RT-2 Restraint

## **General Information**

#### **GENERAL**

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

The SRS (Airbag) consists of : a driver side airbag module located in the center of the steering wheel, which contains the folded cushion and an inflator unit; a passenger side airbag module located in the passenger side crash pad contains the folded cushion assembled with inflator unit; side airbag modules located in the front seat contain the folded cushion and an inflator unit; curtain airbag modules located inside of the headliner which contains folded cushions and inflator units. The impact sensing function of the SRSCM is carried out by electronic accelerometer that continuously measure the vehicle's acceleration and delivers a corresponding signal through amplifying and filtering circuitry to the microprocessor.

#### SRSCM (SRS Control Module)

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

- DC/DC converter: DC/DC converter in power supply unit includes up/down transformer converter, and provide ignition voltage for 2 front airbag ignition circuits and the internal operation voltage of the SRSCM. If the internal operation voltage is below critical value setting, it will perform resetting.
- 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.
- 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.
- Self diagnosis: SRSCM will constantly monitor current SRS operation status and detect system failure while vehicle power supply is on, system failure may be checked with trouble codes using scan tool. (Hi-Scan)

- Airbag warning lamp on: Upon detecting error, the module will transmit signal to SRSCM indicator lamp located at cluster. MIL lamp will indicate driver SRS error. Upon ignition key on, SRS lamp will turn on for about six seconds.
- 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. However, if an internal fault code is logged or if a crash is recorded the fault clearing should not happen.
- Self diagnostic connector: Data stored in SRSCM memory will be output to Hi-Scan or other external output devices through connector located below driver side crash pad.
- 8. Once airbag is deployed, SRSCM should not be used again but replaced.
- SRSCM will determine whether passenger put on seat belt by the signal from built-in switch 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.

# **General Information**

**RT-3** 

## **SPECIFICATION**

Item	Resistance (Ω)					
Driver Airbag (DAB)	1.6 ~ 6.4					
Passenger Airbag (PAB)	1.8 ~ 6.4					
Curtain Airbag (CAB)	1.8 ~ 4.8					
Seat Belt Retractor Pretensioner (BPT)	1.8 ~ 6.4					

## **TIGHTENING TORQUES**

Item	kgf⋅m	Nm	lb-ft
Driver Airbag (DAB)	0.8 ~ 1.1	7.9 ~ 10.8	5.8 ~ 8.0
Passenger Airbag (PAB)	Bolt : 1.9 ~ 2.7 Nut : 0.9 ~ 1.4	18.6 ~ 26.5 8.8 ~ 13.7	13.7 ~ 19.5 6.5 ~ 10.1
Curtain Airbag (CAB)	0.8 ~ 1.2	7.8 ~ 11.8	5.8 ~ 8.7
Seat Belt Anchor Bolt (BPT)	4.0 ~ 5.5	39.2 ~ 53.9	28.9 ~ 39.8
SRSCM Mounting Bolt	1.0 ~ 1.4	10.2 ~ 13.8	7.5 ~ 10.2
Front Impact Sensor (FIS) Mounting Bolt	1.0 ~ 1.4	10.2 ~ 13.8	7.5 ~ 10.2
Side Impact Sensor (SIS) Mounting Bolt	1.0 ~ 1.4	10.2 ~ 13.8	7.5 ~ 10.2

## SPECIAL SERVICE TOOLS

Tool(Number and Name)	Illustration	Use
Deployment tool (مسئوليد) مانه 0957A-34100A		Airbag deployment tool
Deployment adapter 0957A-3E110		Use with deployment tool. (PAB)
Deployment adapter 0957A-38500		Use with deployment tool. (DAB, CAB, BPT)

RT-4 Restraint

Tool(Number and Name)	Illustration	Use
Dummy 0957A-38200		Simulator to check the resistance of each wiring harness
Dummy adapter 0957A-3E100		Use with dummy (PAB)
Dummy adapter 0957A-2G000		Use with dummy (DAB, CAB, BPT)
امانه (مسئولیت محدود)		

DAB : Driver Airbag

PAB : Passenger Airbag

SAB : Side Airbag
CAB : Curtain Airbag

BPT: Seat Belt Retractor Pretensioner

# **General Information**

RT-5

# PRECAUTIONS GENERAL PRECAUTIONS

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

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

#### MNOTICE

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

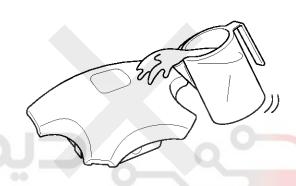
- Use the replacement parts which are manufactured to the same standards as the original parts and quality.
   Do not install used SRS parts from another vehicle.
   Use only new parts when making SRS repairs.
- Carefully inspect any SRS part before you install it.
   Do not install any part that shows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

#### 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.



نال خودرو سامانه (مسئولیت محدود)



ERKD002Z

- Store the removed airbag on secure, flat surface away from any high heat source (exceeding 85°C/185°F).
- Never perform electrical inspections to the airbags, such as measuring resistance.
- Do not position yourself in front of the airbag assembly during removal, inspection, or replacement.
- Refer to the scrapping procedures for disposal of the damaged airbag.
- Be careful not to bump or impact the SRS unit or the side impact sensors 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.

ERKD002V

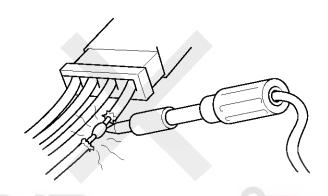
 Before removing any of the SRS parts (including the disconnection of the connectors), always disconnect the SRS connector. RT-6 Restraint

- 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 40°C/104°F) and dry (30% ~ 80%, no moisture) area.

#### WIRING PRECAUTIONS

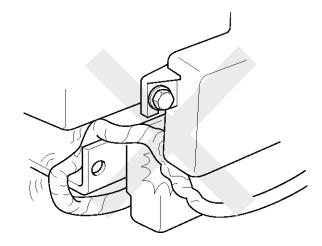
SRS wiring can be identified by special yellow outer covering (except the SRS circuits under the front seats). Observe the instructions described in this section.

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



ERKD002Y

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



ERKD002X

# **General Information**

RT-7

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

# PRECAUTIONS FOR ELECTRICAL INSPECTIONS

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

connector.



 Use a u-shaped probe. Do not insert the probe forcibly.

ERKD002W

Use specificed service connectors for troubleshooting.

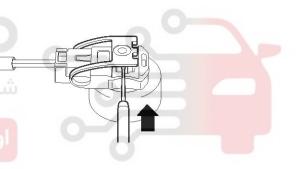
Using improper tools could cause an error in inspection due to poor metal contact.

# AIRBAG CONNECTOR(I) DISCONNECTING

1. Remove the locking button using driver of connector to disconnect the connector.



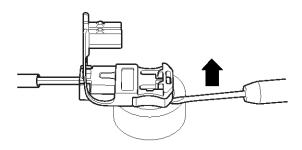
SBLRT6032D



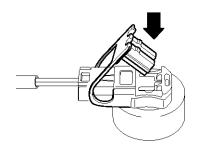
SBLRT6033D

RT-8 Restraint

2. Lift up the connector inserting the driver underlay the connector body.



2. Press firmly the locking button of connector untill the connector click to lock.



SBLRT6036D

SBLRT6034D

## **CONNECTING**

1. Connect the connetor body before inserting the locking button of connector.



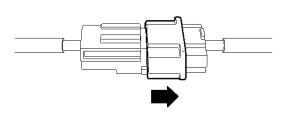
SBLRT6035D

# **General Information**

**RT-9** 

# AIRBAG CONNECTOR(II) DISCONNECTING

1. Pull the outside part of the connector in the direction of an arrow below.

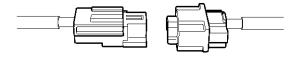


SBLRT6037D

2. Disconnect the connector completely.

#### **CONNECTING**

1. Arrange the connectors for connection.

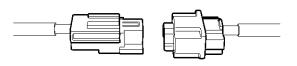


SBLRT6038D

2. Connect the connectors till occurring the sounds of locking completely in the direction of an arrow below.

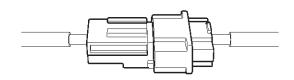


SBLRT6040D



SBLRT6038D





SBLRT6041D

RT-10 Restraint

# WARNING LAMP ACTIVATION WARNING LAMP BEHAVIOR AFTER IGNITION ON

As soon as the operating voltage is applied to the SRSCM ignition input, the SRSCM activates the warning lamp for a bulb check.

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

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



BRIF500A

2. Normal or historical fault counter is less than 10



BRIF500B

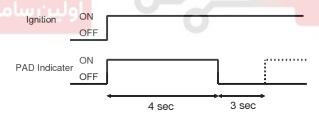
# SRSCM INDEPENDENT WARNING LAMP ACTIVATION

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

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

# PASSENGER AIRBAG DEACTIVATION (PAD) LAMP OPERATION

The SRSCM is designed with circuitry and software to drive a PAD lamp, which is used for depowered airbag system. For the PAD indicator circuitry to function properly, both the SRSCM and PAD indicator are sourced from the same ignition line. After ignition on, the PAD indicator will be turned on for 4 seconds and off for 3 seconds during the initialization phase. Thereafter the lamp will be turned on as long as the PAD switch is in the disabled position.



ERRF501U

# PASSENGER RESTRAINTS ACTIVATION WITH PAD SWITCH

The PAD switch affects the activation of the front passenger airbag only and the switch is controlled manually. The PAD switch will be functioned as follows:

PAD Switch status	PAD Lamp	PAB
Phase-up	$ON \to OFF$	Enabled
OFF	ON	Disabled
ON	OFF	Enabled
Fault	OFF	Enabled

# **General Information**

**RT-11** 

# COMPONENT REPLACEMENT AFTER DEPLOYMENT

#### MOTICE

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

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

- SRSCM
- Deployed airbag(s)
- Seat belt pretensioner(s)
- Front impact sensors
- SRS wiring harnesses
- Inspect the clock spring for heat damage.
   If any damage found, replace the clock spring.

When the seat belt pretensioner(s) deployed after a collision, replace the following items.

- Seat belt pretensioner(s)
- SRSCM (if B1658 detected)
- Front impact sensors
- SRS wiring harnesses

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

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

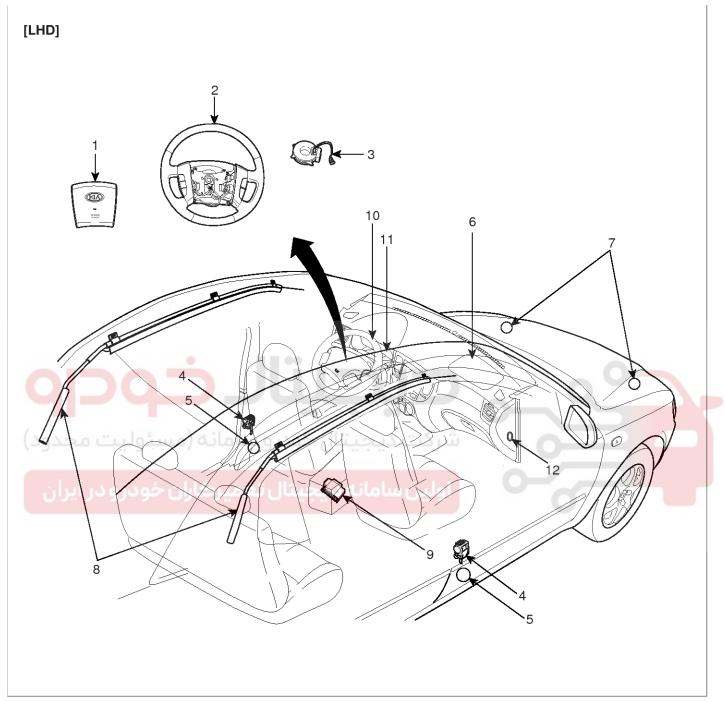
After the vehicle is completely repaired, confirm the SRS airbag system is OK.

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



RT-12 Restraint

#### **COMPONENTS**



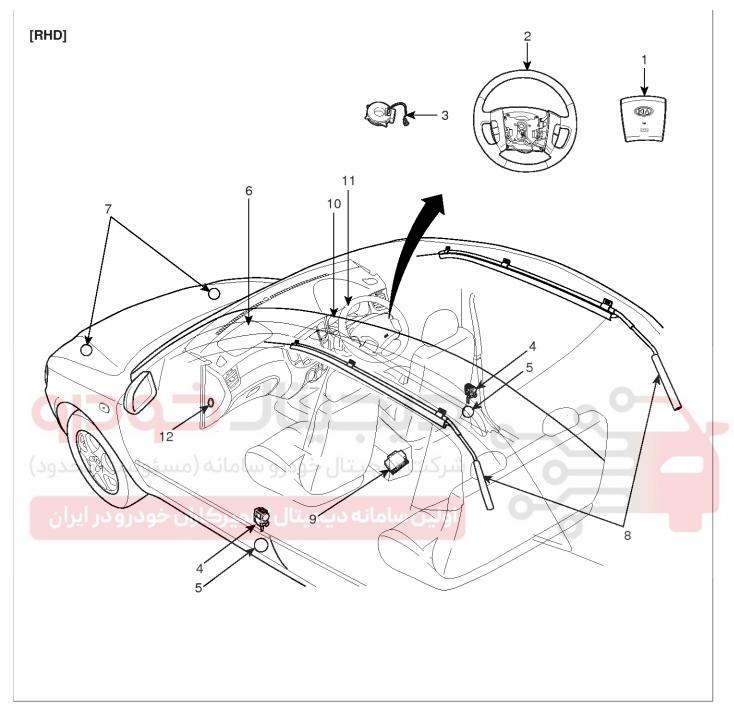
- 1. Driver Airbag (DAB)
- 2. Steering Wheel
- 3. Clock Spring
- 4. Seat Belt Pretensioner (BPT)
- 5. Side Impact Sensor (SIS)
- 6. Passenger Airbag (PAB)

- 7. Front Impact Sensor (FIS)
- 8. Curtain Airbag (CAB)
- 9. Supplemental Restraint System Control Module(SRSCM)
- 10. Airbag Warning Lamp
- 11. Passenger Airbag Deactivation (PAD) Lamp
- 12. PAD Switch

SBLRT6100L

# **General Information**

**RT-13** 



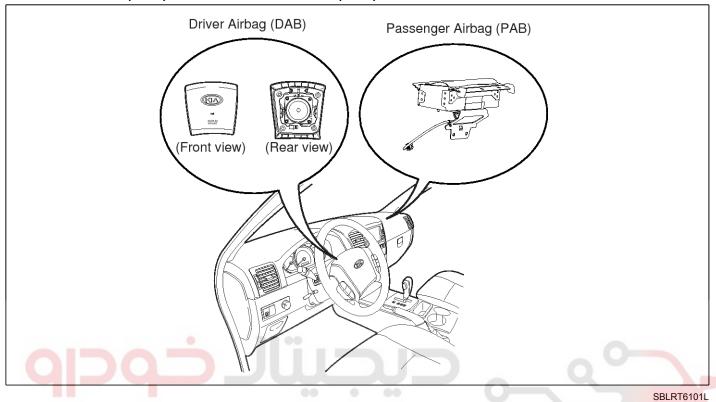
- 1. Driver Airbag (DAB)
- 2. Steering Wheel
- 3. Clock Spring
- 4. Seat Belt Pretensioner (BPT)
- 5. Side Impact Sensor (SIS)
- 6. Passenger Airbag (PAB)

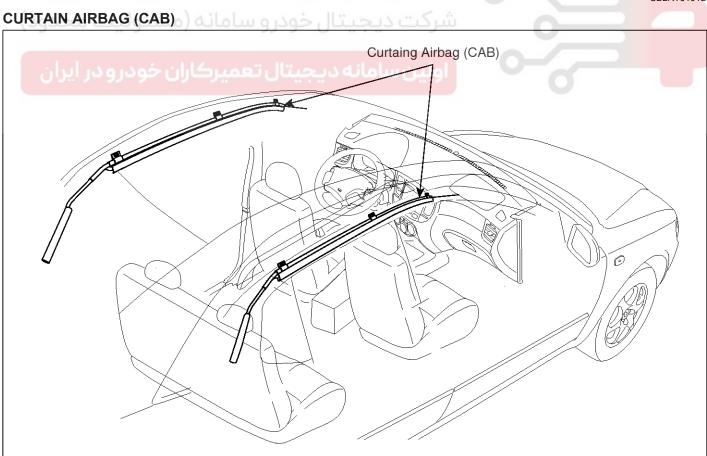
- 7. Front Impact Sensor (FIS)
- 8. Curtain Airbag (CAB)
- 9. Supplemental Restraint System Control Module(SRSCM)
- 10. Airbag Warning Lamp
- 11. Passenger Airbag Deactivation (PAD) Lamp
- 12. PAD Switch

SBLRT6100R

# RT-14 Restraint

# COMPONENTS LOCATION DRIVER AIRBAG (DAB) / PASSENGER AIRBAG (PAB)



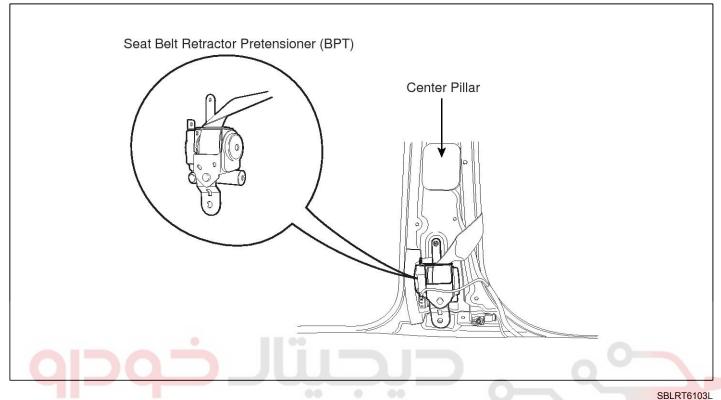


# **General Information**

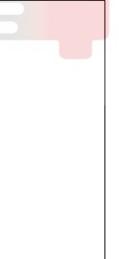
**RT-15** 

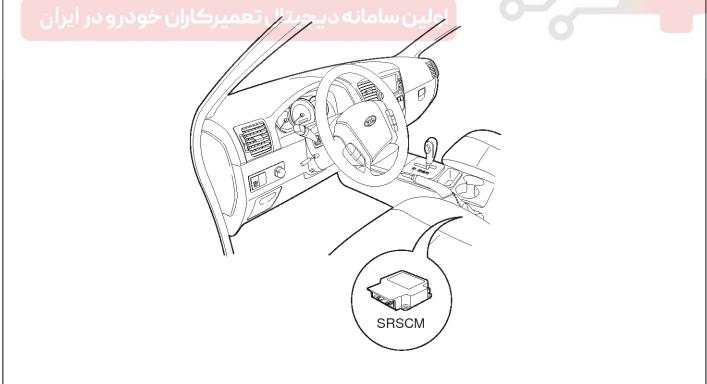
SCMRT6502L

#### **SEAT BELT RETRACTOR PRETENSIONER (BPT)**



## SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE (SRSCM)

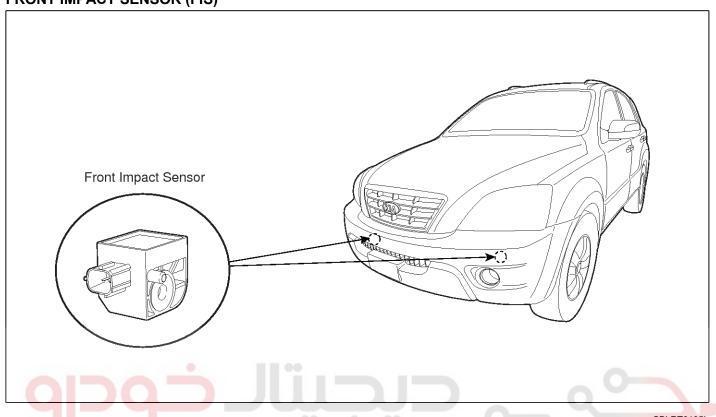




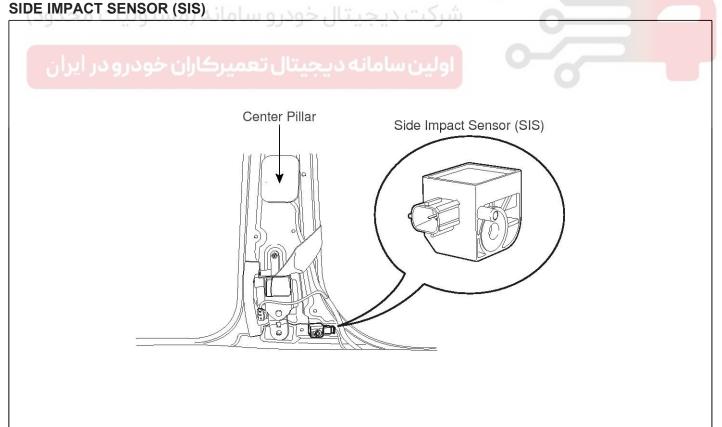
SBLRT6001D

RT-16 Restraint

## FRONT IMPACT SENSOR (FIS)



SBLRT6105L



SBLRT6106L

## **SRSCM**

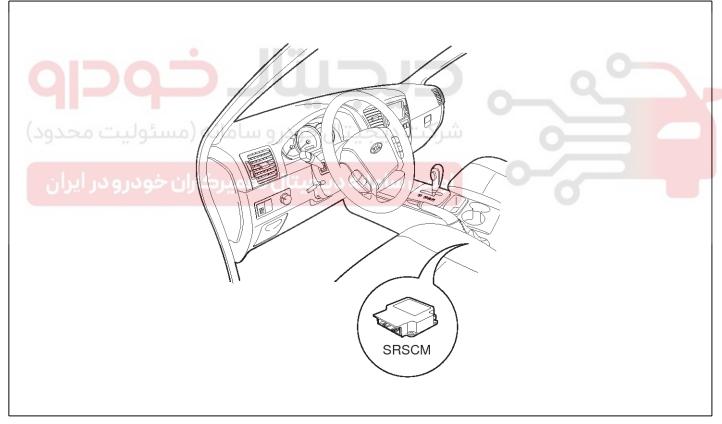
## **SRS Control Module (SRSCM)**

#### **DESCRIPTION**

The primary purpose of the SRSCM (Supplemental Restraints System Control Module) is to discriminate between an event that warrants restraint system deployment and an event that does not. The SRSCM must decide whether to deploy the restraint system or not. After determining that pretensioners and/or airbag deployment is required, the SRSCM must supply sufficient power to the pretensioners and airbag igniters to initiate deployment. The SRSCM determines that an impact may require deployment of the pretensioners and airbags from data obtained from impact sensors and other components in conjunction with a safing function.

