause
B1354	<ul style="list-style-type: none"> <li>• Short to ground between PAB module and SRSCM</li> <li>• Passenger Airbag (PAB) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Short to ground on wiring harness</li> <li>• Passenger Airbag (PAB) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E6AEFAE6

**[CIRCUIT DIAGRAM]**

**[CONNECTION INFORMATION]**

Pin	Connected to	Function
1	SRSCM Terminal 23	PAB Low
2	SRSCM Terminal 22	PAB High

**[HARNESS CONNECTORS]**

PAB

SRSCM CONNECTOR

25	24	●	●	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	■	■
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26

■ Shorting Bar

LRIF501B

**TERMINAL & CONNECTOR INSPECTION** EE1B91CC

Refer to DTC B1101.

**INSPECTION PROCEDURE** E4E7DCA0

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

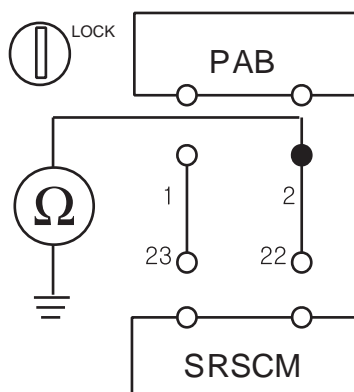
2. CHECK SHORT TO GROUND

- 1) Measure resistance between the terminal 2 of PAB harness connector and chassis ground.

---

specification(resistance) : infinite

---



ARIE003M

Is the measured resistance within specification?

**YES**

Check the PAB Module.

**NO**

Repair or replace the wiring harness between the PAB and the SRSCM.

3. CHECK THE PAB MODULE

- 1) Replace the Passenger Airbag (PAB) with a new one.  
Refer to "Passenger Airbag (PAB)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.

- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to PAB?

**YES**

Go to next step.

**NO**

Replace PAB module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1355 PAB SHORT TO BATTERY**

**DTC DESCRIPTION** E1F1F1CF

The Passenger Airbag circuit consists of the SRSCM and the Passenger Airbag (PAB) which has two squib circuits. The SRSCM sets above DTC(s) if it detects short to battery line on the PAB circuit.

**DTC DETECTING CONDITION** E43A4AF4

DTC	Condition	Probable cause
B1355	<ul style="list-style-type: none"> <li>• Short to battery line between PAB and SRSCM</li> <li>• Passenger Airbag (PAB) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Short to battery line circuit on wiring harness</li> <li>• Passenger Airbag (PAB) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E03DBACA

**[CIRCUIT DIAGRAM]**

**[CONNECTION INFORMATION]**

Pin	Connected to	Function
1	SRSCM Terminal 23	PAB Low
2	SRSCM Terminal 22	PAB High

**[HARNESS CONNECTORS]**

PAB

SRSCM CONNECTOR

25	24	●	●	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	■			
50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26		

■ Shorting Bar

LRIF501B

**TERMINAL & CONNECTOR INSPECTION** ED4AB075

Refer to DTC B1101.

**INSPECTION PROCEDURE** E3FA5CAB

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.

- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

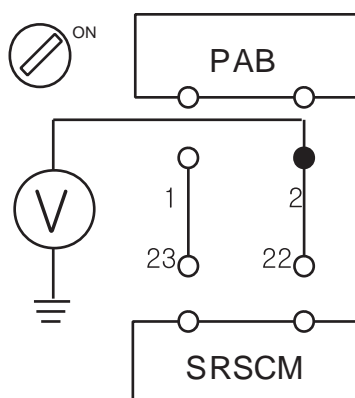
**2. CHECK SHORT TO BATTERY LINE**

- 1) Connect the negative (-) terminal to the battery.
- 2) Turn the ignition switch to ON.
- 3) Measure voltage between the terminal 2 of PAB harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE003N

Is the measured voltage within specification?

**YES**

Check the PAB Module.

**NO**

Repair the short to battery line circuit on wiring harness between the PAB and the SRSCM.

**3. CHECK THE PAB MODULE**

- 1) Replace the Passenger Airbag(PAB) with a new one.  
Refer to "Passenger Airbag(PAB)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to PAB?

**YES**

Go to next step.

**NO**

Replace PAB module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1361 DBPT RESISTANCE TOO HIGH, B1362 DBPT RESISTANCE TOO LOW, B1367 PBPT RESISTANCE TOO HIGH, B1368 PBPT RESISTANCE TOO LOW**

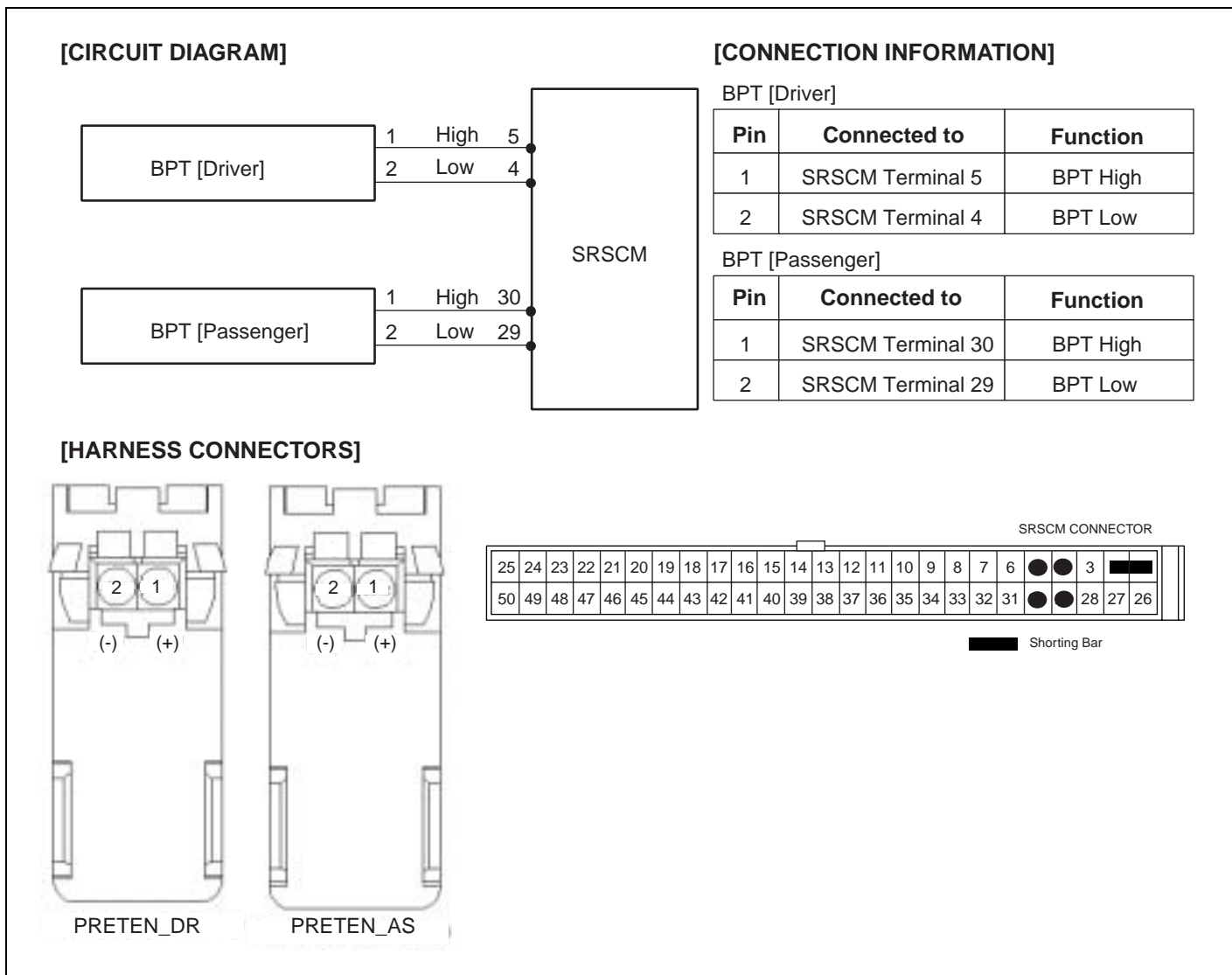
**DTC DESCRIPTION** E34EEDCA

The Seat Belt Pretensioner circuit consists of the SRSCM and two Seat Belt Pretensioner (BPT). The SRSCM sets above DTC(s) if it detects that the resistance of BPT squib is too high or low.

**DTC DETECTING CONDITION** E04F4BF7

DTC	Condition	Probable cause
B1361 B1362 B1367 B1368	<ul style="list-style-type: none"> <li>• Too high or low resistance between BPT high(+) and BPT low (-)</li> <li>• Seat Belt Pretensioner (BPT) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Open or short circuit on wiring harness</li> <li>• Seat Belt Pretensioner (BPT) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E1382C47



**SPECIFICATION** E48C9A69

BPT resistance : 1.5 R 5.7

**TERMINAL & CONNECTOR INSPECTION** E138C4AC

Refer to DTC B1101.

**INSPECTION PROCEDURE** ED7B2D8F

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

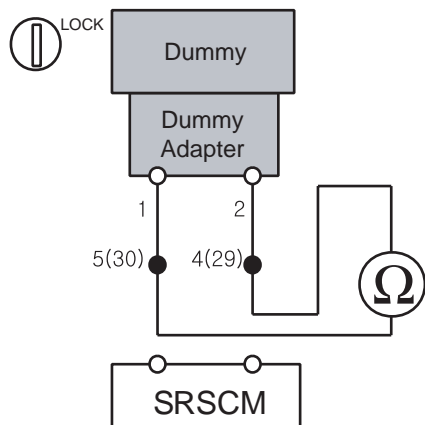
2. CHECK BPT RESISTANCE

 **CAUTION**

**Never attempt to measure the circuit resistance of the airbag module(squib) even if you are using the specified tester.**

- 1) Connect the Dummy and the Dummy Adapter on BPT harness connector.  
Refer to "SPECIAL SERVICE TOOL" section in this SERVICE MANUAL for the SST No. of Dummy and Dummy Adapter.
- 2) Measure resistance between the terminal 5(30) and 4(29) of SRSCM harness connector.

BPT resistance : 1.5 R 5.7



LRIF501F

Is the measured resistance within specification?

**YES**

Replace the Seat Belt Pretensioner(BPT) module.

**NO**

Check open circuit.

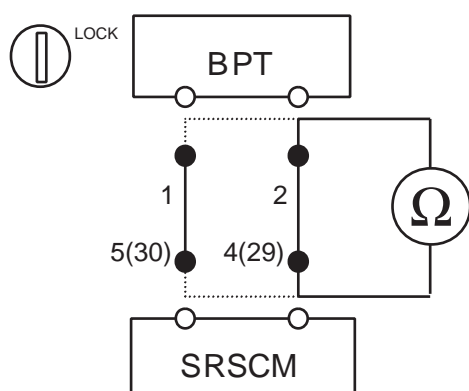
3. CHECK OPEN CIRCUIT

- 1) Measure resistance between the terminal 1 of BPT harness connector and the terminal 5(30) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of BPT harness connector and the terminal 4(29) of SRSCM harness connector.

---

specification(resistance) : below 1

---



ARIE003R

Is the measured resistance within specification?

**YES**

Check short circuit.

**NO**

Repair or replace the wiring harness between the BPT and the SRSCM.

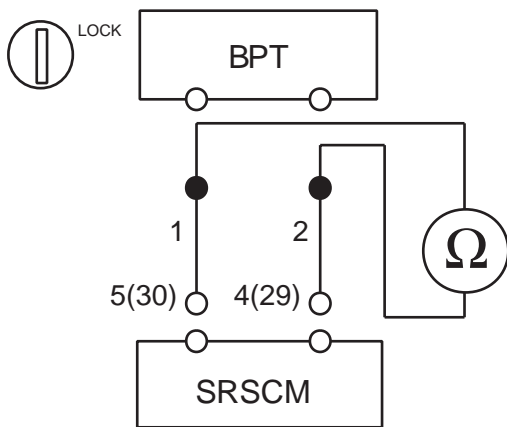
4. CHECK SHORT CIRCUIT

- 1) Measure resistance between the terminal 1 and 2 of BPT harness connector.

---

specification(resistance) : infinite

---



ARIE003S

Is the measured resistance within specification?

**YES**

Go to next step.

**NO**

Repair or replace the wiring harness between the BPT and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1363 DBPT SHORT TO GROUND, B1369 PBPT SHORT TO GROUND**

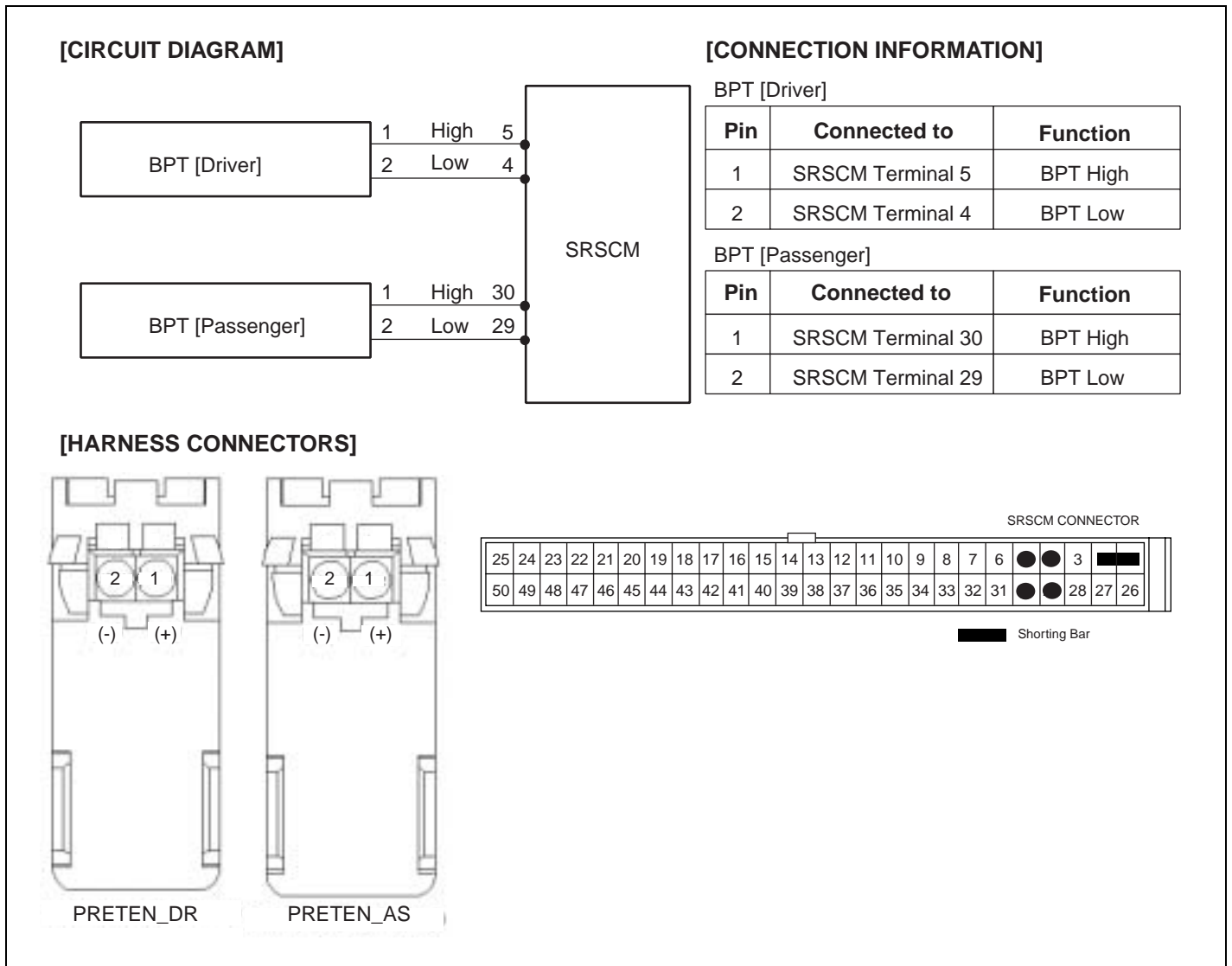
**DTC DESCRIPTION** E38BBEDA

The Seat Belt Pretensioner circuit consists of the SRSCM and two Seat Belt Pretensioner (BPT). The SRSCM sets above DTC(s) if it detects short to ground on the BPT circuit.

