Restraints

GENERAL

DESCRIPTION EB3476CF

The Supplemental Restraint System (SRS AIRBAG) is designed to supplement the seat-belts to help reduce the risk or severity of injury to the driver and passenger by activating and deploying the driver, passenger, side and curtain airbag as well as the belt pretensioner in certain frontal or side collisions.

The SRS (Airbag) consists of: a driver airbag module located in the center of the steering wheel, which contains a folded cushion and an inflator unit; a passenger airbag module located in the passenger side crash pad which contains a folded cushion together with an inflator unit; two seat-belt pretensioners located in seat-belt assembly which contain inflator units; four side airbag modules located in each seat which contain folded cushions and inflator units; two curtain airbag modules located in upper pillar which contain folded cushions and inflator units; the SRSCM located under the floor console box which monitors the system; two side impact sensor (SIS) and two front impact sensor which sense vehicle deceleration; a spring interconnection (clock spring) located within the steering column; SRI (Service Reminder Indicator) located in cluster; system wiring and wiring connectors.

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

CUSTOMER CAUTIONS E635CEB7

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

Further, if a mistake is made in servicing the airbag system, it is possible that the airbag may fail to operate when required.

Before servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully.

1. Be sure to proceed with airbag related service only after approx. 30 seconds or longer from the time the ignition switch is turned to the LOCK position, key is removed from the vehicle and the negative (-) battery cable is disconnected from the battery. The airbag system is equipped with a back-up power source to assure the deployment of airbags when the battery cable is disconnected during an accident. The back-up power is available for approx. 150ms.

2. When the negative (-) battery cable is disconnected from the battery, the clock and audio system's memory will be wiped out. So before starting work, make a record of the contents of the audio system's memory. When the work is finished, reset the audio system and adjust the clock.

3. Symptoms of malfunction of the airbag system are difficult to detect, so the diagnostic codes become the most important source of information when troubleshooting.

4. When troubleshooting the airbag system, always inspect the diagnostic codes before disconnecting the battery.

5. Never use airbag parts from another vehicle. When replacing parts, replace them with new parts.

6. Never attempt to disassemble and repair the airbag modules (DAB, PAB, CAB, PT), clock spring and wiring in order to reuse them.

7. If any component of the SRS has been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.

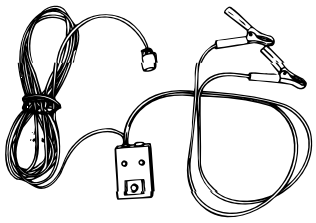
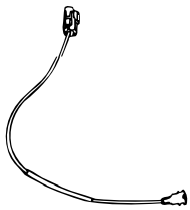
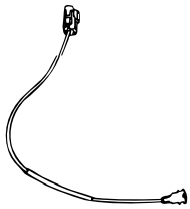
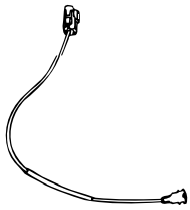
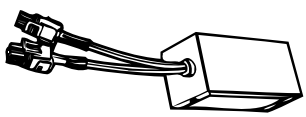
8. After work on the airbag system is completed, perform an SRS SRI check. The airbag indicator lamp can be triggered by faults in other circuit in some cases. Therefore if the airbag indicator lamp goes on, be sure to erase the DTC codes using the Hi-Scan Pro just after repairing or replacing the troubled parts, including the fuse.

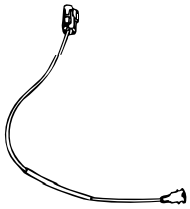
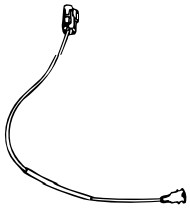
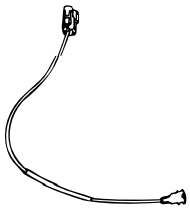
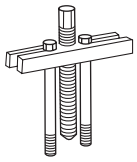
9. Especially when carrying out body welding, never fail to disconnect the battery's negative (-) terminal.

NOTE

- *DAB: Driver Airbag*
- *PAB: Passenger Airbag*
- *FSAB: Front Side Airbag, Side Airbags Located in Driver and Passenger Seat*
- *RSAB: Rear Side Airbag, Side Airbags Located in rear seats*
- *CAB: Curtain Airbag*
- *BPT: Belt Pretensioner*
- *SIS: Side Impact Sensor*
- *FIS: Front Impact Sensor*
- *BS: Belt Buckle Switch*
- *SRSCM: Supplemental Restraints System Control Module*

SPECIAL SERVICE TOOL EBA60CE4

Tool (Number and name)	Illustration	Use
Deployment Tool (0957A-34100A)	 ARCD501A	To deploy a airbag module by compulson
Deployment Tool Adapter (DAB, BPT, CAB) (0957A-1C000)	 ARCD501D	To connect deployment tool (0957A-34100A) and airbag module (DAB, BPT, CAB)
Deployment Tool Adapter (PAB) (0957A-38100)	 ARCD501D	To connect deployment tool (0957A-34100A) and airbag module (PAB)
Deployment Tool Adapter (SAB) (0957A-3F100)	 ARCD501D	To connect deployment tool (0957A-34100A) and airbag module (FSAB, RSAB)
Dummy (0957A-38200)	 ARCD501C	To check a airbag module by installing the dummy instead of airbag module (Resistance)

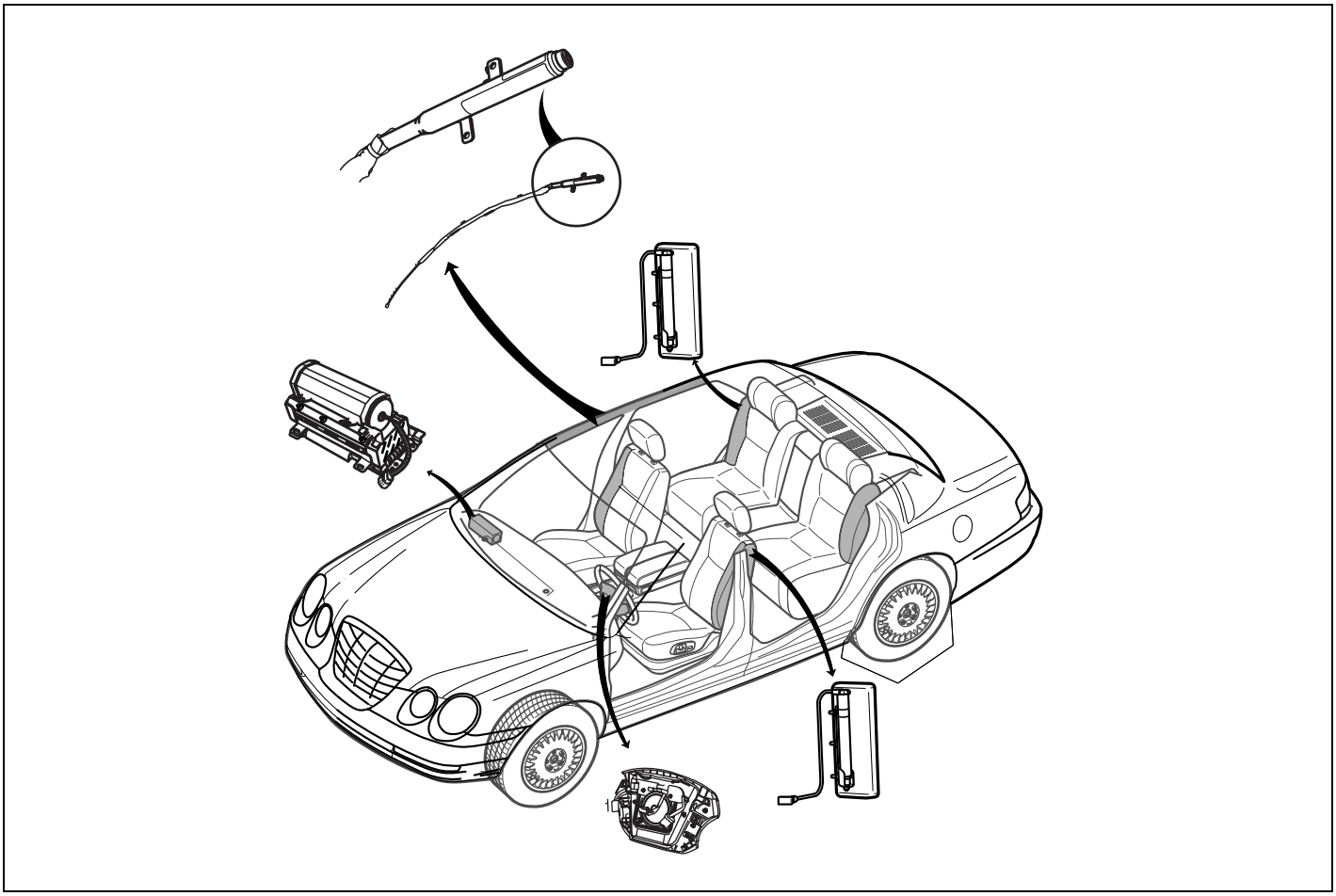
Tool (Number and name)	Illustration	Use
Dummy Adapter (DAB, BPT, CAB) (0957A-38400)	 ARCD501D	To connect dummy (0957A-38200) and airbag harness side connector (DAB, BPT, CAB)
Dummy Adapter (PAB) (0957A-38300)	 ARCD501D	To connect dummy (0957A-38200) and airbag harness side connector (PAB)
Dummy Adapter (SAB) (0957A-3F000)	 ARCD501D	To connect dummy (0957A-38200) and airbag harness side connector (FSAB, RSAB)
Diagnosis Checker (0957A-38000)	 ARCD501B	Wiring harness checker for each module
Steering Wheel Puller (09561-11001)	 APCD002G	To remove the steering wheel

NOTE

SAB : FSAB and RSAB

AIRBAG MODULE (DAB, PAB, SAB, CAB) ECF80DB4

DAB (Driver airbag), PAB (Passenger airbag), FSAB (Front Side Airbag), RSAB (Rear Side Airbag) and CAB (Curtain airbag) module all consist of an inflator and cushion. The initiator (a gas generator igniting device) is port of the inflator. When the vehicle is in a frontal or side crash of sufficient force to close the impact sensor, current flows through the deployment loop. This current ignites the material and inflates the airbag.



ARCD503A

1. When removing the airbag module or handling a new airbag module, it should be placed with the pad top surface facing up. In this case, the twin-lock type connector lock lever should be in the locked state and care should be taken to place it so the connector will not be damaged. Do not store a steering wheel pad on top of another one (Storing the pad with its metallic surface up may lead to a serious accident if the airbag should inflate accidentally).

2. Never measure the resistance of the airbag squib. (This may cause the airbag to deploy, which is very dangerous).

3. Store the airbag module where the ambient temperature remains below 93 C (200 F), without high humidity and away from electrical noise.

4. During electric welding, disconnect the airbag under the steering column near the MULTI-FUNCTION SWITCH connector before starting work.

NOTE

- *DAB: Driver Airbag*
- *PAB: Passenger Airbag*
- *FSAB: Side Airbags Located in Driver and Passenger Seat*
- *RSAB: Side Airbags Located in rear seats*
- *CAB: Curtain Airbag*
- *BPT: Belt Pretensioner*
- *SIS: Side Impact Sensor*
- *FIS: Front Impact Sensor*
- *BS: Belt Buckle Switch*
- *SRSCM: Supplemental Restraints System Control Module*

SRS HARNESS E85AB744

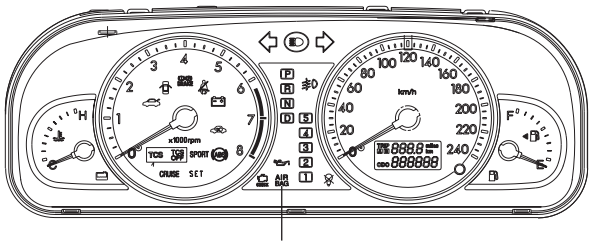
The SRS harness is wrapped in yellow tube to identify it from other system harness. A shorting bar is included inside the wiring connectors of DAB, PAB, FSAB, RSAB, CAB and BPT inflator side. The shorting bar shorts the current flow when the connectors are disconnected. The circuits to the inflator module are shorted in this way to help prevent unwanted deployment of the airbag when serving the airbag module.

SRSCM INDEPENDENT LAMP ACTIVATION

The SRS malfunction indicator lamp (MIL) is located on the instrument cluster to provide information about SRS operating conditions.

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

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



LRCD504A

MIL OPERATING METHOD

	Operating situation	Operating method
RUNNING	o Return to normal from temporary fault	ON → OFF
	o Total faults frequency ≥ 10 o Active fault	Turn it on continuously
STARTING	o Normal	On to off after 6 seconds
	o Total faults frequency < 9	On to off after 6 seconds
	o Total faults frequency ≥ 10 o Active fault	6 seconds 1 seconds

SGHRT7010L

SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE(SRSCM)

SRS CONTROL MODULE

ELECTRICAL SYSTEM EA31D446

The SRS airbag system has sophisticated electrical and electronic components. Therefore the airbag operating components should be handled very carefully.

SRSCM (SUPPLEMENTAL RESTRAINT SYSTEM CONTROL MODULE)

SRSCM determines when to deploy the airbag module by sensing the frontal and side impact force through the built in sensor SRSCM.

1. DC/DC converter: The DC/DC converters of the power supply includes a step up and a step down converter, which provide the firing voltage for six firing circuits and the internal operating voltage. If the internal operating voltage falls below a defined threshold a reset is executed.

2. Arming sensor/safing sensor: The arming/safing sensor built in to the airbag firing circuit has the function of arming the airbag circuit under all required deployment conditions and maintaining the airbag firing circuits unarmed under normal driving conditions. The safing sensor is a dual-contact electromechanical switch which closes if it experiences a deceleration exceeding a specified threshold.

3. Back-up power: The SRSCM has emergency energy reserves to provide deployment energy for a short period when the vehicle voltage is low or if lost in a vehicle frontal crash.

4. Malfunction detection: The SRSCM continuously monitors the current SRS operation status while the ignition key is turned on and detects a malfunction of the system. The malfunction can be displayed in the form of diagnostic trouble code using Hi-scan.

5. MIL (Malfunction Indication Lamp) notification: If any fault is detected, the SRSCM sends a signal to the indicator lamp on the cluster to warn the vehicle's driver. The MIL indicator is the key to driver notification of SRS faults. Verify lamp and SRSCM operation by observing the flashing 6 times when the ignition switch is first turned on.