The SRSCM will not be ready to detect a crash or to activate the restraint system devices until the signals in the SRSCM circuitry stabilize. It is possible that the SRSCM could activate the safety restraint devices in approximately 2 seconds but is guaranteed to fully function after prove-out is completed. The SRSCM must perform a diagnostic routine and light a system readiness indicator at key-on. The system must perform a continuous diagnostic routine and provide fault annunciation through a warning lamp indicator in the event of fault detection. Α serial diagnostic communication interface will be used to facilitate servicing of the restraint control system.

#### **COMPONENTS**

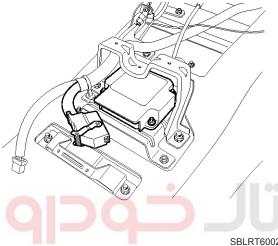


SBLRT6001D

**RT-18** Restraint

#### **REMOVAL**

- 1. Remove the ignition key from the vehicle.
- 2. Disconnect the battery negative cable and wait for at least three minutes before beginning work.
- 3. Disconnect the DAB, PAB, CAB and BPT connectors.
- 4. Remove the floor console and heater ducts. (Refer to BD group)
- 5. Disconnect the SRSCM harness connector after pulling the connector locking lever.



6. Remove the SRSCM mounting bolt (1EA) and nuts (2EA) from the SRSCM, then remove the SRSCM.

#### **INSTALLATION**

- 1. Remove the ignition key from the vehicle.
- 2. Disconnect the battery negative cable and wait for at least three minutes before beginning work.
- 3. Install the SRSCM with the SRSCM mounting bolt and nuts.

Tightening torque (SRSCM Mounting bolt)

:  $1.0 \sim 1.4 \text{ kgf.m}$  ( $10.2 \sim 13.8 \text{ Nm}$ ,  $7.5 \sim 10.2 \text{ lb.ft}$ )

#### MOTICE

Use new mounting bolts when replacing the SRSCM after a collision.

- 4. Connect the SRSCM harness connector completely with pushing the connector locking lever.
- 5. Install the heater ducts and floor console. (Refer to BD group)
- 6. Connect the DAB, PAB, CAB and BPT connectors.
- 7. Reconnect the battery negative cable.

- 8. After installing the SRSCM, confirm proper system operation:
  - Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.

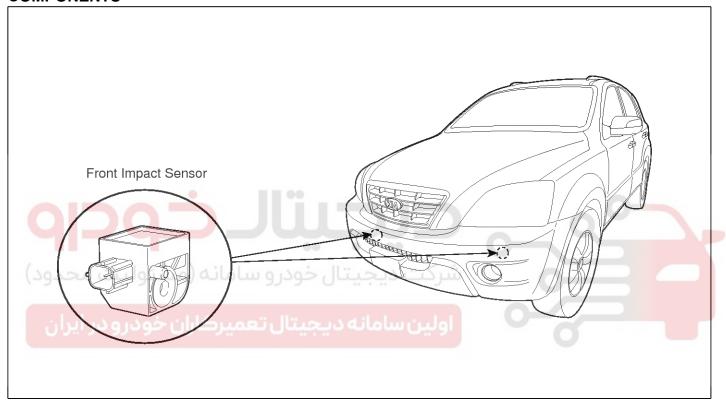


# Front Impact Sensor (FIS)

#### **DESCRIPTION**

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

#### **COMPONENTS**



SBLRT6105L

RT-20 Restraint

#### **REMOVAL**

#### **ACAUTION**

- 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 battery negative cable, and wait for at least three minutes before beginning work.
- 2. Remove the Front bumper. (Refer to BD group)
- 3. Remove the Front Impact Sensor mounting bolt.

#### **INSTALLATION**

#### **ACAUTION**

- Do not turn the ignition switch ON and do not contact the battery cable while replacing the front impact sensor.
- 1. Install the new Front Impact Sensor.
- 2. Tighten the Front Impact Sensor mounting bolt.

#### Tightening torque

: 1.0  $\sim$  1.4 kgf.m (10.2  $\sim$  13.8 Nm, 7.5  $\sim$  10.2 lb.ft)

- 3. Connect the Front Impact Sensor connector.
- 4. Install the front bumper. (Refer to BD group)
- 5. Reconnect the battery negative cable.
- After installing the Front Impact Sensor, confirm proper system operation: Turn the ignition switch ON the SRS indicator light should be turned on for about six seconds and then go off.





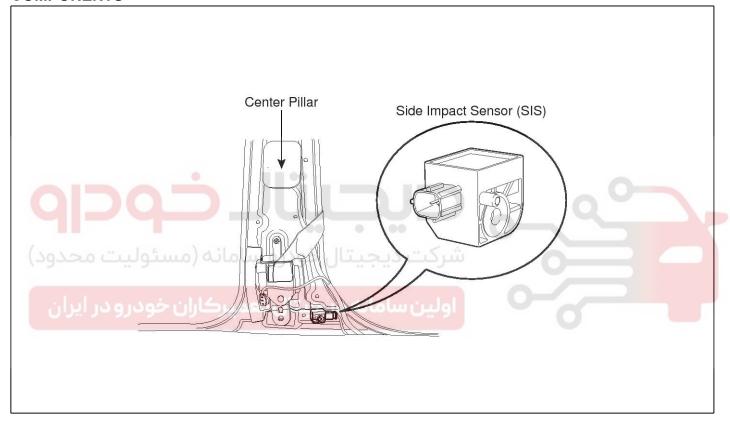
4. Disconnect the Front Impact Sensor connector.

# **Side Impact Sensor (SIS)**

#### **DESCRIPTION**

The Side Impact Sensor (SIS) system consists of two front SIS which are installed in the center pillar (LH and RH) They are remote sensors 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**



SBLRT6106L

**RT-22** Restraint

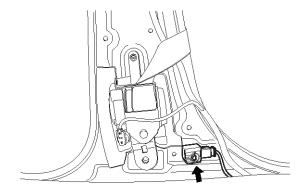
#### **REMOVAL**

#### 

- Removal of the airbag must be performed precautions/procedures according to the described previously.
- Before disconnecting the side impact sensor connector(s), disconnect the 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 battery negative cable, and wait for at least three minutes before beginning work.
- 2. Remove the lower anchor bolt.



- 3. Remove the following parts. (Refer to BD group)
  - Door scuff trim, Center pillar trim
- 4. Disconnect the Side Impact Sensor connector and remove the Side Impact Sensor mounting bolt.



SBI RT6522D

#### **INSTALLATION**

#### **A**CAUTION

- Do not turn the ignition switch ON and do not connect the battery cable while replacing the side impact sensor.
- 1. Install the new Side Impact Sensor with the bolt then connect the SRS harness connector to the Side Impact Sensor.

#### Tightening torque

:  $1.0 \sim 1.4 \text{ kgf.m}$  ( $10.2 \sim 13.8 \text{ Nm}$ ,  $7.5 \sim 10.2 \text{ lb.ft}$ )

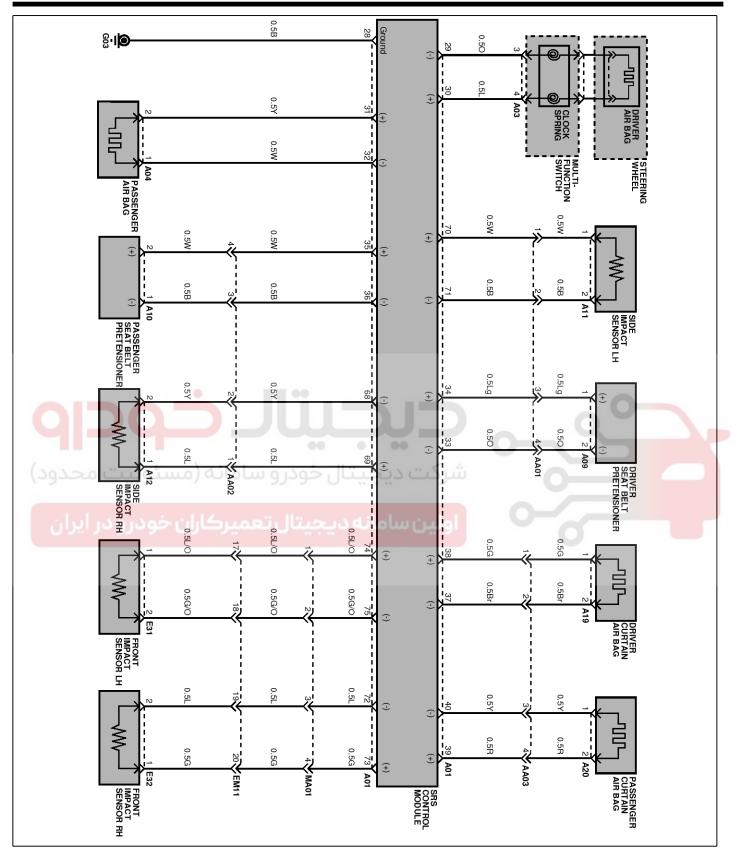
- 2. Install the center pillar trim. (Refer to BD group)
- 3. Install the door scuff trim. (Refer to BD group)
- 4. Inatall the lower anchor bolt.
- 5. Reconnect the battery negative cable.
- 6. After installing the Side Impact Sensor, confirm proper system operation: Turn the ignition switch ON, the SRS indicator light should be turned on for about six seconds and then go off.



# **CIRCUIT DIAGRAM** ON/START input I/P-D ଞ୍ଚ**ା**୭ PAB switch I/P-A METER 10A 19**YM01** Crash output

SBLRT6200L

# RT-24 Restraint



SBLRT6201L

#### **SRSCM CONNECTOR TERMINAL**

1	N	V	N	V	N	V	Λ	V	A	V	V	Λ	V	V	Λ	V	Λ	V	V	V	V	V	Λ	V
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75

Shorting bar ( ): located on the upper side of pin number from 2 to 25 of SRSCM connector.

Note: For short circuit check, shorting bar must be opened. Use a plastic clip as a shorting bar opener for disconnecting shorting bar.

Pin	Function	Pin	Function
1	-	50	-
2~25	Shorting Bar	51	-
26	Ignition	52	-
27	Airbag Warning Lamp	53	-
28	Power Ground	54	K-Line Diagnostic
29	Driver Airbag Low	55	-
30	Driver Airbag High	56	PAB off Lamp
31	Passenger Airbag High	57	-
32	Passenger Airbag Low	58	Crash Output
33	Seat Belt Pretensioner [Driver] Low	59	-
34	Seat Belt Pretensioner [Driver] High	60	PAD Switch
35	Seat Belt Pretensioner [Passenger] High	61	
36	Seat Belt Pretensioner [Passenger] Low	62	
37	Curtain Airbag [Driver] Low	63	
38	Curtain Airbag [Driver] High	64	
39	Curtain Airbag [Passenger] High	65	- شرکت
40	Curtain Airbag [Passenger] Low	66	-
41		67	
42	دىجىتال تعميركاران خودرو درايا	68	Side Impact Sensor [Passenger] Low
43		69	Side Impact Sensor [Passenger] High
44	-	70	Side Impact Sensor [Driver] High
45	-	71	Side Impact Sensor [Driver] Low
46	-	72	Front Impact Sensor [Passenger] Low
47	-	73	Front Impact Sensor [Passenger] High
48	-	74	Front Impact Sensor [Driver] High
49	-	75	Front Impact Sensor [Driver] Low

SBLRT6203L

RT-26 Restraint

# **DIAGNOSTIC TROUBLE CODES (DTC)**

DTC	FAULT DESCRIPTION		REMARK
B1101	Battery Voltage High		
B1102	Battery Voltage Low		
B1103	Communication Voltage too Low		
B1326	Front Impact Sensor [Driver] Short to Ground		
B1327	Front Impact Sensor [Driver] Short to Battery		
B1328	Front Impact Sensor [Driver] Defect		
B1329	Front Impact Sensor [Driver] Communication Error		
B1330	Front Impact Sensor [Driver] Wrong ID		
B1331	Front Impact Sensor [Passenger] Short to Ground		
B1332	Front Impact Sensor [Passenger] Short to Battery		
B1333	Front Impact Sensor [Passenger] Defect		
B1334	Front Impact Sensor [Passenger] Communication Error		
B1335	Front Impact Sensor [Passenger] Wrong ID		
B1346	Driver Airbag Resistance too High		
B1347	Driver Airbag Resistance too Low		0
B1348	Driver Airbag Circuit Short to Ground	0-	
B1349	Driver Airbag Circuit Short to Battery		
B1352	Passenger Airbag Resistance too High		
B1353	Passenger Airbag Resistance too Low	0	
B1354	Passenger Airbag Circuit Short to Ground		
B1355	Passenger Airbag Circuit Short to Battery		
B1361	Seat Belt Pretensioner [Front-Driver] Resistance too High		
B1362	Seat Belt Pretensioner [Front-Driver] Resistance too Low		
B1363	Seat Belt Pretensioner [Front-Driver] Circuit Short to Ground		
B1364	Seat Belt Pretensioner [Front-Driver] Circuit Short to Battery		
B1367	Seat Belt Pretensioner [Front-Passenger] Resistance too High		
B1368	Seat Belt Pretensioner [Front-Passenger] Resistance too Low		
B1369	Seat Belt Pretensioner [Front-Passenger] Circuit Short to Ground		
B1370	Seat Belt Pretensioner [Front-Passenger] Circuit Short to Battery		
B1395	Squib Interconnection Fault		
B1400	Side Impact Sensor [Front-Driver] Defect		
B1401	Side Impact Sensor [Front-Driver] Short to Ground		
B1402	Side Impact Sensor [Front-Driver] Short to Battery		
B1403	Side Impact Sensor [Front-Passenger] Defect		

B1405 Side I	mpact Sensor [Front-Passenger] Short to Ground mpact Sensor [Front-Passenger] Short to Battery
	mpact Sensor [Front-Passenger] Short to Battery
B1409 Side I	
	mpact Sensor [Front-Driver] Communication Error
B1410 Side I	mpact Sensor [Front-Passenger] Communication Error
B1414 Side I	mpact Sensor [Front-Driver] Wrong ID
B1415 Side I	mpact Sensor [Front-Passenger] Wrong ID
B1473 Curtai	n Airbag [Driver] Resistance too High
B1474 Curtai	n Airbag [Driver] Resistance too Low
B1475 Curtai	n Airbag [Driver] Circuit Short to Ground
B1476 Curtai	n Airbag [Driver] Circuit Short to Battery
B1477 Curtai	n Airbag [Passenger] Resistance too High
B1478 Curtai	n Airbag [Passenger] Resistance too Low
B1479 Curtai	n Airbag [Passenger] Circuit Short to Ground
B1480 Curtai	n Airbag [Passenger] Circuit Short to Battery
B1527 Passe	nger Airbag Deactivation Switch Open or Short to Battery
B1528 Passe	nger Airbag Deactivation Switch Short or Short to Ground
B1530 Passe	nger Airbag Deactivation Switch Instablility
B1620 Suppl	emental Restraint System Control Module Internal Fault (Replace SRSCM)
B1650 Crash	Recorded - Frontal (Replace SRSCM)
B1651 Crash	Recorded - Driver Side (Replace SRSCM)
B1652 Crash	Recorded - Passenger Side (Replace SRSCM)
B1657 Crash	Recorded - Belt Pretensioner Only
B1658 Belt P	retensioner 6 times Deployment (Replace SRSCM)
B2500 Warni	ng Lamp Fault
B2505 Passe	nger Airbag Deactivation Lamp Fault

RT-28 Restraint

## **DESCRIPTION**

#### **HI-SCAN CHECK**

- 1. Turn the ignition switch off.
- 2. Connect the Hi-Scan Pro connector to the data link connector located under the crash pad.

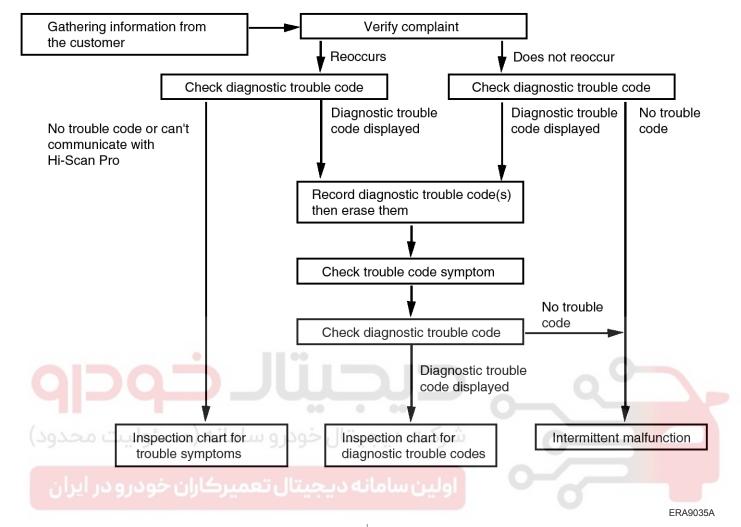


SBLRT6899D

- 3. Turn the ignition switch on and power on the Hi-Scan Pro.
- 4. Read DTCs.
- Find and repair the trouble, and clear the DTCs using Hi-Scan Pro.
- 6. Disconnect the Hi-Scan Pro.
- 7. Confirm proper system operation;
  - Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.



#### DIAGNOSTIC TROUBLESHOOTING FLOW



#### **TERMINAL & CONNECTOR INSPECTION**

Be sure to perform "TERMINAL & CONNECTOR INSPECTION" before doing "INSPECTION PROCEDURE" for troubleshooting of each DTC.

- 1. Visually inspect all connectors related to the affected circuit for damage and secure connection.
- 2. Inspect terminals for damage and corrosion.

#### **A**CAUTION

Avoid damaging connectors during the inspection process.

3. Are any problems found?

#### NO

▶ Go to next step (INSPECTION PROCEDURE).

#### YES

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

#### PREPARATION OF INSPECTION

Refer to the following steps while doing "INSPECTION PROCEDURE" which is described in the DTC troubleshooting section.

- 1. Turn the ignition switch to LOCK.
- 2. Disconnect the battery negative cable 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, CAB, BPT, FIS and SIS.
- 5. Disconnect the SRSCM connector.

RT-30 Restraint

#### CHECKING OF SHORT OR OPEN CIRCUIT

Refer to the following tips for checking of short or open circuit.

- 1. Shorting bar is located on the upper side of pin number from 2 to 25 of SRSCM connector.
- 2. When checking the short circuit shorting bar must be opened. Use a plastic clip to put into as a shorting bar opener for disconnecting shorting bar.
- Use SST Dummy adapter (0957A-2G000) to measure resistance or voltage for checking of short or open circuit.

Plug it into DAB (BPT) connector to avoid enlarging or damaging the connector pins.



# CLEAR THE DTC AND CHECK THE VEHICLE AGAIN

- 1. Install the DAB module and connect the DAB connector.
- 2. Connect the connector of the PAB, CAB, BPT, FIS and SIS.
- 3. Connect the SRSCM connector.
- 4. Connect the battery negative cable 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 one, the fault may be the SRSCM. Replace the SRSCM.

## **B1101**

#### **DTC Description**

The SRSCM sets above DTC(s) if it detects that the battery voltage of restraints system is too high or too low. When the voltage returns to normal, the SRS warning light automatically goes off and a malfunction is no longer indicated.

The SRSCM can communicate with outside equipment as Front Impact Sensor (FIS), Side Impact Sensor (SIS) when battery voltage is 10.6 V of above. The SRSCM sets B1103 code if it detects their malfuction through mounting outside equipments continuously when battery voltage is 10.6V below.

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1101	Battery Voltage > 16.5 V for 4 seconds after IG ON	Battery
B1102	Battery Voltage < 10.6 V for 4 seconds after IG ON	<ul><li>Generator</li><li>Wiring Harness</li><li>SRSCM</li></ul>
B1103	Battery Voltage < 10.6 V for 4 seconds after IG ON The malfunction of the restraints system outside equipment	

#### Specification

Voltage : 10.6 ~ 16.5 V

#### Schematic Diagram



## [HARNESS CONNECTOR]

1		$\overline{}$		5		5		5		5		5				5		7				7		
•	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75

SRSCM

SBLRT6210L

: Shorting Bar

RT-32 Restraint

## **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

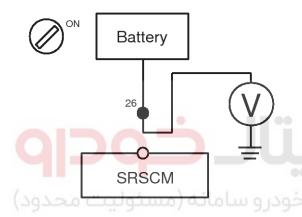
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SOURCE VOLTAGE
  - 1) Turn the ignition switch to ON.
  - 2) Measure voltage between the terminal 26 of SRSCM harness connector and chassis ground.

Specification (voltage): 10.6 ~ 16.5 V



SBLRT6211L

3) 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 generator.

NO

- ▶ Repair or replace the battery.(Refer to "EE" group in this SERVICE MANUAL)
- 4. CHECK GENERATOR
  - 1) Check the generator.
    - Refer to "EE" group in this SERVICE MANUAL.

Is the generator normal?

YES

Check wiring harness.

NO

- ► Repair or replace the generator.(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.

**A**CAUTION

Check again that the battery negative cable is disconnected from the battery.

- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB, CAB, BPT, FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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.





**RT-34** Restraint

## B1102

#### **DTC Description**

The SRSCM sets above DTC(s) if it detects that the battery voltage of restraints system is too high or too low. When the voltage returns to normal, the SRS warning light automatically goes off and a malfunction is no longer indicated.

The SRSCM can communicate with outside equipment as Front Impact Sensor (FIS), Side Impact Sensor (SIS) when battery voltage is 10.6 V of above. The SRSCM sets B1103 code if it detects their malfuction through mounting outside equipments continuously when battery voltage is 10.6V below.