**DTC DETECTING CONDITION** E6D1770D

DTC	Condition	Probable cause
B1363 B1369	<ul style="list-style-type: none"> <li>Short to ground between BPT and SRSCM</li> <li>Seat Belt Pretensioner (BPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to ground circuit on wiring harness</li> <li>Seat Belt Pretensioner (BPT) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E1C0A4DF



**TERMINAL & CONNECTOR INSPECTION** EBBAE048

Refer to DTC B1101.

**INSPECTION PROCEDURE** ECDE4DE4

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

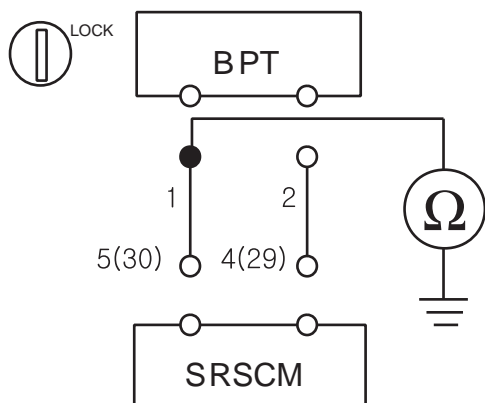
2. CHECK SHORT TO GROUND

- 1) Measure resistance between the terminal 1 of BPT harness connector and chassis ground.

---

specification(resistance) : infinite

---



ARIE003T

Is the measured resistance within specification?

**YES**

Check the BPT Module.

**NO**

Repair or replace the wiring harness between the BPT and the SRSCM.

3. CHECK THE BPT MODULE

- 1) Replace the Belt Pretensioner (BPT) with a new one.  
Refer to "Belt Pretensioner (BPT)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Belt Pretensioner (BPT)?

**YES**

Go to next step.

**NO**

Replace BPT module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1364 DBPT SHORT TO BATTERY, B1370 PBPT SHORT TO BATTERY**

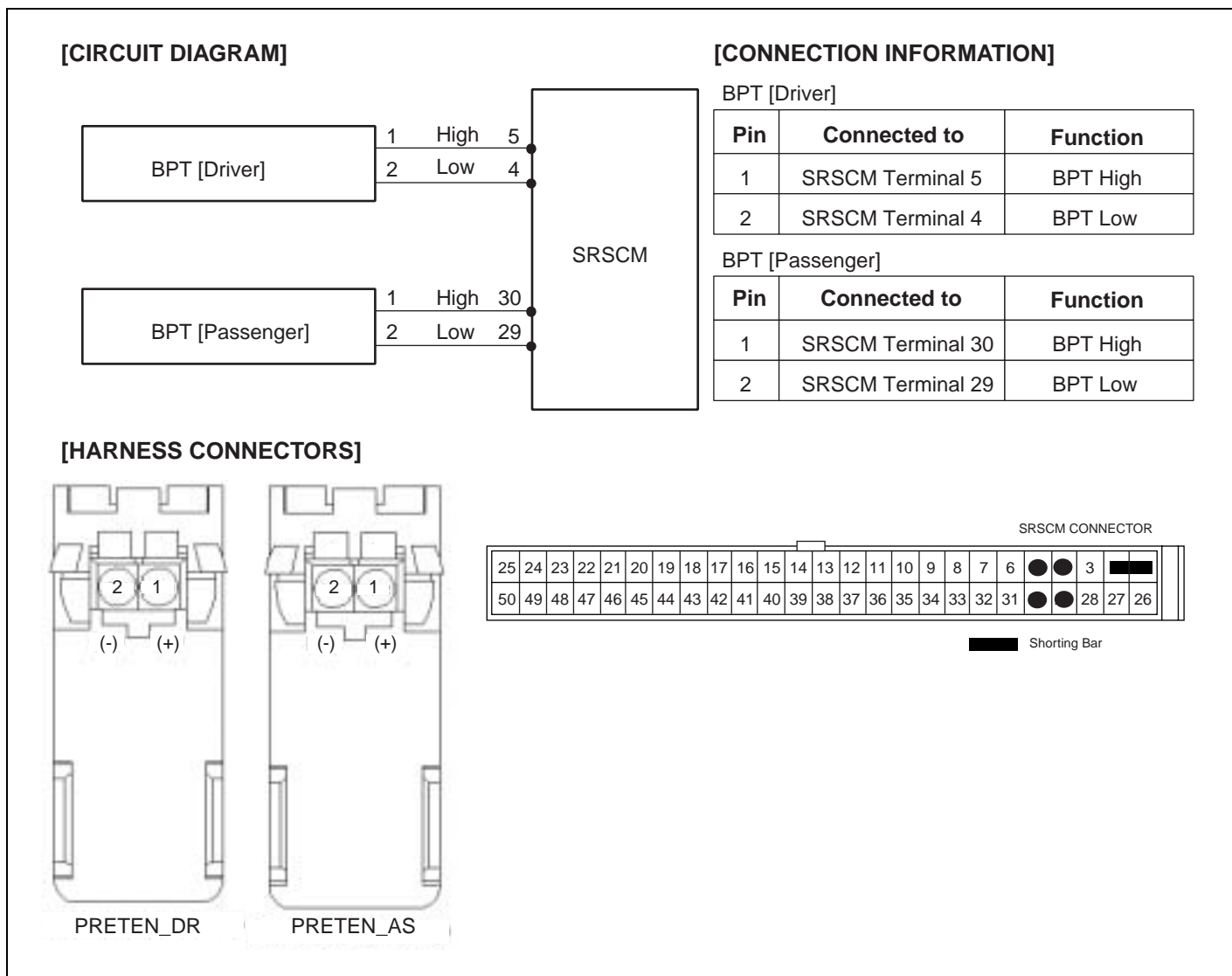
**DTC DESCRIPTION** E2C18CB5

The Seat Belt Pretensioner circuit consists of the SRSCM and two Seat Belt Pretensioner (BPT). The SRSCM sets above DTC(s) if it detects short to battery line on the BPT circuit.

**DTC DETECTING CONDITION** E2459DEF

DTC	Condition	Probable cause
B1364 B1370	<ul style="list-style-type: none"> <li>Short to battery line between BPT and SRSCM</li> <li>Seat Belt Pretensioner (BPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to battery line circuit on wiring harness</li> <li>Seat Belt Pretensioner (BPT) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EEB163D5



**TERMINAL & CONNECTOR INSPECTION** E9CDE736

Refer to DTC B1101.

**INSPECTION PROCEDURE** EB0CD683

**1. PREPARATION**

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

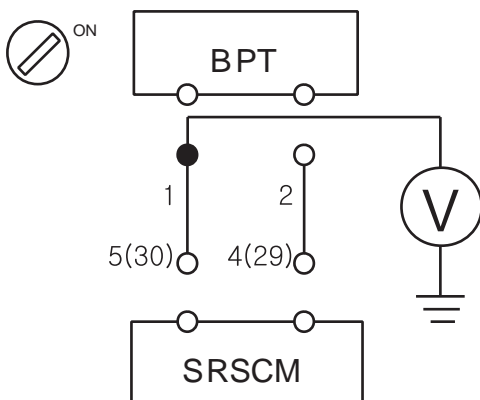
**2. CHECK SHORT TO BATTERY LINE**

- 1) Connect the negative (-) terminal to the battery.
- 2) Turn the ignition switch to ON.
- 3) Measure voltage between the terminal 1 of BPT harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE003U

Is the measured voltage within specification?

**YES**

Check the BPT Module.

**NO**

Repair the short to battery line circuit on wiring harness between the BPT and the SRSCM.

3. CHECK THE BPT MODULE

- 1) Replace the Belt Pretensioner (BPT) with a new one.  
Refer to "Belt Pretensioner (BPT)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Belt Pretensioner (BPT)?

**YES**

Go to next step.

**NO**

Replace BPT module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1378 DSAB RESISTANCE TOO HIGH, B1379 DSAB RESISTANCE LOW, B1382 PSAB RESISTANCE HIGH, B1383 PSAB RESISTANCE LOW**

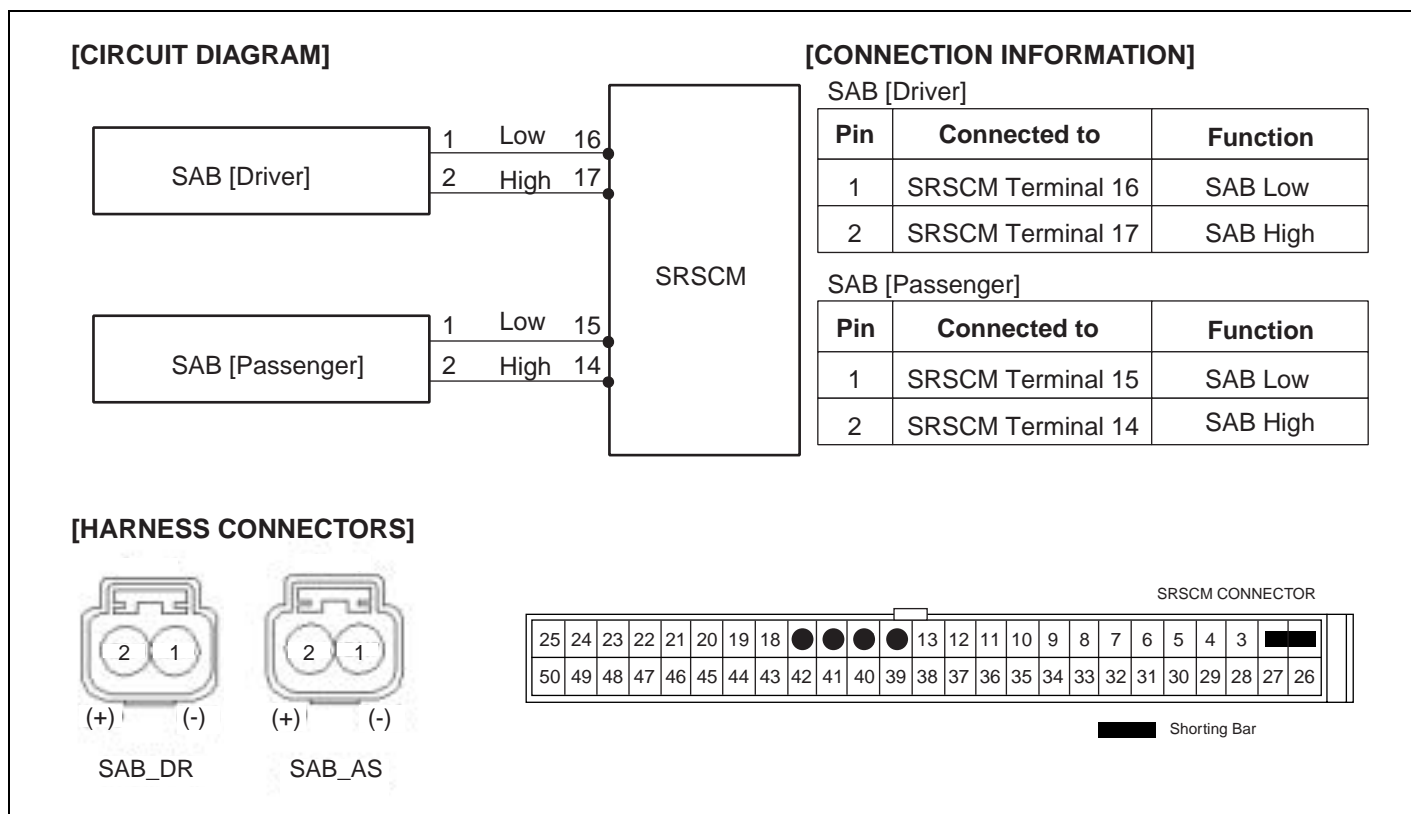
**DTC DESCRIPTION** EEF9CC41

The Side Airbag circuit consists of the SRSCM and two Side Airbag (SAB). The SRSCM sets above DTC(s) if it detects that the resistance of SAB squib is too high or low.

**DTC DETECTING CONDITION** E1E3E4DD

DTC	Condition	Probable cause
B1378 B1379 B1382 B1383	<ul style="list-style-type: none"> <li>• Too high or low resistance between SAB high(+) and SAB low (-)</li> <li>• Side Airbag (SAB) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Open or short circuit on wiring harness</li> <li>• Side Airbag (SAB) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EDF2F08F



LRIF501G

**SPECIFICATION** E9BE89FE

SAB resistance : 1.5 R 5.7

**TERMINAL & CONNECTOR INSPECTION** EEDC8A82

Refer to DTC B1101.