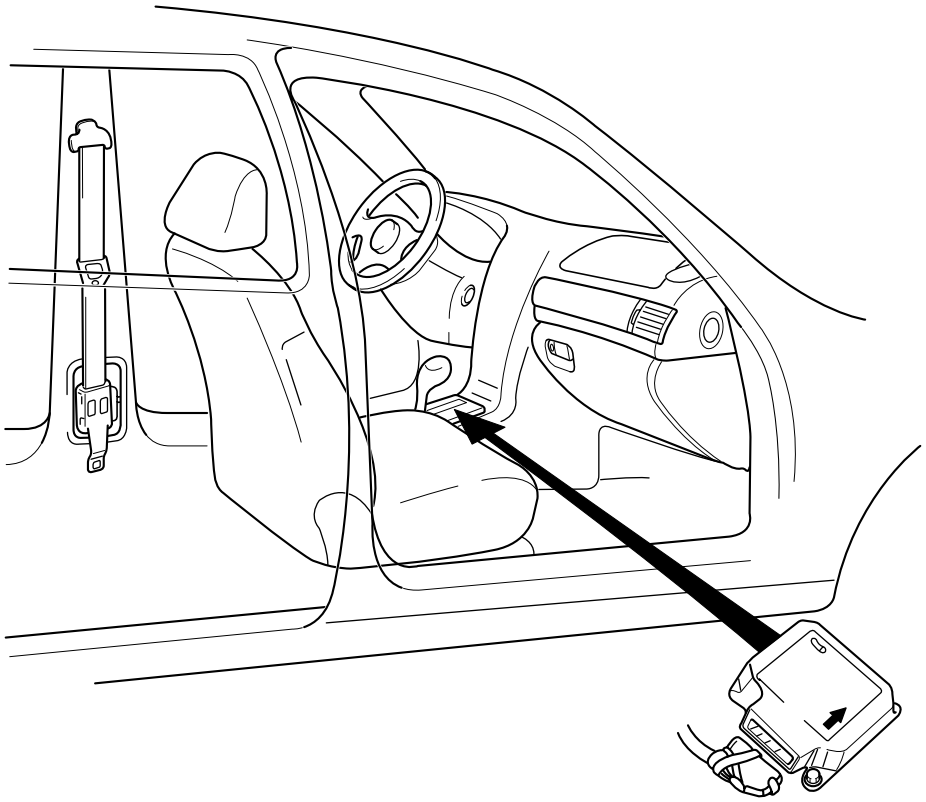
6. Malfunction recording: Once a fault occurs in the system SRSCM records the fault in the memory in the form of DTC and the DTC is erased by Hi-scan.

7. Data link connector: The SRSCM memory stored data are linked through this connector located at the underneath of driver side crash pad to an external output device such as Hi-scan.

8. After firing the airbags once, the SRSCM cannot be used again and must be replaced.

9. Crash output
   The crash output is used to control an external device which will unlock the doors in case of a crash event.

SRSCM (SRS CONTROL MODULE) EEBB3892



SRSCM

BRAD110A

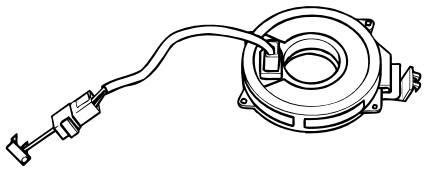
AIR BAG MODULE (DRIVER SIDE)

AIR BAG MODULE AND CLOCK SPRING

CLOCKSPRING EB54F5AA

The clock spring (coil spring) consists of two current carrying coils. It is attached between the steering column and the steering wheel. It allows rotation of the steering wheel while maintaining continuous contact of the deployment loop through the inflator module.

The steering wheel must be fitted correctly to the steering column with the clock spring at the neutral position, otherwise cable disconnection and other troubles may result.

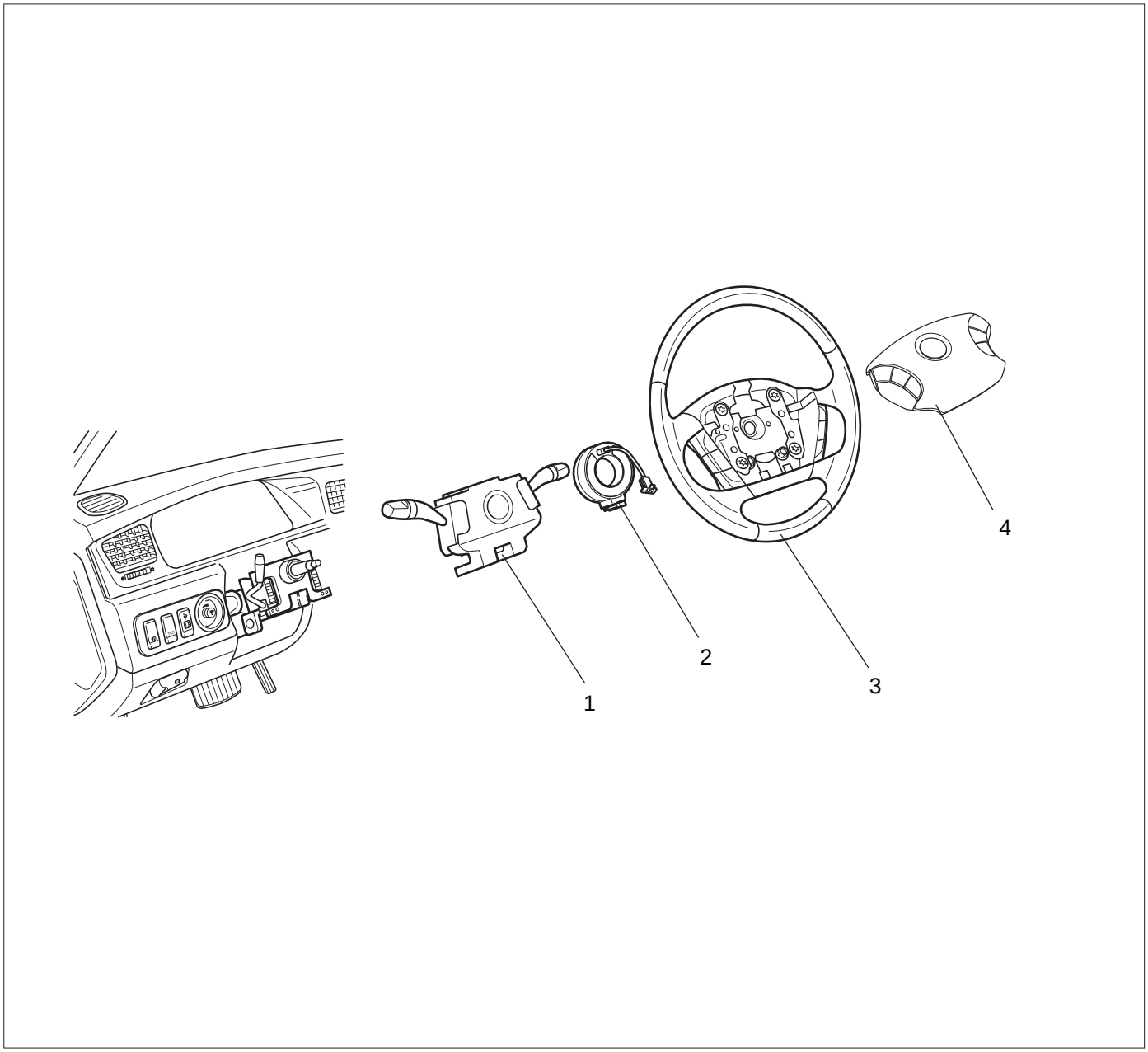


ERJA010E

SET CLOCKSPRING BY THE NEUTRAL POSITION

1. Rotate the clockspring clockwise until it can’ t rotate.
2. Rotate the clockspring counterclockwise by 2.4 revolutions
3. Fit the “ Neutral Mark ▷◁”

DRIVER AIRBAG SYSTEM E36B2466



1. Multi-Function Switch
2. Clockspring
3. Steering Wheel
4. Driver Airbag

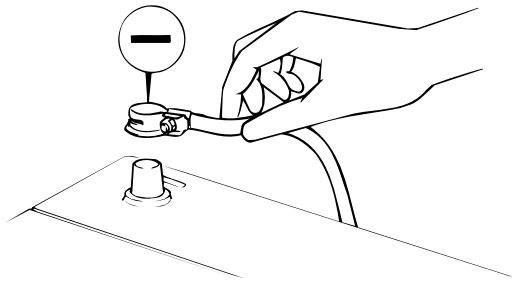
LRCD511A

REMOVAL E12F2114

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

CAUTION

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



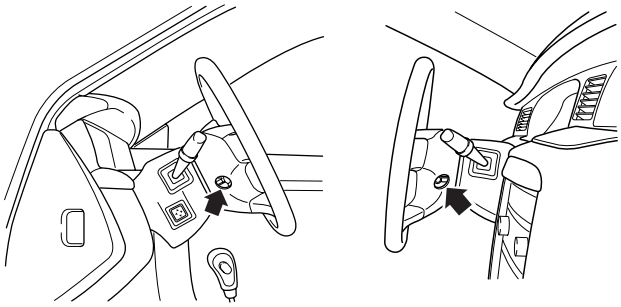
ARCD512A

2. Remove the ignition key from the vehicle.

3. Unscrew the airbag module mounting bolts using a hexagonal wrench and remove driver airbag module.

CAUTION

- ***Turn the front wheel to the straight-ahead position when removing/installing the Driver Airbag or Clokspring.***
- ***Prior to installing the clock spring, set the colockspring on "NEUTRAL" position (Refer to "clockspring" section), and after turning the front wheels to the straight-ahead position, install the clock spring to the column switch. If the mating mark of the clock spring is not properly aligned, the steering wheel may not completely rotate during a turn, or the flat cable within the clock spring may be broken obstructing normal operation of the SRS and possibly leading to serious injury to the vehicle's driver.***
- ***Never attempt to disassemble or repair the air bag module or clock spring. If faulty, replace it.***
- ***Do not drop the air bag module or clock spring or allow contact with water, grease or oil. Replace if a dent, crack, deformation or rust is detected.***
- ***The air bag module should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the air bag module to temperatures over 93℃(200°F).***
- ***After deployment of an air bag, replace the clock spring with a new one.***
- ***Wear gloves and safety glasses when handing an air bag that has been deployed.***
- ***An undeployed air bag module should only be disposed of in accordance with the procedures mentioned in the restraints section.***
- ***When you disconnect the air bag module-clock spring connector, take care not to apply excessive force.***
- ***The removed air bag module should be stored in a clean, dry place.***

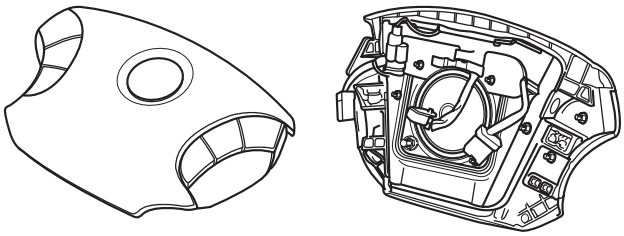


APCD007A

4. Remove the drive airbag module connector.

CAUTION

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

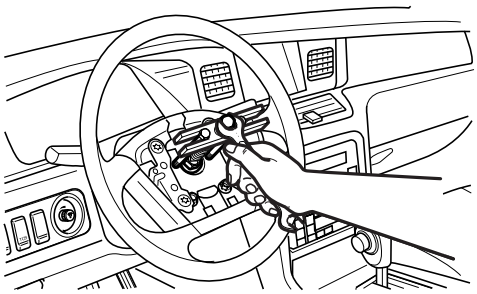


ARCD512C

5. Remove the steering wheel using SST (09561-11001).

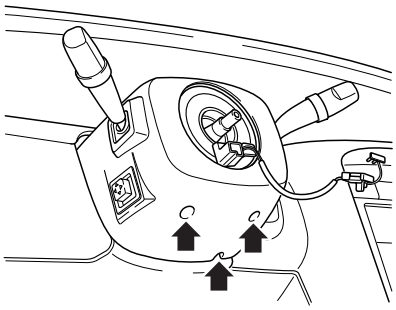
CAUTION

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



ARCD512D

6. After removing the screws (3) and remove the steering column upper and lower shrouds.

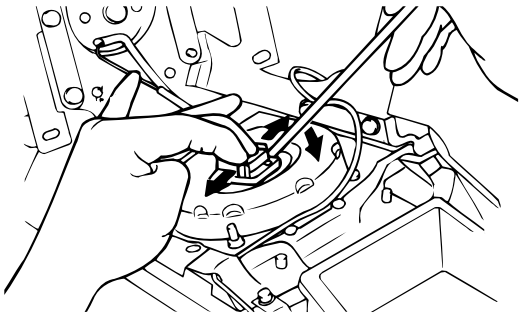


APCD007C

7. When disconnecting the clockspring-connector from the airbag module, pull the airbag's lock-connector outward to spread it open.

CAUTION

When disconnecting the airbag module-clock spring connector, take care not to apply excessive force to it.



ARCD512F

INSPECTION E086C7E4

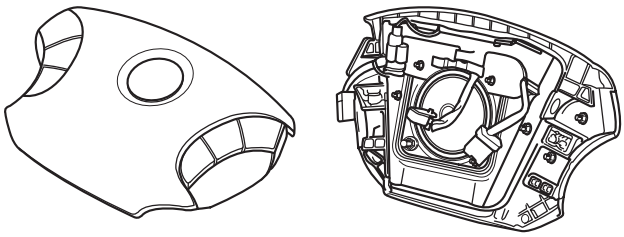
AIRBAG MODULE

If any improper parts are found during the following inspection, replace the airbag module with a new one.
Dispose the old one according to the specified procedure.

CAUTION

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

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



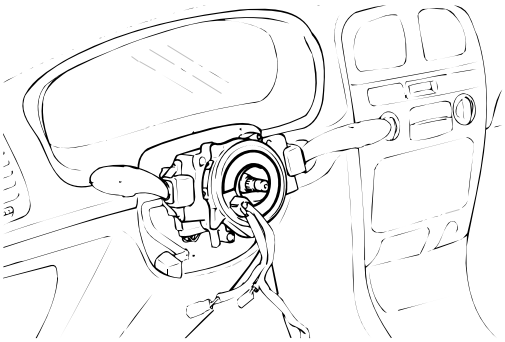
ARCD512C

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

CLOCK SPRING

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.



ARCD513D

AIR BAG MODULE (PASSENGER SIDE)

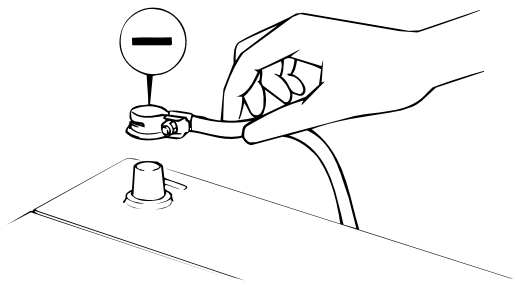
AIR BAG MODULE

REMOVAL EC6B68EE

CAUTION

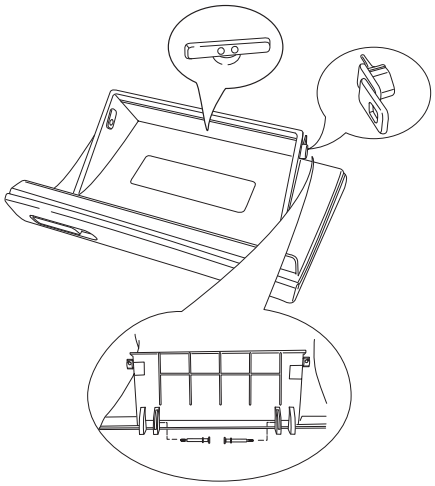
- ***Never attempt to disassemble or repair the airbag module.***
- ***Do not drop the airbag module or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The airbag module should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the airbag module to temperature over 93℃(200°F).***
- ***An undeployed airbag module should only be disposed in accordance with the procedures.***
- ***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.***
- ***Whenever the PAB is deployed it should be replaced with a new one assembled with an extension wire. The squib is melt down if the PAB is deployed making the extension wire useless.***

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



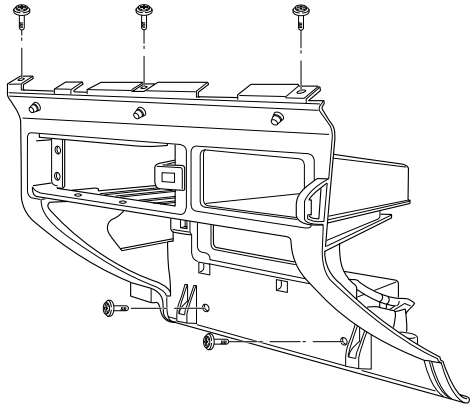
ARCD512A

2. Remove ignition key from the vehicle.
3. Remove the glove box cover.



SGHRT7012L

4. Remove the glove box housing.



ASCD012R

5. Remove the PAB mounting bolts (2EA).
6. Disconnect the PAB module connector.
7. Remove the crash pad. (Refer to BD gruop)

NOTE

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

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

CAUTION

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

SEAT BELT SYSTEM

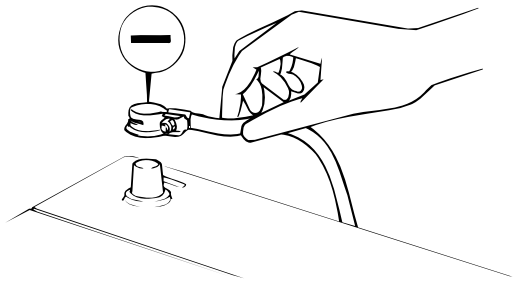
SEAT BELT PRETENSIONER E8525103

REMOVAL

1. Disconnect the battery negative (-) terminal and remove the ignition key from the vehicle.

CAUTION

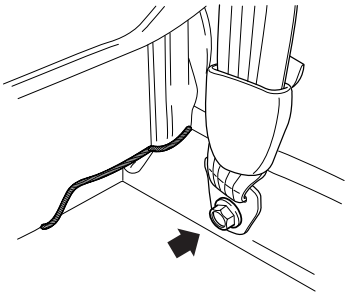
Wait at least 30 seconds.