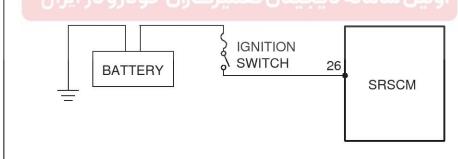
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1101	Battery Voltage > 16.5 V for 4 seconds after IG ON	Battery
B1102	Battery Voltage < 10.6 V for 4 seconds after IG ON	<ul><li>Generator</li><li>Wiring Harness</li><li>SRSCM</li></ul>
B1103	Battery Voltage < 10.6 V for 4 seconds after IG ON  The malfunction of the restraints system outside equipment	2

#### Specification

Voltage : 10.6 ~ 16.5 V

#### **Schematic Diagram**



#### [HARNESS CONNECTOR]

1		V	V		V	5	V		V		V		V	7				V	V			Λ		
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75

SRSCM

: Shorting Bar

SBLRT6210L

## **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

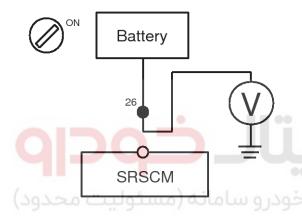
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SOURCE VOLTAGE
  - 1) Turn the ignition switch to ON.
  - 2) Measure voltage between the terminal 26 of SRSCM harness connector and chassis ground.

Specification (voltage): 10.6 ~ 16.5 V



SBLRT6211L

3) 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 generator.

NO

- ▶ Repair or replace the battery.(Refer to "EE" group in this SERVICE MANUAL)
- 4. CHECK GENERATOR
  - 1) Check the generator.
    - Refer to "EE" group in this SERVICE MANUAL.

Is the generator normal?

YES

► Check wiring harness.

NO

- ► Repair or replace the generator.(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.

#### **A**CAUTION

Check again that the battery negative cable is disconnected from the battery.

- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB, CAB, BPT, FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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.

RT-36 Restraint

NO

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





**RT-37 SRSCM** 

## B1103

#### **DTC Description**

The SRSCM sets above DTC(s) if it detects that the battery voltage of restraints system is too high or too low. When the voltage returns to normal, the SRS warning light automatically goes off and a malfunction is no longer indicated.

The SRSCM can communicate with outside equipment as Front Impact Sensor (FIS), Side Impact Sensor (SIS) when battery voltage is 10.6 V of above. The SRSCM sets B1103 code if it detects their malfuction through mounting outside equipments continuously when battery voltage is 10.6V below.

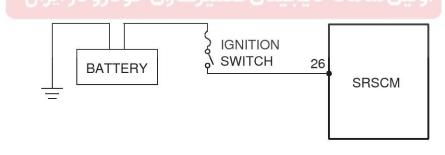
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1101	Battery Voltage > 16.5 V for 4 seconds after IG ON	Battery
B1102	Battery Voltage < 10.6 V for 4 seconds after IG ON	<ul><li>Generator</li><li>Wiring Harness</li><li>SRSCM</li></ul>
B1103	Battery Voltage < 10.6 V for 4 seconds after IG ON  The malfunction of the restraints system outside equipment	2

#### Specification

Voltage : 10.6 ~ 16.5 V

#### **Schematic Diagram**



#### [HARNESS CONNECTOR]

1	7	V	V	5		5			Λ		V		V	7		V		Λ				Λ	N	
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75

SRSCM

: Shorting Bar

SBLRT6210L

RT-38 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

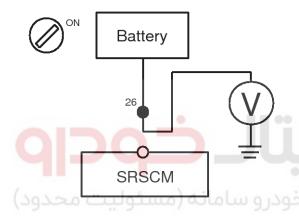
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SOURCE VOLTAGE
  - 1) Turn the ignition switch to ON.
  - 2) Measure voltage between the terminal 26 of SRSCM harness connector and chassis ground.

Specification (voltage): 10.6 ~ 16.5 V



SBLRT6211L

3) 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 generator.

NO

- ▶ Repair or replace the battery.(Refer to "EE" group in this SERVICE MANUAL)
- 4. CHECK GENERATOR
  - 1) Check the generator.
    - Refer to "EE" group in this SERVICE MANUAL.

Is the generator normal?

YES

Check wiring harness.

NO

- ▶ Repair or replace the generator.(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.

**ACAUTION** 

Check again that the battery negative cable is disconnected from the battery.

- 2) Install the DAB module and connect the DAB connector.
- 3) Connect the connectors of the PAB, CAB, BPT, FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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.





RT-40 Restraint

## **B1326**

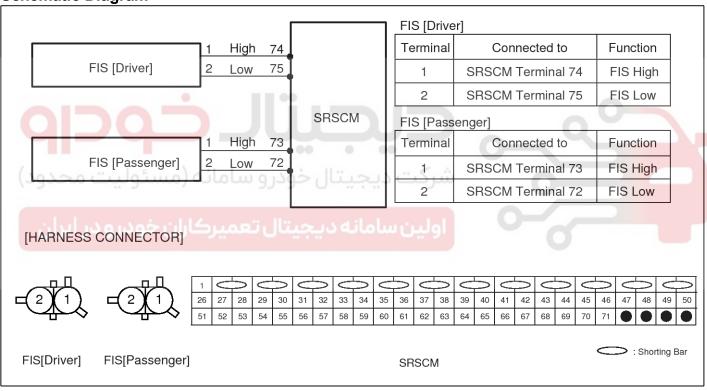
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (FIS). The SRSCM sets above DTC(s) if it detects short to ground on the FIS circuit.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1326 B1331	<ul> <li>Short to ground between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul><li>Short to ground on Wiring Harness</li><li>Front Impact Sensor(FIS)</li><li>SRSCM</li></ul>

Schematic Diagram



# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

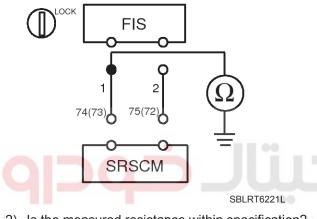
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK FIS CIRCUIT
  - Measure resistance between the terminal 1 of FIS harness connector and chassis ground.

specification(resistance) :  $\infty \Omega$ 



2) 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

- 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, CAB, BPT, FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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 DTC AGAIN

  Refer to the DESCRIPTION in this

  TROUBLESHOOTING section.

RT-42 Restraint

## **B1327**

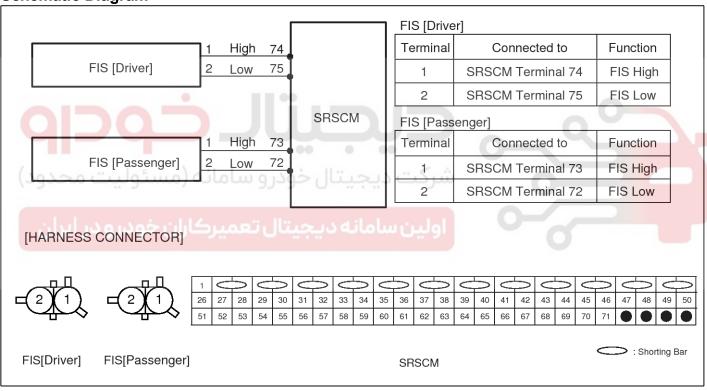
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (FIS). The SRSCM sets above DTC(s) if it detects short to battery on the FIS circuit.

### **DTC Detecting Condition**

DTC	Condition	Probable cause
B1327 B1332	<ul> <li>Short to battery line between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul><li>Short to battery line on Wiring Harness</li><li>Front Impact Sensor(FIS)</li><li>SRSCM</li></ul>

### Schematic Diagram



# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

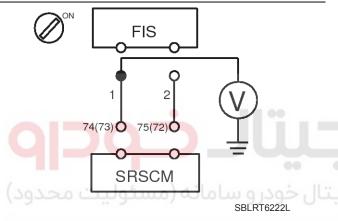
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

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

specification(voltage): Approximately 0 V



4) 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
  - 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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).
- CLEAR THE DTC AND CHECK THE DTC AGAIN
   Refer to the DESCRIPTION in this TROUBLESHOOTING section.



RT-44 Restraint

## **B1328**

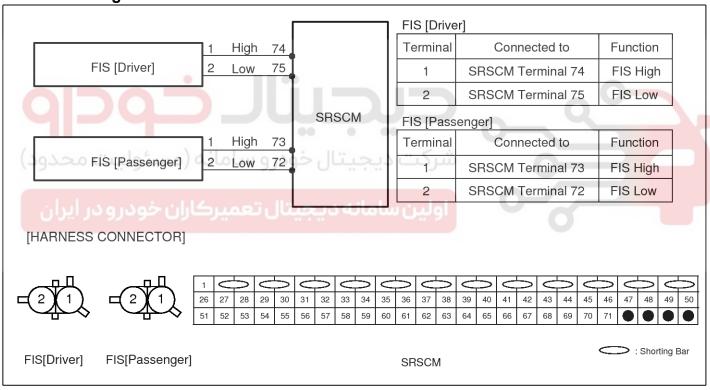
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (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**

DTC	Condition	Probable cause
B1328 B1329 B1333 B1334	<ul> <li>Open between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Front Impact Sensor(FIS)     SRSCM

### **Schematic Diagram**



# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

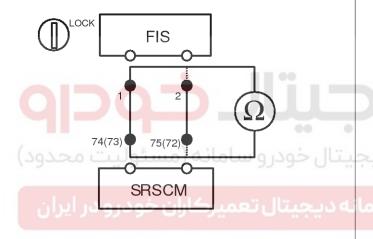
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK FIS CIRCUIT
  - Measure resistance between the terminal 1 of FIS harness connector and the terminal 74(73) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of FIS harness connector and the terminal 75(72) of SRSCM harness connector.

Specification (resistance): below 1 Ω



SBLRT6223L

3) 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
  - 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, CAB, BPT, FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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



RT-46 Restraint

## B1329

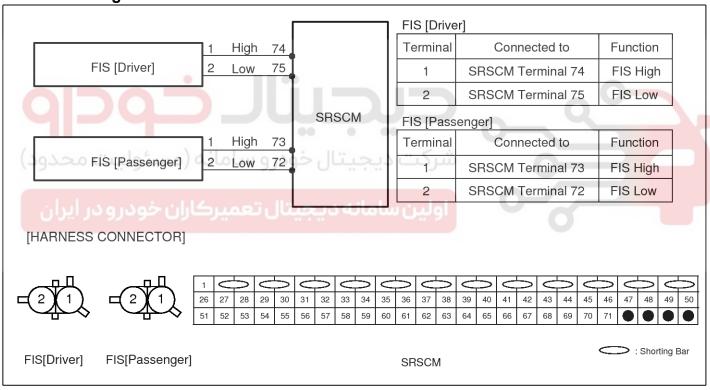
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (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**

DTC	Condition	Probable cause
B1328 B1329 B1333 B1334	<ul> <li>Open between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Front Impact Sensor(FIS)     SRSCM

### **Schematic Diagram**



# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

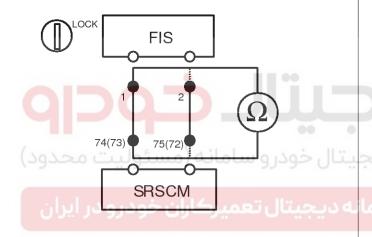
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK FIS CIRCUIT
  - Measure resistance between the terminal 1 of FIS harness connector and the terminal 74(73) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of FIS harness connector and the terminal 75(72) of SRSCM harness connector.

Specification (resistance): below 1 Ω



SBLRT6223L

3) 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
  - 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, CAB, BPT, FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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



RT-48 Restraint

## **B1330**

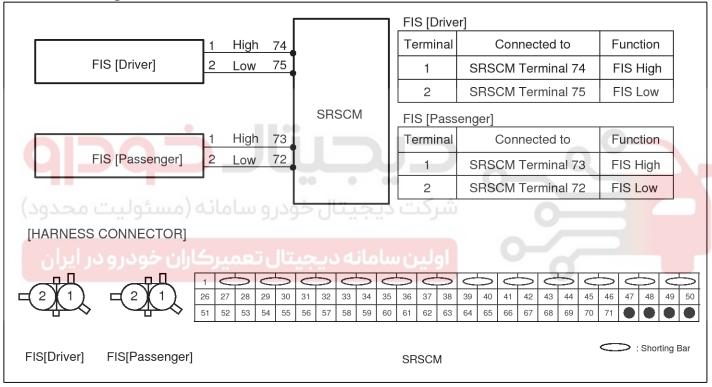
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (FIS). The SRSCM sets above DTC(s) if it detects wrong FIS is used.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1330 B1335	<ul><li>Wrong Front Impact Sensor(FIS)</li><li>SRSCM Malfunction</li></ul>	<ul><li>Front Impact Sensor(FIS)</li><li>SRSCM</li></ul>

#### Schematic Diagram



SBLRT6220L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### Inspection Procedure

If above DTC is detected replace the Front Impact Sensor.

## **B1331**

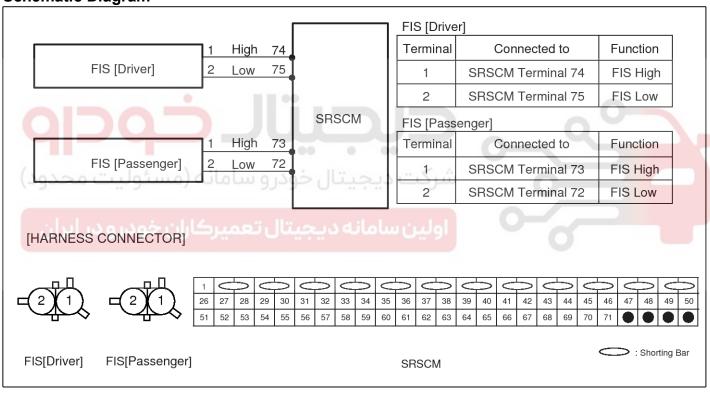
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (FIS). The SRSCM sets above DTC(s) if it detects short to ground on the FIS circuit.

### **DTC Detecting Condition**

DTC	Condition	Probable cause
B1326 B1331	<ul> <li>Short to ground between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul><li>Short to ground on Wiring Harness</li><li>Front Impact Sensor(FIS)</li><li>SRSCM</li></ul>

Schematic Diagram



RT-50 Restraint

### **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

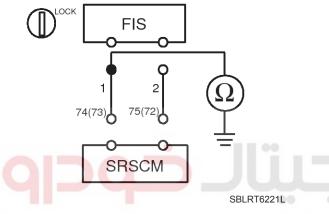
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

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

specification(resistance) :  $\infty \Omega$ 



2) 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

- 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, CAB, BPT, FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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 DTC AGAIN

  Refer to the DESCRIPTION in this

  TROUBLESHOOTING section.



## **B1332**

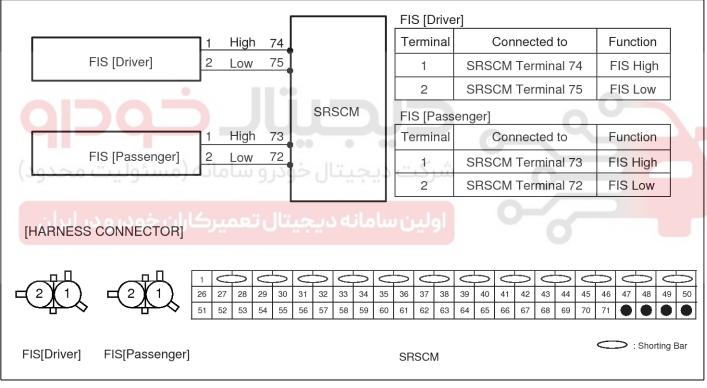
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (FIS). The SRSCM sets above DTC(s) if it detects short to battery on the FIS circuit.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1327 B1332	<ul> <li>Short to battery line between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul><li>Short to battery line on Wiring Harness</li><li>Front Impact Sensor(FIS)</li><li>SRSCM</li></ul>

### Schematic Diagram



RT-52 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

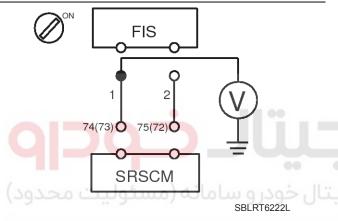
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

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

specification(voltage): Approximately 0 V



4) 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
  - 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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).
- CLEAR THE DTC AND CHECK THE DTC AGAIN
   Refer to the DESCRIPTION in this TROUBLESHOOTING section.



### **B1333**

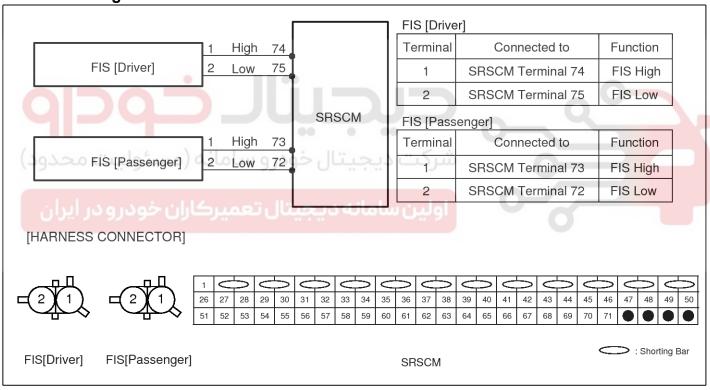
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (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**

DTC	Condition	Probable cause
B1328 B1329 B1333 B1334	<ul> <li>Open between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Front Impact Sensor(FIS)     SRSCM

### **Schematic Diagram**



RT-54 Restraint

### **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

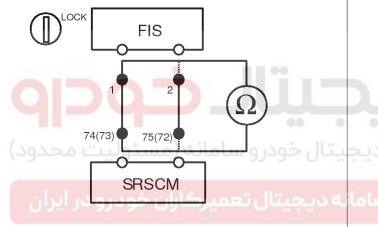
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK FIS CIRCUIT
  - Measure resistance between the terminal 1 of FIS harness connector and the terminal 74(73) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of FIS harness connector and the terminal 75(72) of SRSCM harness connector.

Specification (resistance): below 1 Ω



SBLRT6223L

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

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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

## B1334

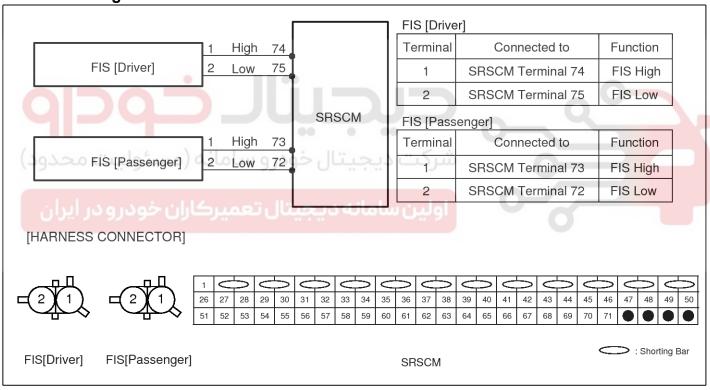
### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (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**

DTC	Condition	Probable cause
B1328 B1329 B1333 B1334	<ul> <li>Open between FIS and SRSCM</li> <li>Front Impact Sensor(FIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Front Impact Sensor(FIS)     SRSCM

### **Schematic Diagram**



RT-56 Restraint

### **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

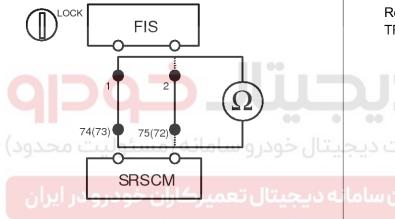
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK FIS CIRCUIT
  - Measure resistance between the terminal 1 of FIS harness connector and the terminal 74(73) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of FIS harness connector and the terminal 75(72) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6223L

3) 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
  - 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, CAB, BPT, FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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

## B1335

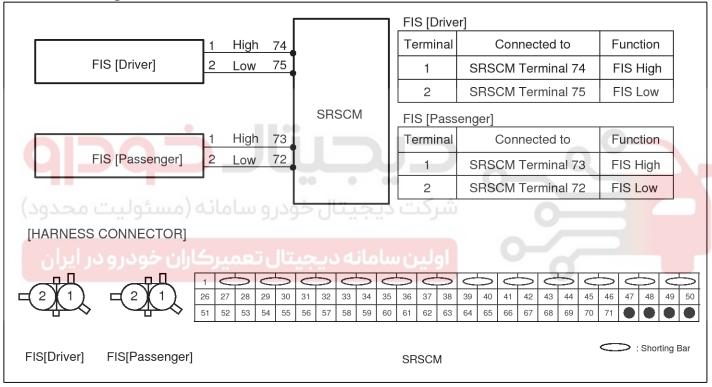
#### **DTC Description**

The detecting system for front crash consists of the SRSCM and two Front Impact Sensors (FIS). The SRSCM sets above DTC(s) if it detects wrong FIS is used.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1330 B1335	<ul><li>Wrong Front Impact Sensor(FIS)</li><li>SRSCM Malfunction</li></ul>	<ul><li>Front Impact Sensor(FIS)</li><li>SRSCM</li></ul>

#### Schematic Diagram



SBLRT6220L

### **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### Inspection Procedure

If above DTC is detected replace the Front Impact Sensor.

RT-58 Restraint

## **B1346**

### **DTC Description**

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

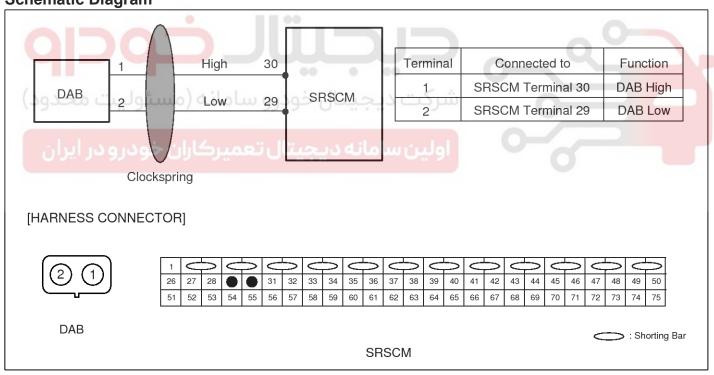
# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1346 B1347	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Driver Airbag (DAB) squib</li> <li>Clockspring</li> <li>SRSCM</li> </ul>

### **Specification**

DAB resistance : 1.6  $\sim$  6.4  $\Omega$ 

### Schematic Diagram



SBLRT6230L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

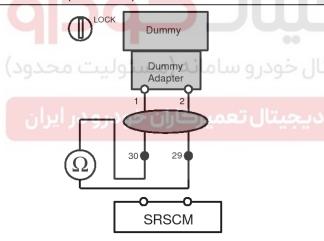
2. CHECK DAB RESISTANCE

#### **A**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 30 and 29 of SRSCM harness connector.

Specification (resistance) :  $1.6 \sim 6.4 \Omega$ 



SBLRT6231L

3) Is the measured resistance within specification?