**INSPECTION PROCEDURE** EBEDA339

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

2. CHECK SAB RESISTANCE

 **CAUTION**

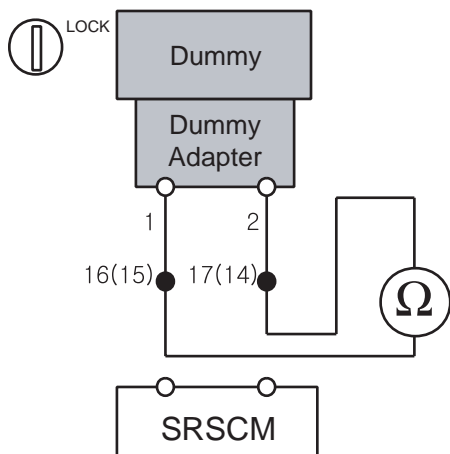
**Never attempt to measure the circuit resistance of the airbag module(squib) even if you are using the specified tester.**

- 1) Connect the Dummy and the Dummy Adapter on SAB harness connector.  
Refer to "SPECIAL SERVICE TOOL" section in this SERVICE MANUAL for the SST No. of Dummy and Dummy Adapter.
- 2) Measure resistance between the terminal 17(14) and 16(15) of SRSCM harness connector.

---

SAB resistance : 1.5 R 5.7

---



LRIF501H

Is the measured resistance within specification?

**YES**

Replace the Side Airbag(SAB) module.

**NO**

Check open circuit.

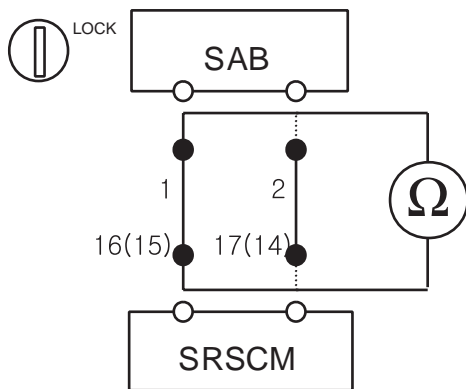
**3. CHECK OPEN CIRCUIT**

- 1) Measure resistance between the terminal 1 of SAB harness connector and the terminal 16(15) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of SAB harness connector and the terminal 17(14) of SRSCM harness connector.

---

specification(resistance) : below 1

---



ARIE004B

Is the measured resistance within specification?

**YES**

Check short circuit.

**NO**

Repair or replace the wiring harness between the SAB and the SRSCM.

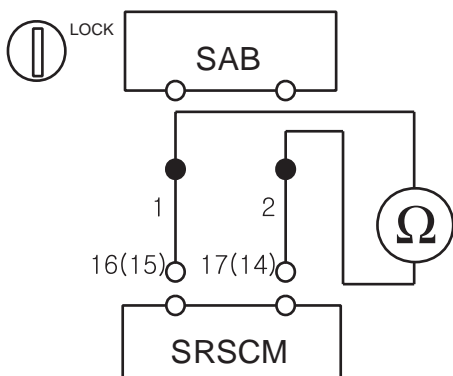
**4. CHECK SHORT CIRCUIT**

- 1) Measure resistance between the terminal 1 and 2 of SAB harness connector.

---

specification(resistance) : infinite

---



ARIE004C

Is the measured resistance within specification?

**YES**

Go to next step.

**NO**

Repair or replace the wiring harness between the SAB and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1380 DSAB SHORT TO GROUND, B1384 PSAB SHORT TO GROUND**

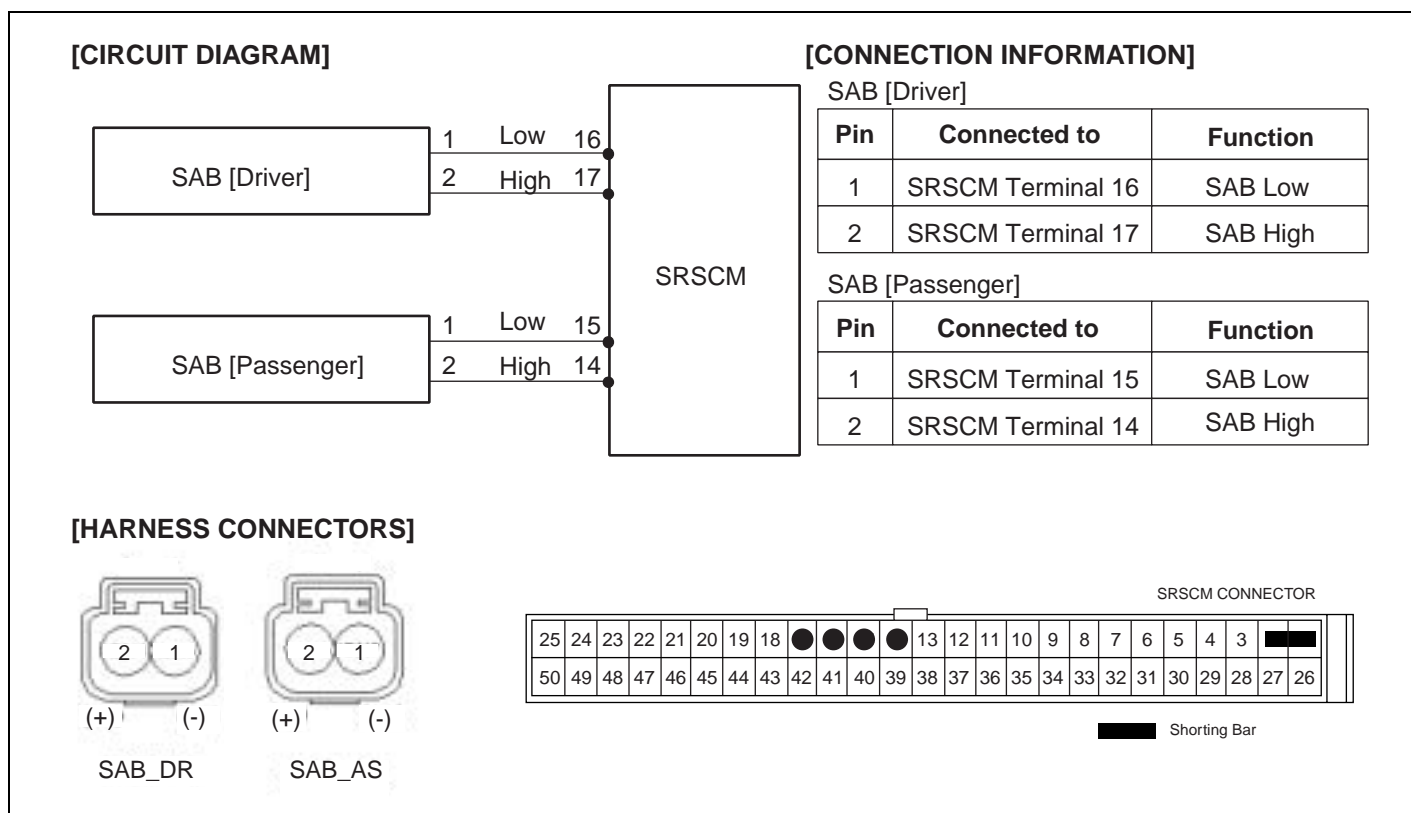
**DTC DESCRIPTION** EBBB7CCE

The Side Airbag circuit consists of the SRSCM and two Side Airbag (SAB). The SRSCM sets above DTC(s) if it detects short to ground on the SAB circuit.

**DTC DETECTING CONDITION** ECFE6C1A

DTC	Condition	Probable cause
B1380 B1384	<ul style="list-style-type: none"> <li>Short to ground between SAB and SRSCM</li> <li>Side Airbag (SAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to ground circuit on wiring harness</li> <li>Side Airbag (SAB) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EAD47ED6



LRIF501G

**TERMINAL & CONNECTOR INSPECTION** E3F08C16

Refer to DTC B1101.

**INSPECTION PROCEDURE** E81EA1E1

1. PREPARATION

- 1) Turn the ignition switch to LOCK.

- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

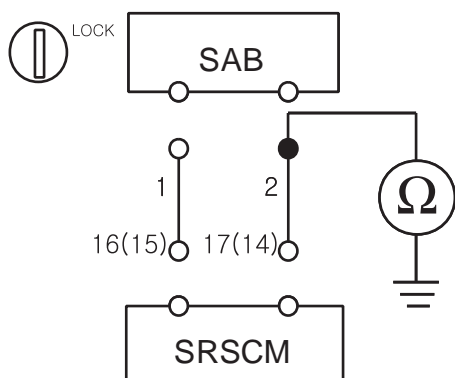
2. CHECK SHORT TO GROUND

- 1) Measure resistance between the terminal 2 of SAB harness connector and chassis ground.

---

specification(resistance) : infinite

---



ARIE004D

Is the measured resistance within specification?

**YES**

Check the SAB Module.

**NO**

Repair or replace the wiring harness between the SAB and the SRSCM.

3. CHECK THE SAB MODULE

- 1) Replace the Side Airbag(SAB) with a new one.  
Refer to "Side Airbag(SAB)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.

- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Side Airbag(SAB)?

**YES**

Go to next step.

**NO**

Replace SAB module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1381 DSAB SHORT TO BATTERY, B1385 PSAB SHORT TO BATTERY**

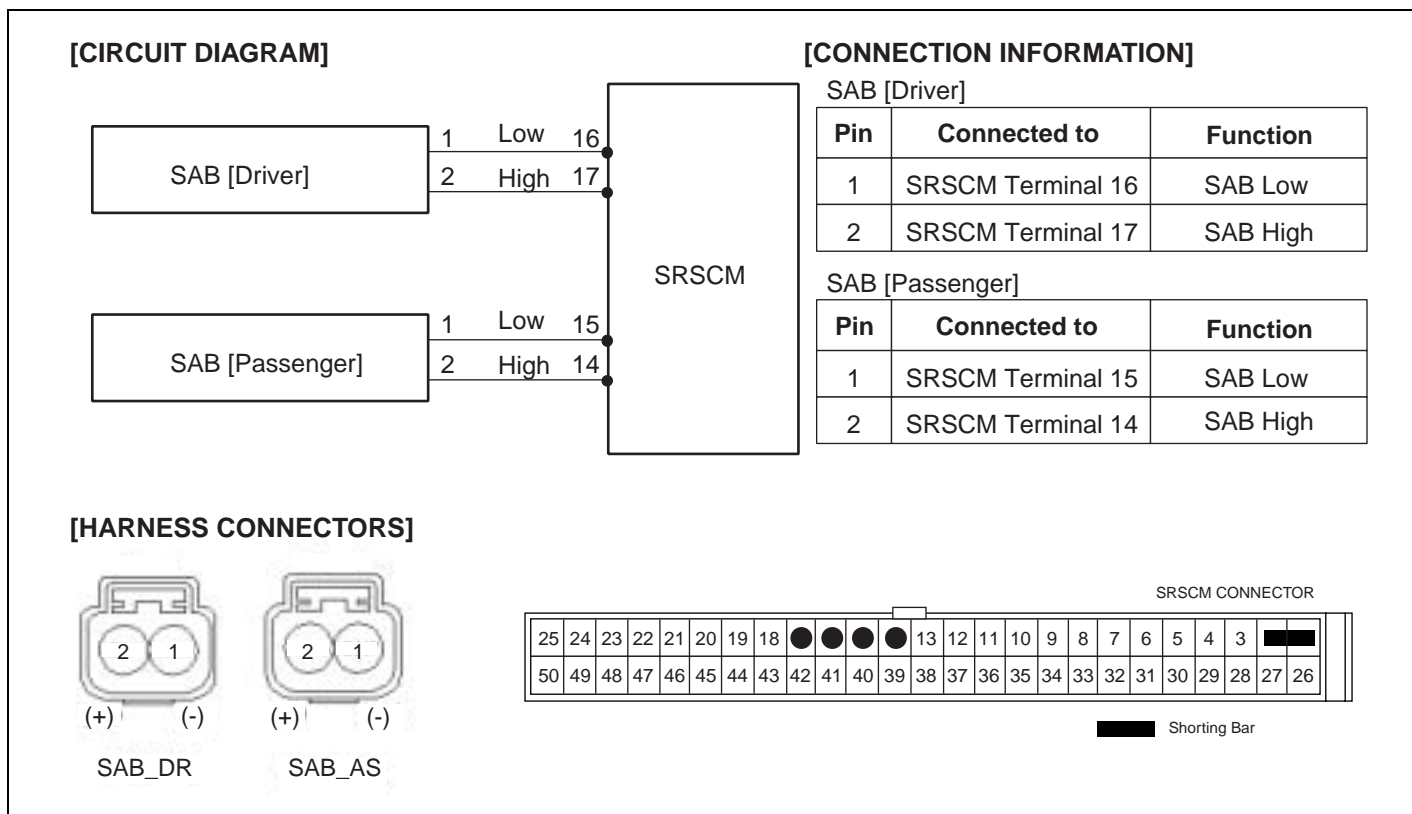
**DTC DESCRIPTION** EA83297C

The Side Airbag circuit consists of the SRSCM and two Side Airbag (SAB).The SRSCM sets above DTC(s) if it detects short to battery line on the SAB circuit.

**DTC DETECTING CONDITION** E4E2CFDA

DTC	Condition	Probable cause
B1381 B1385	<ul style="list-style-type: none"> <li>• Short to battery line between SAB and SRSCM</li> <li>• Side Airbag (SAB) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Short to battery line circuit on wiring harness</li> <li>• Side Airbag (SAB) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E31FB0F7



LRIF501G

**TERMINAL & CONNECTOR INSPECTION** EB47FAE6

Refer to DTC B1101.

**INSPECTION PROCEDURE** EA18F119

1. PREPARATION

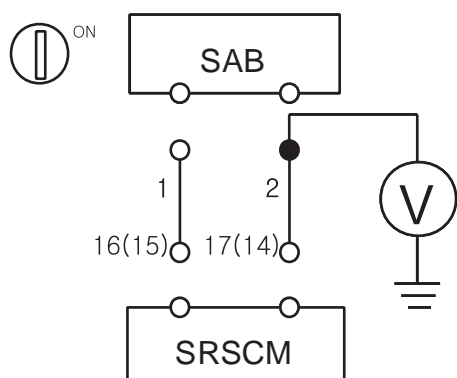
- 1) Turn the ignition switch to LOCK.

- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
  - 3) Remove the DAB module and disconnect the DAB connector.
  - 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
  - 5) Disconnect the SRSCM connector.
2. CHECK SHORT TO BATTERY LINE
- 1) Connect the negative (-) terminal to the battery.
  - 2) Turn the ignition switch to ON.
  - 3) Measure voltage between the terminal 2 of SAB harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE004E

Is the measured voltage within specification?

**YES**

Check the SAB Module.

**NO**

Repair the short to battery line circuit on wiring harness between the SAB and the SRSCM.