ARCD512A

2. Remove seat belt lower anchor bolts (2).

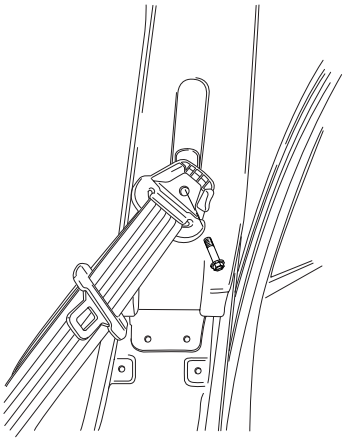
Tightening Torque : 40 -55 N·m (4.0 - 5.5 kg·m, 28.9 - 39.8 lb·ft)



ASCD027B

3. Remove seat belt upper anchor bolts (2).

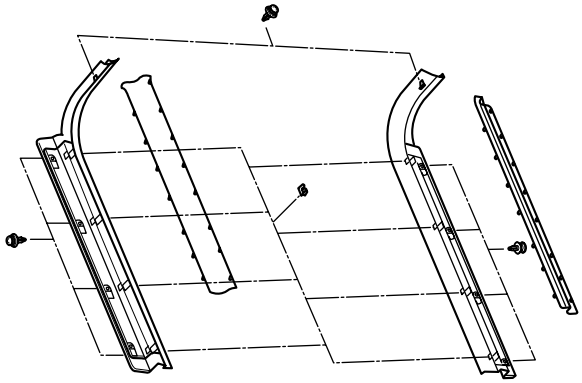
Tightening Torque : 40 -55 N·m (4.0 - 5.5 kg·m, 28.9 - 39.8 lb·ft)



ASCD027C

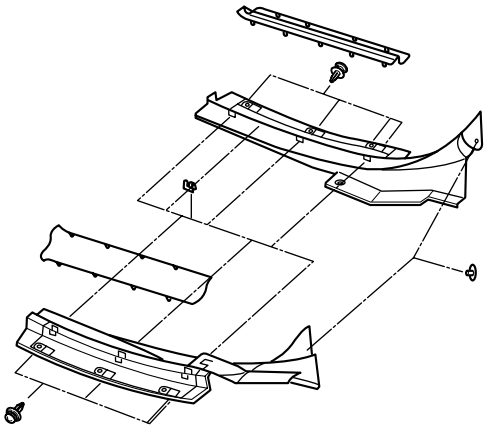
4. Remove the center pillar lower trim.

1) Remove the front door scuff trim.



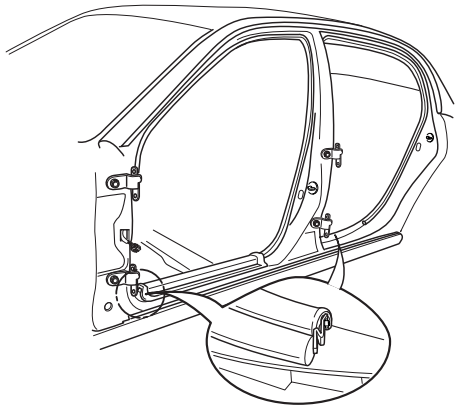
ASCD012B

2) Remove the rear door scuff trim.



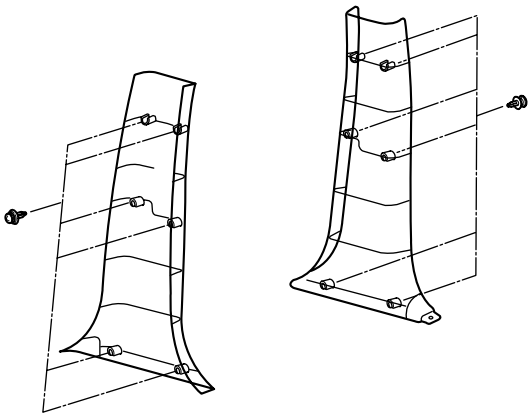
ASCD016C

3) Remove the front/rear door opening weatherstrip.



ASCD016B

4) Remove the center pillar lower trim.

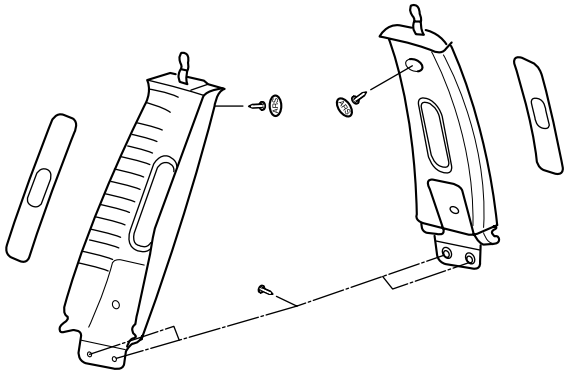


ASCD016D

5. Remove the center pillar upper trim.

1) Remove the center pillar upper trim cap.

2) Unscrew the screws (3).



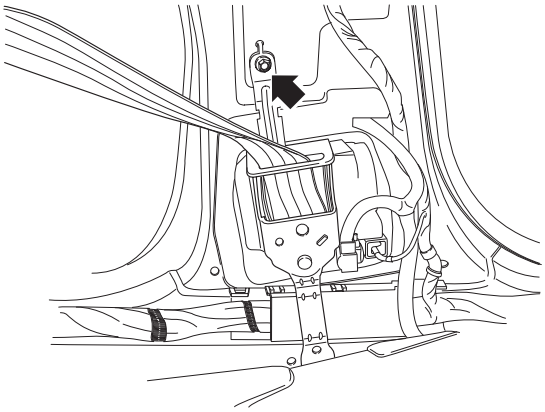
ASCD016F

3) Remove the center pillar upper trim.

6. Remove the seat-belt pretensioner (BPT).

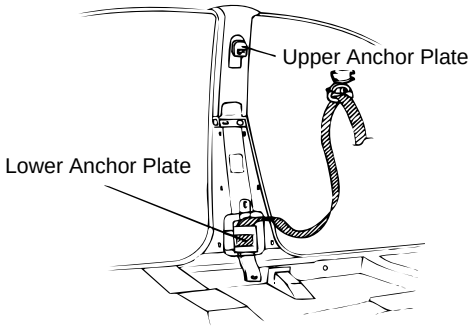
1) Disconnect the gas generator connector.

2) Remove the retractor bolt (1).



ASCD027D

3) Disconnect the seat-belt pretensioner connector.



LRCD516D

CAUTION

- ***Never attempt to disassemble or repair the BPT.***
- ***Do not drop the BPT or allow contact with water, grease, oil.Replace it if a dent, crack, deformation or rust amp is detected.***
- ***Do not place anything on the BPT.***
- ***Do not expose the BPT to temperature over 93℃(200°F).***
- ***BPT functions one time only. Be sure amp to replace the BPT after it is deployed.***
- ***Be sure to wear gloves and safety goggles when handling the deployed BPT.***

AIR BAG MODULE (SIDE AIR BAG)

AIR BAG MODULE

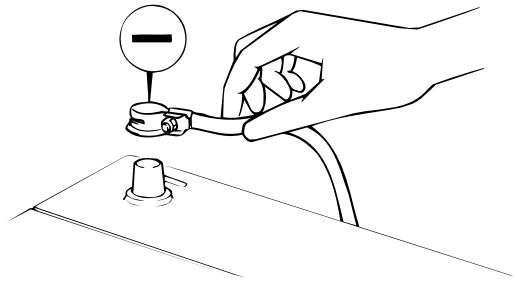
REMOVAL EEE9FE01

REMOVAL (1) - FRONT SIDE AIRBAG (FSAB)

1. Disconnect the battery negative (-) terminal and remove the ignition key from the vehicle.

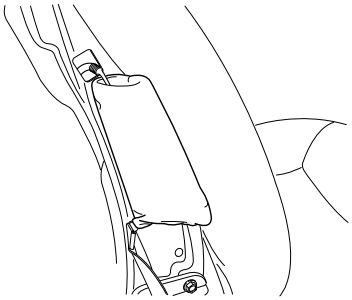
CAUTION

Wait at least 30 seconds.



ARCD512A

2. Remove the driver and passenger seat (Refer to Group " BD").
3. Disconnect the FSAB connector.
4. Unscrew the FSAB mounting nut and remove the FSAB modules.



ARCD518A

CAUTION

- ***Never attempt to disassemble or repair the airbag module.***
- ***Do not drop the airbag module or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The airbag module should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the airbag module to temperature over 93°C(200°F).***
- ***An undeployed airbag module should only be disposed in accordance with the procedures.***
- ***Never attempt to measure the circuit resistance of the airbag module (squib) even amp 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.***
- ***Whenever the FSAB is deployed it should be replaced with a new one assembled with an extension wire. The squib is melt down if the FSAB is deployed making the extension wire useless.***

REMOVAL (2) - REAR SIDE AIRBAG (RSAB)

[IN CASE OF FIXED SEAT]

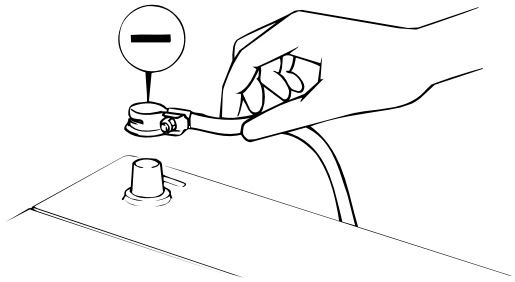
NOTE

In case of " POWER SEAT" , refer to the section " IN CASE OF POWER SEAT" .

1. Disconnect the battery negative (-) terminal and remove the ignition key from the vehicle.

CAUTION

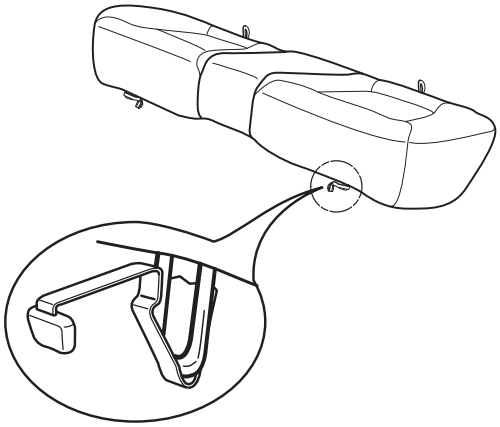
Wait at least 30 seconds.



ARCD512A

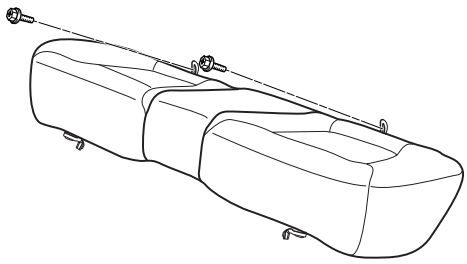
2. Remove the rear seat cushion.

1) Release the seat cushion stopper.



ASCD026B

2) Remove the seat cushion mounting bolts (2).

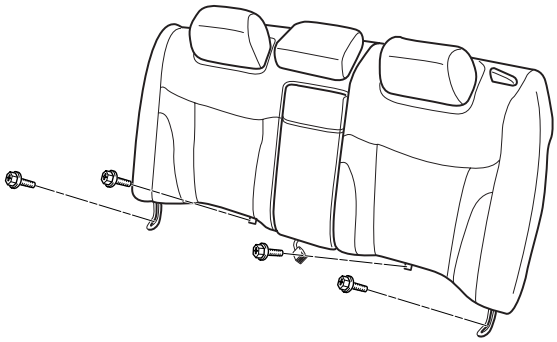


ASCD026C

3) Disconnect the seat cushion connector.

3. Remove the rear seatback.

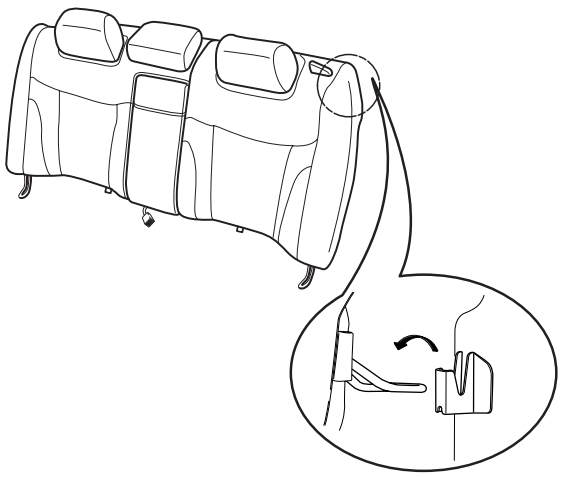
1) Unscrew the seatback mounting bolts (4)



ASCD026D

2) Disconnect the seatback connector and RSAB connector.

3) Remove the seatback stopper.



ASCD026E

CAUTION

- ***Never attempt to disassemble or repair the airbag module.***
- ***Do not drop the airbag module or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The airbag module should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the airbag module to temperature over 93℃(200°F).***
- ***An undeployed airbag module should only be disposed in accordance with the procedures.***
- ***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.***
- ***Whenever the FSAB is deployed it should be replaced with a new one assembled with an extension wire. The squib is melt down if the FSAB is deployed making the extension wire useless.***

4. Installation is performed according to the opposite order of Removal Procedure.

[IN CASE OF POWER SEAT]

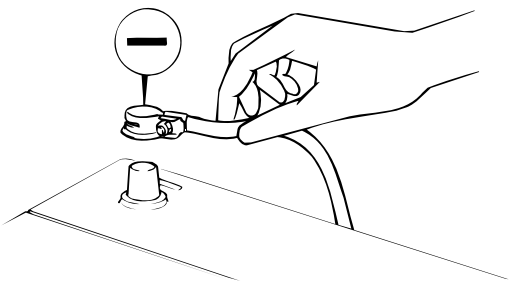
NOTE

In case of " FIXED SEAT" , refer to the section " IN CASE OF FIXED SEAT" .

1. Disconnect the battery negative (-) terminal and remove the ignition key from the vehicle.

CAUTION

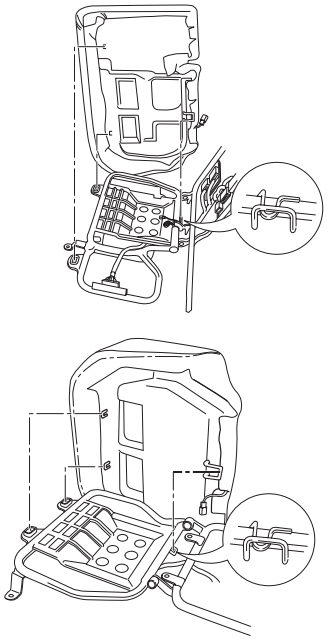
Wait at least 30 seconds.