NO

► Check open circuit.

YES

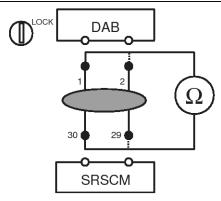
▶ Replace the Driver Airbag(DAB) module.

#### 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1 of DAB harness connector and the terminal 30 of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of

DAB harness connector and the terminal 29 of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6232L

3) Is the measured resistance within specification?

YES

► Check short circuit.

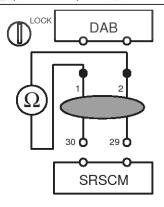
NO

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

### 4. CHECK SHORT CIRCUIT

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

Specification (resistance) :  $\infty \Omega$ 



SBLRT6233L

2) 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 RT-60 Restraint

clockspring and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN





### B1347

### **DTC Description**

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

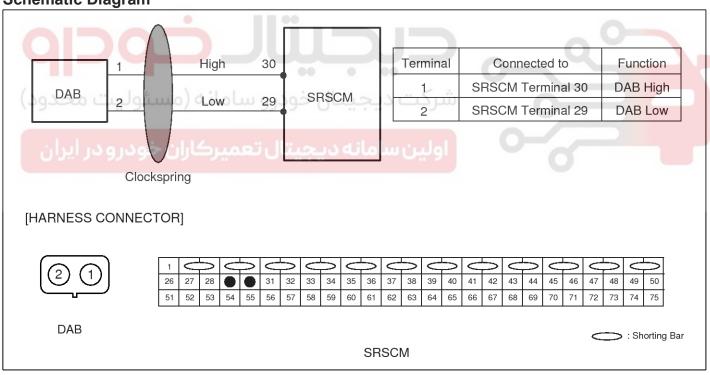
# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1346 B1347	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Driver Airbag (DAB) squib</li> <li>Clockspring</li> <li>SRSCM</li> </ul>

### **Specification**

DAB resistance : 1.6  $\sim$  6.4  $\Omega$ 

## Schematic Diagram



SBLRT6230L

RT-62 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

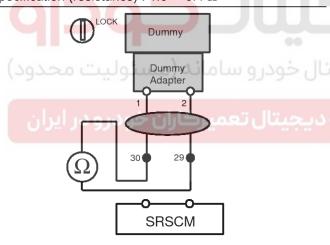
2. CHECK DAB RESISTANCE

#### **A**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 30 and 29 of SRSCM harness connector.

Specification (resistance) : 1.6  $\sim$  6.4  $\Omega$ 



SBLRT6231L

3) Is the measured resistance within specification?

NO

► Check open circuit.

YES

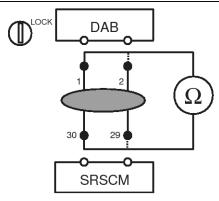
▶ Replace the Driver Airbag(DAB) module.

#### 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1 of DAB harness connector and the terminal 30 of SRSCM harness connector.
- 2) Measure resistance between the terminal 2 of

DAB harness connector and the terminal 29 of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6232L

3) Is the measured resistance within specification?

YES

► Check short circuit.

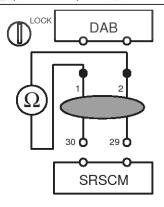
NO

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

### 4. CHECK SHORT CIRCUIT

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

Specification (resistance) :  $\infty \Omega$ 



SBLRT6233L

2) 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





RT-64 Restraint

## **B1348**

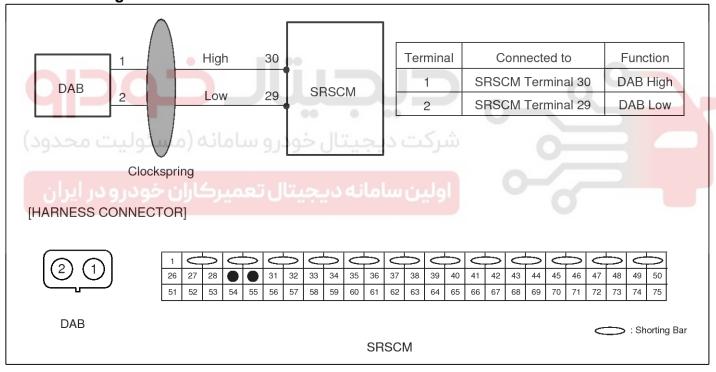
### **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1348	<ul> <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> <li>Short to ground circuit on wiring harness</li> <li>Driver Airbag (DAB) squib</li> <li>Clockspring</li> <li>SRSCM</li> </ul>

### **Schematic Diagram**



SBLRT6230L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

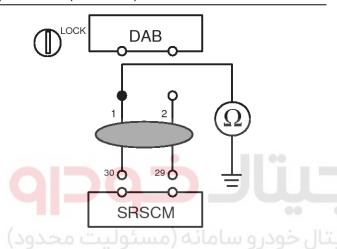
### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - Measure resistance between the terminal 1 of DAB harness connector and chassis ground.

Specification (resistance): infinite



SBLRT6234L

OBERTO

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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable to the battery.
  - 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
  - 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

RT-66 Restraint

### B1349

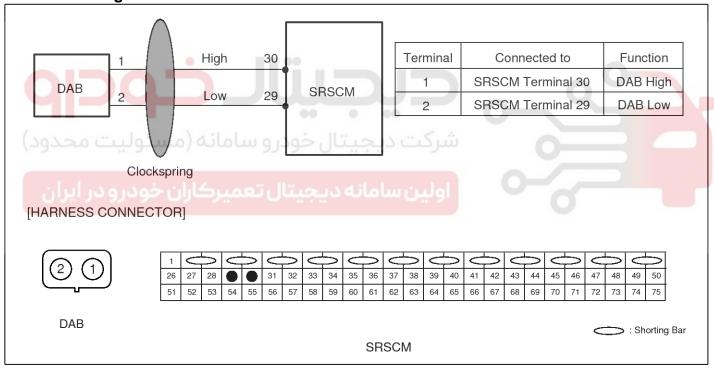
### **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1349	<ul> <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> <li>Short to battery line on wiring harness</li> <li>Driver Airbag (DAB) squib</li> <li>Clockspring</li> <li>SRSCM</li> </ul>

### **Schematic Diagram**



SBLRT6230L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

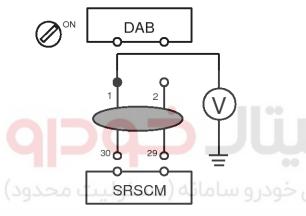
### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO BATTERY LINE
  - 1) Connect the battery negative cable 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 0 V



SBLRT6235L

4) 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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
  - 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

RT-68 Restraint

### B1352

#### **DTC Description**

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

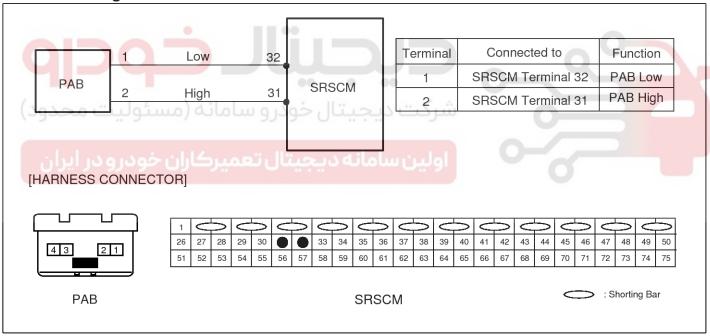
# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1352 B1353	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Passenger Airbag (PAB) squib</li> <li>SRSCM</li> </ul>

### **Specification**

PAB resistance : 1.8  $\sim$  6.4  $\Omega$ 

### Schematic Diagram



SBLRT6240L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

# **Inspection Procedure**

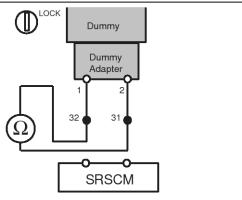
- 1. PREPARATION
  - Refer to the DESCRIPTION in this TROUBLESHOOTING section.
- 2. CHECK PAB RESISTANCE

**ACAUTION** 

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 32 and 31 of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  6.4  $\Omega$ 



SBLRT6241L

3) Is the measured resistance within specification?

YES

▶ Replace the Passenger Airbag(PAB) module.

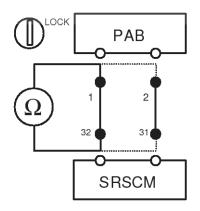
NO

► Check open circuit.

#### 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1 of PAB harness connector and the terminal 32 of SRSCM harness connector.
- Measure resistance between the terminal 2 of PAB harness connector and the terminal 31 of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6242L

3) Is the measured resistance within specification?

YES

► Check short circuit.

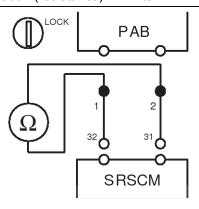
NO

▶ 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



SBLRT6243L

2) 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

RT-70 Restraint

### B1353

#### **DTC Description**

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

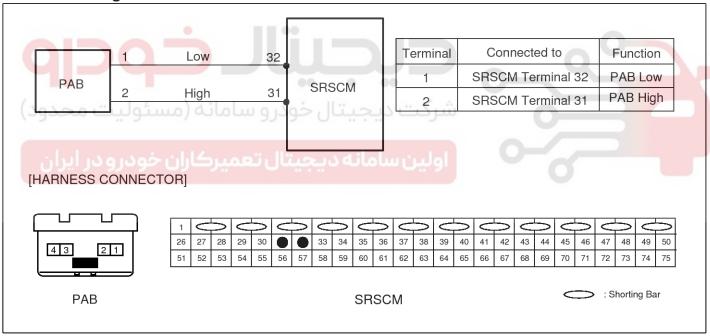
# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1352 B1353	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Passenger Airbag (PAB) squib</li> <li>SRSCM</li> </ul>

### **Specification**

PAB resistance : 1.8  $\sim$  6.4  $\Omega$ 

### **Schematic Diagram**



SBLRT6240L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

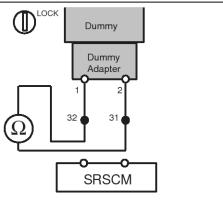
- 1. PREPARATION
  - Refer to the DESCRIPTION in this TROUBLESHOOTING section.
- 2. CHECK PAB RESISTANCE

**ACAUTION** 

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 32 and 31 of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  6.4  $\Omega$ 



SBLRT6241L

3) Is the measured resistance within specification?

▶ Replace the Passenger Airbag(PAB) module.

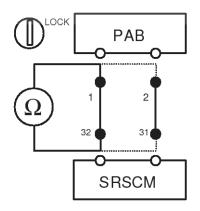
NO

► Check open circuit.

#### 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1 of PAB harness connector and the terminal 32 of SRSCM harness connector.
- Measure resistance between the terminal 2 of PAB harness connector and the terminal 31 of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6242L

3) Is the measured resistance within specification?

YES

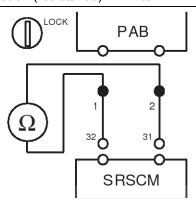
► Check short circuit.

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



SBLRT6243L

2) 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

RT-72 Restraint

## B1354

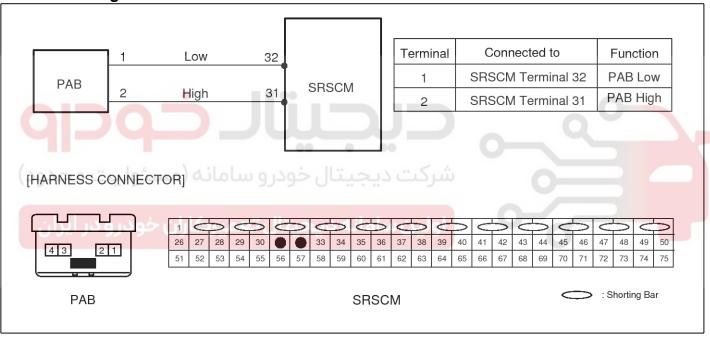
### **DTC Description**

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

### **DTC Detecting Condition**

DTC	Condition	Probable cause
B1354	<ul> <li>Short to ground between PAB module and SRSCM</li> <li>Passenger Airbag (PAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to ground on wiring harness</li> <li>Passenger Airbag (PAB) squib</li> <li>SRSCM</li> </ul>

**Schematic Diagram** 



SBLRT6240L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

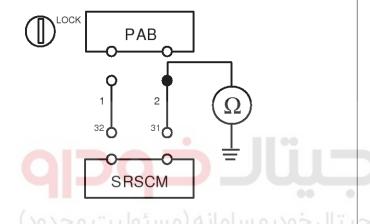
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - Measure resistance between the terminal 2 of PAB harness connector and chassis ground.

Specification (resistance): infinite



SBLRT6244I

2) 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
  - 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



RT-74 Restraint

# B1355

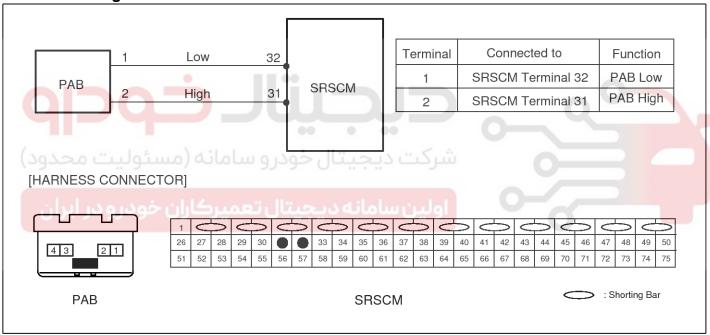
# **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1355	<ul> <li>Short to battery line between PAB and SRSCM</li> <li>Passenger Airbag (PAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to battery line circuit on wiring harness</li> <li>Passenger Airbag (PAB) squib</li> <li>SRSCM</li> </ul>

# **Schematic Diagram**



SBLRT6240L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

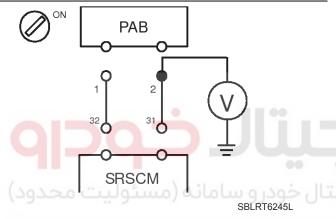
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO BATTERY LINE
  - 1) Connect the battery negative cable 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 0 V



4) 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



RT-76 Restraint

# **B1361**

## **DTC Description**

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

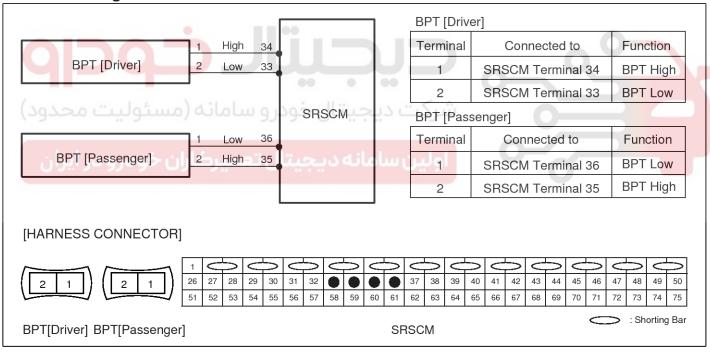
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1361 B1362 B1367 B1368	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Seat Belt Pretensioner ( BPT) squib</li> <li>SRSCM</li> </ul>

# **Specification**

BPT resistance : 1.8  $\sim$  6.4  $\Omega$ 

# **Schematic Diagram**



SBLRT6250L

# Terminal & Connector Inspection

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

# **Inspection Procedure**

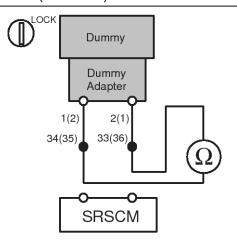
- 1. PREPARATION
  - Refer to the DESCRIPTION in this TROUBLESHOOTING section.
- 2. CHECK BPT RESISTANCE

**ACAUTION** 

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 34(35) and 33(36) of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  6.4  $\Omega$ 



SBLRT6251L

3) Is the measured resistance within specification?
YES

► Replace the Seat Belt Pretensioner(BPT) module.

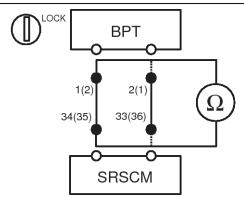
NO

► Check open circuit.

# 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1(2) of BPT harness connector and the terminal 34(35) of SRSCM harness connector.
- Measure resistance between the terminal 2(1) of BPT harness connector and the terminal 33(36) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6252L

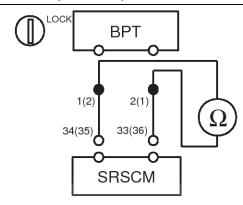
3) Is the measured resistance within specification?
YES

► 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(2) and 2(1) of BPT harness connector.

Specification (resistance): infinite



SBLRT6253L

2) 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

RT-78 Restraint

# B1362

## **DTC Description**

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

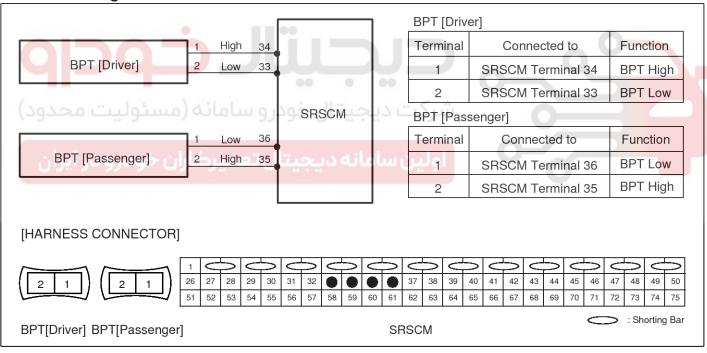
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1361 B1362 B1367 B1368	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Seat Belt Pretensioner ( BPT) squib</li> <li>SRSCM</li> </ul>

# **Specification**

BPT resistance : 1.8  $\sim$  6.4  $\Omega$ 

# **Schematic Diagram**



SBI RT6250I

#### Terminal & Connector Inspection

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

# **Inspection Procedure**

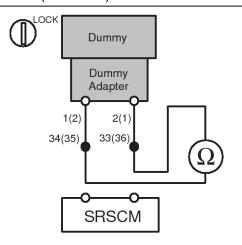
- 1. PREPARATION
  - Refer to the DESCRIPTION in this TROUBLESHOOTING section.
- 2. CHECK BPT RESISTANCE

**ACAUTION** 

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 34(35) and 33(36) of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  6.4  $\Omega$ 



SBLRT6251L

3) Is the measured resistance within specification?

YES

► Replace the Seat Belt Pretensioner(BPT) module.

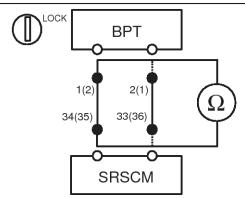
NO

► Check open circuit.

# 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1(2) of BPT harness connector and the terminal 34(35) of SRSCM harness connector.
- Measure resistance between the terminal 2(1) of BPT harness connector and the terminal 33(36) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6252L

3) Is the measured resistance within specification?

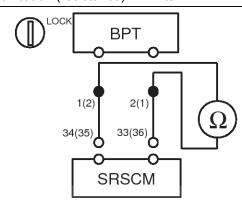
YES

► 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(2) and 2(1) of BPT harness connector.

Specification (resistance): infinite



SBLRT6253L

2) 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

RT-80 Restraint

# **B1363**

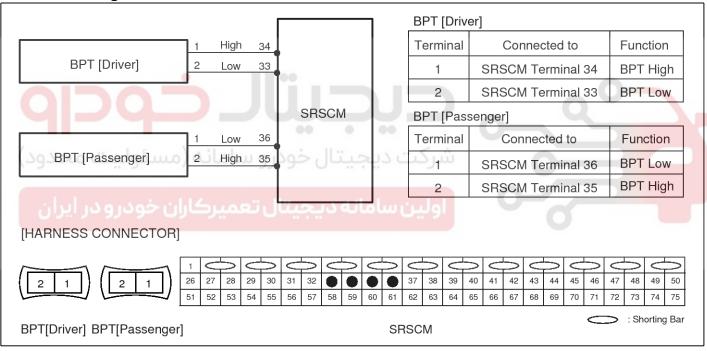
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1363 B1369	<ul> <li>Short to ground between BPT and SRSCM</li> <li>Seat Belt Pretensioner (BPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to ground circuit on wiring harness</li> <li>Seat Belt Pretensioner ( BPT) squib</li> <li>SRSCM</li> </ul>

# **Schematic Diagram**



SBLRT6250L

# **Terminal & Connector Inspection**

**DESCRIPTION** to the in this TROUBLESHOOTING section.

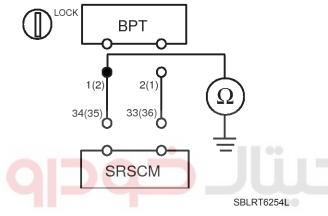
#### Inspection Procedure

1. PREPARATION

**DESCRIPTION** Refer to the in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - 1) Measure resistance between the terminal 1(2) of BPT harness connector and chassis ground.

Specification (resistance): infinite



2) 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, CAB, BPT, FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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.

Belt Pretensioner (BPT)?

YES

▶ Go to next step.