3. CHECK THE SAB MODULE
- 1) Replace the Side Airbag(SAB) with a new one.  
Refer to "Side Airbag(SAB)" section in this SERVICE MANUAL.
  - 2) Install the DAB module and connect the DAB connector.
  - 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the negative (-) terminal to the battery.
  - 6) Connect a Hi-Scan(Pro) to the data link connector.

- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Side Airbag(SAB)?

**YES**

Go to next step.

**NO**

Replace SAB module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1400 DSIS DEFECT, B1403 PSIS DEFECT, B1409 DSIS COMMUNICATION ERROR, B1410 PSIS COMMUNICATION ERROR**

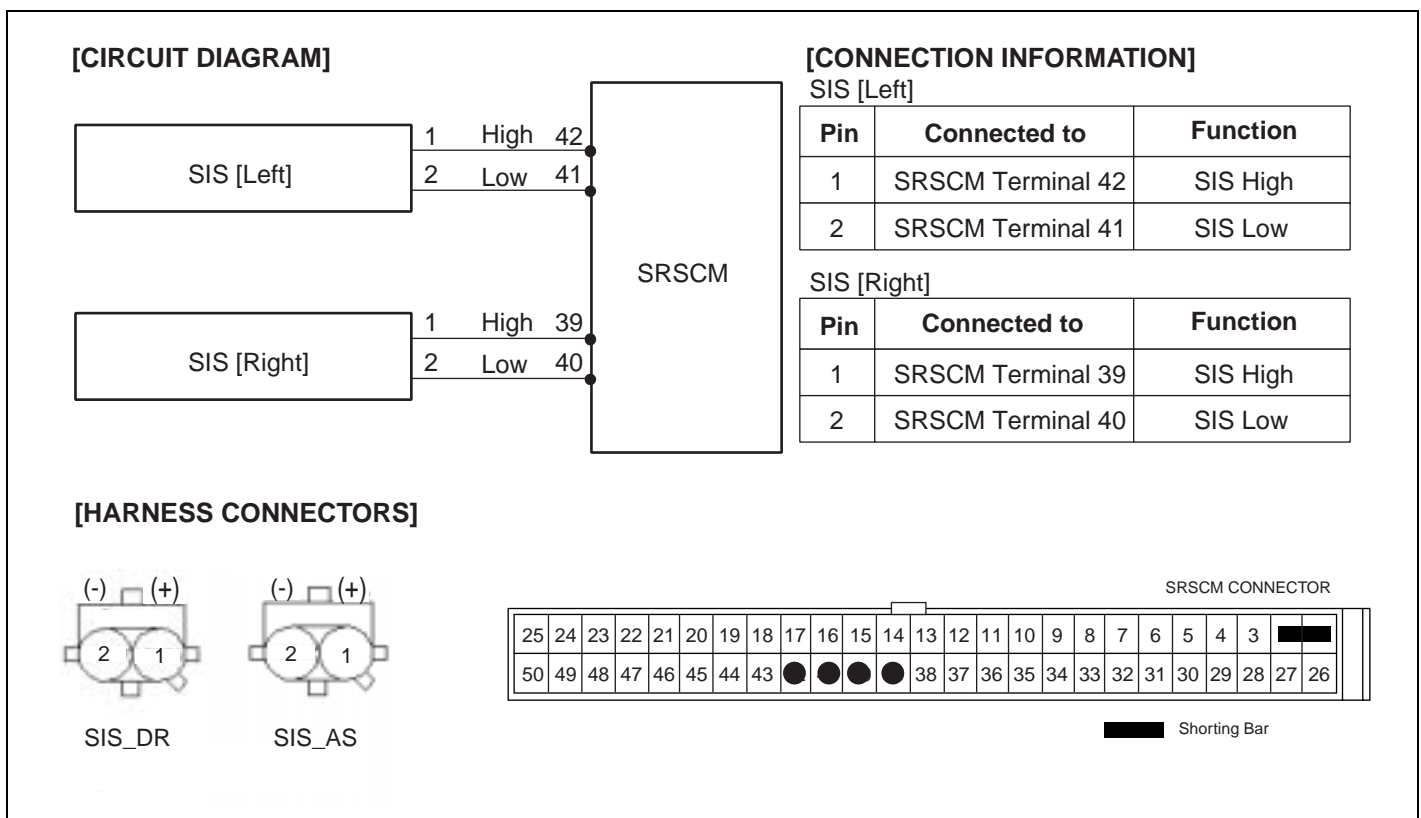
**DTC DESCRIPTION** EE17BF58

The detecting system for side crash consists of the SRSCM and two Side Impact Sensor (SIS).The SRSCM sets above DTC(s) if it detects that any SIS is defective or there is communication error between any front SIS and the SRSCM.

**DTC DETECTING CONDITION** E32122C4

DTC	Condition	Probable cause
B1400 B1403 B1409 B1410	<ul style="list-style-type: none"> <li>• Open between SIS and SRSCM</li> <li>• Side Impact Sensor (SIS) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Wiring Harness</li> <li>• Side Impact Sensor (SIS) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E1078169



LRIF5011

**TERMINAL & CONNECTOR INSPECTION** EBF7DBE

Refer to DTC B1101.

**INSPECTION PROCEDURE** E880577F

1. PREPARATION

- 1) Turn the ignition switch to LOCK.

- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

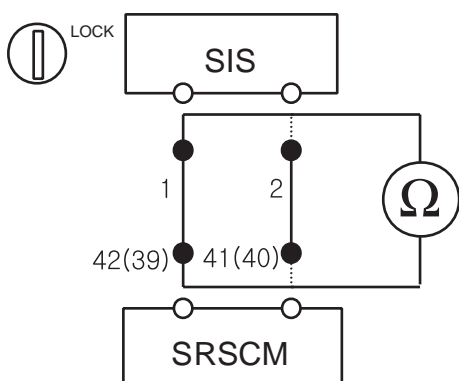
2. CHECK SIS CIRCUIT

- 1) Measure resistance between the terminal 1 of SIS harness connector and the terminal 42(39) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of SIS harness connector and the terminal 41(40) of SRSCM harness connector.

---

specification(resistance) : below 1

---



ARIE004N

Is the measured resistance within specification?

**YES**

Check Side Impact Sensor.

**NO**

Repair or replace the wiring harness between the SIS and the SRSCM.

3. CHECK THE SIDE IMPACT SENSOR

- 1) Replace the Side Impact Sensor(SIS) with a new one.  
Refer to "Side Impact Sensor(SIS)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.

- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Side Impact Sensor(SIS)?

**YES**

Go to next step.

**NO**

Replace SIS.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1401 DSIS SHORT TO GROUND, B1404 PSIS SHORT TO GROUND**

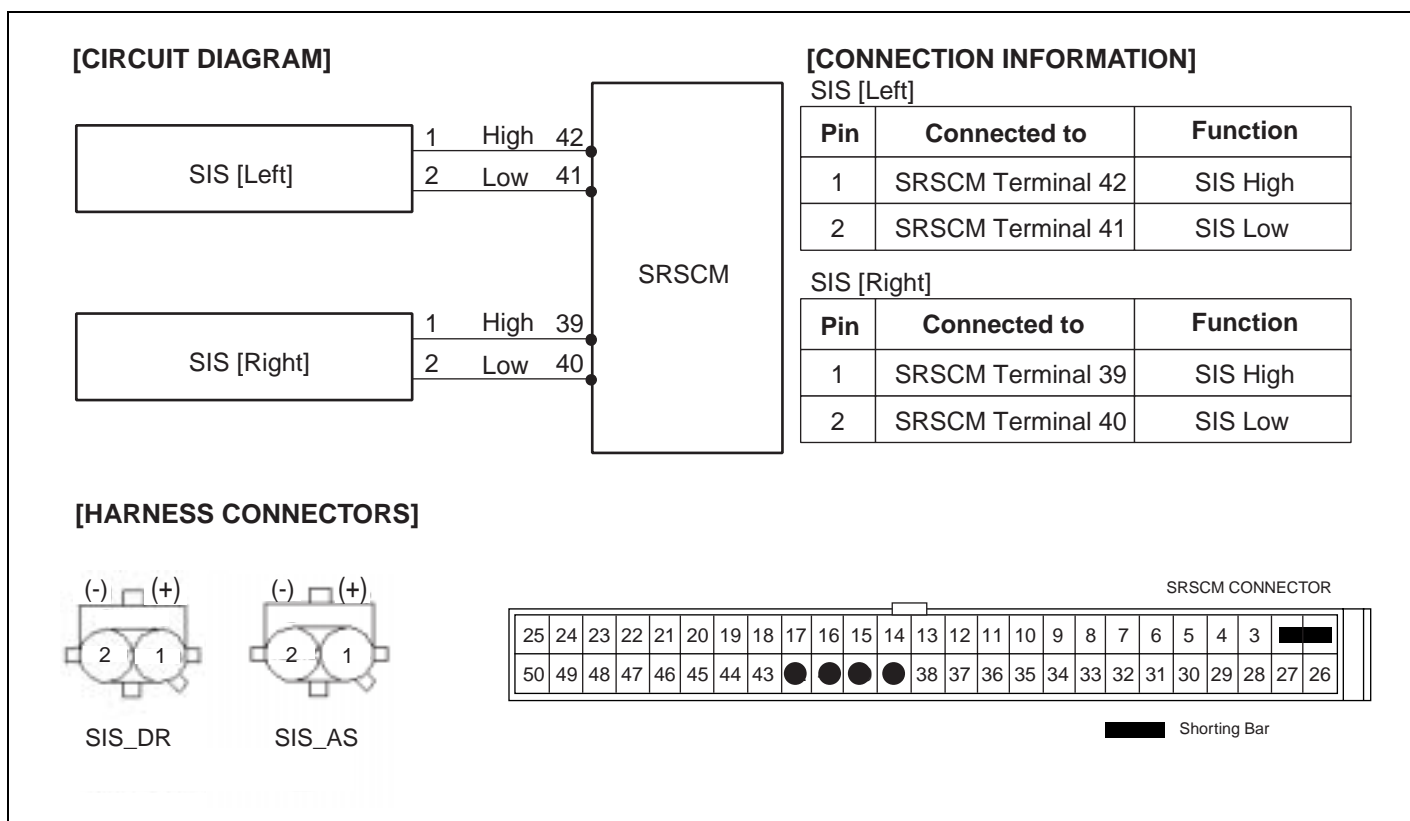
**DTC DESCRIPTION** E106C5DC

The detecting system for side crash consists of the SRSCM and two Side Impact Sensor (SIS).The SRSCM sets above DTC(s) if it detects short to ground on the SIS circuit.

**DTC DETECTING CONDITION** E4BADDCC

DTC	Condition	Probable cause
B1401 B1404	<ul style="list-style-type: none"> <li>Short to ground between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to ground circuit on wiring Harness</li> <li>Side Impact Sensor (SIS) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E4BA40C5



LRIF5011

**TERMINAL & CONNECTOR INSPECTION** E688EB43

Refer to DTC B1101.

**INSPECTION PROCEDURE** EBB12790

1. PREPARATION

- 1) Turn the ignition switch to LOCK.

- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

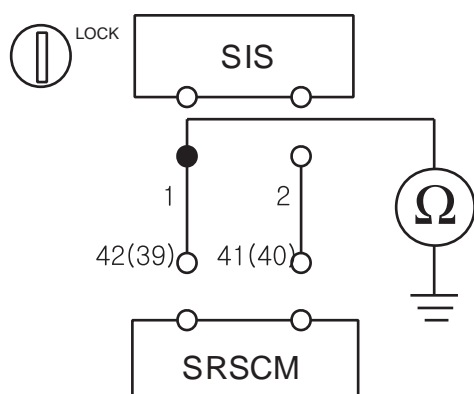
**2. CHECK SHORT TO GROUND**

- 1) Measure resistance between the terminal 1 of SIS harness connector and chassis ground.

---

specification(resistance) : infinite

---



ARIE004P

Is the measured resistance within specification?

**YES**

Check the SIS.

**NO**

Repair or replace the wiring harness between the SIS and the SRSCM.

**3. CHECK THE SIDE IMPACT SENSOR**

- 1) Replace the Side Impact Sensor(SIS) with a new one.  
Refer to "Side Impact Sensor(SIS)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.

- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Side Impact Sensor(SIS)?

**YES**

Go to next step.

**NO**

Replace SIS module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1402 DSIS SHORT TO BATTERY, B1405 PSIS SHORT TO BATTERY**

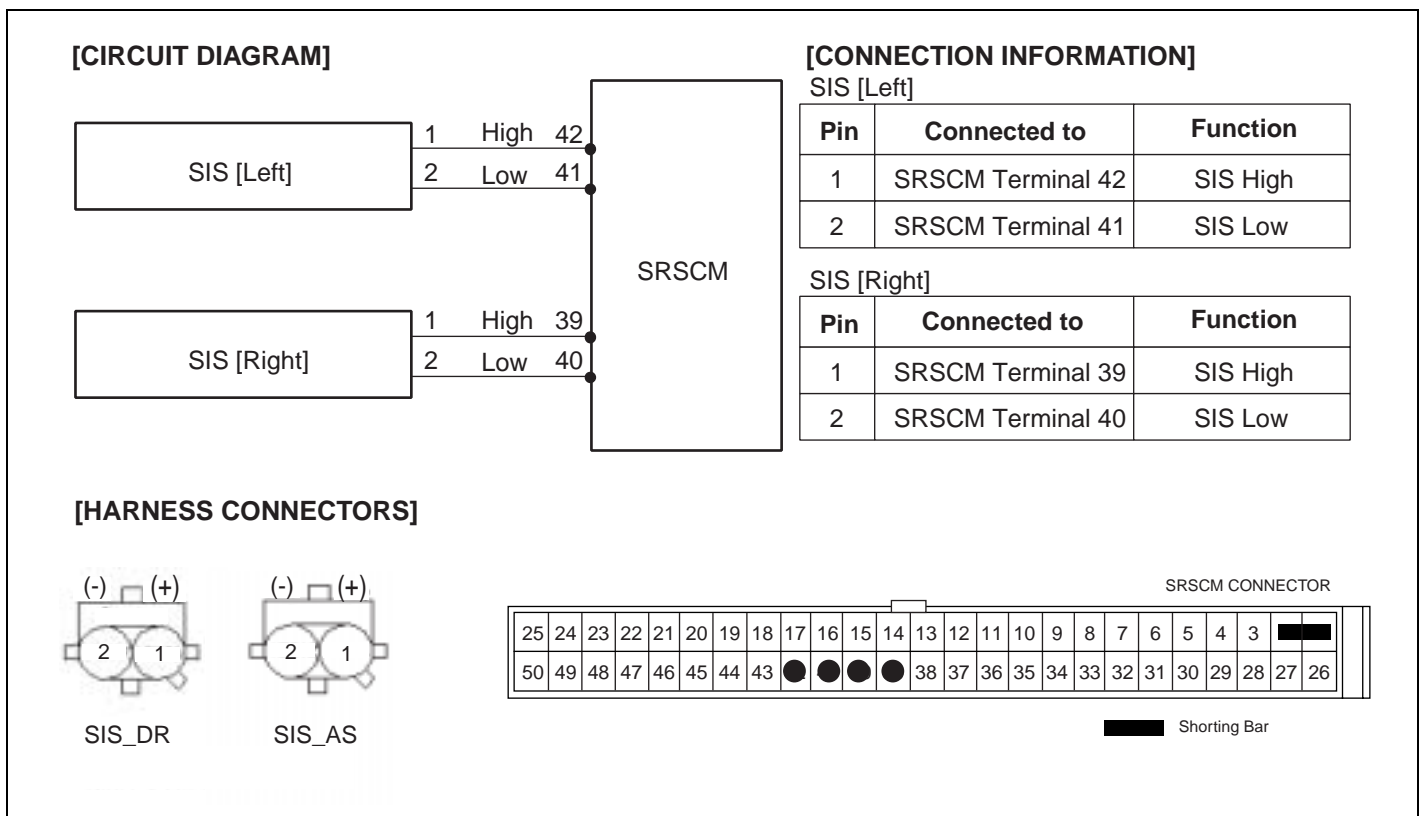
**DTC DESCRIPTION** EFD20E8C

The detecting system for side crash consists of the SRSCM and two Side Impact Sensor (SIS).The SRSCM sets above DTC(s) if it detects short to battery line on the SIS circuit.