ARCD512A

2. Remove the rear seat cushion.

   1) Remove the seat cushion from the stopper.

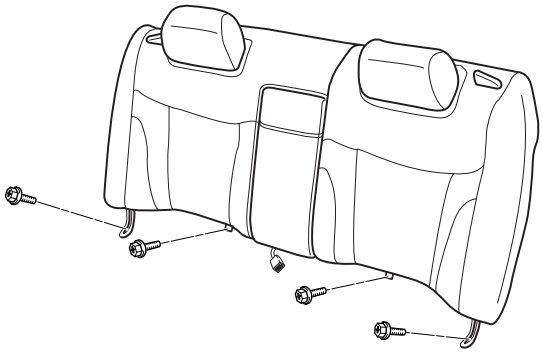


ASCD026F

   2) Disconnect the seat cushion connector.

3. Remove the rear seatback.

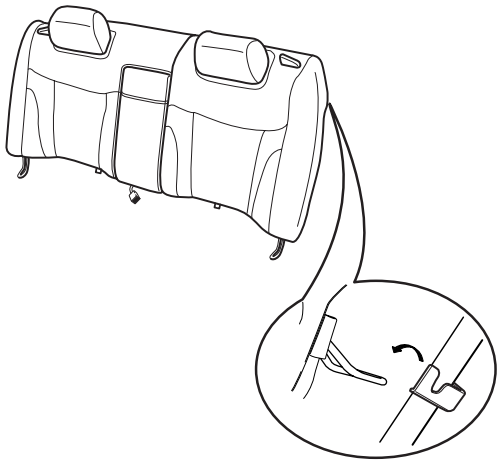
   1) Unscrew the seatback mounting bolt (1).



ASCD026G

   2) Disconnect the seatback connector.

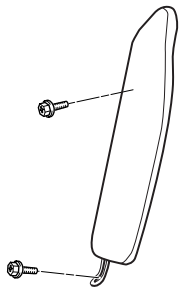
3) Remove the seatback from stopper.



ASCD026H

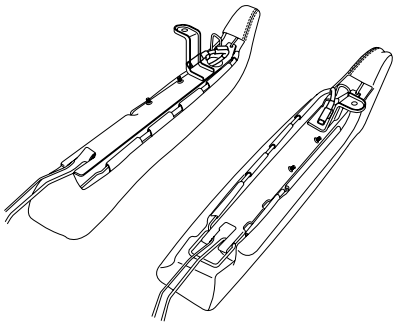
4. Remove the seatback side assembly and RSAB module.

1) Remove the seatback side assembly mounting bolts (2).



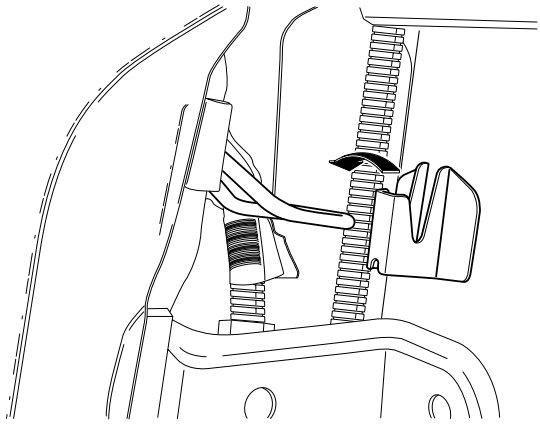
ASCD026J

2) Disconnect the RSAB module connector.



ARCD026L

3) Remove the seatback side assembly from the stopper.



ASCD026K

CAUTION

- ***Never attempt to disassemble or repair the airbag module.***
- ***Do not drop the airbag module or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The airbag module should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the airbag module to temperature over 93°C(200°F)***
- ***An undeployed airbag module should only be disposed in accordance with the procedures.***
- ***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.***
- ***Whenever the RSAB is deployed it should be replaced with a new one assembled with an extension wire. The squib is melt down if the RSAB is deployed making the extension wire useless.***

AIR BAG MODULE (CURTAIN AIR BAG)

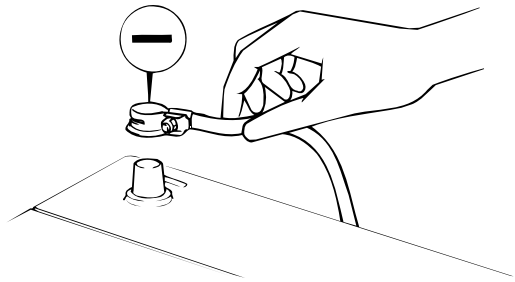
AIR BAG MODULE

REMOVAL E8171473

1. Disconnect the battery negative (-) terminal and remove the ignition key from the vehicle.

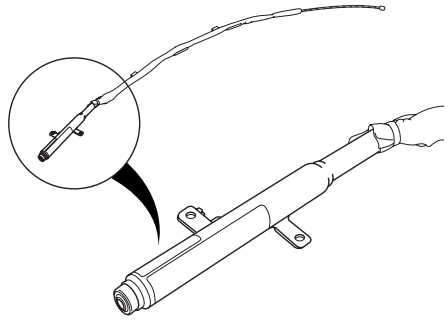
CAUTION

Wait at least 30 seconds.



ARCD512A

2. Remove the headliner (Refer to Group " BD").
3. Unscrew the curtain airbag module (CAB) mounting bolt and remove the CAB module.
4. Disconnect the CAB module connector. At this time release the connector locking clip.



ARCD026M

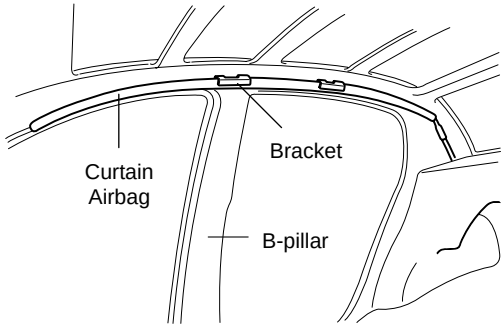
CAUTION

- ***Never attempt to disassemble or repair the airbag module.***
- ***Do not drop the airbag module or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The airbag module should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the airbag module to temperature over 93°C(200°F)***
- ***An undeployed airbag module should only be disposed in accordance with the procedures.***
- ***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.***
- ***Whenever the CAB is deployed it should be replaced with a new one assembled with an extension wire. The squib is melt down if the CAB is deployed making the extension wire useless.***

INSTALLATION ED449A4F

1. Install the curtain airbag module (CAB) according to the opposite order of Removal Procedure.

Tightening Torque : 10 - 15 N·m (1.0 - 1.5 kg·m/ 7.2 - 10.8 lb·ft)



LRCD026N

WARNING

Never twist the airbag when installing the CAB module. If the module is twisted, airbag module may operate abnormally.

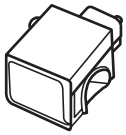
SRS CONTROL SYSTEM

FRONT IMPACT SENSOR (FIS)

DESCRIPTION EF11F3F4

The release system for the front airbag consists of a SRSCM installed in the middle of the vehicle and two front impact sensor (FIS) which are located in front of the vehicle. Only the SRSCM is capable of releasing the airbags or the seat-belt pretensioner system in the vehicle. In the dialog between the SRSCM and the front impact sensor it is the SRSCM which takes the release decision. The SRSCM is supported in connection with the front airbag function by the two front impact sensor, which act as intelligent acceleration sensors and as such back up the central airbag controller. Both the front impact sensors continuously report the current system status of the vehicle to the SRSCM.
If one of the two front impact sensor reports an acceleration level, the SRSCM must verify the acceleration signal internally by means of a suitable plausibility check. The SRSCM does not release the appropriate airbag unless the result of this verification is positive.

[Front Impact Sensor (FIS)]

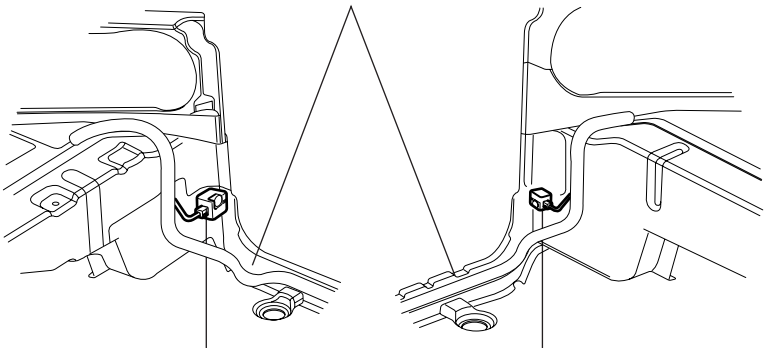


FIS (RH)

FIS (LH)

[Components Location]

Radiator Support Lower Member



FIS (LH) FIS (RH)

- Tightening Torque: 9 ~11 N·m (6.6 ~8.1 lb·ft)
- Installation tolerance: ±3 °
- The Front Impact Sensors (LH & RH) are the same part, and so they may be used regardless of right or left.

CAUTION

1. Turn off the ignition key before removing or installing the sensor (SIS or FIS), otherwise the airbag system may deploy, which results in serious personal injury.
2. Be careful not to damage sensor (including wiring and connector) when repairing a part nearby the sensor (SIS or FIS).

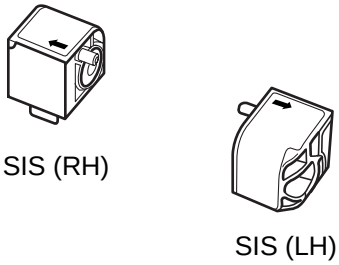
SGHRT7092N

SIDE IMPACT SENSOR (SIS)

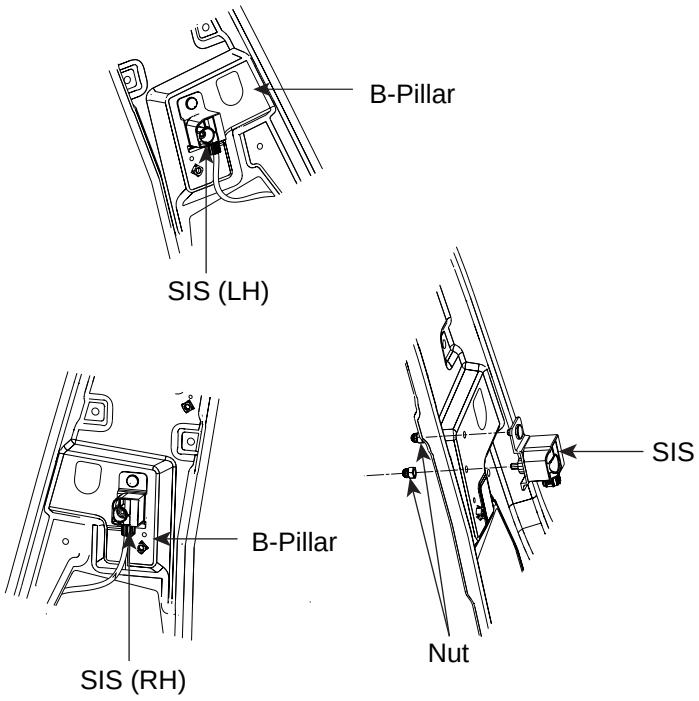
DESCRIPTION EA9C27F7

The release system for the side airbag consists of a SRSCM installed in the middle of the vehicle and two side impact sensor (SIS) - one on the left hand and one on the right. Only the SRSCM is capable of releasing the airbag system in the vehicle. In the dialog between the SRSCM and the side impact sensor it is the SRSCM which takes the release decision. The SRSCM is supported in connection with the side airbag function by the two side impact sensor, which act as intelligent acceleration sensors and as such back up the central airbag controller. Both the side impact sensors continuously report the current system status on the left and right-hand sides of the vehicle to the SRSCM.
If one of the two side impact sensor reports an acceleration level, the SRSCM must verify the acceleration signal internally by means of a suitable plausibility check. The SRSCM does not release the appropriate side airbag unless the result of this verification is positive.

[Side Impact Sensor(SIS)]



[Components Location]



- Installation tolerance: ±3 °
- The Side Impact Sensors (LH & RH) are the same part, and so they may be used regardless of right or left.

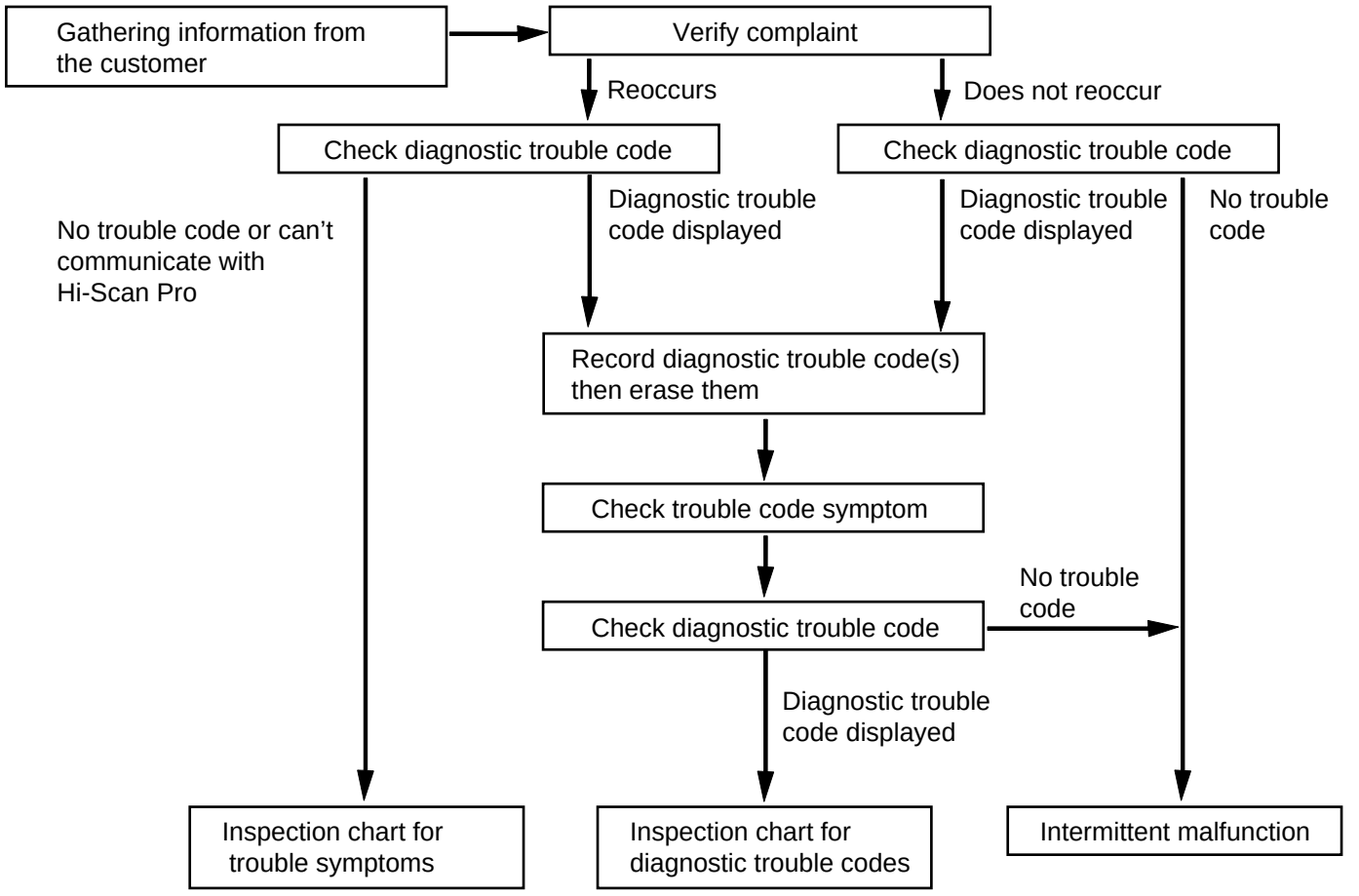
CAUTION

1. Turn off the ignition key before removing or installing the sensor (SIS or FIS), otherwise the airbag system may deploy, which results in serious personal injury.
2. Be careful not to damage sensor (including wiring and connector) when repairing a part nearby the sensor (SIS or FIS).