NO

- ▶ Replace BPT module.
- 4. CLEAR THE DTC AND CHECK THE VEHICLE **AGAIN**

RT-82 Restraint

# B1364

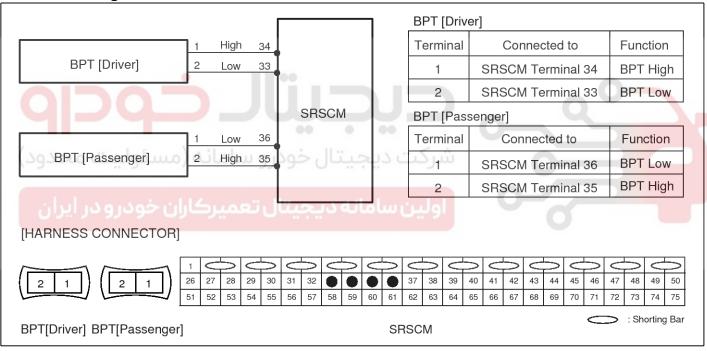
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1364 B1370	<ul> <li>Short to battery line between BPT and SRSCM</li> <li>Seat Belt Pretensioner (BPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to battery line circuit on wiring harness</li> <li>Seat Belt Pretensioner (BPT) squib</li> <li>SRSCM</li> </ul>

# **Schematic Diagram**



SBLRT6250L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

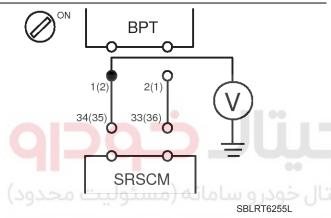
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

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

Specification (voltage): Approximately 0 V



4) 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



RT-84 Restraint

# **B1367**

## **DTC Description**

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

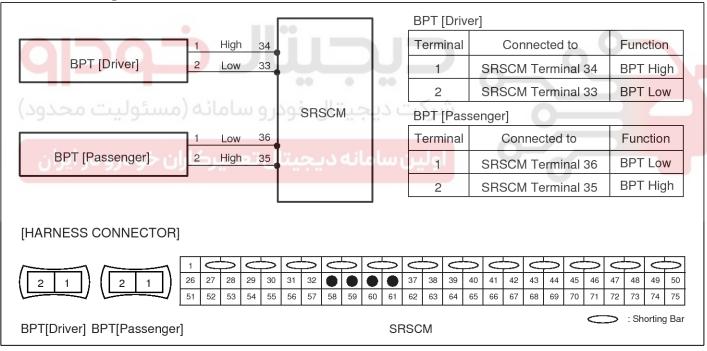
# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1361 B1362 B1367 B1368	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Seat Belt Pretensioner ( BPT) squib</li> <li>SRSCM</li> </ul>

# **Specification**

BPT resistance : 1.8  $\sim$  6.4  $\Omega$ 

# **Schematic Diagram**



SBI RT6250I

# Terminal & Connector Inspection

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

# **Inspection Procedure**

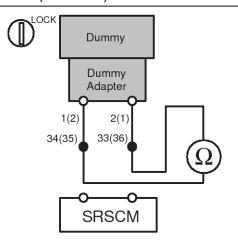
- 1. PREPARATION
  - Refer to the DESCRIPTION in this TROUBLESHOOTING section.
- 2. CHECK BPT RESISTANCE

**ACAUTION** 

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 34(35) and 33(36) of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  6.4  $\Omega$ 



SBLRT6251L

3) Is the measured resistance within specification?

YES

► Replace the Seat Belt Pretensioner(BPT) module.

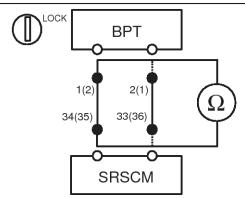
NO

Check open circuit.

# 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1(2) of BPT harness connector and the terminal 34(35) of SRSCM harness connector.
- Measure resistance between the terminal 2(1) of BPT harness connector and the terminal 33(36) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6252L

3) Is the measured resistance within specification?

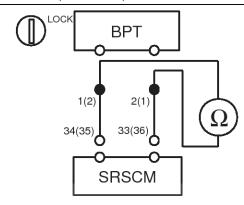
YES

► 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(2) and 2(1) of BPT harness connector.

Specification (resistance): infinite



SBLRT6253L

2) 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

RT-86 Restraint

# **B1368**

## **DTC Description**

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

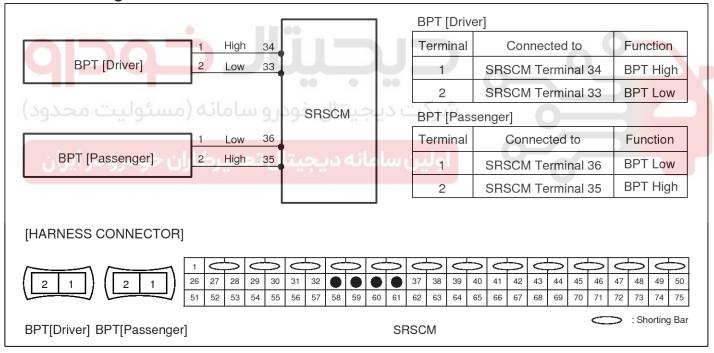
# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1361 B1362 B1367 B1368	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Seat Belt Pretensioner (BPT) squib</li> <li>SRSCM</li> </ul>

## Specification

BPT resistance : 1.8  $\sim$  6.4  $\Omega$ 

# **Schematic Diagram**



SBLRT6250L

# Terminal & Connector Inspection

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

# **Inspection Procedure**

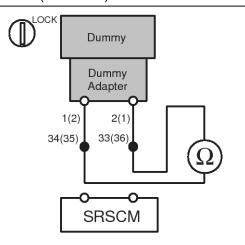
- 1. PREPARATION
  - Refer to the DESCRIPTION in this TROUBLESHOOTING section.
- 2. CHECK BPT RESISTANCE

**ACAUTION** 

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 34(35) and 33(36) of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  6.4  $\Omega$ 



SBLRT6251L

3) Is the measured resistance within specification?

YES

► Replace the Seat Belt Pretensioner(BPT) module.

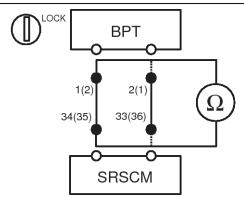
NO

► Check open circuit.

# 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1(2) of BPT harness connector and the terminal 34(35) of SRSCM harness connector.
- Measure resistance between the terminal 2(1) of BPT harness connector and the terminal 33(36) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6252L

3) Is the measured resistance within specification?

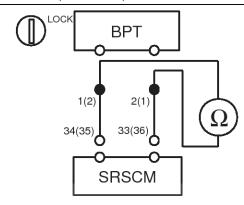
YES

► 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(2) and 2(1) of BPT harness connector.

Specification (resistance): infinite



SBLRT6253L

2) 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

RT-88 Restraint

# **B1369**

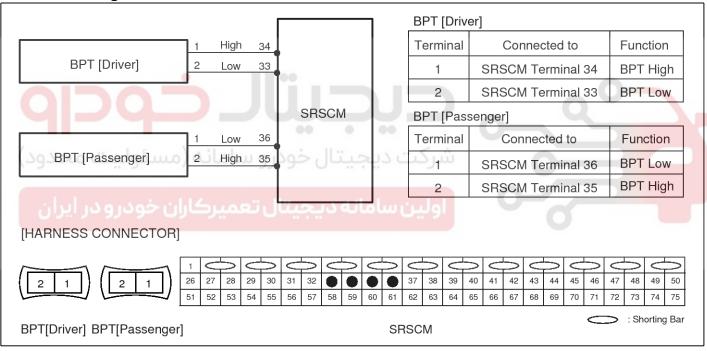
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1363 B1369	<ul> <li>Short to ground between BPT and SRSCM</li> <li>Seat Belt Pretensioner (BPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to ground circuit on wiring harness</li> <li>Seat Belt Pretensioner ( BPT) squib</li> <li>SRSCM</li> </ul>

# **Schematic Diagram**



SBLRT6250L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

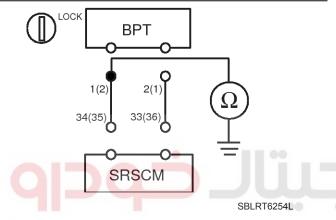
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - 1) Measure resistance between the terminal 1(2) of BPT harness connector and chassis ground.

Specification (resistance): infinite



2) 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

- 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, CAB, BPT, FIS and SIS.
- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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.

Belt Pretensioner (BPT)?

YES

▶ Go to next step.

NO

- ▶ Replace BPT module.
- 4. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN

RT-90 Restraint

# B1370

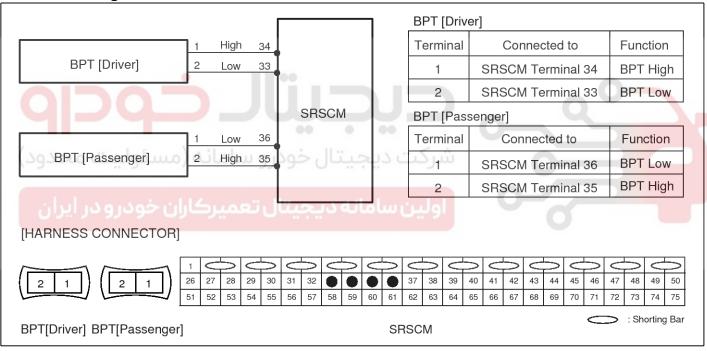
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1364 B1370	<ul> <li>Short to battery line between BPT and SRSCM</li> <li>Seat Belt Pretensioner (BPT) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to battery line circuit on wiring harness</li> <li>Seat Belt Pretensioner (BPT) squib</li> <li>SRSCM</li> </ul>

# **Schematic Diagram**



SBLRT6250L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

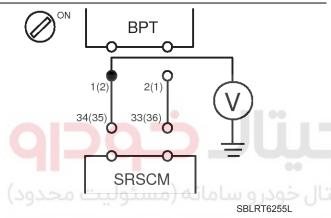
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

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

Specification (voltage): Approximately 0 V



4) 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



RT-92 Restraint

# B1395

# **DTC Description**

While start up phase, SRSCM will measure cross link of squibs. If one of them is failed during interconnection test, then SRSCM will store interconnection fault. Once the interconnection fault is detected, it remains active continuously till the fault is erased. Only one fault code is assigned for all interconnection fault.

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT CIRCUIT
  - Measure resistance between following squibs.
     (DAB PAB, , DAB CAB, DAB BPT, PAB CAB, PAB BPT, CAB BPT)

Specification (resistance): infinite

2) Is the measured resistance within specification?



► Go to next step.



- ▶ Repair or replace the wiring harness between two squibs.
- 3. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN



# B1400

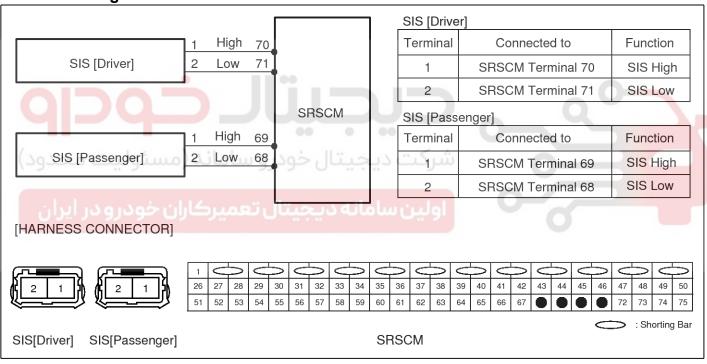
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1400 B1403 B1409 B1410	<ul> <li>Open between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Side Impact Sensor (SIS)     SRSCM

# **Schematic Diagram**



SBLRT6260L

RT-94 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

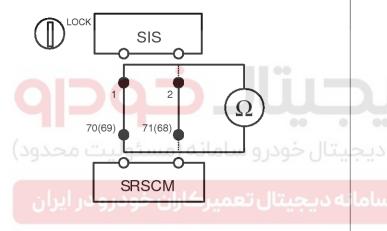
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SIS CIRCUIT
  - Measure resistance between the terminal 1 of SIS harness connector and the terminal 70(69) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of SIS harness connector and the terminal 71(68) of SRSCM harness connector.

Specification (resistance): below 1 Ω



SBLRT6261L

3) 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
  - 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, CAB, BPT, FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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



# B1401

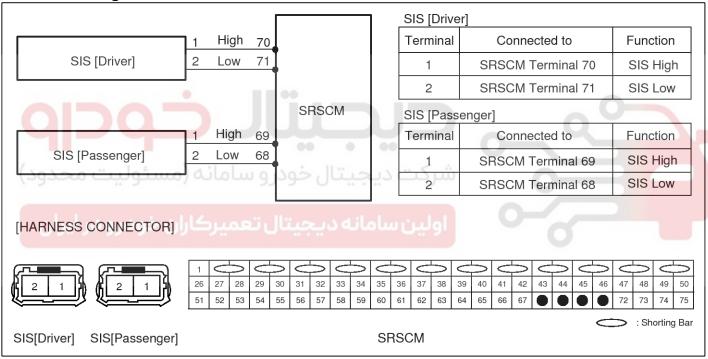
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1401 B1404	<ul> <li>Short to ground between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul><li>Short to ground circuit on wiring harness</li><li>Side Impact Sensor (SIS)</li><li>SRSCM</li></ul>

## Schematic Diagram



SBLRT6260L

RT-96 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

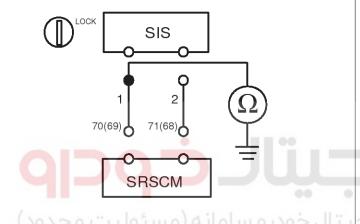
#### Inspection Procedure

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - Measure resistance between the terminal 1 of SIS harness connector and chassis ground.

Specification (resistance): infinite



SBLRT6262I

2) 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
  - 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable to the battery.
  - 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



# B1402

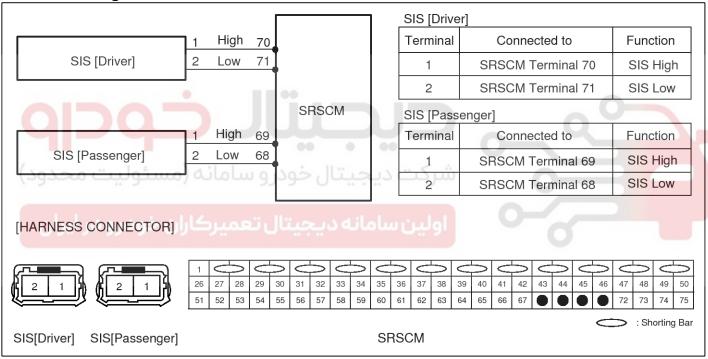
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1402 B1405	<ul> <li>Short to battery line between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to battery line circuit on wiring harness</li> <li>Side Impact Sensor (SIS)</li> <li>SRSCM</li> </ul>

## Schematic Diagram



SBLRT6260L

RT-98 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

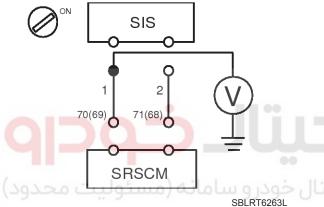
## **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO BATTERY LINE
  - 1) Connect the battery negative cable 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



ODLITTOZOOL

4) 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
  - 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



# B1403

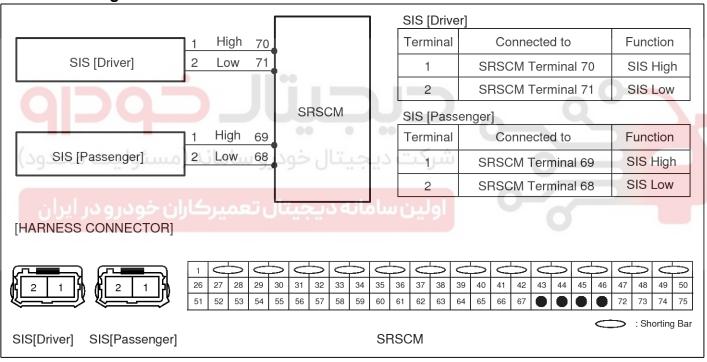
## **DTC Description**

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

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1400 B1403 B1409 B1410	<ul> <li>Open between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Side Impact Sensor (SIS)     SRSCM

# **Schematic Diagram**



SBLRT6260L

RT-100 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

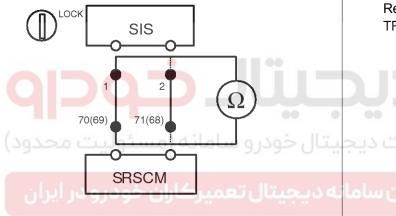
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SIS CIRCUIT
  - Measure resistance between the terminal 1 of SIS harness connector and the terminal 70(69) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of SIS harness connector and the terminal 71(68) of SRSCM harness connector.

Specification (resistance): below 1 Ω



SBLRT6261L

3) 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
  - Replace the Side Impact Sensor(SIS) with a new one.
    - Refer to "Side Impact Sensor(SIS)" section in this SERVICE MANUAL.
  - Install the DAB module and connect the DAB connector.
  - 3) Connect the connectors of the PAB, CAB, BPT, FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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

# B1404

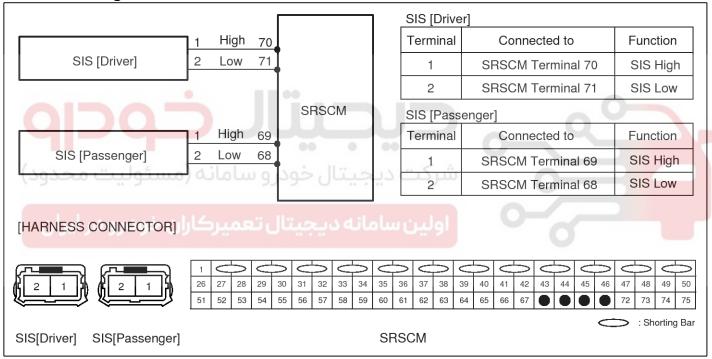
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1401 B1404	<ul> <li>Short to ground between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul><li>Short to ground circuit on wiring harness</li><li>Side Impact Sensor (SIS)</li><li>SRSCM</li></ul>

## Schematic Diagram



SBLRT6260L

# **Terminal & Connector Inspection**

RT-102 Restraint

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

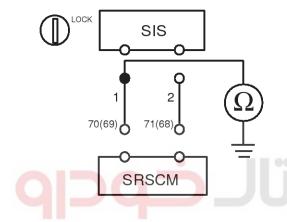
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - Measure resistance between the terminal 1 of SIS harness connector and chassis ground.

Specification (resistance): infinite



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 the DESCRIPTION in this TROUBLESHOOTING section.

SBLRT6262L

2) 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
  - 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable to the battery.
  - 6) Connect a Hi-Scan(Pro) to the data link connector.
  - 7) Turn the ignition switch to ON and check the

# B1405

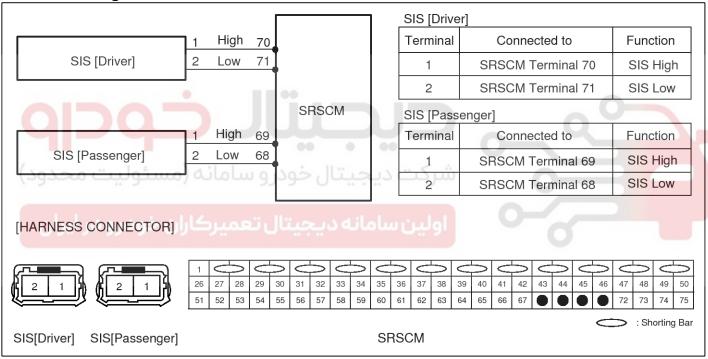
## **DTC Description**

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

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1402 B1405	<ul> <li>Short to battery line between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to battery line circuit on wiring harness</li> <li>Side Impact Sensor (SIS)</li> <li>SRSCM</li> </ul>

## Schematic Diagram



SBLRT6260L

RT-104 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

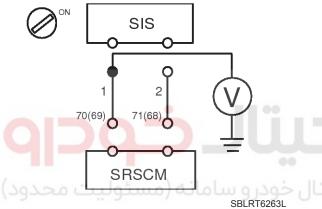
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO BATTERY LINE
  - 1) Connect the battery negative cable 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



05211102002

4) 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
  - 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



# B1409

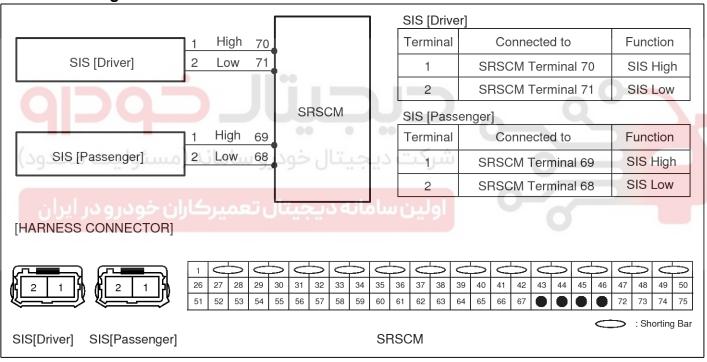
## **DTC Description**

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

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1400 B1403 B1409 B1410	<ul> <li>Open between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Side Impact Sensor (SIS)     SRSCM

# **Schematic Diagram**



SBLRT6260L

RT-106 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

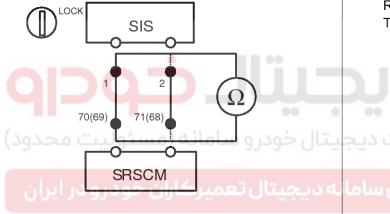
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SIS CIRCUIT
  - Measure resistance between the terminal 1 of SIS harness connector and the terminal 70(69) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of SIS harness connector and the terminal 71(68) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6261L

3) 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
  - 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, CAB, BPT, FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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

# **B1410**

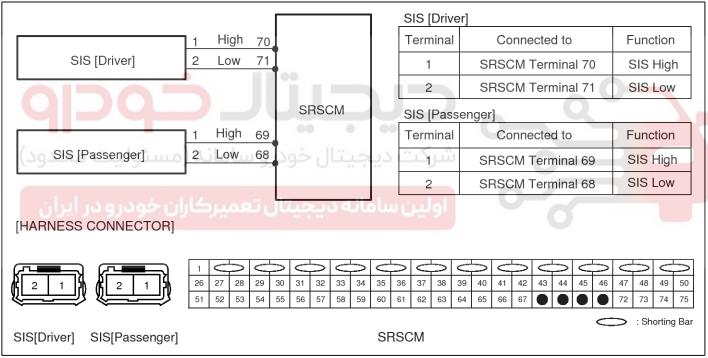
## **DTC Description**

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

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1400 B1403 B1409 B1410	<ul> <li>Open between SIS and SRSCM</li> <li>Side Impact Sensor (SIS) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	Wiring Harness     Side Impact Sensor (SIS)     SRSCM

# **Schematic Diagram**



SBLRT6260L

RT-108 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

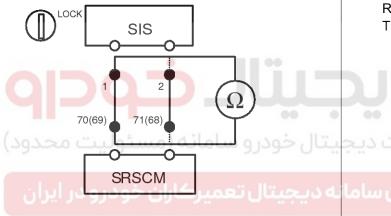
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SIS CIRCUIT
  - Measure resistance between the terminal 1 of SIS harness connector and the terminal 70(69) of SRSCM harness connector.
  - Measure resistance between the terminal 2 of SIS harness connector and the terminal 71(68) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6261L

3) 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
  - Replace the Side Impact Sensor(SIS) with a new one.
    - Refer to "Side Impact Sensor(SIS)" section in this SERVICE MANUAL.
  - Install the DAB module and connect the DAB connector.
  - 3) Connect the connectors of the PAB, CAB, BPT, FIS and SIS.