**DTC DETECTING CONDITION** E3EE6BB8

DTC	Condition	Probable cause
B1402 B1405	<ul style="list-style-type: none"> <li>• Short to battery line between SIS and SRSCM</li> <li>• Side Impact Sensor (SIS) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Short to battery line circuit on wiring Harness</li> <li>• Side Impact Sensor (SIS) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EFAD5C8B



LRIF5011

**TERMINAL & CONNECTOR INSPECTION** EDBD6E48

Refer to DTC B1101.

**INSPECTION PROCEDURE** EC9EC9FF

1. PREPARATION

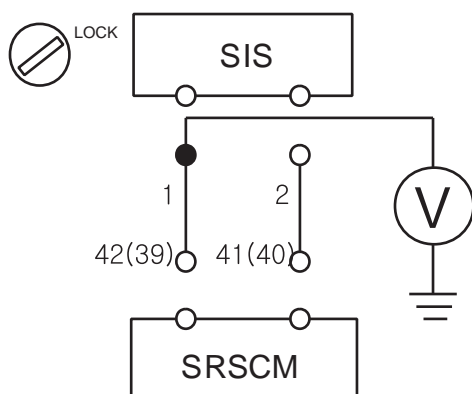
- 1) Turn the ignition switch to LOCK.

- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
  - 3) Remove the DAB module and disconnect the DAB connector.
  - 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
  - 5) Disconnect the SRSCM connector.
2. CHECK SHORT TO BATTERY LINE
- 1) Connect the negative (-) terminal to the battery.
  - 2) Turn the ignition switch to ON.
  - 3) Measure voltage between the terminal 1 of SIS harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE004Q

Is the measured voltage within specification?

**YES**

Check the SIS Module.

**NO**

Repair the short to battery line circuit on wiring harness between the SIS and the SRSCM.

3. CHECK THE SIS MODULE
- 1) Replace the Side Impact Sensor(SIS) with a new one.  
Refer to "Side Impact Sensor(SIS)" section in this SERVICE MANUAL.
  - 2) Install the DAB module and connect the DAB connector.
  - 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the negative (-) terminal to the battery.
  - 6) Connect a Hi-Scan(Pro) to the data link connector.

- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Side Impact Sensor(SIS)?

**YES**

Go to next step.

**NO**

Replace SIS module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1414 DSIS WRONG ID, B1415 PSIS WRONG ID**

**DTC DESCRIPTION** E1047FC7

The detecting system for side crash consists of the SRSCM and two Side Impact Sensor (SIS).The SRSCM sets above DTC(s) if it detects SIS wrong ID.

**INSPECTION PROCEDURE** ECF64DE0

If above DTC is detected, replace Side Impact Sensors(SIS).

**DTC B1473 DCAB RESISTANCE TOO HIGH, B1474 DCAB RESISTANCE TOO LOW, B1477 PCAB RESISTANCE HIGH, B1478 PCAB RESISTANCE TOO LOW**

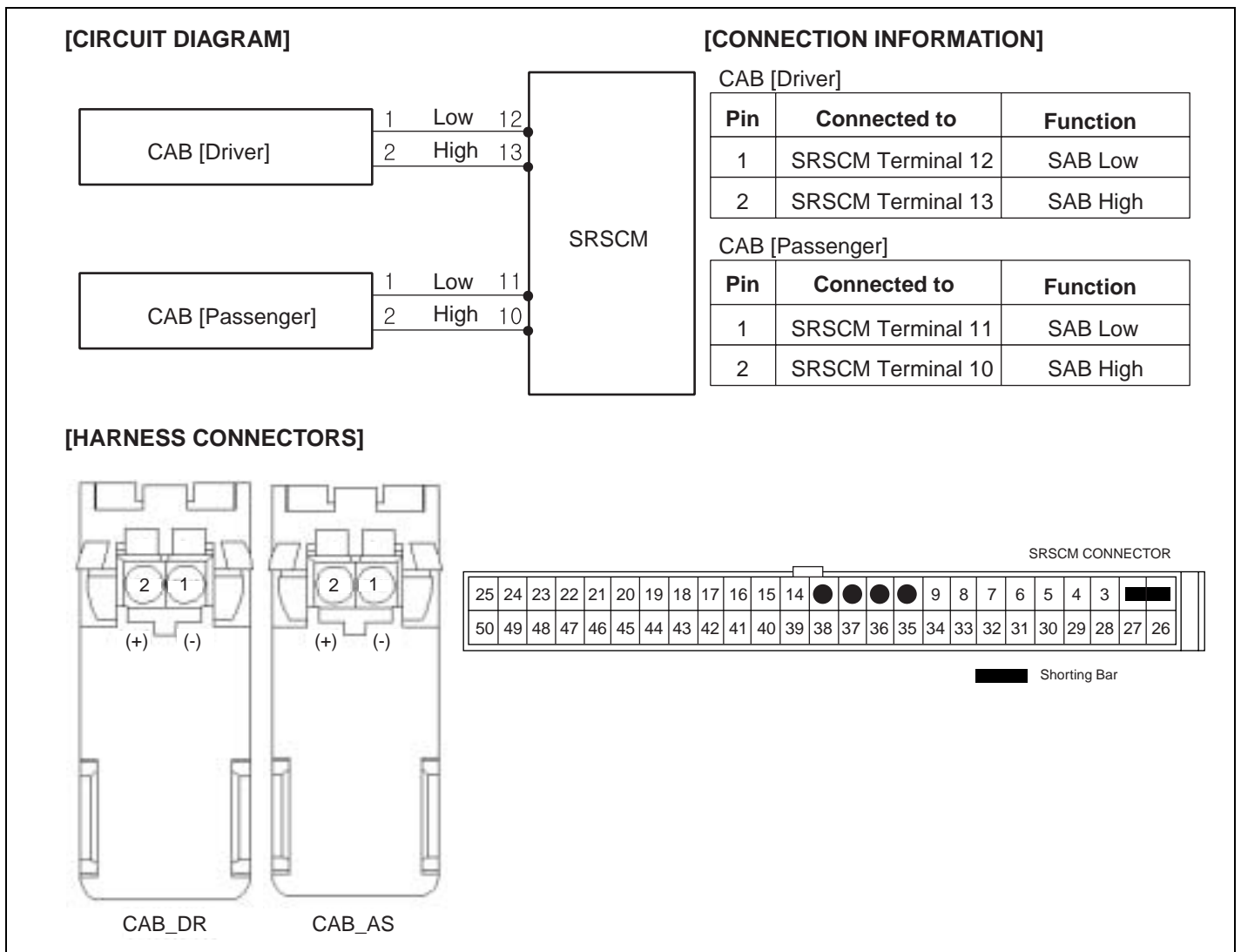
**DTC DESCRIPTION** EABCC0D9

The CAB squib circuit consists of the SRSCM and CAB. It causes the SRS to deploy when the SRS deployment conditions are satisfied. The above DTC is recorded when the CAB resistance too high or low is detected in the CAB squib circuit.

**DTC DETECTING CONDITION** EB2EC2E1

DTC	Condition	Probable cause
B1473 B1474 B1477 B1478	<ul style="list-style-type: none"> <li>• Too high or low resistance between CAB high(+) and CAB low (-)</li> <li>• Curtain Airbag (CAB) Malfunction</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Open or short circuit on wiring harness</li> <li>• Curtain Airbag (CAB) squib</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E3319003



**SPECIFICATION** EAB3F96A

CAB resistance : 1.5 R 5.7

**TERMINAL & CONNECTOR INSPECTION** EB149098

Refer to DTC B1101.

**INSPECTION PROCEDURE** EE2D22FC

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

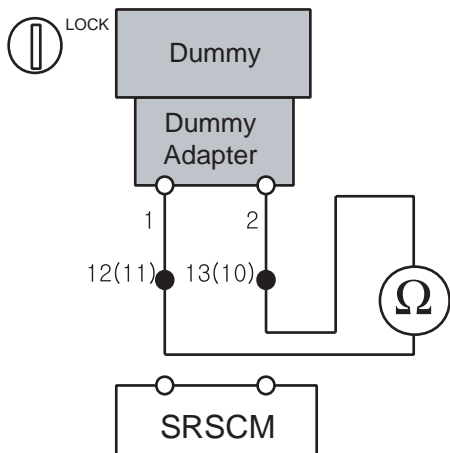
2. CHECK CAB RESISTANCE

 **CAUTION**

**Never attempt to measure the circuit resistance of the airbag module(squib) even if you are using the specified tester.**

- 1) Connect the Dummy and the Dummy Adapter on CAB harness connector.  
Refer to "SPECIAL SERVICE TOOL" section in this SERVICE MANUAL for the SST No. of Dummy and Dummy Adapter.
- 2) Measure resistance between the terminal 13(10) and 12(11) of SRSCM harness connector.

CAB resistance : 1.5 R 5.7



LRIF501Q

Is the measured resistance within specification?

**YES**

Replace the Curtain Airbag(CAB) module.

**NO**

Check open circuit.

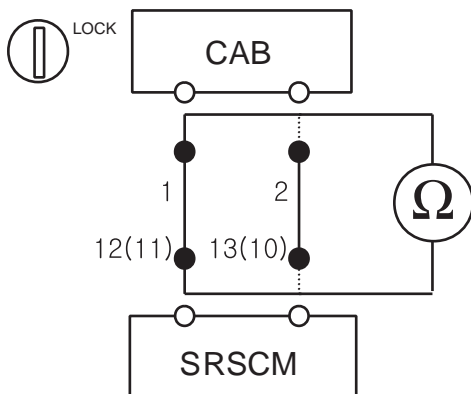
3. CHECK OPEN CIRCUIT

- 1) Measure resistance between the terminal 1 of CAB harness connector and the terminal 12(11) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of CAB harness connector and the terminal 13(10) of SRSCM harness connector.

---

specification(resistance) : below 1

---



ARIE004T

Is the measured resistance within specification?

**YES**

Check short circuit.

**NO**

Repair or replace the wiring harness between the CAB and the SRSCM.

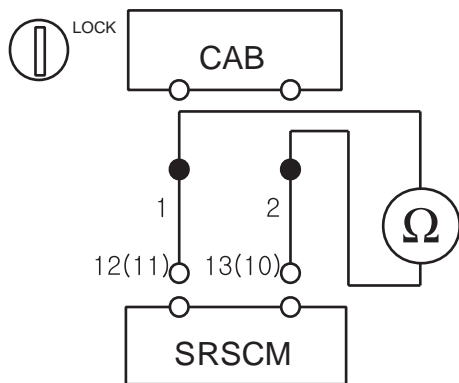
4. CHECK SHORT CIRCUIT

- 1) Measure resistance between the terminal 1 and 2 of CAB harness connector.

---

specification(resistance) : infinite

---



ARIE004U

Is the measured resistance within specification?

**YES**

Go to next step.

**NO**

Repair or replace the wiring harness between the CAB and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1475 DCAB SHORT TO GROUND, B1479 PCAB SHORT TO GROUND**

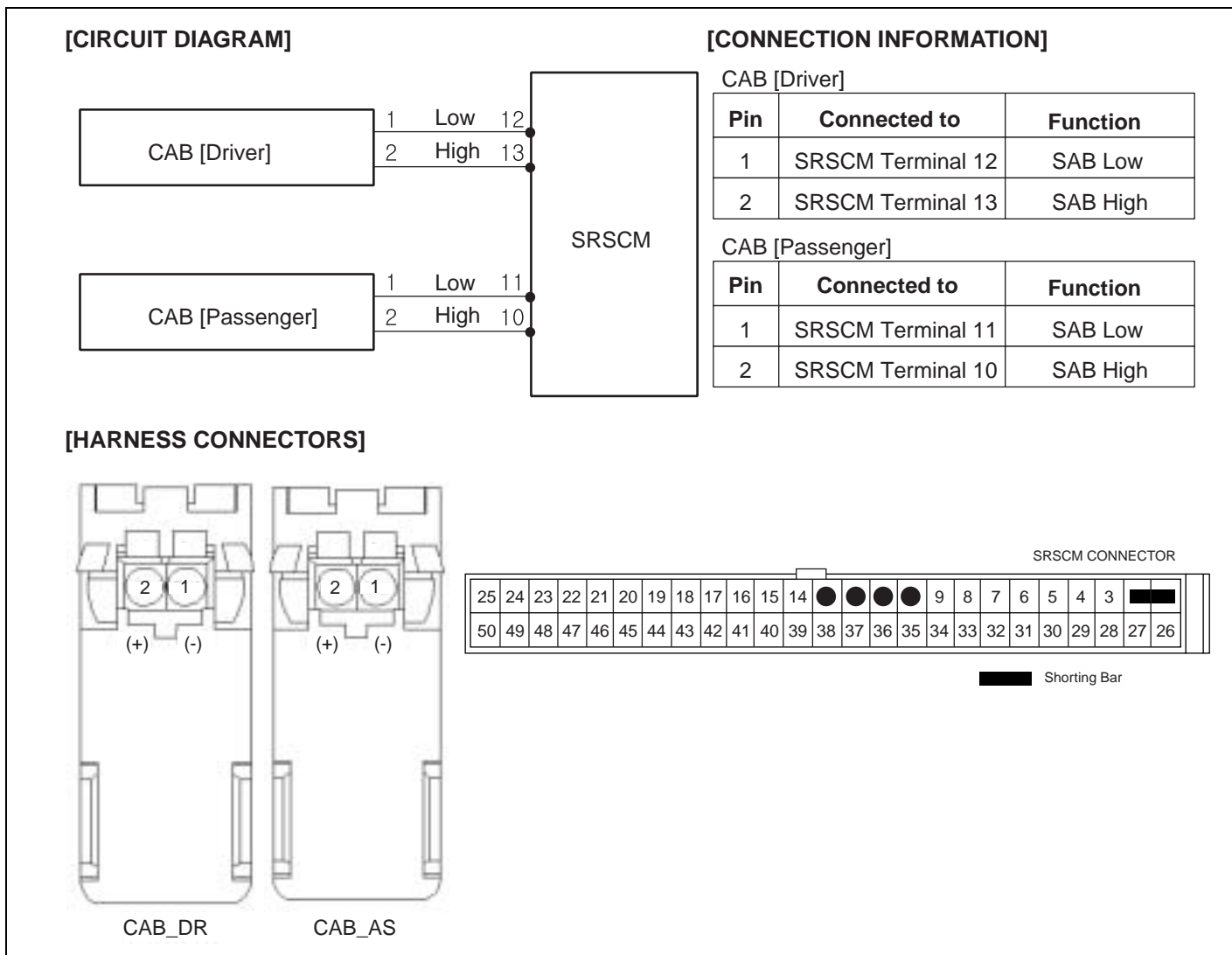
**DTC DESCRIPTION** E7C1A06B

The CAB squib circuit consists of the SRSCM and CAB. It causes the SRS to deploy when the SRS deployment conditions are satisfied. The above DTC is recorded when short to ground is detected in the CAB squib circuit.