SGHRT7093N

TROUBLESHOOTING

DIAGNOSTIC TROUBLESHOOTING FLOW EB2314E0



SGHRT7035N

VERIFICATION OF VEHICLE REPAIR

After a repair, it is essential to verify that the fault has been corrected.

1. Connect scantool and select "Diagnostic Trouble Codes(DTC)" mode.
2. Using a scantool, clear the DTC.
3. Operate the vehicle within DTC Enable conditions in General information.
4. Are any DTC present ?

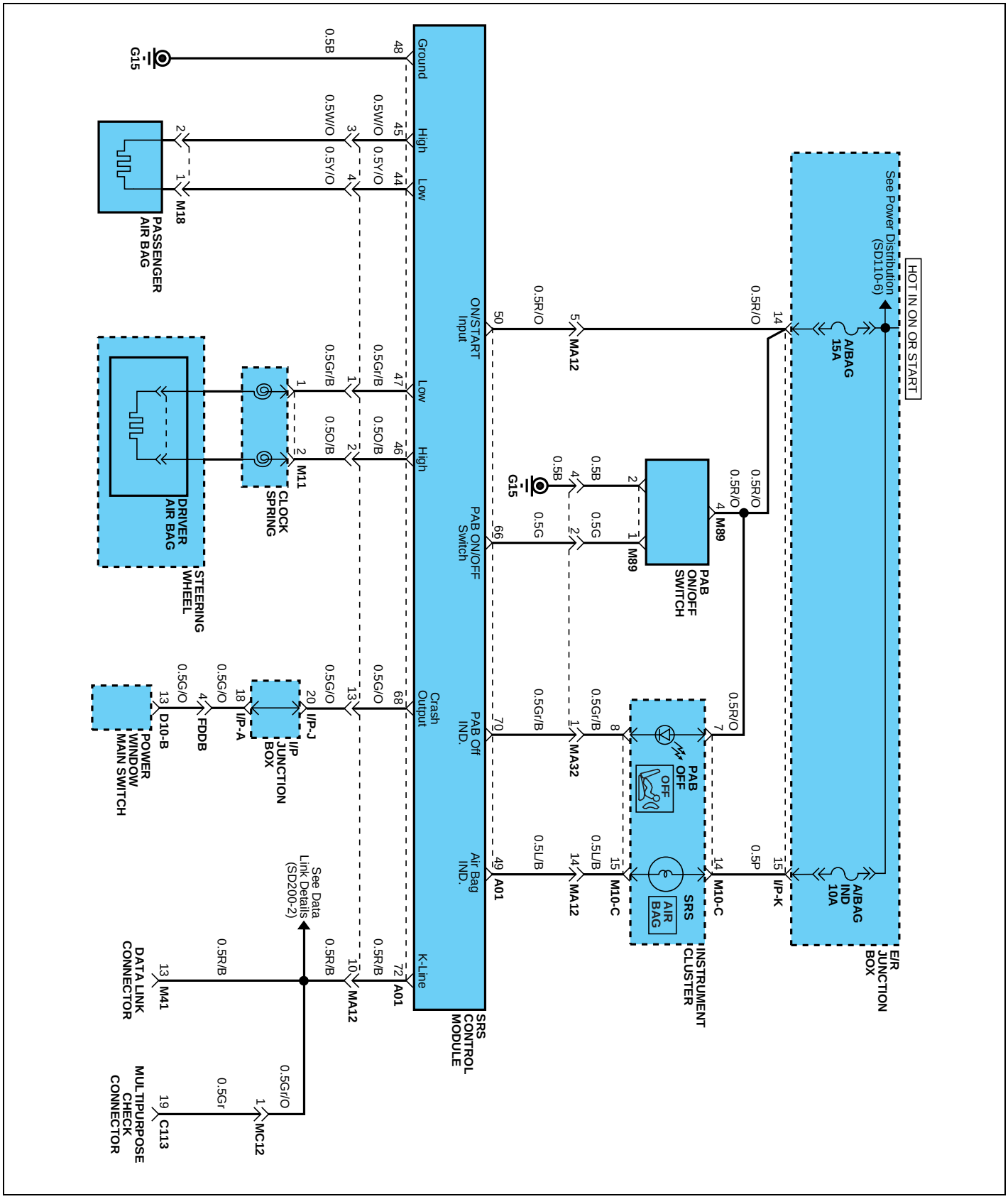
YES

▶ Go to the applicable troubleshooting procedure.

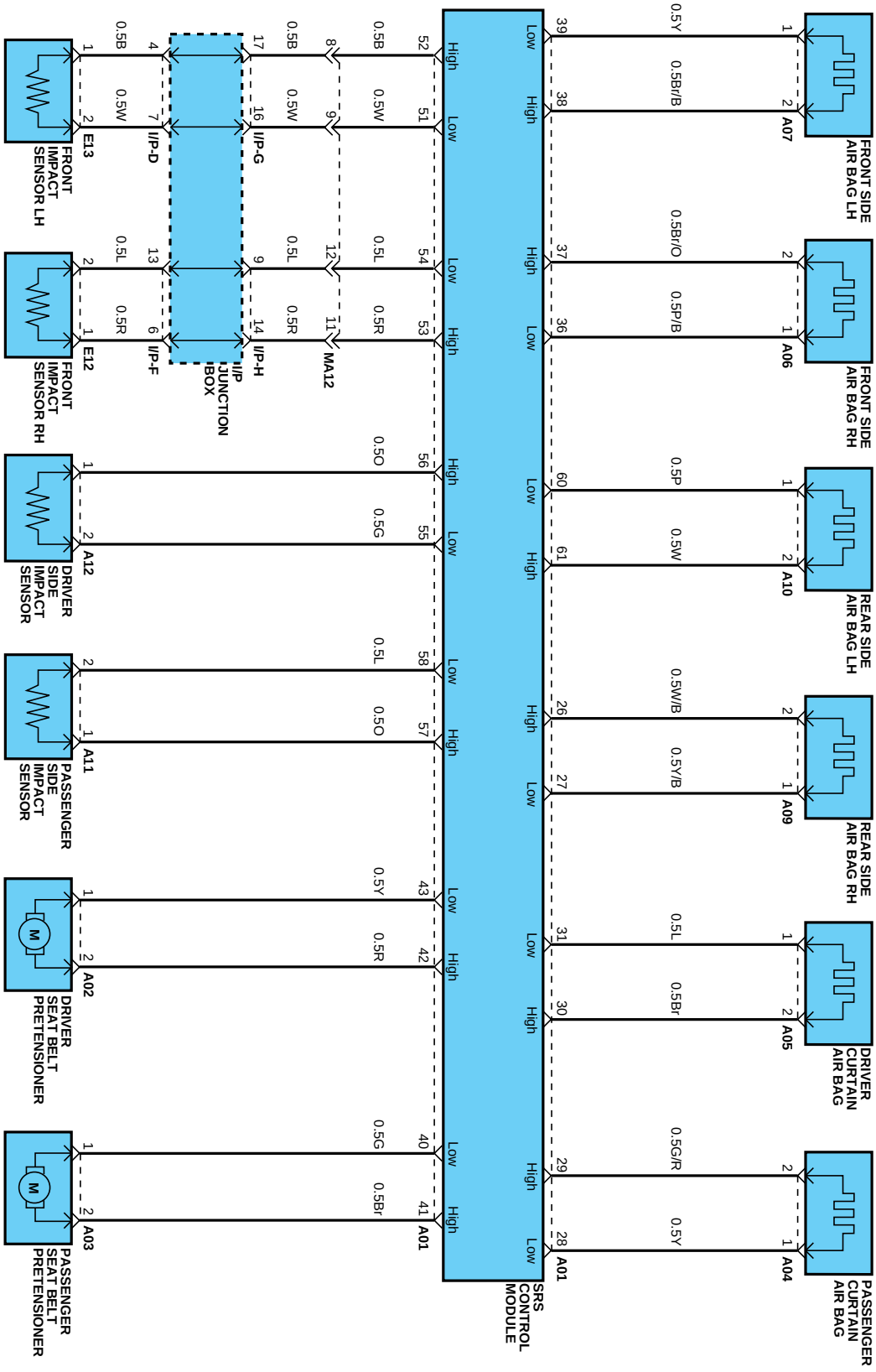
NO

▶ System is performing to specification at this time.

CIRCUIT DIAGRAM E8AF7CB8



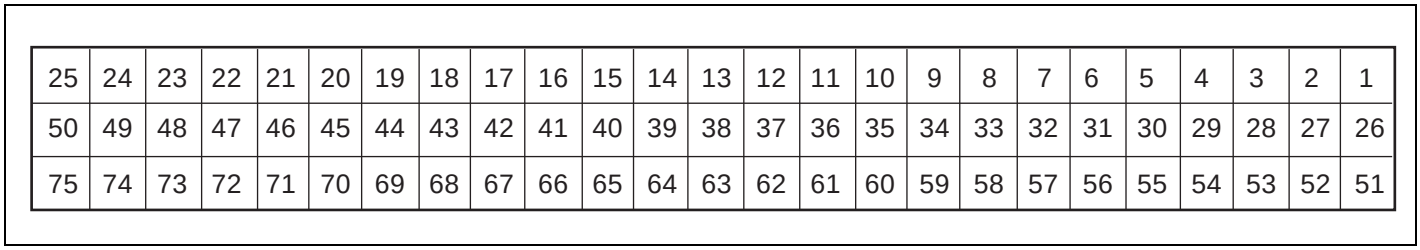
SGHRT7100L



SGHRT7101L

SRSCM CONNECTOR TERMINAL EADE836B

SRSCM HARNESS CONNECTOR



BRCF500C

Pin	Function	Pin	Function
1~24	Shorting Bar	50	Battery Supply (Vbatt)
25	-	51	Front Impact Sensor [Driver] Low
26	Side Airbag [Rear-Passenger] High	52	Front Impact Sensor [Driver] High
27	Side Airbag [Rear-Passenger] Low	53	Front Impact Sensor [Passenger] High
28	Curtain Airbag [Passenger] Low	54	Front Impact Sensor [Passenger] Low
29	Curtain Airbag [Passenger] High	55	Side Impact Sensor [Driver] Low
30	Curtain Airbag [Driver] High	56	Side Impact Sensor [Driver] High
31	Curtain Airbag [Driver] Low	57	Side Impact Sensor [Passenger] High
32	-	58	Side Impact Sensor [Passenger] Low
33	-	59	-
34	-	60	Side Airbag [Rear-Driver] Low
35	-	61	Side Airbag [Rear-Driver] High
36	Side Airbag [Front-Passenger] Low	62	-
37	Side Airbag [Front-Passenger] High	63	-
38	Side Airbag [Front-Driver] High	64	-
39	Side Airbag [Front-Driver] Low	65	-
40	Seat Belt Pretensioner [Front-Passenger] Low	66	PAB ON/PFF Switch
41	Seat Belt Pretensioner [Front-Passenger] High	67	-
42	Seat Belt Pretensioner [Front-Driver] High	68	Crash Output (To BCM)
43	Seat Belt Pretensioner [Front-Driver] Low	69	-
44	(1st Stage) Passenger Airbag Low	70	PAB off IND.
45	(1st Stage) Passenger Airbag High	71	-
46	(1st Stage) Driver Airbag High	72	K-Line Diagnostic
47	(1st Stage) Driver Airbag Low	73	-
48	Battery Ground	74	-
49	Warning Lamp	75	-

DIAGNOSTIC TROUBLE CODES (DTC)

DTC	FAULT DESCRIPTION	PAGE
B1101	Ignition voltage high	RT - 32
B1102	Ignition voltage low	RT - 32
B1103	Communication voltage too low	RT - 37
B1326	FIS(Front Impact Sensor)-Driver short to Ground	RT - 42
B1327	FIS(Front Impact Sensor)-Driver short to Battery	RT - 47
B1328	FIS(Front Impact Sensor)-Driver defect	RT - 52
B1329	FIS(Front Impact Sensor)-Driver communication error	RT - 52
B1330	FIS(Front Impact Sensor)-Driver Wrong ID	RT - 56
B1331	FIS(Front Impact Sensor)-Passenger short to Ground	RT - 42
B1332	FIS(Front Impact Sensor)-Passenger short to Battery	RT - 47
B1333	FIS(Front Impact Sensor)-Passenger defect	RT - 52
B1334	FIS(Front Impact Sensor)-Passenger communication error	RT - 52
B1335	FIS(Front Impact Sensor)-Passenger Wrong ID	RT - 56
B1346	Driver airbag resistance too High (1st stage)	RT - 59
B1347	Driver airbag resistance too Low (1st stage)	RT - 59
B1348	Driver airbag resistance circuit short to Ground (1st stage)	RT - 65
B1349	Driver airbag resistance circuit short to Battery (1st stage)	RT - 71
B1352	Passenger airbag resistance too High (1st stage)	RT - 77
B1353	Passenger airbag resistance too Low (1st stage)	RT - 77
B1354	Passenger airbag resistance circuit short to Ground (1st stage)	RT - 82
B1355	Passenger airbag resistance circuit short to Battery (1st stage)	RT - 87
B1361	Pretensioner front-Driver resistance too High	RT - 92
B1362	Pretensioner front-Driver resistance too Low	RT - 92
B1363	Pretensioner front-Driver resistance circuit short to Ground	RT - 97
B1364	Pretensioner front-Driver resistance circuit short to Battery	RT - 102
B1367	Pretensioner front-Passenger resistance too High	RT - 92
B1368	Pretensioner front-Passenger resistance too Low	RT - 92
B1369	Pretensioner front-Passenger resistance circuit short to Ground	RT - 97
B1370	Pretensioner front-Passenger resistance circuit short to Battery	RT - 102
B1378	Side airbag front-Driver resistance too High	RT - 107
B1379	Side airbag front-Driver resistance too Low	RT - 107
B1380	Side airbag front-Driver resistance circuit short to Ground	RT - 112
B1381	Side airbag front-Driver resistance circuit short to Battery	RT - 117
B1382	Side airbag front-Passenger resistance too High	RT - 107
B1383	Side airbag front-Passenger resistance too Low	RT - 107
B1384	Side airbag front-Passenger resistance circuit short to Ground	RT - 112
B1385	Side airbag front-Passenger resistance circuit short to Battery	RT - 117

DTC B1101 BATTERY VOLTAGE TOO HIGH
DTC B1102 BATTERY VOLTAGE LOW

GENERAL DESCRIPTION E8CD10EA

SRSCM (Supplemental Restraints System Control Module) checks input voltage when "IG ON" to make air bag system work properly. If input voltage is out of normal range, there can be malfunction in system operation. In this case, Check battery and charging system.

DTC DESCRIPTION E462DE13

The SRSCM sets DTC B1101 and turns warning light on if voltage above threshold value is detected for more than 4 sec.
The SRSCM sets DTC B1102 and turns warning light on if voltage below threshold value is detected for more than 4 sec. (If voltage within threshold value is detected for 4 sec. SRSCM regards DTC as being cleared and turns warning light off).