- 4) Connect the SRSCM connector.
- 5) Connect the battery negative cable 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

# **B1414**

## **DTC Description**

The detecting system for side crash consists of the SRSCM and four Side Impact Sensors (SIS). The SRSCM sets above DTC(s) if it detects that wrong SIS is used.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1414 B1415	Wrong Side Impact Sensor (SIS)     SRSCM Malfunction	Side Impact Sensor (SIS)     SRSCM

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

## **Inspection Procedure**

If above DTC is detected replace the side impact sensor.



RT-110 Restraint

## B1415

## **DTC Description**

The detecting system for side crash consists of the SRSCM and four Side Impact Sensors (SIS). The SRSCM sets above DTC(s) if it detects that wrong SIS is used.

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1414 B1415	<ul><li>Wrong Side Impact Sensor (SIS)</li><li>SRSCM Malfunction</li></ul>	Side Impact Sensor (SIS)     SRSCM

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

## **Inspection Procedure**

If above DTC is detected replace the side impact sensor.



## B1473

#### **DTC Description**

The CAB squib circuit consists of the SRSCM and two Curtain Airbags(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.

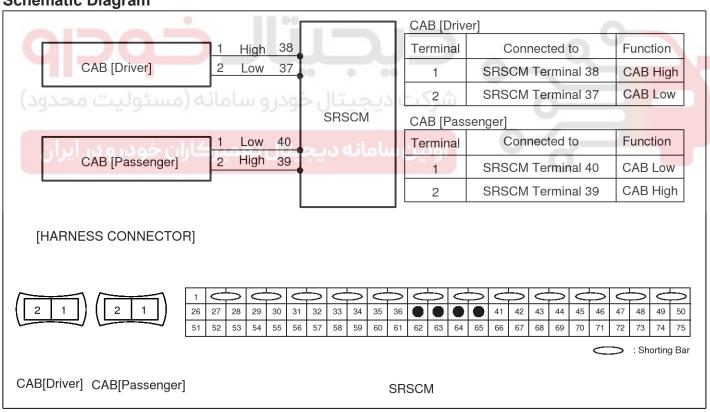
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1473 B1474 B1477 B1478	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Curtain Airbag (CAB) sq- uib</li> <li>SRSCM</li> </ul>

## **Specification**

CAB resistance : 1.8  $\sim$  4.8  $\Omega$ 

## Schematic Diagram



SBLRT6270L

## Terminal & Connector Inspection

**DESCRIPTION** Refer to in this TROUBLESHOOTING section.

#### **Inspection Procedure**

1. PREPARATION

this Refer to the DESCRIPTION in

TROUBLESHOOTING section.

2. CHECK CAB RESISTANCE

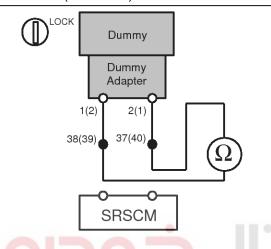
#### 

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

RT-112 Restraint

- 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 38(39) and 37(40) of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  4.8  $\Omega$ 



SBLRT6271

3) Is the measured resistance within specification?

YES

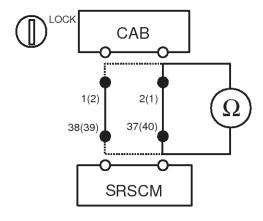
▶ Replace the Curtain Airbag(CAB) module.

NO

► Check open circuit.

- 3. CHECK OPEN CIRCUIT
  - Measure resistance between the terminal 1(2) of CAB harness connector and the terminal 38(39) of SRSCM harness connector.
  - 2) Measure resistance between the terminal 2(1) of CAB harness connector and the terminal 37(40) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6272L

3) Is the measured resistance within specification?

YES

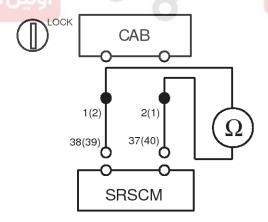
► Check short circuit.

NO

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

- 4. CHECK SHORT CIRCUIT
  - Measure resistance between the terminal 1(2) and 2(1) of CAB harness connector.

Specification (resistance): infinite



SBLRT6273L

2) 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





RT-114 Restraint

# B1474

#### **DTC Description**

The CAB squib circuit consists of the SRSCM and two Curtain Airbags(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.

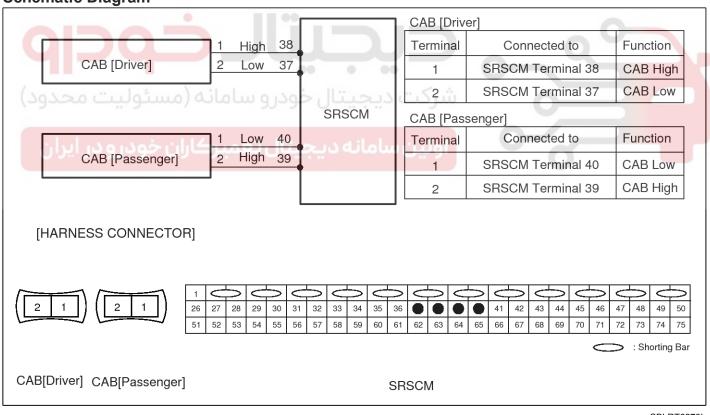
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1473 B1474 B1477 B1478	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Curtain Airbag (CAB) sq- uib</li> <li>SRSCM</li> </ul>

#### **Specification**

CAB resistance : 1.8  $\sim$  4.8  $\Omega$ 

## **Schematic Diagram**



SBLRT6270L

# Terminal & Connector Inspection

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this

TROUBLESHOOTING section.

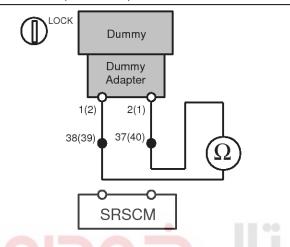
2. CHECK CAB RESISTANCE

#### **A**CAUTION

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

- 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 38(39) and 37(40) of SRSCM harness connector.

Specification (resistance) : 1.8  $\sim$  4.8  $\Omega$ 



SBLRT6271

3) Is the measured resistance within specification?

YES

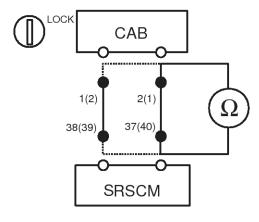
▶ Replace the Curtain Airbag(CAB) module.

NO

► Check open circuit.

- 3. CHECK OPEN CIRCUIT
  - Measure resistance between the terminal 1(2) of CAB harness connector and the terminal 38(39) of SRSCM harness connector.
  - 2) Measure resistance between the terminal 2(1) of CAB harness connector and the terminal 37(40) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6272L

3) Is the measured resistance within specification?

YES

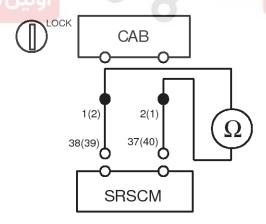
► Check short circuit.

NO

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

- 4. CHECK SHORT CIRCUIT
  - Measure resistance between the terminal 1(2) and 2(1) of CAB harness connector.

Specification (resistance): infinite



SBLRT6273L

2) Is the measured resistance within specification?

YES

▶ Go to next step.

NO

Repair or replace the wiring harness between

RT-116 Restraint

the CAB and the SRSCM.

5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN





## B1475

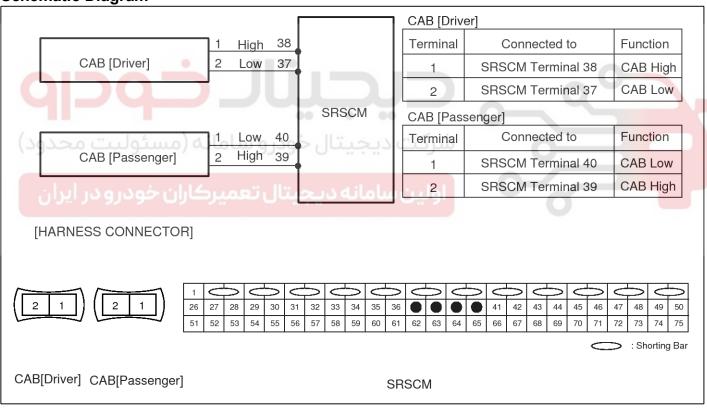
#### **DTC Description**

The CAB squib circuit consists of the SRSCM and two Curtain Airbags (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**

DTC	Condition	Probable cause
B1475 B1479	<ul> <li>Short to ground between CAB and SRSCM</li> <li>Curtain Airbag (CAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to ground circuit on wiring harness</li> <li>Curtain Airbag (CAB) sq- uib</li> <li>SRSCM</li> </ul>

## **Schematic Diagram**



SBLRT6270L

RT-118 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

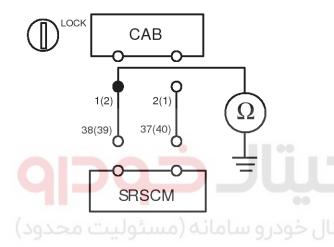
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - 1) Measure resistance between the terminal 1(2) of CAB harness connector and chassis ground.

Specification (resistance): infinite



SBLRT6274L

2) 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.
  - Install the DAB module and connect the DAB connector.
  - 3) Connect the connectors of the PAB, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



## B1476

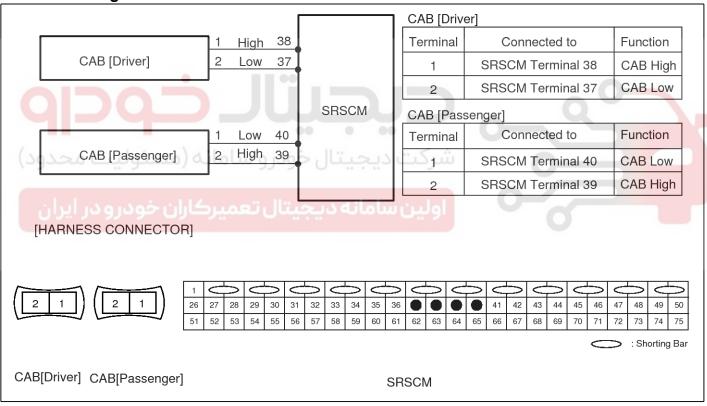
#### **DTC Description**

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**

DTC	Condition	Probable cause
B1476 B1480	<ul> <li>Short to battery between CAB and SRSCM</li> <li>Curtain Airbag (CAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to battery line circuit on wiring harness</li> <li>Curtain Airbag (CAB) squib</li> <li>SRSCM</li> </ul>

## **Schematic Diagram**



SBLRT6270L

RT-120 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

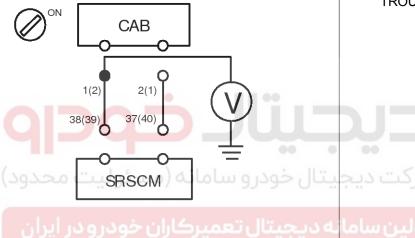
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

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

Specification (voltage): Approximately 0 V



4) 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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



## B1477

#### **DTC Description**

The CAB squib circuit consists of the SRSCM and two Curtain Airbags(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.

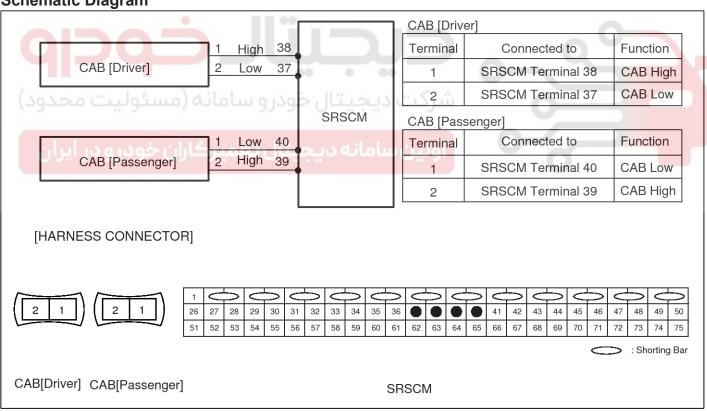
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1473 B1474 B1477 B1478	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Curtain Airbag (CAB) sq- uib</li> <li>SRSCM</li> </ul>

## **Specification**

CAB resistance : 1.8  $\sim$  4.8  $\Omega$ 

## Schematic Diagram



SBLRT6270L

RT-122 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

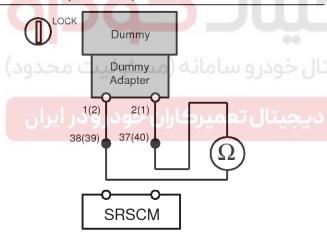
2. CHECK CAB RESISTANCE

#### **A**CAUTION

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

- 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 38(39) and 37(40) of SRSCM harness connector.

Specification (resistance) :  $1.8 \sim 4.8 \Omega$ 



SBLRT6271L

3) Is the measured resistance within specification?

YES

▶ Replace the Curtain Airbag(CAB) module.

NO

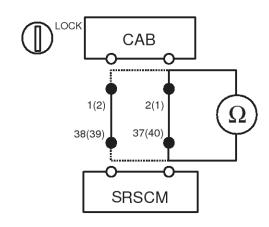
► Check open circuit.

#### 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1(2) of CAB harness connector and the terminal 38(39) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2(1) of

CAB harness connector and the terminal 37(40) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6272L

3) Is the measured resistance within specification?

YES

▶ Check short circuit.

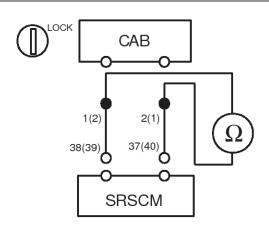
NO

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

4. CHECK SHORT CIRCUIT

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

Specification (resistance): infinite



SBLRT6273L

2) 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





**RT-124** Restraint

## B1478

#### **DTC Description**

The CAB squib circuit consists of the SRSCM and two Curtain Airbags(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.

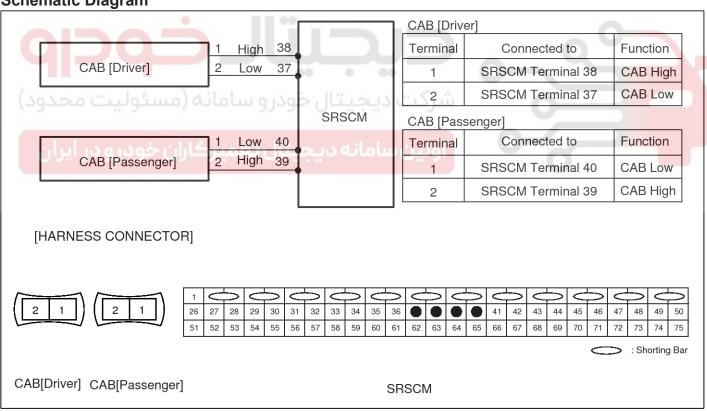
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1473 B1474 B1477 B1478	<ul> <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> <li>Open or short circuit on wiring harness</li> <li>Curtain Airbag (CAB) sq- uib</li> <li>SRSCM</li> </ul>

## **Specification**

CAB resistance : 1.8  $\sim$  4.8  $\Omega$ 

## Schematic Diagram



SBLRT6270L

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

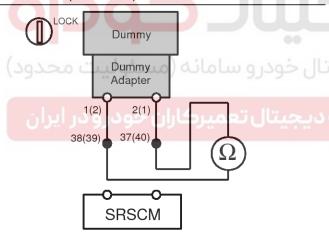
2. CHECK CAB RESISTANCE

#### **A**CAUTION

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

- 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 38(39) and 37(40) of SRSCM harness connector.

Specification (resistance) :  $1.8 \sim 4.8 \Omega$ 



SBLRT6271L

3) Is the measured resistance within specification?

YES

▶ Replace the Curtain Airbag(CAB) module.

NO

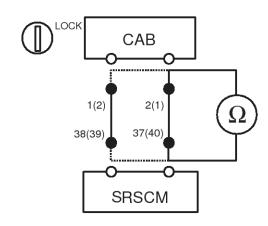
► Check open circuit.

#### 3. CHECK OPEN CIRCUIT

- Measure resistance between the terminal 1(2) of CAB harness connector and the terminal 38(39) of SRSCM harness connector.
- 2) Measure resistance between the terminal 2(1) of

CAB harness connector and the terminal 37(40) of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6272L

3) Is the measured resistance within specification?

YES

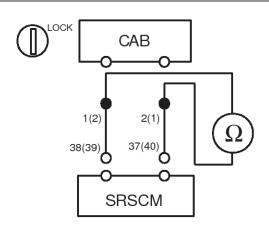
▶ Check short circuit.

NO

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

- 4. CHECK SHORT CIRCUIT
  - 1) Measure resistance between the terminal 1(2) and 2(1) of CAB harness connector.

Specification (resistance): infinite



SBLRT6273L

2) Is the measured resistance within specification?

YES

RT-126 Restraint

▶ 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





# B1479

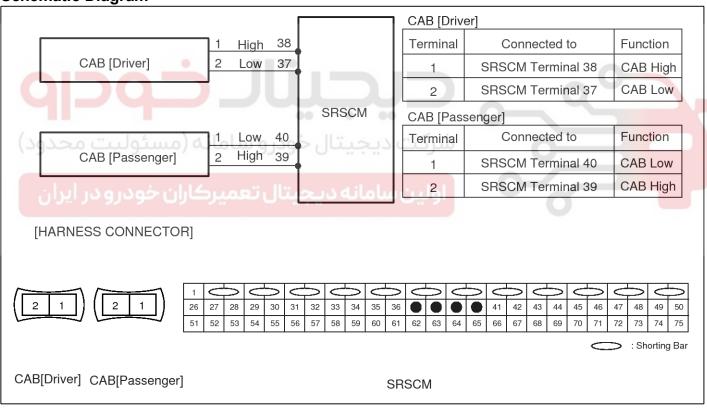
#### **DTC Description**

The CAB squib circuit consists of the SRSCM and two Curtain Airbags (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**

DTC	Condition	Probable cause
B1475 B1479	<ul> <li>Short to ground between CAB and SRSCM</li> <li>Curtain Airbag (CAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to ground circuit on wiring harness</li> <li>Curtain Airbag (CAB) sq- uib</li> <li>SRSCM</li> </ul>

## **Schematic Diagram**



SBLRT6270L

RT-128 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

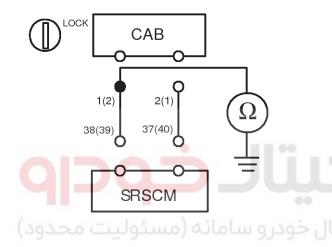
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK SHORT TO GROUND
  - 1) Measure resistance between the terminal 1(2) of CAB harness connector and chassis ground.

Specification (resistance): infinite



SBLRT6274I

2) 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.
  - Install the DAB module and connect the DAB connector.
  - 3) Connect the connectors of the PAB, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.
  - 5) Connect the battery negative cable 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

# B1480

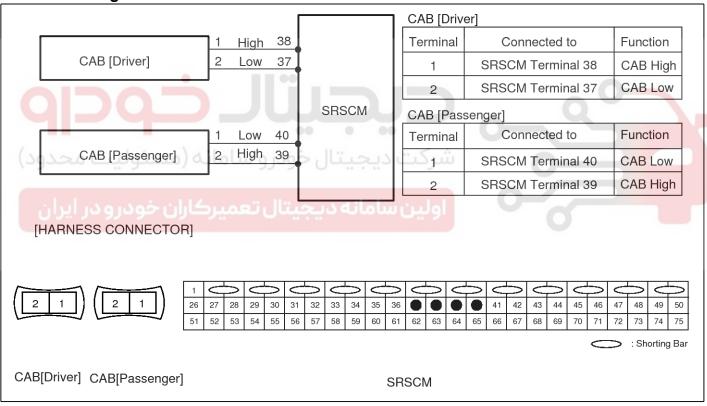
#### **DTC Description**

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**

DTC	Condition	Probable cause
B1476 B1480	<ul> <li>Short to battery between CAB and SRSCM</li> <li>Curtain Airbag (CAB) Malfunction</li> <li>SRSCM Malfunction</li> </ul>	<ul> <li>Short to battery line circuit on wiring harness</li> <li>Curtain Airbag (CAB) squib</li> <li>SRSCM</li> </ul>

## **Schematic Diagram**



SBLRT6270L

RT-130 Restraint

# **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

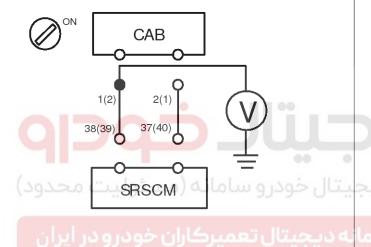
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

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

Specification (voltage): Approximately 0 V



4) 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, CAB, BPT, FIS and SIS.
  - 4) Connect the SRSCM connector.

- 5) Connect the battery negative cable 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



# B1527

## **DTC Description**

The deactication system for the passenger airbag consists of the SRSCM and the Passenger Airbag Deactivation(PAD) switch. The above DTC is recored when PAD switch open or short to battery is detected in the PAD circuit.