**DTC DETECTING CONDITION** E1BCD6BB

DTC	Condition	Probable cause
B1475 B1479	<ul style="list-style-type: none"> <li>Short to ground between CAB and SRSCM</li> <li>Curtain Airbag (CAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to ground circuit on wiring harness</li> <li>Curtain Airbag (CAB) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EBD7F18E



**TERMINAL & CONNECTOR INSPECTION** E87BAD79

Refer to DTC B1101.

**INSPECTION PROCEDURE** E27EC35D

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

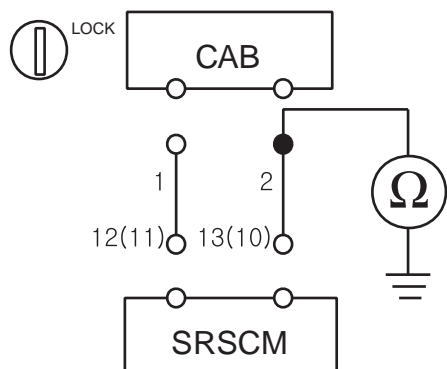
2. CHECK SHORT TO GROUND

- 1) Measure resistance between the terminal 2 of CAB harness connector and chassis ground.

---

specification(resistance) : infinite

---



ARIE004W

Is the measured resistance within specification?

**YES**

Check the CAB Module.

**NO**

Repair or replace the wiring harness between the CAB and the SRSCM.

3. CHECK THE CAB MODULE

- 1) Replace the Curtain Airbag(CAB) with a new one.  
Refer to "Curtain Airbag(CAB)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Curtain Airbag(CAB)?

**YES**

Go to next step.

**NO**

Replace CAB module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1476 DCAB SHORT TO BATTERY, B1480 PCAB SHORT TO BATTERY**

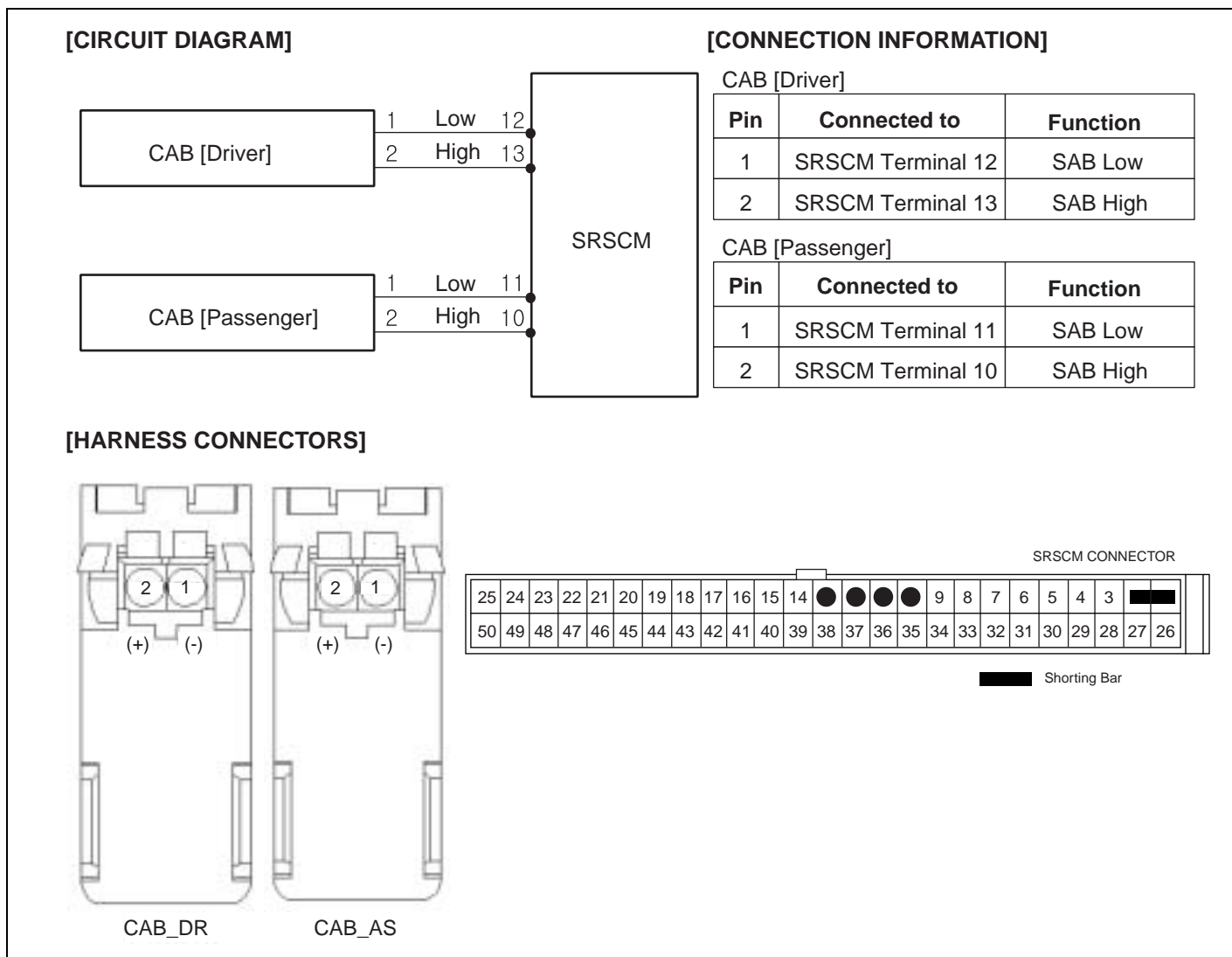
**DTC DESCRIPTION** ED82CCE4

The CAB squib circuit consists of the SRSCM and CAB. It causes the SRS to deploy when the SRS deployment conditions are satisfied. The above DTC is recorded when short to battery is detected in the CAB squib circuit.

**DTC DETECTING CONDITION** E7FDA02F

DTC	Condition	Probable cause
B1476 B1480	<ul style="list-style-type: none"> <li>Short to battery between CAB and SRSCM</li> <li>Curtain Airbag (CAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to battery line circuit on wiring harness</li> <li>Curtain Airbag (CAB) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EDEA10B1



**TERMINAL & CONNECTOR INSPECTION** EAEB1A08

Refer to DTC B1101.

**INSPECTION PROCEDURE** E09A8BDA

**1. PREPARATION**

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

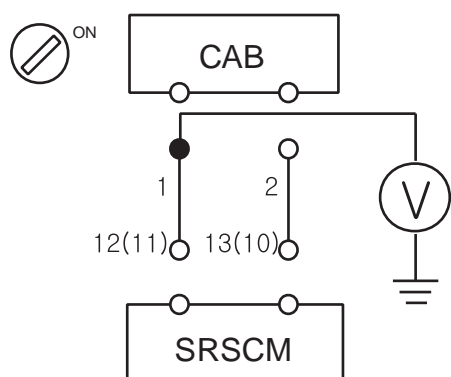
**2. CHECK SHORT TO BATTERY LINE**

- 1) Connect the negative (-) terminal to the battery.
- 2) Turn the ignition switch to ON.
- 3) Measure voltage between the terminal 1 of CAB harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE005A

Is the measured voltage within specification?

**YES**

Check the CAB Module.

**NO**

Repair the short to battery line circuit on wiring harness between the CAB and the SRSCM.

3. CHECK THE CAB MODULE

- 1) Replace the Curtain Airbag(CAB) with a new one.  
Refer to "Curtain Airbag(CAB)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Curtain Airbag(CAB)?

**YES**

Go to next step.

**NO**

Replace CAB module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1620 AIRBAG UNIT INTERNAL FAULT, B1650 CRASH RECORDED IN FRONT AIRBAG, B1651 CRASH RECORDED DRIVER SIDE AIRBAG, B1652 CRASH RECORDED PASSENGER SIDE AIRBAG, B1657 CRASH RECORDED BELT PRETENSIONER ONLY, B1658 BELT PRETENSIONER 6TIMES DEPLOYMENT**

**DTC DESCRIPTION** E1BBA2D3

The SRSCM shall also cyclically monitor the following :

1. Functional readiness of the firing circuit activation transistors.
2. Adequacy of deployment energy reserves.
3. Safing sensor integrity : detection of faulty closure.
4. Plausibility of accelerometer signal.
5. Operation of SRSCM components.

**INSPECTION PROCEDURE** EBF8C633

The SRSCM must be replaced once the fault codes except B1657 mentioned above are confirmed. Be able to reuse SRSCM 5 times, when B1657 is only monitored.

**DTC B1701 DRIVER BUCKLE PRETENSIONER RESISTANCE TOO HIGH, B1702 DRIVER BUCKLE PRETENSIONER RESISTANCE LOW, B1706 PASSENGER BUCKLE PRETENSIONER RESISTANCE HIGH, B1707 PASSENGER BUCKLE PRETENSIONER RESISTANCE LOW**

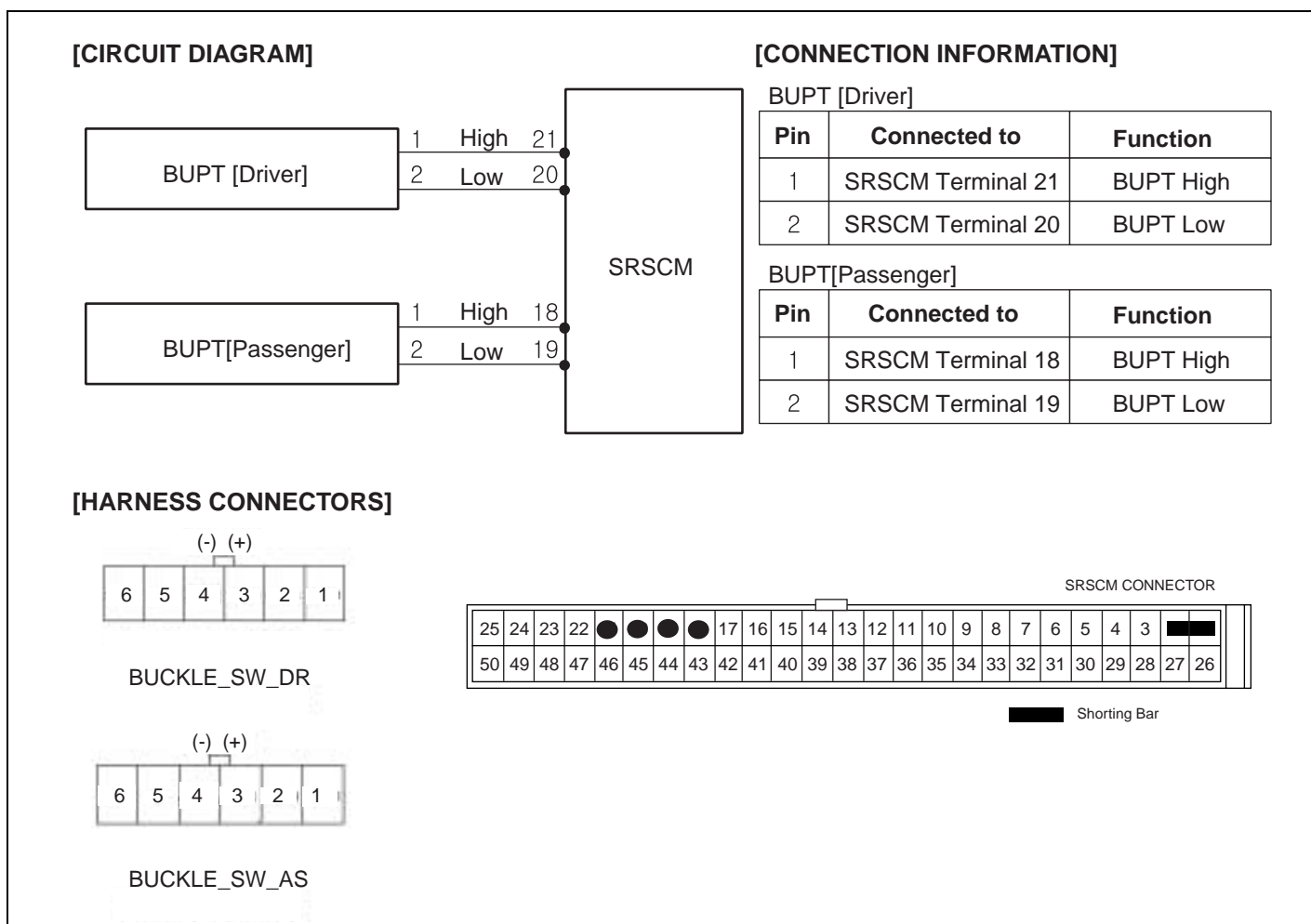
**DTC DESCRIPTION** EB5ABF46

The Buckle Pretensioner circuit consists of the SRSCM and two Buckle Pretensioner (BUPT). The SRSCM sets above DTC(s) if it detects that the resistance of BUPT squib is too high or low.