DTC DETECTING CONDITION EECC4AB0

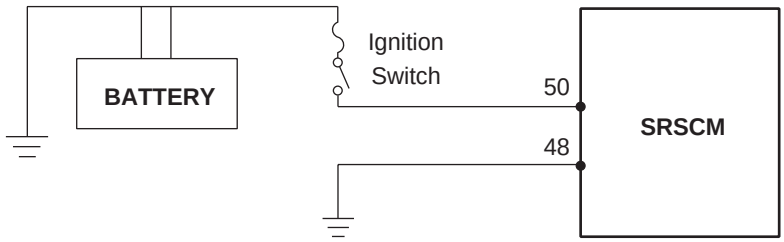
Item		Detecting Condition		Possible cause
DTC Strategy		• Check voltage		• Poor connection of connected part. • Open/Short circuit in power harness. • Open/Short circuit in ground harness. • Faulty charging system. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"		
Threshold Value		B1101	• 16.5V < Vbat	
		B1102	• Vbat < 10.6V	
Diagnostic Time	Qualification	• More than 4 sec		
	De-Qualification	• More than 4 sec		

SPECIFICATION E94FE6AD

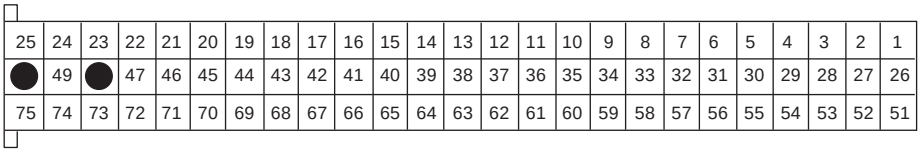
Test Condition	Voltage
Idle & WOT	Approx. 10.6 ≤ Vbatt ≤ 16.5

SCHEMATIC DIAGRAM EAC3060C

[CIRCUIT DIAGRAM]



[HARNESS CONNECTORS]



SRSCM

SGHRT7300N

MONITOR SCANTOOL DATA EF36731F

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

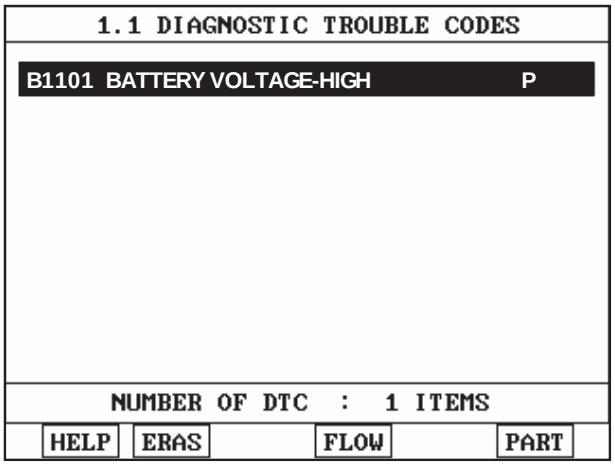


Fig.1

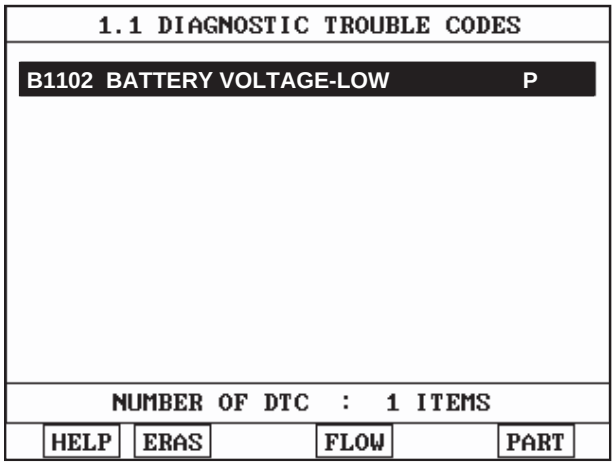


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7702N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EF95CE1E

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

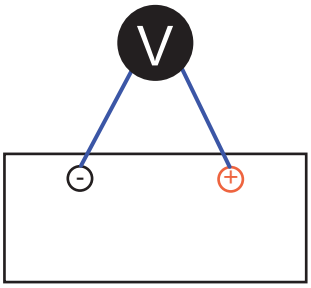
NO

▶ Go to "Charging System Inspection" procedure.

CHARGING SYSTEM INSPECTION ECB713E6

1. Engine "ON", headight and heatwire "ON".
2. Measure voltage between the battery terminal (+) and (-) maintaining ENG. RPM 2,500RPM (idle) over 2 minutes.

■ Specification : Approx. 10.6V ~16.5V



Battery

SHDRT7221N

3. Is the measured voltage within specifications?

YES

▶ Go to "Power Circuit Inspection" procedure.

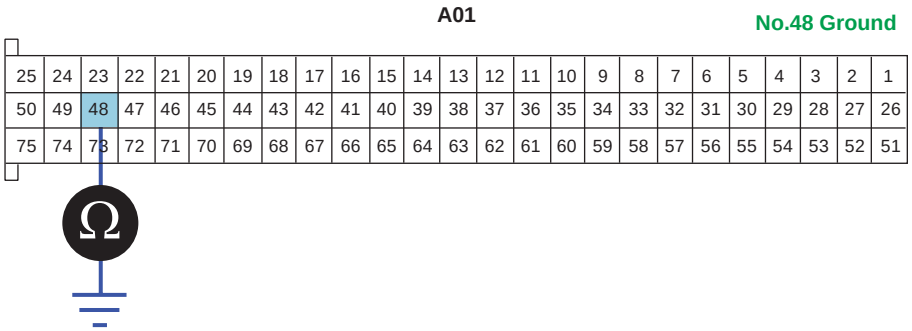
NO

▶ Substitute with a known-good alternator and check for proper operation. If the problem is corrected, replace alternator and then go to "Verification of Vehicle Repair" procedure.

POWER CIRCUIT INSPECTION EB123123

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect the SRSCM connector.
4. Connect the battery (-) terminal cable and start engine.
5. Measure voltage between terminal "50" of the SRSCM harness connector and chassis ground.

■ Specification : Approx.10.6V ~16.5V



SGHRT7303N

6. Is the measured voltage within specifications?

YES

▶ Go to "Ground circuit inspection" procedure.

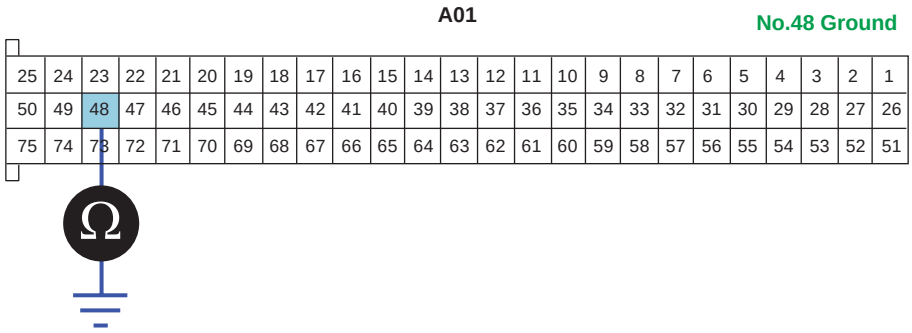
NO

▶ Thoroughly check all connectors (and connections) for looseness, bending, corrosion, contamination, deterioration, and/or damage.
Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

GROUND CIRCUIT INSPECTION EB7A0755

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect the SRSCM connector.
4. Measure resistance between terminal "48" of the SRSCM harness connector and chassis ground.

■ Specification : Approx. 1 Ω below.



SGHRT7303N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation. If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E69E4A4E

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1103 COMMUNICATION VOLTAGE TOO LOW

GENERAL DESCRIPTION E3D9260F

The SRSCM can communicate any extra devices such as FIS,SIS if battery voltage is greater than 10.6V.
If battery voltage drops less than 10.6V,SRSCM continuously monitors external devices and if there is an any fault occurred from external devices such as FIS and SIS then SRSCM will set above DTC.

DTC DESCRIPTION EA25D4EF

If the malfunction of FIS or SIS is detected when the battery voltage is less 10.6V. SRSCM will set DTC B1103.

DTC DETECTING CONDITION EB635B7F

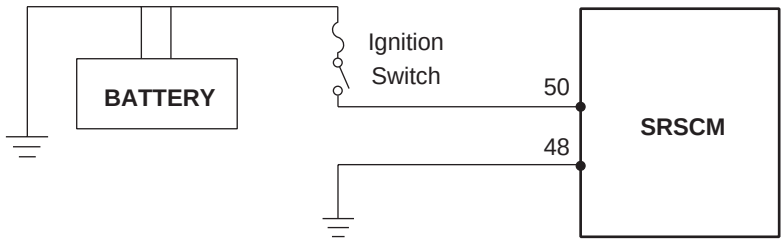
Item		Detecting Condition	Possible cause
DTC Strategy		• Check voltage	• FIS • SIS • Faulty charging system. • Low idle rpm • Loose alternator belt tension. • faulty SRSCM
Enable Conditions		• Ignition "ON"	
Threshold Value		• Vbat < 10.6V	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 4 sec	

SPECIFICATION E0CD4E23

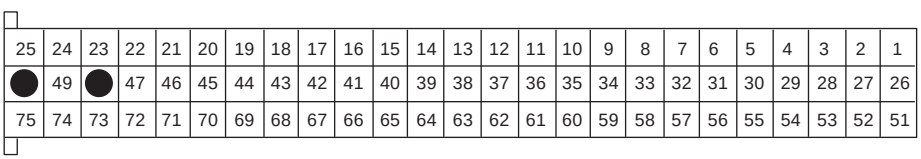
Test Condition	Voltage
Idle & WOT	Approx. 10.6 ≤ Vbatt ≤ 16.5

SCHEMATIC DIAGRAM E9DA78F6

[CIRCUIT DIAGRAM]



[HARNESS CONNECTORS]

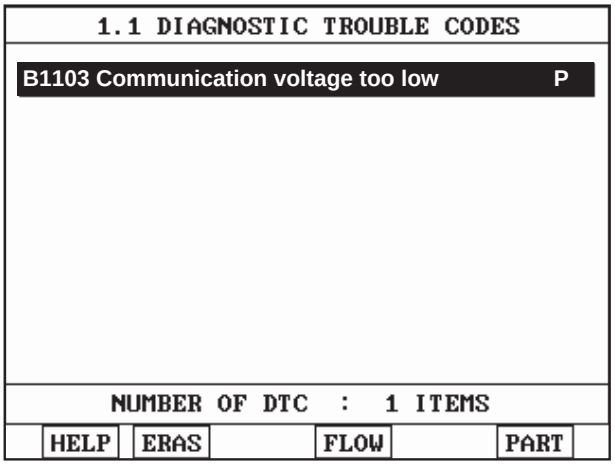


SRSCM

SGHRT7300N

MONITOR SCANTOOL DATA EC05603E

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7704N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EDD01057

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

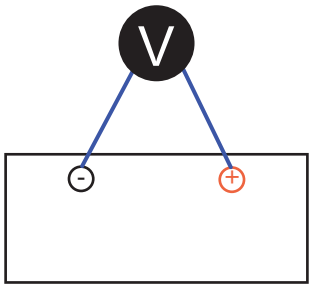
NO

▶ Go to "Charging System Inspection" procedure.

CHARGING SYSTEM INSPECTION E924632D

1. Engine "ON", headight and heatwire "ON".
2. Measure voltage between the battery terminal (+) and (-) maintaining ENG. RPM 2,500RPM (idle) over 2 minutes.

■ Specification : Approx. 10.6V ~16.5V



Battery

SHDRT7221N

3. Is the measured voltage within specifications?

YES

▶ Go to "Power Circuit Inspection" procedure.

NO

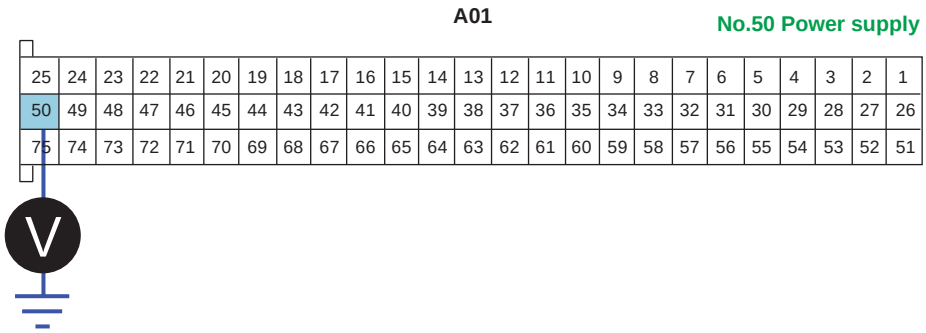
▶ Substitute with a known-good alternator and check for proper operation. If the problem is corrected, replace alternator and then go to "Verification of Vehicle Repair" procedure.

POWER CIRCUIT INSPECTION E847E9C9

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect the SRSCM connector.
4. Connect the battery (-) terminal cable and start engine.

5. Measure voltage between terminal "50" of the SRSCM harness connector and chassis ground.

■ Specification : Approx.10.6V ~16.5V



SGHRT7302N

6. Is the measured voltage within specifications?

YES

▶ Go to "Ground circuit inspection" procedure.

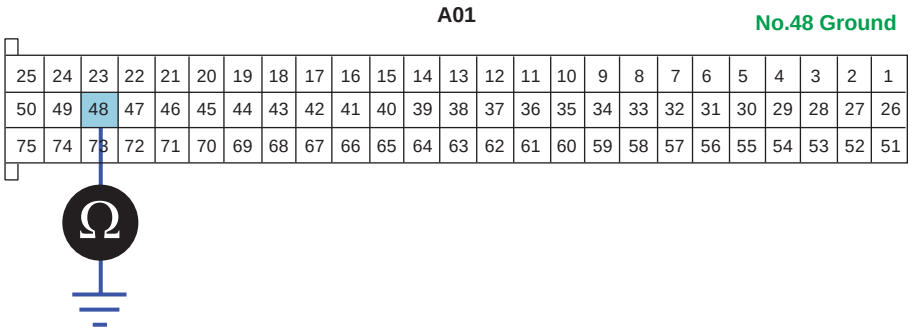
NO

▶ Thoroughly check all connectors (and connections) for looseness, bending, corrosion, contamination, deterioration, and/or damage.
Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

GROUND CIRCUIT INSPECTION E328045B

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect the SRSCM connector.
4. Measure resistance between terminal "48" of the SRSCM harness connector and chassis ground.

■ Specification : Approx. 1 Ω below.



SGHRT7303N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation. If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E9CC8614

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1326 FIS(FRONT IMPACT SENSOR)-DRIVER SHORT TO GROUND
DTC B1331 FIS(FRONT IMPACT SENSOR)-PASSENGER SHORT TO GROUND

GENERAL DESCRIPTION EAB363AE

Front Impact Sensor(FIS)located at both sides of the front of engine room detects head-on collision. When FIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both FIS and safing sensor detects collision simultaneously, SRSCM operates front air bag.

DTC DESCRIPTION E9E9574D

The SRSCM sets DTC B1326/B1331 if there is short to ground in DFIS/PFIS harness.