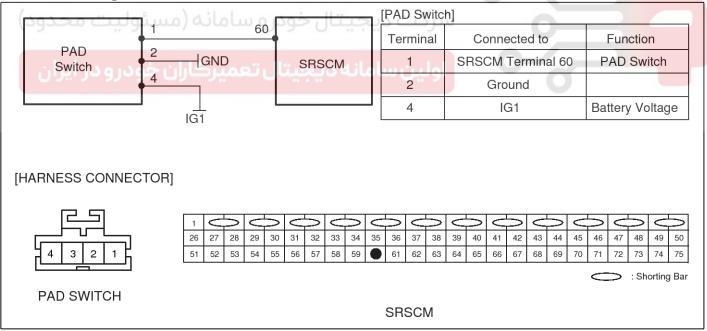
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1527	<ul> <li>Short to battery line between PAD switch and SRSCM</li> <li>SRSCM mMalfunction</li> <li>PAD switch malfunction</li> </ul>	<ul><li>PAD switch</li><li>Wiring harness</li><li>SRSCM</li></ul>

## Specification

PAD Switch Status	Current (mA)	Related DTC
Open or Short to Battery	< 2.4	B1527
PAD Enabled Position	3.7 ~ 7.5	
PAD Disabled Position	10 ~ 17	
Short or Short to Ground	> 22	B1528

## Schematic Diagram



SBLRT6280L

RT-132 Restraint

## **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING part.

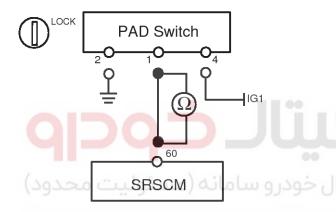
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING part.

- 2. CHECK OPEN CIRCUIT
  - 1) Disconnect the connector of the PAD switch.
  - Measure resistance between the terminal 60 of the SRSCM harness connector and 1 of PAD switch connector.

Specification (resistance) : below 1  $\Omega$ 



# SBLRT6281L

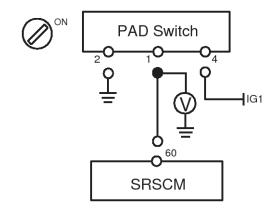
3) Is the measured resistance within specification?
YES

Check short to battery line.

NO

- ▶ Replace the harness between the SRSCM and the PAD switch.
- 3. CHECK SHORT TO BATTERY LINE
  - 1) Connect the battery negative cable to the battery.
  - 2) Turn the ignition switch to ON.
  - 3) Turn the ignition switch to LOCK, and wait for 30 seconds.
  - Measure voltage between the terminal 1 of PAD switch harness connector and chassis ground.

Specification (voltage): Approximately 0 V



SBLRT6282L

5) Is the measured voltage within specification?

YES

▶ Go to next step.

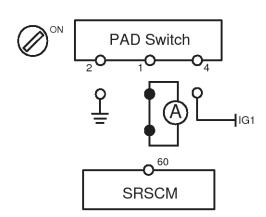
NO

▶ Repair or replace the wiring harness between the PAD switch and the SRSCM.

- 4. CHECK THE PAD SWITCH
  - 1) Connect the SRSCM connector.
  - 2) Connect the PAD switch.
  - 3) Connect the battery negative cable to the battery.
  - 4) Turn the ignition switch to ON.
  - Measure current between the terminal 60 of the SRSCM harness connector and 1 of PAD switch connector.

Specification (current):

switch (Enabled positon) :  $3.7 \sim 7.5$  mA PAD switch (Disabled positon) :  $10 \sim 17$  mA



SBLRT6283L

6) Is the measured current within specification?



▶ Go to next step.



- ▶ Replace the PAD switch.
- 5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN





RT-134 Restraint

# B1528

## **DTC Description**

The deactivation system for the passenger airbag consists of the SRSCM and the Passenger Airbag Deactivation(PAD) switch. The above DTC is recored when PAD switch short or short to ground is detected in the PAD system circuit.

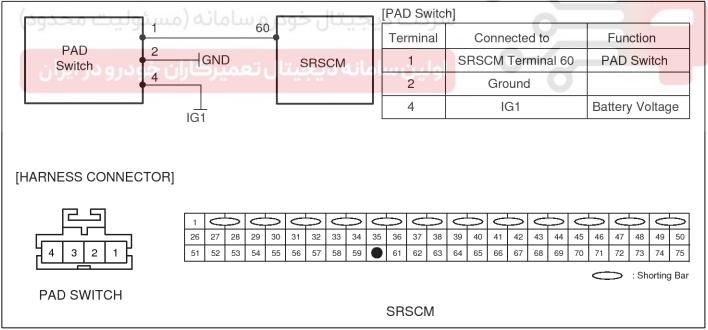
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1528	<ul> <li>Short to ground between PAD switch and SRSCM</li> <li>PAD switch malfunction</li> <li>SRSCM malfunction</li> </ul>	PAD switch     Wiring harness     SRSCM

## **Specification**

PAD Switch Status	Current (mA)	Related DTC
Open or Short to Battery	< 2.4	B1527
PAD Enabled Position	3.7 ~ 7.5	
PAD Disabled Position	10 ~ 17	
Short or Short to Ground	> 22	B1528

# Schematic Diagram



SBLRT6280L

## **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING part.

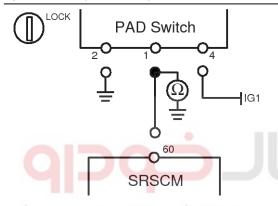
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING part.

- 2. CHECK SHORT TO GROUND
  - 1) Disconnect the connector of the PAD switch.
  - 2) Measure resistance between the terminal 1 of PAD switch connector and chassis ground.

Specification (resistance): infinite



SBLRT6284L

3) Is the measured resistance within specification?

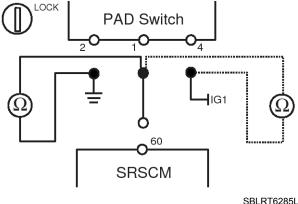
#### YES

► Check short circuit.

#### NO

- ▶ Replace the harness between the SRSCM and the PAD switch.
- 3. CHECK SHORT CIRCUIT
  - 1) Measure resistance between 1 and 2 of PAD switch connector.
  - Measure resistance between 1 and 4 of PAD switch connector.

Specification (resistance): infinite



SBLR16285L

3) Is the measured resistance within specification?

#### YES

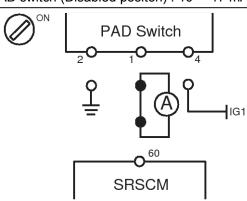
▶ Go to next step.

#### NO

- ▶ Repair or replace the wiring harness between the PAD switch and the SRSCM.
- 4. CHECK THE PAD SWITCH
  - 1) Connect the SRSCM connector.
  - 2) Connect the PAD switch.
  - 3) Connect the battery negative cable to the battery.
  - 4) Turn the ignition switch to ON.
  - 5) Measure current between the terminal 60 of the SRSCM harness connector and 1 of PAD switch connector.

Specification (current):

PAD switch (Enabled positon) : 3.7  $\sim$  7.5 mA PAD switch (Disabled positon) : 10  $\sim$  17 mA



SBLRT6286L

6) Is the measured current within specification?

#### YES

Go to next step.

RT-136 Restraint

## NO

- ▶ Replace the PAD switch.
- 5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN





# B1530

## **DTC Description**

The deactivation system for the passenger airbag consists of the SRSCM and the Passenger Airbag Deactivation(PAD) switch. The above DTC is recored when the defect or instability of PAD switch is detected in the PAD system circuit.

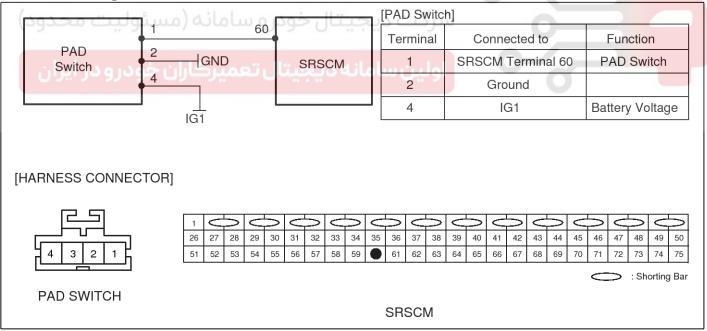
## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1530	PAD switch malfunction SRSCM —Malfunction	<ul><li>PAD switch</li><li>Wiring harness</li><li>SRSCM</li></ul>

## **Specification**

PAD Switch Status	Current (mA)	Related DTC
Open or Short to Battery	< 2.4	B1527
PAD Enabled Position	3.7 ~ 7.5	
PAD Disabled Position	10 ~ 17	
Short or Short to Ground	> 22	B1528

## Schematic Diagram



SBLRT6280L

RT-138 Restraint

## **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING part.

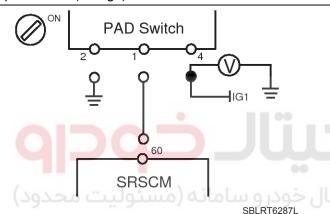
#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING part.

- 2. CHECK POWER SUPPLY
  - 1) Connect the battery negative cable to the battery.
  - 2) Turn the ignition switch to ON.
  - 3) Measure voltage between the terminal and 4 of PAD switch connector and chassis ground.

Specification (voltage): 10.6 ~ 16.5 V



4) Is the measured voltage within specification?

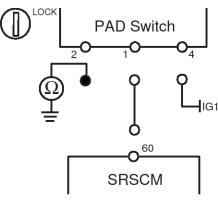
YES

► Check ground circuit.

NO

- ▶ Replace the harness between the battery line and the PAD switch.
- 3. CHECK GROUND CIRCUIT
  - 1) Turn the ignition switch to OFF.
  - 2) Disconnect the battery negative cable from the battery.
  - 3) Disconnect the connector of the PAD switch.
  - 4) Measure resistance between the terminal 2 of PAD switch connector and chassis ground.

Specification (resistance) :  $0 \Omega$ 



SBLRT6288L

5) Is the measured resistance within specification?

YES

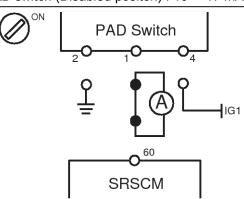
▶ Go to next step.

NO

- ▶ Repair or replace the wiring harness between the PAD switch and the chassis ground.
- 4. CHECK THE PAD SWITCH
  - 1) Connect the SRSCM connector.
  - 2) Connect the PAD switch.
  - 3) Connect the battery negative cable to the battery.
  - 4) Turn the ignition switch to ON.
  - 5) Measure current between the terminal 60 of the SRSCM harness connector and 1 of PAD switch connector.

Specification (current):

PAD switch (Enabled positon) :  $3.7 \sim 7.5$  mA PAD switch (Disabled positon) :  $10 \sim 17$  mA



SBLRT6286L

6) Is the measured current within specification?

YES

Go to next step.

## NO

- ▶ Replace the PAD switch.
- 5. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN





RT-140 Restraint

# **B1620**

#### **DTC DESCRIPTION**

The Supplemental Restraint System Control Module (SRSCM) runs diagnostics to monitor the condition of its internal circuits and all external components in the restraint system. If a fault is detected in the electronic accelerometor or in the microprocessor, the SRSCM will inhibit deployment to minimize the risk of inadvertent deployments.

Once an internal fault is qualified, the internal fault is latched and warning lamp will be turned on. If an internal fault is qulified, the SRSCM must be replaced. The Hi-Scan tool can't clear an internal fault. All internal faults are DTC B1620.

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1620	SRSCM internal fault :     acceleration sensor, microcomputer power supply, watchdog etc	• SRSCM

#### INSPECTION PROCEDURE

If the above mentioned DTC is confirmed it can't be cleared by Hi-Scan tool, the SRSCM should be replaced.

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



## B1650

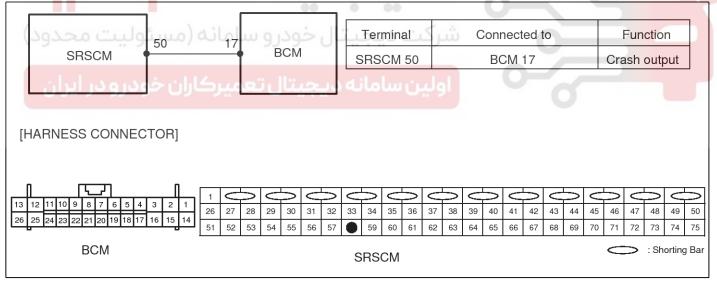
## **DTC Description**

When a deployment of any restraint system for seat belt pretensioner and frontal and side air bags occurs, the crash output is activated. The purpose of this output is to signal BCM (Body Control Module) in the vehicle to unlock the vehicle doors. If a crash output is in progress, a second crash output signal will not be sent unless the first one is completed. The SRSCM doesn't perform diagnostics on the crash output function. After a frontal or side crash event is sensed and algorithm makes firing decision, above mentioned crash record is stored after squib deployment.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1650 B1651 B1652 B1657 B1658	<ul> <li>Frontal crash</li> <li>Side crash</li> <li>Seat belt pretensioner only deployed</li> </ul>	<ul><li>SRSCM</li><li>Front Impact Sensor</li><li>Side Impact Sensor</li><li>Seat Belt Pretensioner</li></ul>

## Schematic Diagram



SBLRT6290L

# Inspection Procedure

RT-142 Restraint

# B1651

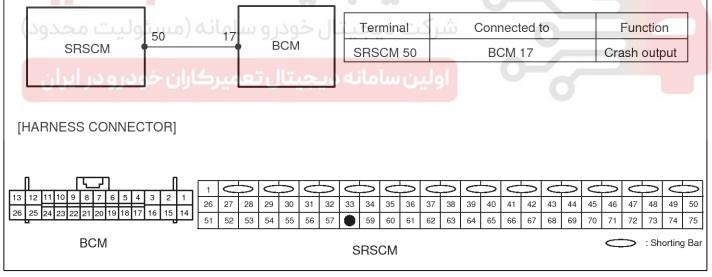
#### **DTC Description**

When a deployment of any restraint system for seat belt pretensioner and frontal and side air bags occurs, the crash output is activated. The purpose of this output is to signal BCM (Body Control Module) in the vehicle to unlock the vehicle doors. If a crash output is in progress, a second crash output signal will not be sent unless the first one is completed. The SRSCM doesn't perform diagnostics on the crash output function. After a frontal or side crash event is sensed and algorithm makes firing decision, above mentioned crash record is stored after squib deployment.

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1650 B1651 B1652 B1657 B1658	<ul> <li>Frontal crash</li> <li>Side crash</li> <li>Seat belt pretensioner only deployed</li> </ul>	<ul><li>SRSCM</li><li>Front Impact Sensor</li><li>Side Impact Sensor</li><li>Seat Belt Pretensioner</li></ul>

## Schematic Diagram



SBLRT6290L

#### **Inspection Procedure**

## B1652

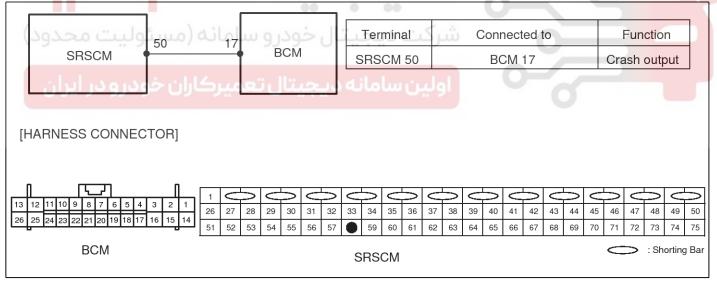
## **DTC Description**

When a deployment of any restraint system for seat belt pretensioner and frontal and side air bags occurs, the crash output is activated. The purpose of this output is to signal BCM (Body Control Module) in the vehicle to unlock the vehicle doors. If a crash output is in progress, a second crash output signal will not be sent unless the first one is completed. The SRSCM doesn't perform diagnostics on the crash output function. After a frontal or side crash event is sensed and algorithm makes firing decision, above mentioned crash record is stored after squib deployment.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1650 B1651 B1652 B1657 B1658	<ul> <li>Frontal crash</li> <li>Side crash</li> <li>Seat belt pretensioner only deployed</li> </ul>	<ul><li>SRSCM</li><li>Front Impact Sensor</li><li>Side Impact Sensor</li><li>Seat Belt Pretensioner</li></ul>

## Schematic Diagram



SBLRT6290L

# Inspection Procedure

RT-144 Restraint

## B1657

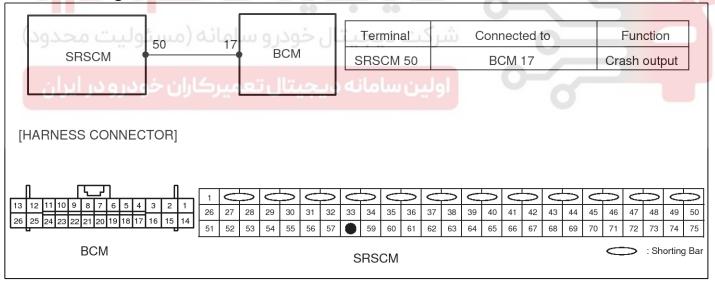
#### **DTC Description**

When a deployment of any restraint system for seat belt pretensioner and frontal and side air bags occurs, the crash output is activated. The purpose of this output is to signal BCM (Body Control Module) in the vehicle to unlock the vehicle doors. If a crash output is in progress, a second crash output signal will not be sent unless the first one is completed. The SRSCM doesn't perform diagnostics on the crash output function. After a frontal or side crash event is sensed and algorithm makes firing decision, above mentioned crash record is stored after squib deployment.

## **DTC Detecting Condition**

DTC	Condition	Probable cause
B1650 B1651 B1652 B1657 B1658	<ul> <li>Frontal crash</li> <li>Side crash</li> <li>Seat belt pretensioner only deployed</li> </ul>	<ul><li>SRSCM</li><li>Front Impact Sensor</li><li>Side Impact Sensor</li><li>Seat Belt Pretensioner</li></ul>

## Schematic Diagram



SBLRT6290L

#### **Inspection Procedure**

## **B1658**

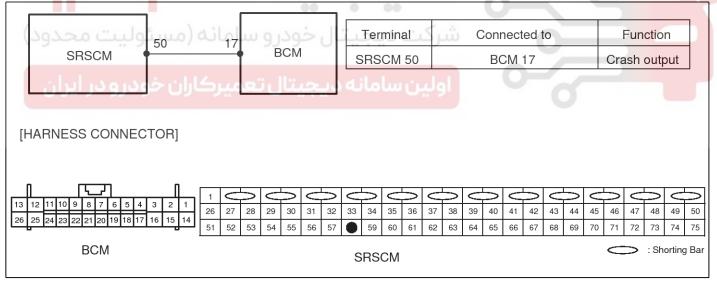
#### **DTC Description**

When a deployment of any restraint system for seat belt pretensioner and frontal and side air bags occurs, the crash output is activated. The purpose of this output is to signal BCM (Body Control Module) in the vehicle to unlock the vehicle doors. If a crash output is in progress, a second crash output signal will not be sent unless the first one is completed. The SRSCM doesn't perform diagnostics on the crash output function. After a frontal or side crash event is sensed and algorithm makes firing decision, above mentioned crash record is stored after squib deployment.

# **DTC Detecting Condition**

DTC	Condition	Probable cause
B1650 B1651 B1652 B1657 B1658	<ul> <li>Frontal crash</li> <li>Side crash</li> <li>Seat belt pretensioner only deployed</li> </ul>	<ul><li>SRSCM</li><li>Front Impact Sensor</li><li>Side Impact Sensor</li><li>Seat Belt Pretensioner</li></ul>

## Schematic Diagram



SBLRT6290L

#### **Inspection Procedure**

RT-146 Restraint

#### **B2500**

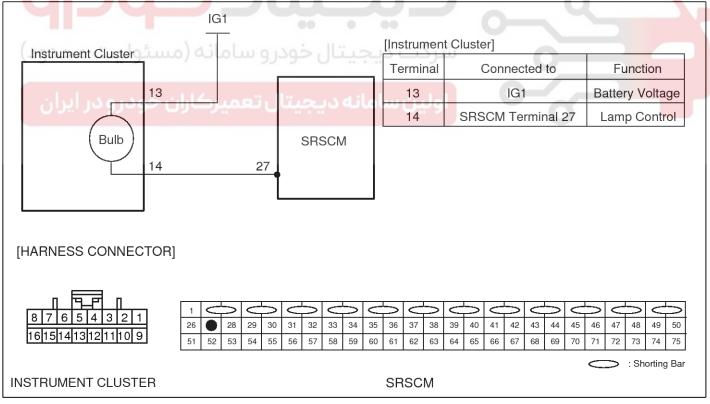
#### **DTC Description**

The SRS warning lamp is located in the cluster. When the airbag system is normal, the SRS warning lamp turns on for approx. 6 seconds after the ignition switch is turned to ON, and then turns off automatically. If there is a malfunction in the airbag system, the SRS warning lamp lights up to inform the driver of the abnormality. The SRSCM shall measure the voltage at the SRS warning lamp output pin, both when the lamp is on and when the lamp is off, to detect whether the commanded state matches the actual state.

#### **DTC Detecting Condition**

DTC	Condition	Probable cause
B2500	<ul> <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><li>Fuse</li><li>Warning lamp bulb</li><li>Wiring Harness</li><li>SRSCM</li></ul>

Schematic Diagram



SBLRT6300L

SRSCM RT-147

## **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

1. PREPARATION

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- 2. CHECK THE FUSE
  - 1) Remove the airbag fuse and the airbag warning lamp fuse from junction box.
  - 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

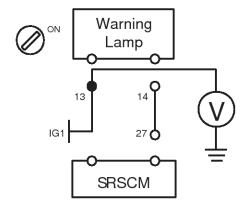
► Check source voltage.

NO

Repair or replace the bulb.

- 4. CHECK SOURCE VOLTAGE
  - 1) Connect the battery negative cable to the battery.
  - 2) Turn the ignition switch to ON.
  - Measure voltage between the terminal 13 of the Instrument Cluster harness connector and chassis ground.

Specification (voltage) :  $10.6 \sim 16.5 \text{ V}$ 



SBLRT6301L

4) Is the measured voltage within specification?

YES

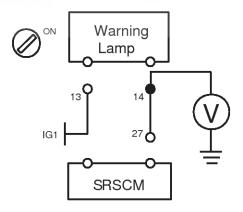
► Check short to battery line.

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 14 of the Instrument Cluster harness connector and chassis ground.

Specification (voltage): Approximately 0 V



SBLRT6302L

2) Is the measured voltage within specification?

YES

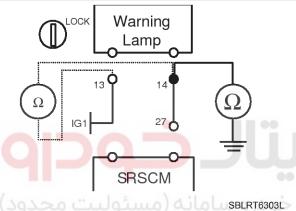
► Check short or short to ground.