**DTC DETECTING CONDITION** E5BC0AD0

DTC	Condition	Probable cause
B1701 B1702 B1706 B1707	<ul style="list-style-type: none"> <li>Too high or low resistance between BUPT high(+) and BUPT low (-)</li> <li>Seat Buckle Pretensioner (BUPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Open or short circuit on wiring harness</li> <li>Seat Buckle Pretensioner (BUPT) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E3264AA1



**SPECIFICATION** E9497DAB

BUPT resistance : 1.5 R 5.7

**TERMINAL & CONNECTOR INSPECTION** E41827D2

Refer to DTC B1101.

**INSPECTION PROCEDURE** EC3B71C7

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

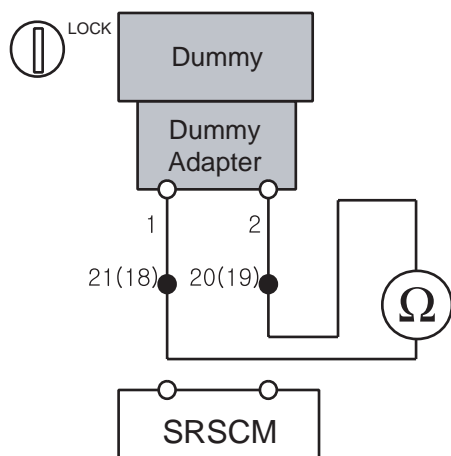
2. CHECK BUPT RESISTANCE

 **CAUTION**

**Never attempt to measure the circuit resistance of the airbag module(squib) even if you are using the specified tester.**

- 1) Connect the Dummy and the Dummy Adapter on BUPT harness connector.  
Refer to "SPECIAL SERVICE TOOL" section in this SERVICE MANUAL for the SST No. of Dummy and Dummy Adapter.
- 2) Measure resistance between the terminal 21(18) and 20(19) of SRSCM harness connector.

BUPT resistance : 1.5 R 5.7



LRIF501L

Is the measured resistance within specification?

**YES**

Replace the Buckle Pretensioner(BUPT) module.

**NO**

Check open circuit.

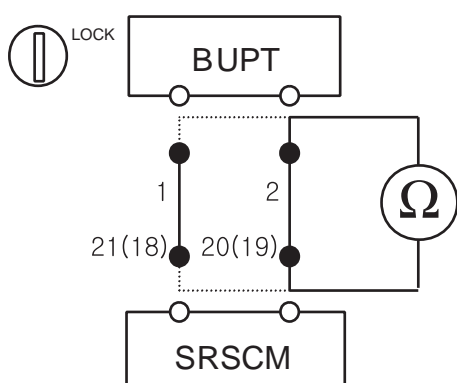
3. CHECK OPEN CIRCUIT

- 1) Measure resistance between the terminal 1 of BUPT harness connector and the terminal 21(18) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of BUPT harness connector and the terminal 20(19) of SRSCM harness connector.

---

specification(resistance) : below 1

---



ARIE005D

Is the measured resistance within specification?

**YES**

Check short circuit.

**NO**

Repair or replace the wiring harness between the BUPT and the SRSCM.

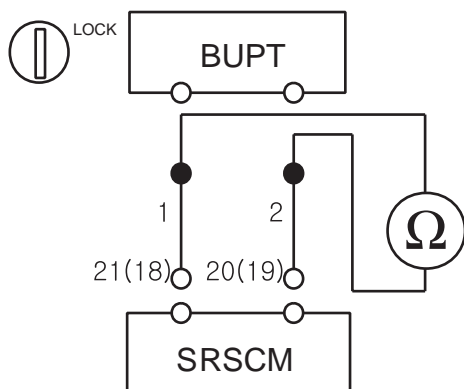
4. CHECK SHORT CIRCUIT

- 1) Measure resistance between the terminal 1 and 2 of BUPT harness connector.

---

specification(resistance) : infinite

---



ARIE005E

Is the measured resistance within specification?

**YES**

Go to next step.

**NO**

Repair or replace the wiring harness between the BUPT and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1703 DRIVER BUCKLE PRETENSIONER SHORT TO GROUND, B1708 PASSENGER BUCKLE PRETENSIONER SHORT TO GROUND**

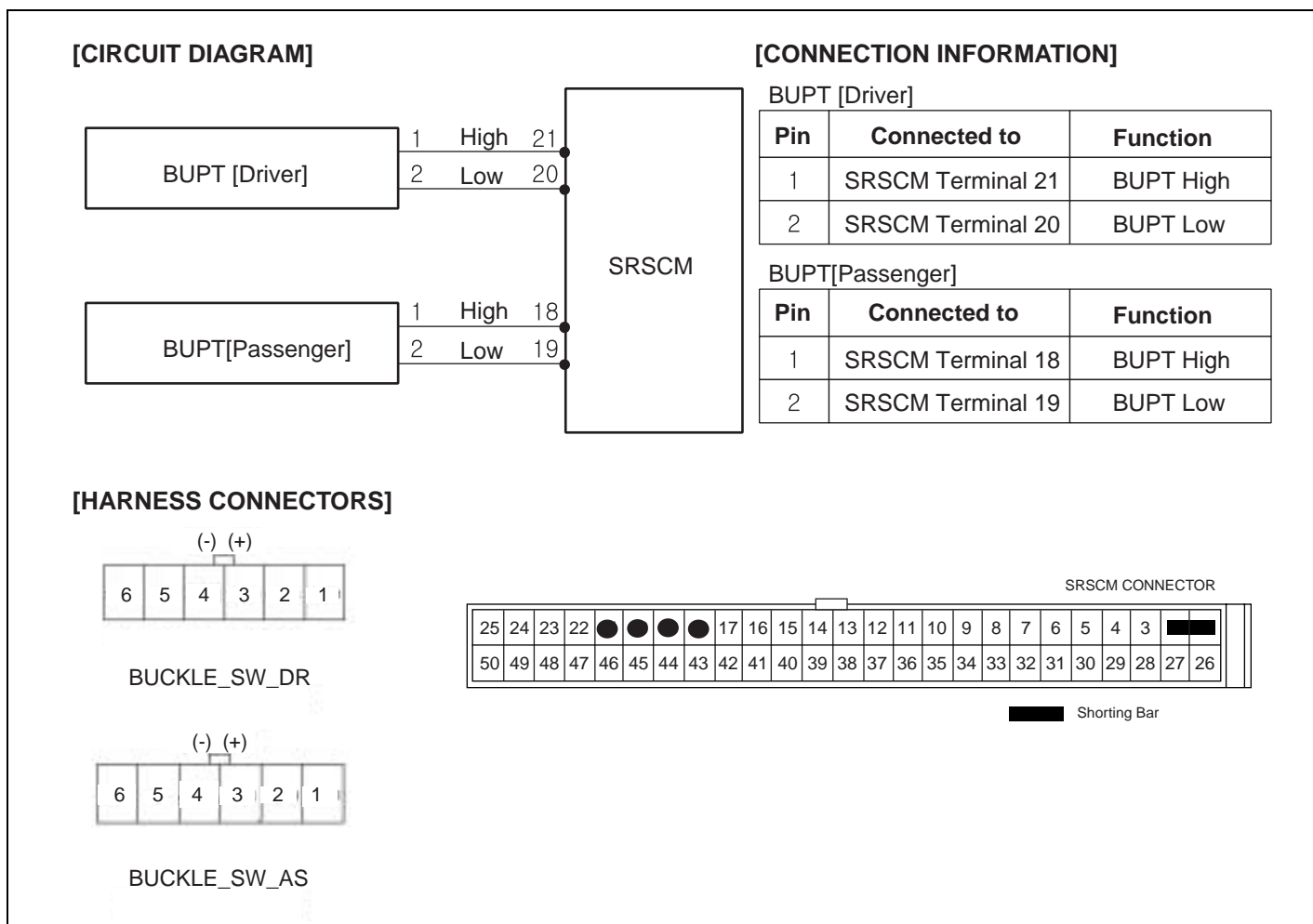
**DTC DESCRIPTION** EA53DDAF

The Buckle Pretensioner circuit consists of the SRSCM and two Buckle Pretensioner (BUPT). The SRSCM sets above DTC(s) if it detects short to ground on the BUPT circuit.

**DTC DETECTING CONDITION** EF7229D3

DTC	Condition	Probable cause
B1703 B1708	<ul style="list-style-type: none"> <li>Short to ground between BUPT and SRSCM</li> <li>Seat Buckle Pretensioner (BUPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to ground circuit on wiring harness</li> <li>Seat Buckle Pretensioner (BUPT) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E706FCDC



**TERMINAL & CONNECTOR INSPECTION** EB5833DF

Refer to DTC B1101.

**INSPECTION PROCEDURE** EC3B71C6

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

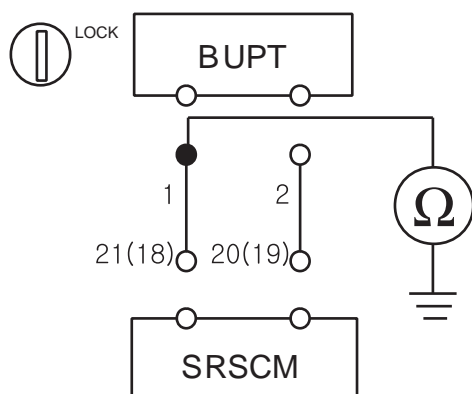
2. CHECK SHORT TO GROUND

- 1) Measure resistance between the terminal 1 of BUPT harness connector and chassis ground.

---

specification(resistance) : infinite

---



ARIE005F

Is the measured resistance within specification?

**YES**

Check the BUPT Module.

**NO**

Repair or replace the wiring harness between the BUPT and the SRSCM.

3. CHECK THE BUPT MODULE

- 1) Replace the Buckle Pretensioner(BUPT) with a new one.  
Refer to "Buckle Pretensioner(BUPT)" section in this SERVICE MANUAL.
- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Turn the ignition switch to ON and check the vehicle again.  
Does Hi-Scan (Pro) indicate any DTC related to Buckle Pretensioner(BUPT)?

**YES**

Go to next step.

**NO**

Replace BUPT module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B1704 DRIVER BUCKLE PRETENSIONER SHORT TO BATTERY, B1709 PASSENGER BUCKLE PRETENSIONER SHORT TO BATTERY**

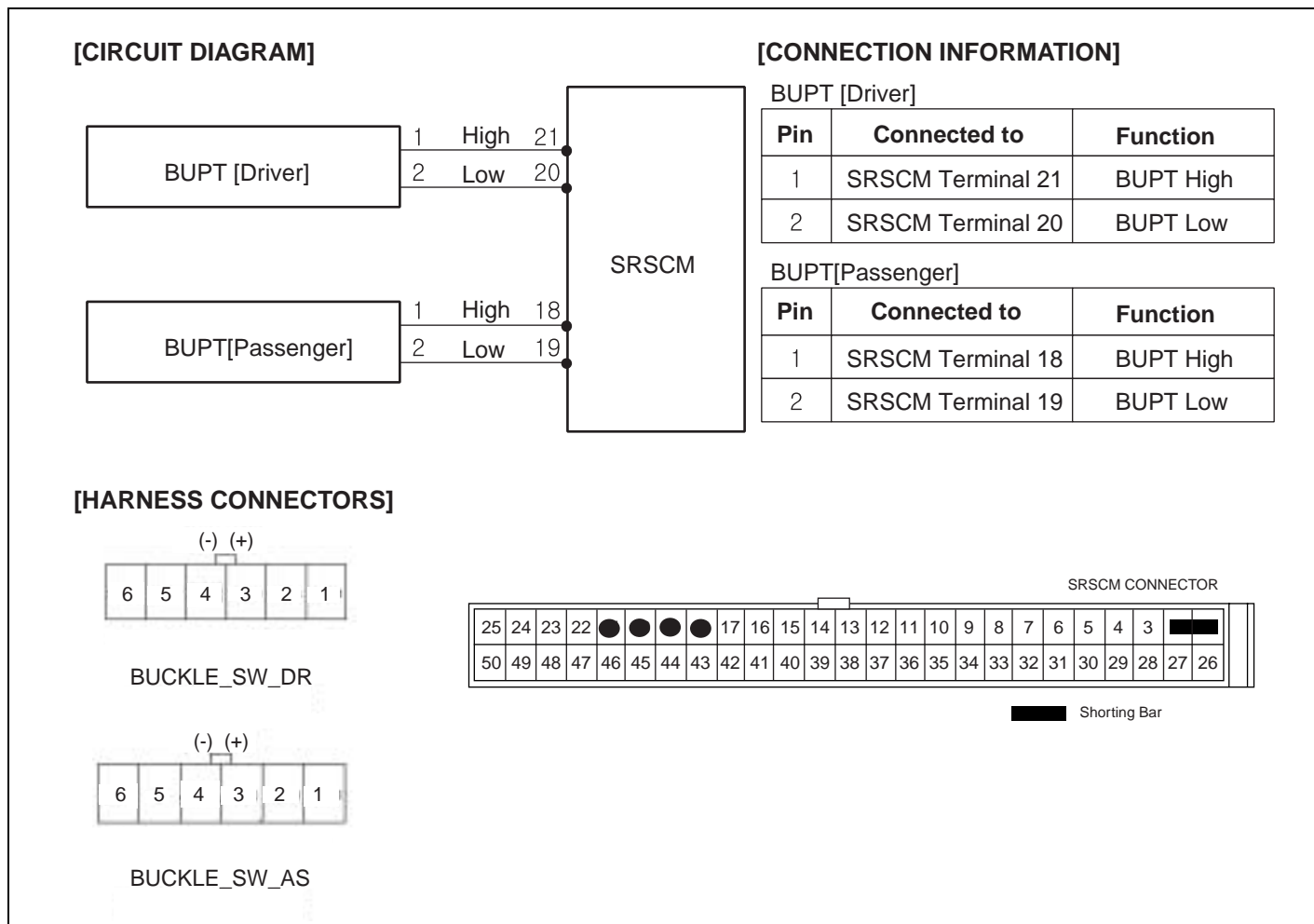
**DTC DESCRIPTION** E6EE23E0

The Buckle Pretensioner circuit consists of the SRSCM and two Buckle Pretensioner (BUPT). The SRSCM sets above DTC(s) if it detects short to battery on the BUPT circuit.