DTC DETECTING CONDITION E4C89171

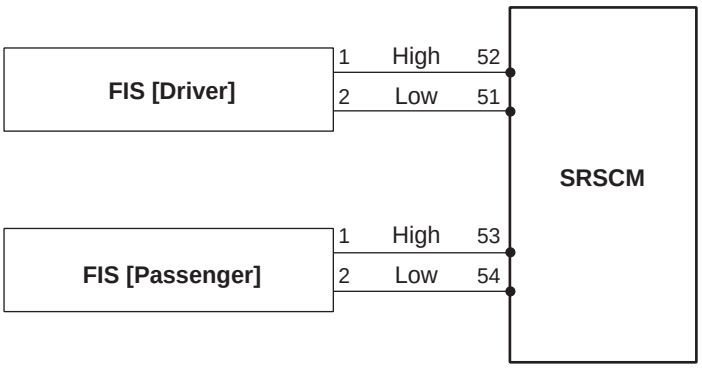
Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• Short to ground in harness. • Faulty FIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 250Ω	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E7286D9F

Test Condition	Resistance
Ignition ON	Rs > 4.5㏀

SCHEMATIC DIAGRAM E154E228

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

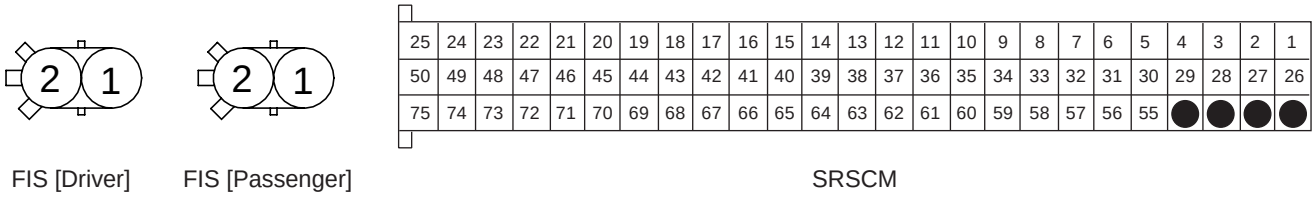
FIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 52	FIS High
2	SRSCM terminal 51	FIS Low

FIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 53	FIS High
2	SRSCM terminal 54	FIS Low

[HARNESS CONNECTORS]



SGHRT7310L

MONITOR SCANTOOL DATA EC89FC7C

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

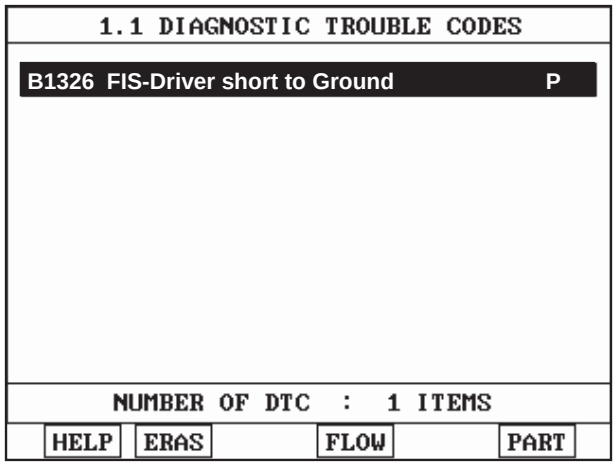


Fig.1

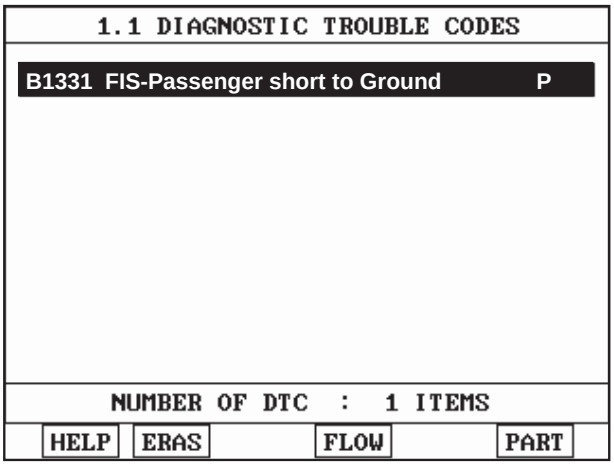


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7719N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E7D5A13F

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

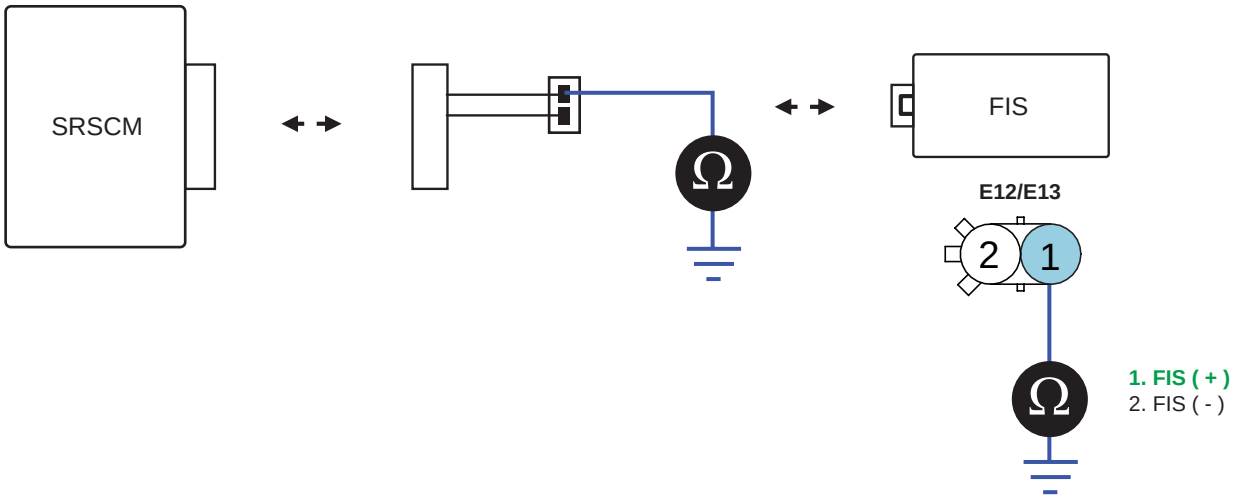
NO

▶ Go to "Main harness circuit inspection" procedure.

MAIN HARNESS CIRCUIT INSPECTION E8F2C2CF

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect FIS connector and SRSCM main harness connector.
4. Measure resistance between terminal "1" or "2" of the FIS harness connector and chassis ground.

■ Specification : ∞



SGHRT7312L

5. Is the measured resistance within specifications?

YES

▶ Go to "Component Inspection" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

COMPONENT INSPECTION E1406267

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect FIS connector.
5. Substitute the FIS and check for proper operation.

6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good FIS, and check for proper operation.
If the problem is corrected, replace FIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E5F2FC46

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1327 FIS(FRONT IMPACT SENSOR)-DRIVER SHORT TO BATTERY
DTC B1332 FIS(FRONT IMPACT SENSOR)-PASSENGER SHORT TO BATTERY

GENERAL DESCRIPTION ED6BB39B

Front Impact Sensor(FIS)located at both sides of the front of engine room detects head-on collision. When FIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both FIS and safing sensor detects collision simultaneously, SRSCM operates front air bag.

DTC DESCRIPTION E2D03D6D

The SRSCM sets DTC B1327/B1332 if there is short to power harness in DFIS/PFIS harness.

DTC DETECTING CONDITION EFC84B0D

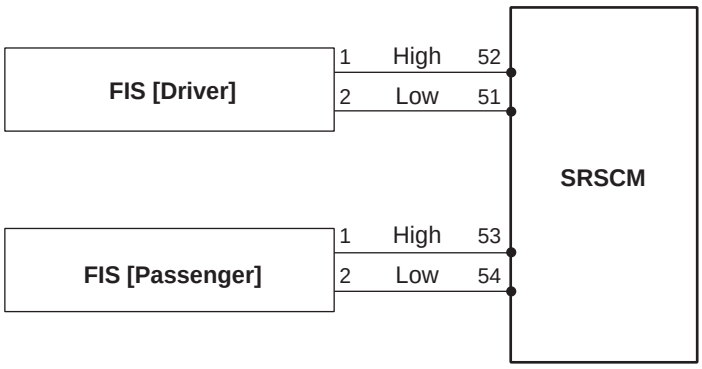
Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• Short to ground in harness. • Faulty FIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 25Ω	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E4042CE1

Test Condition	Resistance
Ignition ON	Rs > 2.5㏀

SCHEMATIC DIAGRAM EF4F84B5

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

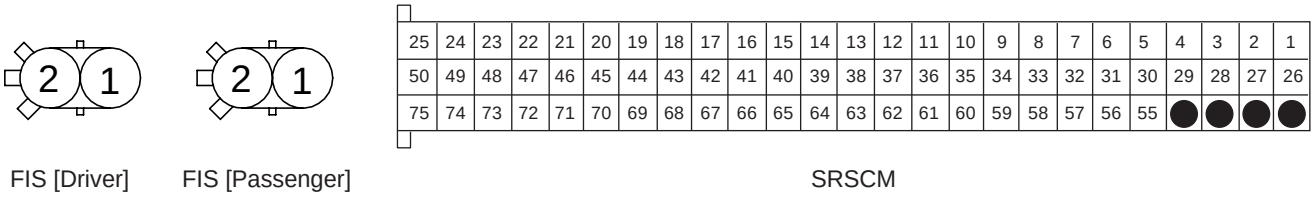
FIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 52	FIS High
2	SRSCM terminal 51	FIS Low

FIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 53	FIS High
2	SRSCM terminal 54	FIS Low

[HARNESS CONNECTORS]



FIS [Driver] FIS [Passenger] SRSCM

SGHRT7310L

MONITOR SCANTOOL DATA EA4110EB

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

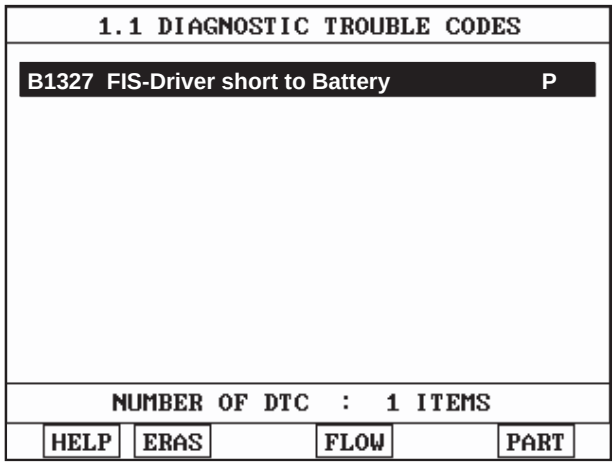


Fig.1

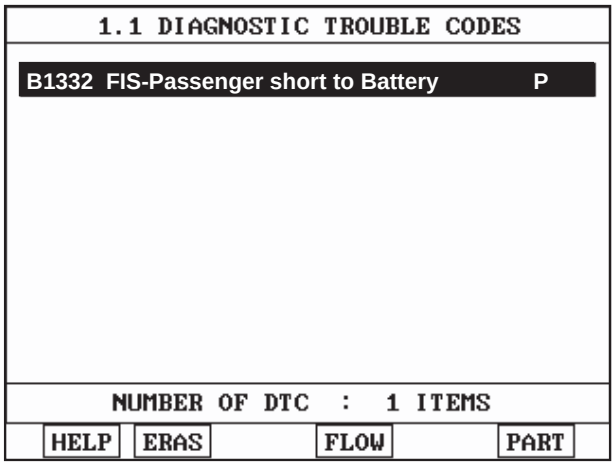


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7720N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E5CF4D20

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

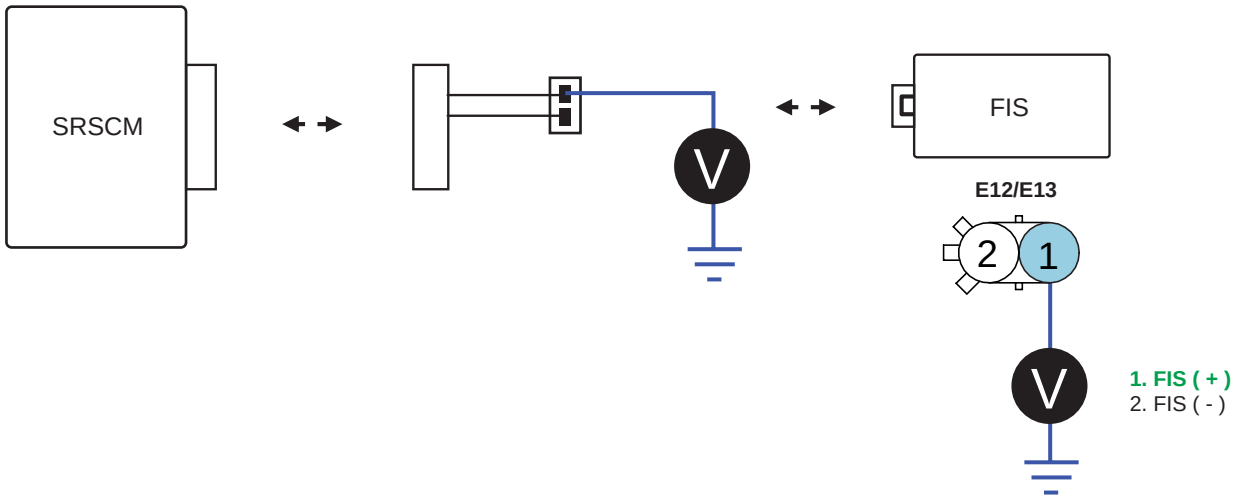
NO

▶ Go to "Main harness circuit inspection" procedure.

MAIN HARNESS CIRCUIT INSPECTION EC7E5912

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect FIS connector and SRSCM main harness connector.
4. Ignition "ON" & Engine "OFF"
5. Measure resistance voltage terminal "1" or "2" of the FIS harness connector and chassis ground.

■ Specification : 0V



SGHRT7314L

6. Is the measured Voltage within specifications?

YES

▶ Go to "Component Inspection" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

COMPONENT INSPECTION ECC9F1EC

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect FIS connector.
5. Substitute the FIS and check for proper operation.

6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good FIS, and check for proper operation.
If the problem is corrected, replace FIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E680140B

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1328 FIS(FRONT IMPACT SENSOR)-DRIVER DEFECT
DTC B1329 FIS(FRONT IMPACT SENSOR)-DRIVER COMMUNICATION ERROR
DTC B1333 FIS(FRONT IMPACT SENSOR)-PASSENGER DEFECT
DTC B1334 FIS(FRONT IMPACT SENSOR)-PASSENGER COMMUNICATION ERROR

GENERAL DESCRIPTION EE46795F

Front Impact Sensor(FIS)located at both sides of the front of engine room detects head-on collision. When FIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both FIS and safing sensor detects collision simultaneously, SRSCM operates front air bag.

DTC DESCRIPTION E999289C

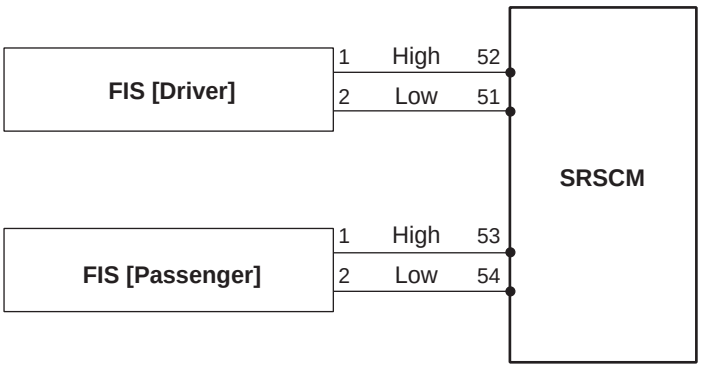
The SRSCM sets DTC B1328/B1333 if there is any fault in DFIS/PFIS.
The SRSCM sets DTC B1329/b1334 if there is any error in communication between DFIS/PFIS and SRSCM.