NO

**RT-148** Restraint

- Repair the short to battery line circuit on wiring harness between the SRSCM and the Warning Lamp.
- 6. CHECK SHORT OR SHORT TO GROUND
  - 1) Turn the ignition switch to LOCK.
  - 2) Disconnect the battery negative cable from the battery.
  - 3) Measure resistance between the terminal 14 of the Instrument Cluster harness connector and chassis ground.
  - 4) Measure resistance between the terminal 13 and 14 of the Instrument Cluster harness connector.

Specification (resistance): infinite



5) Is the measured resistance within specification?

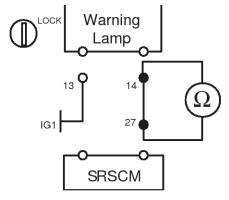
YES

▶ 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 14 of the Instrument Cluster connector and the terminal 27 of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6304L

2) 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 the DESCRIPTION in this to TROUBLESHOOTING section.

SRSCM RT-149

#### **B2505**

#### **DTC Description**

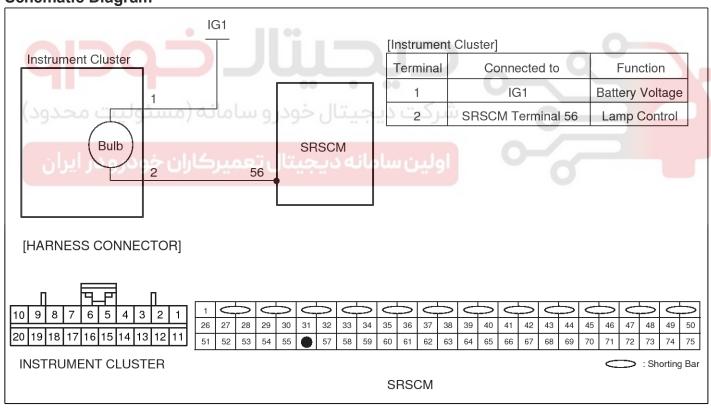
The SRSCM shall detect and record the following situations. And a single fault code shall be assigned as PAD Lamp Fault for all PAD lamp fault conditions. This fault code shall be set whenever either of the fault conditions is detected. If both fault conditions are not detected, the fault code shall not be detected.

- The bulb is short, or there is a short to battery condition on the PAD lamp input connection to the SRSCM. This condition is only detectable while the PAD lamp is commanded ON. If a short to battery condition is detected, the PAD lamp shall be commanded OFF to protect the circuit.
- 2. The bulb is open, or there is a short to ground condition. This condition is only detectable while the PAD lamp is commanded OFF.

**DTC Detecting Condition** 

DTC	Condition	Probable cause
B2505	<ul> <li>PAD lamp bulb open or short</li> <li>Open between PAD lamp and SRSCM</li> <li>Short to ground or battery line between PAD lamp and SRSCM</li> <li>SRSCM malfunction</li> </ul>	<ul><li>Fuse</li><li>PAD lamp bulb</li><li>Wiring Harness</li><li>SRSCM</li></ul>

#### **Schematic Diagram**



SBLRT6310L

RT-150 Restraint

## **Terminal & Connector Inspection**

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

#### **Inspection Procedure**

- 1. PREPARATION
- 2. CHECK THE FUSE

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

- Remove the airbag fuse and the PAD lamp fuse from junction box.
- 2) Inspect the fuses. Are the fuses normal?

YES

► Check the PAD lamp bulb.

NO

- ► Repair or replace the fuses.
- 3. CHECK THE PAD LAMP BULB
  - 1) Remove the bulb from the instrument cluster.
  - 2) Inspect the bulb. Is the bulb normal?

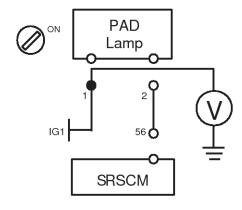
YES

► Check source voltage.

NO

- Repair or replace the bulb.
- 4. CHECK SOURCE VOLTAGE
  - 1) Connect the battery negative cable to the battery.
  - 2) Turn the ignition switch to ON.
  - Measure voltage between the terminal 1 of the Instrument Cluster harness connector and chassis ground.

Specification (voltage) : 10.6  $\sim$  16.5 V



SBLRT6311L

4) Is the measured voltage within specification?

YES

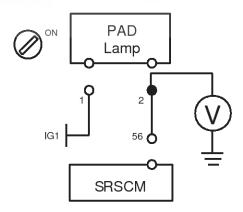
► Check short to battery line.

NO

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

- 5. CHECK SHORT TO BATTERY LINE
  - 1) Measure voltage between the terminal 2 of the Instrument Cluster harness connector and chassis ground.

Specification (voltage): Approximately 0 V



SBLRT6312L

2) Is the measured voltage within specification?

YES

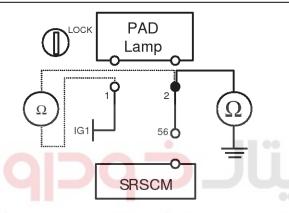
► Check short or short to ground.

NO

SRSCM RT-151

- ▶ Repair the short to battery line circuit on wiring harness between the SRSCM and the PAD Lamp.
- 6. CHECK SHORT OR SHORT TO GROUND
  - 1) Turn the ignition switch to LOCK.
  - 2) Disconnect the battery negative cable from the battery.
  - Measure resistance between the terminal 2 of the Instrument Cluster harness connector and chassis ground.
  - 4) Measure resistance between the terminal 1 and 2 of the Instrument Cluster harness connector.

Specification (resistance): infinite



SBLRT6313L

5) Is the measured resistance within specification?

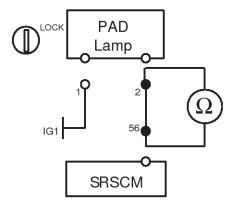
YES

▶ Check open circuit.

NO

- ▶ Repair the short or short to ground circuit on wiring harness between the SRSCM and the PAD Lamp.
- 7. CHECK OPEN CIRCUIT
  - Measure resistance between the terminal 2 of the Instrument Cluster connector and the terminal 56 of SRSCM harness connector.

Specification (resistance) : below 1  $\Omega$ 



SBLRT6314L

2) Is the measured resistance within specification?

YES

▶ Go to next step.

NO

- ▶ Repair the open circuit on wiring harness between the SRSCM and the PAD Lamp.
- 8. CLEAR THE DTC AND CHECK THE VEHICLE AGAIN

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

RT-152 Restraint

## **Airbag Module**

## **Driver Airbag (DAB) Module and Clock Spring**

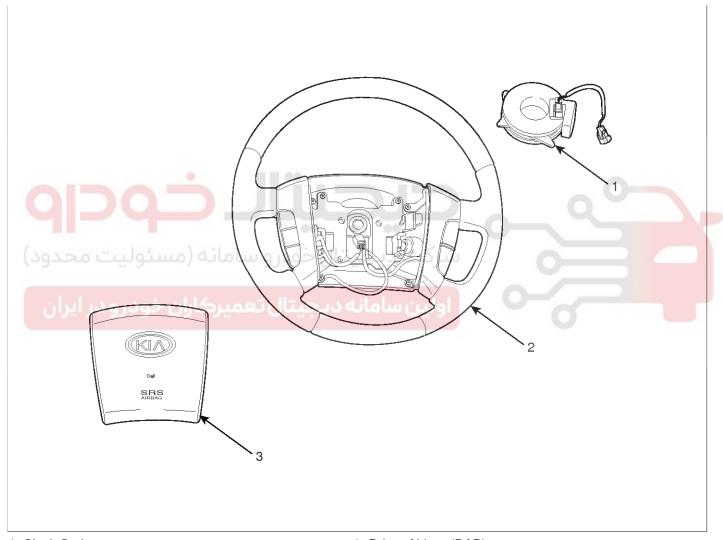
#### **DESCRIPTION**

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

#### **ACAUTION**

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**



- 1. Clock Spring
- 2. Steering Wheel

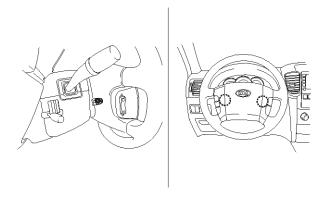
3. Driver Airbag (DAB)

SBLRT6120L

**RT-153** 

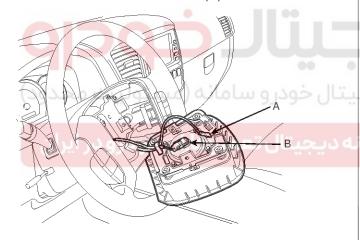
#### **REMOVAL**

- 1. Disconnect the battery negative cable and wait for at least three minutes before beginning work.
- 2. Remove the airbag module mounting bolts(2EA).



SBLRT6508D

3. Disconnect the horn connector(A).



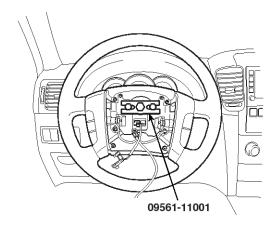
SBLRT6007D

4. Release the connector locking pin, then disconnect the driver airbag module connector(B).

#### **A**CAUTION

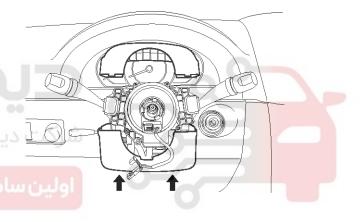
The removed airbag module should be stored in a clean, dry place with the pad cover face up.

5. Remove the steering wheel with SST (SST No. 09561-11001) after unfastening the mounting nut.



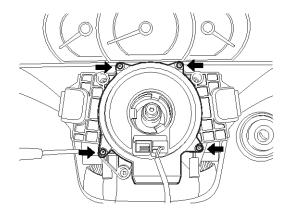
SBLRT6010D

6. Remove the steering wheel column cover after unscrewing 3 screws.



SBLRT6011D

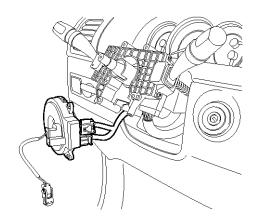
7. Unscrew the clock spring tightening screws. (4EA)



SBLRT6012D

RT-154 Restraint

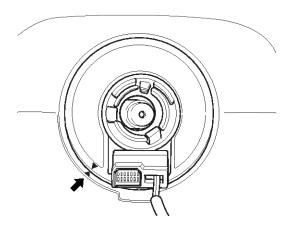
8. Disconnect the clock spring wiring harness and the horn wiring harness connector from the clock spring.



SBLRT6013D

#### **INSTALLATION**

- 1. Remove the ignition key from the vehicle.
- 2. Disconnect the battery negative cable from battery and wait for at least three minutes before beginning work.
- Connect the clock spring harness connector and horn harness connector to the clock spring.
- Install the clock spring with 4 screws.
- Set the center position by getting marks between the clock spring and the cover into line. Make an array the mark (▶ ◄) by turning the clock spring clockwise to the stop and then 2.4 revolutions counterclockwise.

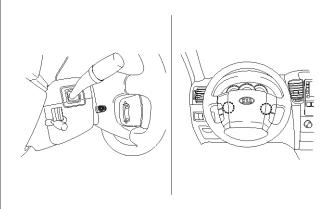


SBLRT6014D

- 6. Install the steering wheel column cover and the steering wheel. (Refer to ST group)
- 7. Connect the Driver Airbag (DAB) module connector and horn connector, then install the Driver Airbag (DAB) module on the steering wheel.

8. Secure the Driver Airbag (DAB) with the new mounting bolts.

Tightening torque (DAB Mounting Bolt) :  $0.8 \sim 1.1 \text{ kgf.m}$  (7.9  $\sim 10.8 \text{ Nm}$ ,  $5.8 \sim 8.0 \text{ lb.ft}$ )



SBLRT6508D

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

# INSPECTION DRIVER AIRBAG (DAB)

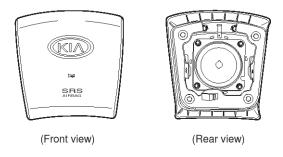
If any improper parts are found during the following inspection, replace the airbag module with a new one.

#### **ACAUTION**

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.

**RT-155** 



SBLRT6509L

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.





RT-156 Restraint

## Passenger Airbag (PAB) Module

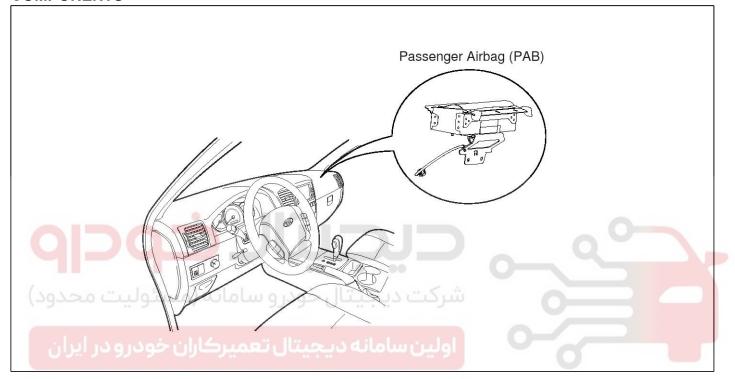
#### **DESCRIPTION**

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

### **ACAUTION**

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**



SBLRT6130L

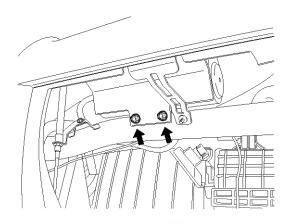
## **RT-157**

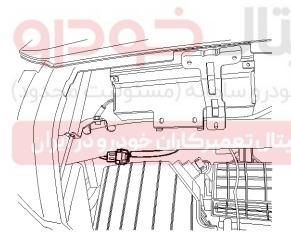
#### **REMOVAL**

- 1. Disconnect the battery negative cable and wait for at least three minutes before beginning work.
- 2. Remove the glove box. (Refer to BD group)
- 3. Remove the PAB mounting bolts (2EA).

SBLRT6017D

4. Disconnect the PAB module connector.





SBLRT6018D

5. Remove the crash pad. (Refer to BD group)

#### MOTICE

If the crash pad is damaged when the PAB is deployed, replace the damaged crash pad and PAB together.

- 6. Remove the heater duct from the crash pad.
- 7. Remove the mounting nuts(6EA) from the crash pad. Then remove the passenger airbag.

#### **ACAUTION**

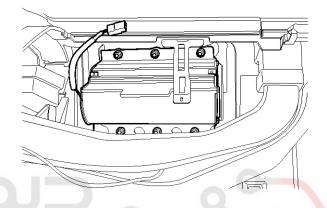
The removed airbag module should be stored in a clean and dry place with the pad cover face up.

#### **INSTALLATION**

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

Tightening torque

:  $0.9 \sim 1.4 \text{ kgf.m}$  ( $8.8 \sim 13.7 \text{ N.m}$ ,  $6.5 \sim 10.1 \text{ lb.ft}$ )



SBLRT6019D

- 4. Install the heater duct to the crash pad.
- 5. Install the crash pad. (Refer to BD group)
- 6. Tighten the PAB mounting bolt.

Tightening torque

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

- 7. Connect the Passenger Airbag (PAB) harness connector to the SRS main harness connector.
- 8. Reinstall the glove box. (Refer to BD group)
- 9. Reconnect the battery negative cable.
- 10. After installing the Passenger Airbag (PAB), confirm proper system operation:
  - Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.

RT-158 Restraint

## **Curtain Airbag (CAB) Module**

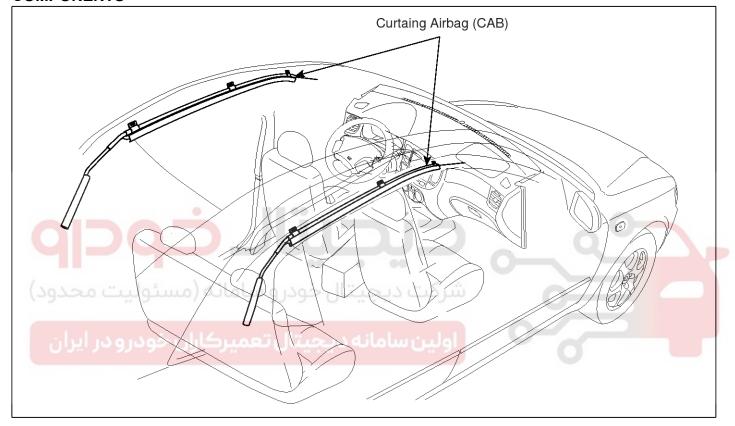
### **DESCRIPTION**

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

### **ACAUTION**

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.

#### **COMPONENTS**

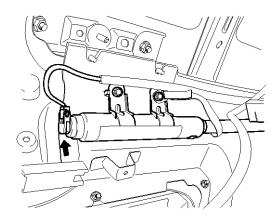


SBLRT6102L

**RT-159** 

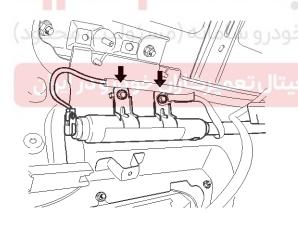
#### **REMOVAL**

- 1. Disconnect the battery negative cable and wait for at least 3 minutes before beginning work.
- 2. Remove the following parts. (Refer to BD group)
  - Side trim, Roof trim
- 3. Disconnect the Curtain Airbag harness connector.



SBLRT6004D

4. After loosening the mounting bolts(6EA) and nut (1EA) remove the curtain airbag.



SBLRT6511D

#### **INSTALLATION**

- 1. Remove the ignition key from the vehicle.
- 2. Disconnect the battery negative cable and wait for at least three minutes.
- 3. Install a Curtain Airbag (CAB) on the mounting bracket.
- 4. Tighten the CAB mounting bolts (6EA) and nut (1EA).

Tightening torque

:  $0.8 \sim 1.2 \text{ kgf.m} (7.8 \sim 11.8 \text{ Nm}, 5.8 \sim 8.7 \text{ lb.ft})$ 

#### **⚠**CAUTION

- Never twist the airbag module when installing it. If the module is twisted, airbag module may operate abnormally.
- 5. Connect the CAB connector.
- 6. Install the following parts. (Refer to BD group)
  - Side trim. Roof trim
- 7. Reconnect the battery negative cable.
- 8. After installing the Curtain Airbag (CAB), confirm proper system operation:
  - Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.

RT-160 Restraint

# AIRBAG DISPOSAL SPECIAL TOOL REQUIRED

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.

- Turn the ignition switch OFF, and disconnect the battery negative cable and wait at least three minutes.
- Confirm that each airbag or side airbag is 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 install the SST(0957A-38500).
- 2. Install the driver's airbag on the steering wheel.

#### FRONT PASSENGER'S AIRBAG:

- Remove the glove box, then disconnect the 2P connector between the front passenger's airbag and SRS main harness.
- 2. Install the SST(0957A-3E110).

#### **CURTAIN AIRBAG:**

- 1. Disconnect the 2P connector between the curtain airbag and wire harness.
- 2. Install the SST(0957A-38500).

#### **SEAT BELT PRETENSIONER:**

- 1. Disconnect the 2P connector from the seat belt pretensioner.
- 2. Install the SST(0957A-38500).
- 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)
- 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 damage during transit, storage or service, it should be deployed as follows:

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

#### **DISPOSAL 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.

## **Seat Belt Pretensioner**

**RT-161** 

### **Seat Belt Pretensioner**

## **Seat Belt Pretensioner (BPT)**

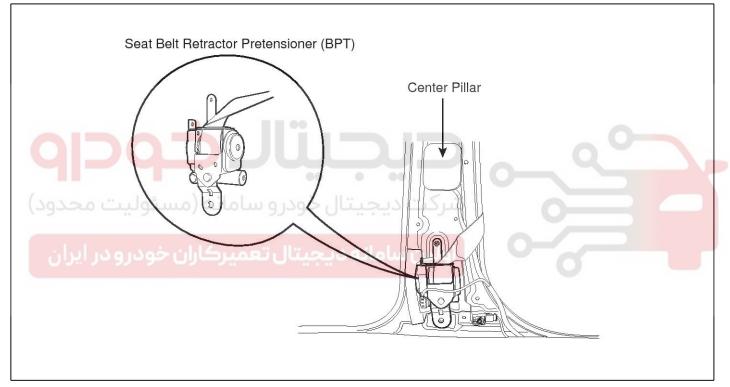
#### **DESCRIPTION**

The Seat Belt Pretensioners (BPT) are installed inside Center 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 retracting 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.

#### **ACAUTION**

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**

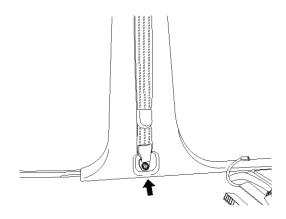


SBLRT6103L

RT-162 Restraint

#### **REMOVAL**

- 1. Disconnect the battery negative cable, and wait for at least three minutes before beginning work.
- 2. Remove the lower anchor bolt.



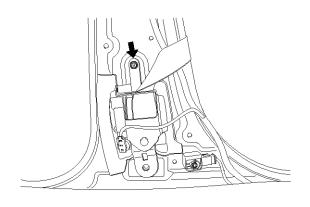
SBLRT6022D

- 3. Remove the following parts. (Refer to BD group)
  - Door scuff trim, Center pillar trim
- 4. Remove the upper anchor bolt.
- 5. Disconnect the Seat Belt Pretensioner connector.



SBLRT6024D

6. Loosen the Seat Belt Pretensioner mounting bolt and remove the Seat Belt Pretensioner.



SBLRT6532D

#### **INSTALLATION**

- 1. Remove the ignition key from the vehicle.
- 2. Disconnect the battery negative cable and wait for at least three minutes.
- 3. Install the Seat Belt Pretensioner (BPT) with a bolt.

Tightening torque

- :  $4.0 \sim 5.5 \text{ kgf.m}$  (39.2  $\sim 53.9 \text{ Nm}$ ,  $28.9 \sim 39.8 \text{ lb.ft}$ )
- 4. Connect the Seat Belt Pretentioner (BPT) connector.
- 5. Install the upper anchor bolts.

Tightening torque (Seat Belt Anchor Bolt)

- :  $4.0 \sim 5.5$  kgf.m (39.2  $\sim 53.9$  Nm,  $28.9 \sim 39.8$  lb.ft)
- 6. Install the center pillar trim.
- 7. Install the door scuff trim.
- 8. Install the lower anchor bolt.
- 9. Reconnect the battery negative cable.
- 10. After installing the Seat Belt Pretensioner (BPT), confirm proper system operation:
  - Turn the ignition switch ON; the SRS indicator light should be turned on for about six seconds and then go off.