**DTC DETECTING CONDITION** E534BDF0

DTC	Condition	Probable cause
B1704 B1709	<ul style="list-style-type: none"> <li>Short to battery between BUPT and SRSCM</li> <li>Seat Buckle Pretensioner (BUPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>Short to battery line circuit on wiring harness</li> <li>Buckle Pretensioner(BUPT) squib</li> <li>SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** E70CD2D2



**TERMINAL & CONNECTOR INSPECTION** EBF606FA

Refer to DTC B1101.

**INSPECTION PROCEDURE** E0F6BAA8

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

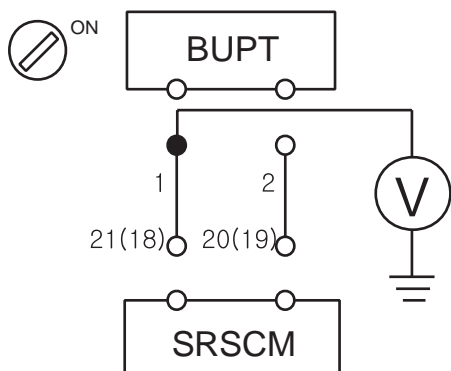
2. CHECK SHORT TO BATTERY LINE

- 1) Connect the negative (-) terminal to the battery.
- 2) Turn the ignition switch to ON.
- 3) Measure voltage between the terminal 1 of BUPT harness connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



ARIE005G

Is the measured voltage within specification?

**YES**

Check the BUPT Module.

**NO**

Repair the short to battery line circuit on wiring harness between the BUPT and the SRSCM.

3. CHECK THE BUPT MODULE

- 1) Replace the Buckle Pretensioner(BUPT) with a new one.  
Refer to "Buckle Pretensioner(BUPT)" section in this SERVICE MANUAL.

- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the negative (-) terminal to the battery.
- 6) Connect a Hi-Scan(Pro) to the data link connector.
- 7) Connect a Hi-Scan(Pro) to the data link connector.  
Does Hi-Scan (Pro) indicate any DTC related to Buckle Pretensioner(BUPT)?

**YES**

Go to next step.

**NO**

Replace BUPT module.

4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

**DTC B2500 SRS SRI FAILURE**

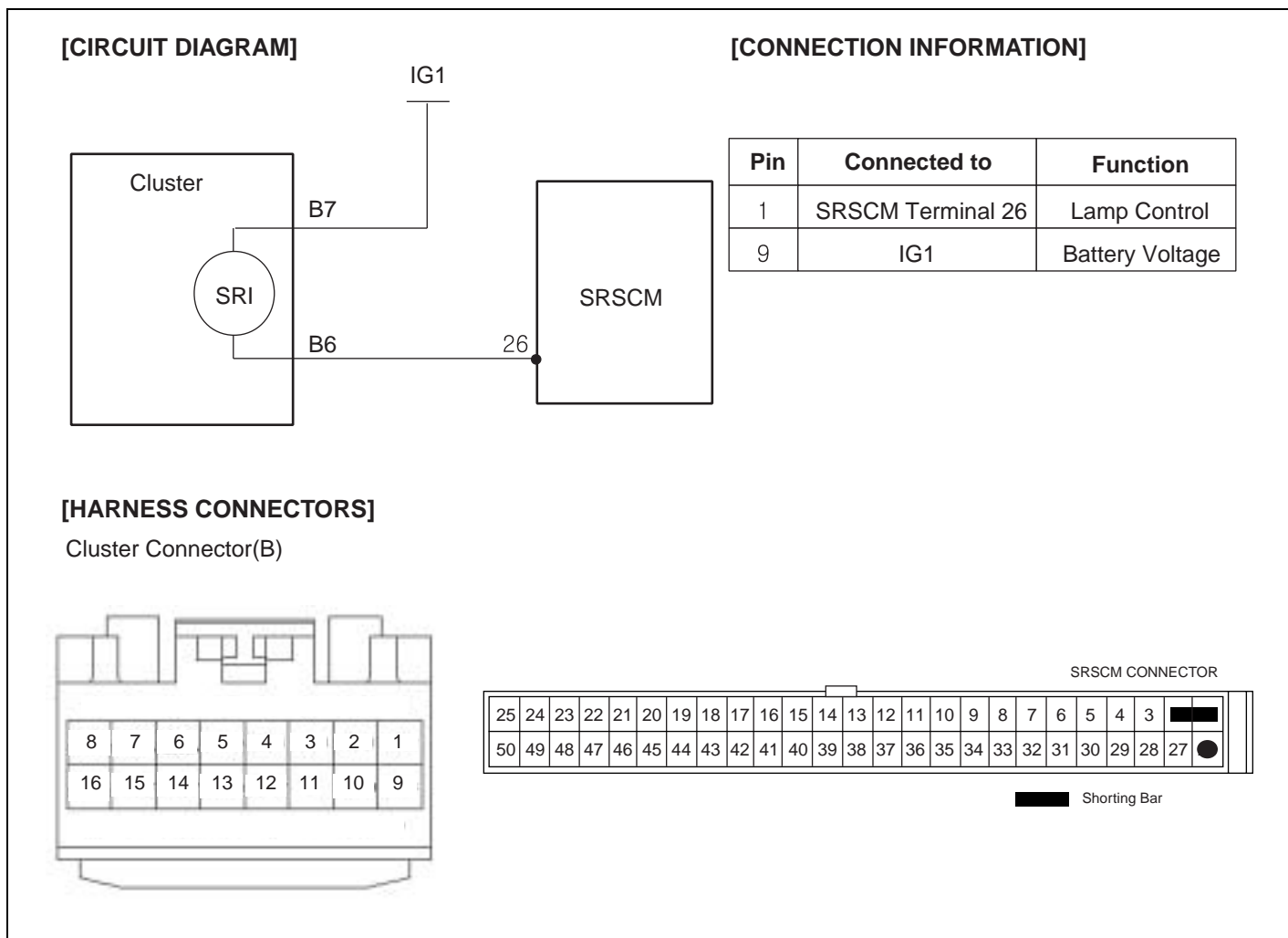
**DTC DESCRIPTION** ED9FFEE

The SRS warning lamp is located in the cluster. When the airbag system is normal, the SRS 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 airbag system, the SRS SRI lights up to inform the driver of the abnormality.The SRSCM shall measure the voltage at the SRS SRI output pin, both when the lamp is on and when the lamp is off, to detedt whether the commanded state matches the actual state.

**DTC DETECTING CONDITION** EED405BC

DTC	Condition	Probable cause
B2500	<ul style="list-style-type: none"> <li>• Airbag fuse</li> <li>• Warning Lamp Bulb</li> <li>• Open between warning lamp and SRSCM</li> <li>• Short to ground or battery line between the warning lamp and SRSCM</li> <li>• SRSCM Malfunction</li> </ul>	<ul style="list-style-type: none"> <li>• Fuse</li> <li>• Warning lamp bulb</li> <li>• Wiring Harness</li> <li>• SRSCM</li> </ul>

**SCHEMATIC DIAGRAM** EF0EAA58



**TERMINAL & CONNECTOR INSPECTION** EF1EBF3B

Refer to DTC B1101.

**INSPECTION PROCEDURE** E8EA614B

1. PREPARATION

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative (-) terminal from the battery and wait for at least 3 minutes.
- 3) Remove the DAB module and disconnect the DAB connector.
- 4) Disconnect the connectors of the PAB,SAB,CAB,BPT,BUPT,FIS and SIS.
- 5) Disconnect the SRSCM connector.

2. CHECK THE FUSE

- 1) Remove the airbag fuse and the airbag warning lamp fuse from junction block.
- 2) Inspect the fuses.  
Are the fuses normal?

**YES**

Check the warning lamp bulb.

**NO**

Repair or replace the fuses.

3. CHECK THE WARNING LAMP BULB

- 1) Remove the bulb from the instrument cluster.
- 2) Inspect the bulb.  
Is the bulb normal?

**YES**

Check source voltage.

**NO**

Repair or replace the bulb.

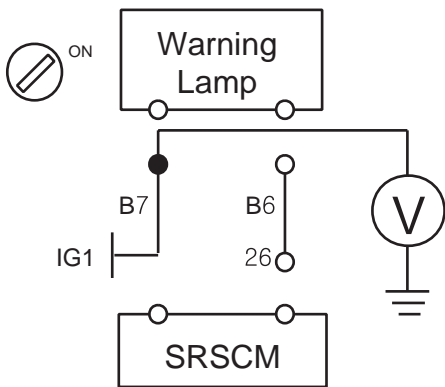
4. CHECK SOURCE VOLTAGE

- 1) Connect the negative (-) terminal to the battery.
- 2) Turn the ignition switch to ON.
- 3) Measure voltage between the terminal 7 of the instrument Cluster harness (B) connector and chassis ground(-).

---

specification(voltage) : 9~17V

---



LRIF501N

Is the measured voltage within specification?

**YES**

Check short to battery line.

**NO**

Repair or replace the wiring harness between ignition switch and the Warning Lamp.

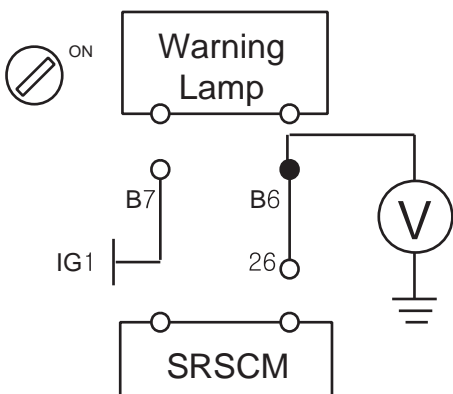
5. CHECK SHORT TO BATTERY LINE

- 1) Measure voltage between the terminal 6 of the instrument Cluster harness (B) connector and chassis ground(-).

---

specification(voltage) : Approximately 0V

---



LRIF501O

Is the measured voltage within specification?

**YES**

Check short or short to ground.

**NO**

Repair the short to battery line circuit on wiring harness between the SRSCM and the Warning Lamp.

**TROUBLESHOOTING**

**RT -125**

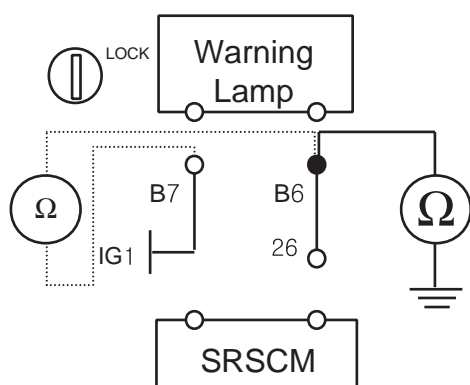
**6. CHECK SHORT OR SHORT TO GROUND**

- 1) Turn the ignition switch to LOCK.
- 2) Disconnect the negative(-) terminal from the battery.
- 3) Measure resistance between the terminal 6 of the instrument cluster harness (B) connector and chassis ground.
- 4) Measure resistance between the terminal 6 and 7 of the Instrument Cluster harness (B) connector.

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specification(resistance) : infinite

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LRIF501P

Is the measured resistance within specification?

**YES**

Check open circuit.

**NO**

Repair the short or short to ground circuit on wiring harness between the SRSCM and the Warning Lamp.

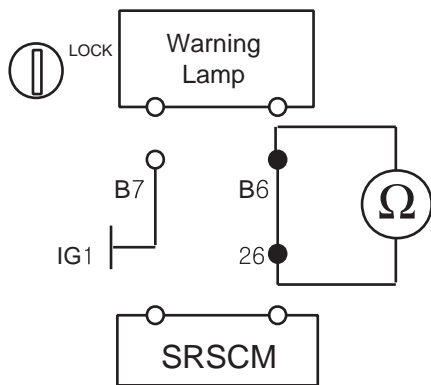
**7. CHECK OPEN CIRCUIT**

- 1) Measure resistance between the terminal 6 of the Instrument Cluster (B) connector and the terminal 26 of SRSCM harness connector.

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specification(resistance) : below 1

---



LRIF501V

Is the measured resistance within specification?

**YES**

Go to next step.

**NO**

Repair the open circuit on wiring harness between the SRSCM and the Warning Lamp.

8. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN  
Refer to DTC B1346.

## **AIR BAG MODULE DISPOSAL**

### **AIRBAG DISPOSAL** E7F3FBDF

#### **SPECIAL TOOL REQUIRED**

Deployment tool 0957A-34100A

Before scrapping any airbags or side airbags (including those in a whole vehicle to be scrapped), the airbags or side airbags must be deployed. If the vehicle is still within the warranty period, before deploying the airbags or side airbags, the Technical Manager must give approval and/or special instruction. Only after the airbags or side airbags have been deployed (as the result of vehicle collision, for example), can they be scrapped.

If the airbags or side airbags appear intact (not deployed), treat them with extreme caution. Follow this procedure.

#### **DEPLOYING AIRBAGS IN THE VEHICLE**

If an SRS equipped vehicle is to be entirely scrapped, its airbags or side airbags should be deployed while still in the vehicle. The airbags or side airbags should not be considered as salvageable parts and should never be installed in another vehicle.

1. Turn the ignition switch OFF, and disconnect the battery negative cable and wait at least three minutes.
2. Confirm that each airbag or side airbag are securely mounted.
3. Confirm that the special tool is functioning properly by following the check procedure.

#### **DRIVER'S AIRBAG :**

1. Remove the driver's airbag and the install the SST(0957A-38500).
2. Install the driver's airbag on the steering wheel.

#### **FRONT PASSENGER'S AIRBAG :**

1. Remove the glove box, then disconnect the 2P connector between the front passenger's airbag and SRS main harness.
2. Install the SST(0957A-38100).

#### **SIDE AIRBAG :**

1. Disconnect the 2P connector between the side airbag and side wire harness.
2. Install the SST (0957A-38100).

3. Place the deployment tool at least thirty feet (10 meters) away from the airbag.
4. Connect a 12 volt battery to the tool.
5. Push the tool's deployment switch. The airbag should deploy (deployment is both highly audible and visible: a loud noise and rapid inflation of the bag, followed by slow deflection)
6. Dispose of the complete airbag. No part of it can be reused. Place it in a sturdy plastic bag and seal it securely.



ERKD002U

#### **DEPLOYING THE AIRBAG OUT OF THE VEHICLE**

If an intact airbag has been removed from a scrapped vehicle, or has been found defective or damaged during transit, storage or service, it should be deployed as follows :

1. Confirm that the special is functioning properly by following the check procedure on this page.
2. Position the airbag face up, outdoors on flat ground at least thirty feet (10meters) from any obstacles or people.

#### **DISPOSEL OF DAMAGED AIRBAG**

1. If installed in a vehicle, follow the removal procedure of driver's airbag front passenger's and side airbag.
2. In all cases, make a short circuit by twisting together the two airbag inflator wires.
3. Package the airbag in exactly the same packing that the new replacement part come in.