DTC DETECTING CONDITION EEF79FEF

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current (PWM type)	• Poor connection of connected part. • Faulty FIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SCHEMATIC DIAGRAM E8FF8397

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

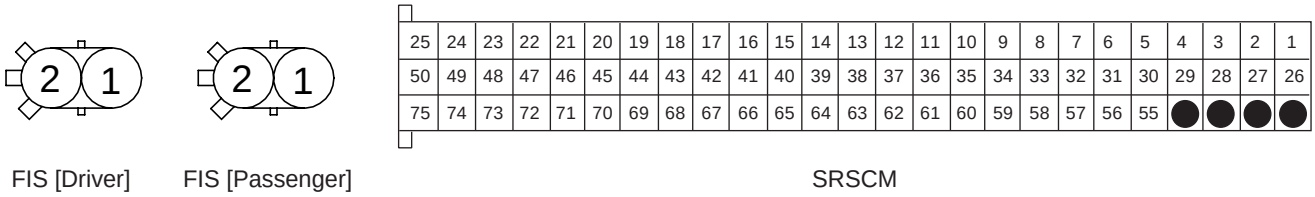
FIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 52	FIS High
2	SRSCM terminal 51	FIS Low

FIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 53	FIS High
2	SRSCM terminal 54	FIS Low

[HARNESS CONNECTORS]



SGHRT7310L

MONITOR SCANTOOL DATA E326E2E0

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

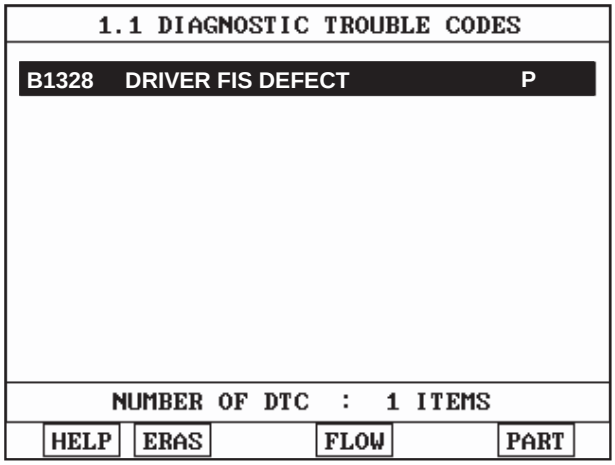


Fig.1

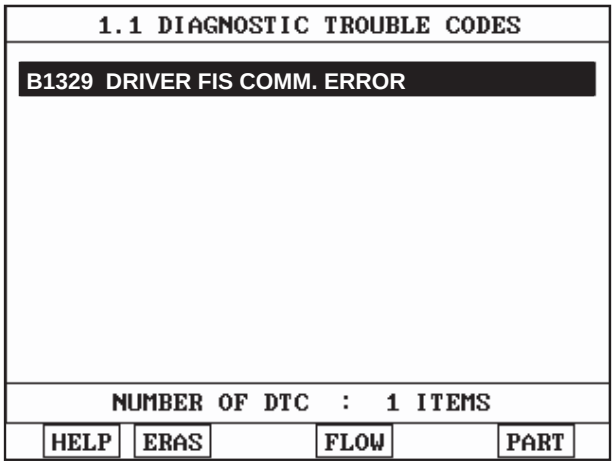


Fig.2

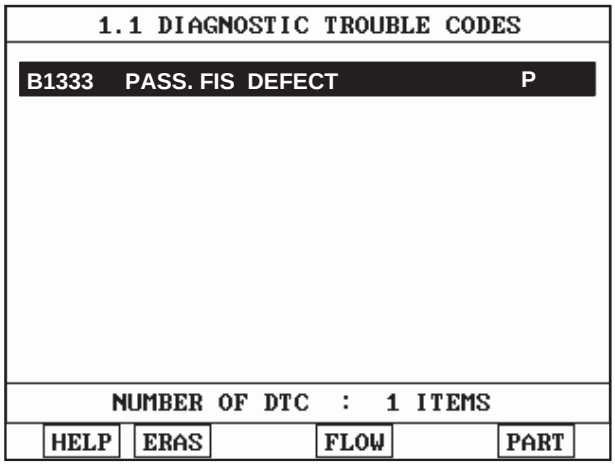


Fig.3

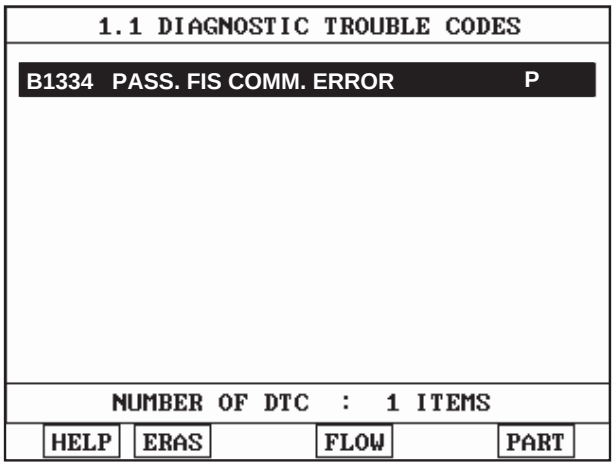


Fig.4

Note) - H : Historical fault
- P : Present fault

SGHRT7721N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E00047C7

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
   Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Component Inspection" procedure.

COMPONENT INSPECTION E4E91BDE

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect FIS connector .
5. Substitute the FIS and check for proper operation.
6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation. If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good FIS, and check for proper operation. If the problem is corrected, replace FIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E0B95360

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1330 FIS(FRONT IMPACT SENSOR)-DRIVER WRONG ID
DTC B1335 FIS(FRONT IMPACT SENSOR)-PASSENGER WRONG ID

GENERAL DESCRIPTION E2ADCAFA

Front Impact Sensor(FIS)located at both sides of the front of engine room detects head-on collision. When FIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both FIS and safing sensor detects collision simultaneously, SRSCM operates front air bag.

DTC DESCRIPTION E7202B1D

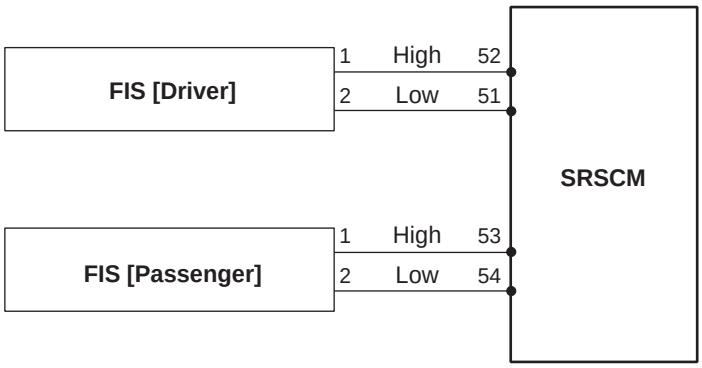
The SRSCM sets DTC B1330/B1335 if DFIS/PFIS with wrong ID is detected.

DTC DETECTING CONDITION E7821514

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current (PWM type)	• FIS with wrong ID. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SCHEMATIC DIAGRAM E9846968

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

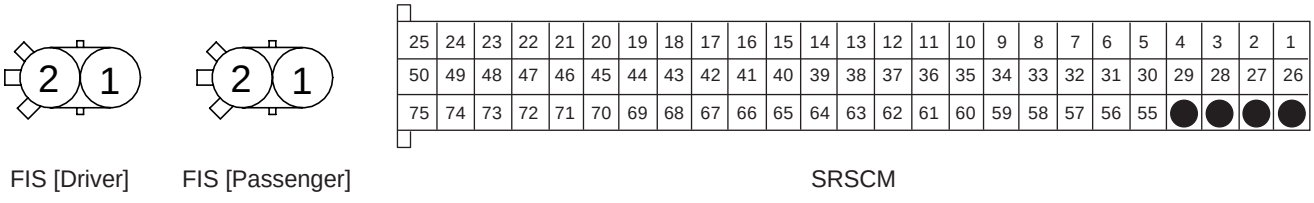
FIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 52	FIS High
2	SRSCM terminal 51	FIS Low

FIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 53	FIS High
2	SRSCM terminal 54	FIS Low

[HARNESS CONNECTORS]



SGHRT7310L

MONITOR SCANTOOL DATA E36DF423

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

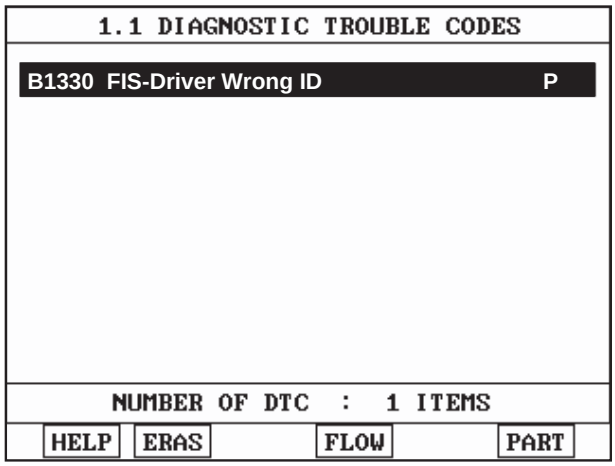


Fig.1

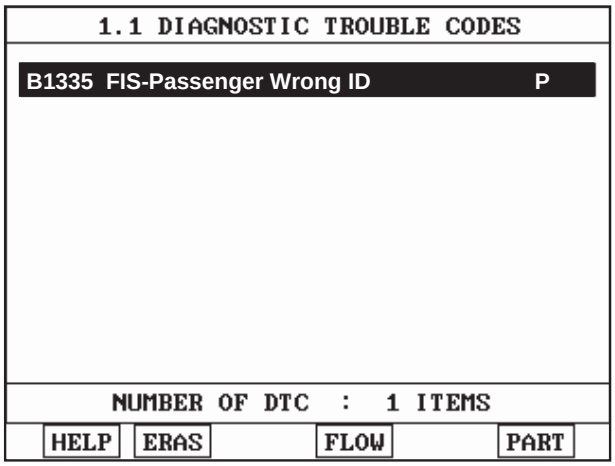


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7723N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EB4360D9

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Component Inspection" procedure.

COMPONENT INSPECTION E2BCFCD6

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect FIS connector .
5. Substitute the FIS and check for proper operation.
6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation. If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good FIS, and check for proper operation. If the problem is corrected, replace FIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E4CB0B15

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1346 DRIVER AIRBAG RESISTANCE TOO HIGH (1ST STAGE)
DTC B1347 DRIVER AIRBAG RESISTANCE TOO LOW (1ST STAGE)

GENERAL DESCRIPTION EA592002

Driver Air bag module (hereinafter referred to DAB) located at center of steering wheel protects driver by reducing impact of collision. DAB is consist of air bag, pat cover and inflator. There are power, circuit for ignition, gas generator and diffuser screen in inflator. Air bag reduces impact of collision by fillied up gas. In collision, pat cover splits and through this crack, air bag emerges and deploys. Inflator generates gas that expands air bag. Clock spring is located between steering wheel and column. It connects SCSRM to DAB.

CAUTION

Never measure resistance of DAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION EC22B522

The SRSCM sets DTC B1346 if the measured resistance value of DAB circuit is more than the threshold value.
The SRSCM sets DTC B1347 if the measured resistance value of DAB circuit is less than the threshold value.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E537A925

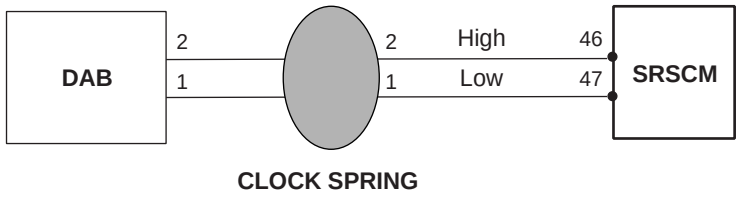
Item		Detecting Condition		Possible cause
DTC Strategy		• Check Resistance		• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty DAB. • Faulty Clock spring. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"		
Threshold Value		B1346	• DAB resistance ≥ 7.62 Ω	
		B1347	• DAB resistance ≤ 1.04Ω	
Diagnostic Time	Qualification	• More than 4 sec		
	De-Qualification	• More than 8 sec		

SPECIFICATION EF90C2F8

Test Condition	Resistance
Ignition OFF	1.91Ω < DAB resistance < 2.81Ω

SCHEMATIC DIAGRAM EB67FA1C

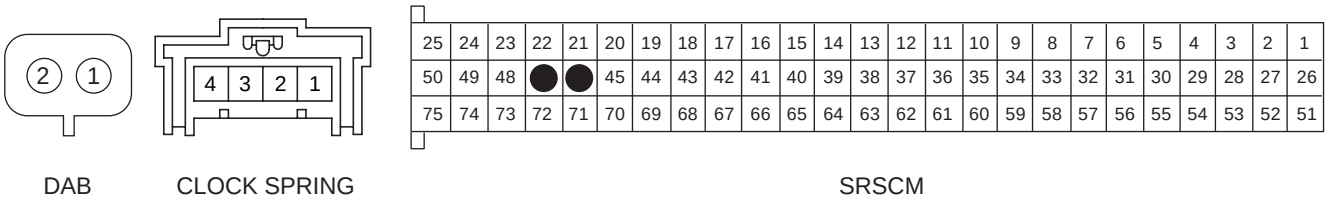
[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

Pin	Connected to	Function
2	SRSCM terminal 46	DAB High
1	SRSCM terminal 47	DAB Low

[HARNESS CONNECTORS]



SGHRT7320L

MONITOR SCANTOOL DATA E1E04D36

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

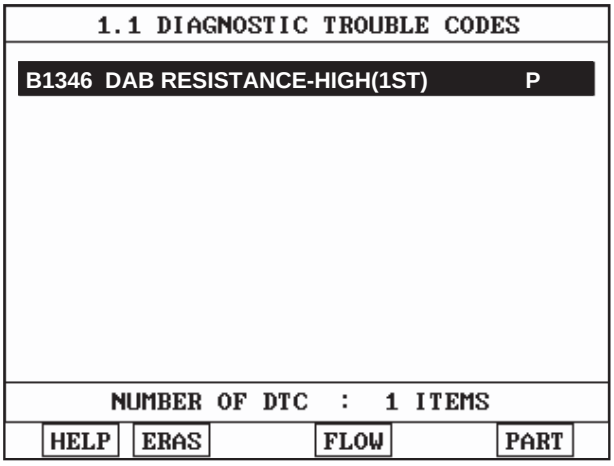


Fig.1

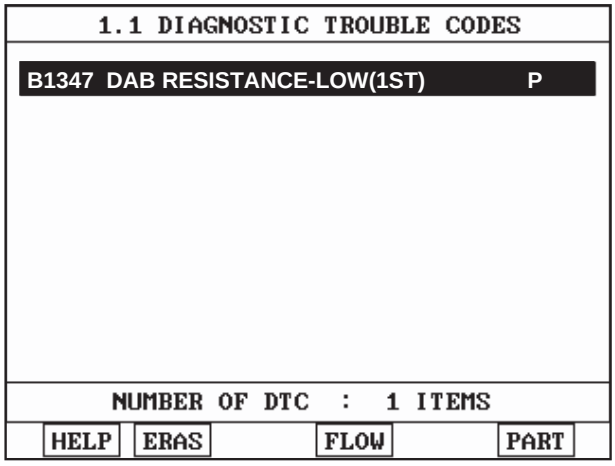


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7735N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EFFA1E37

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E2357E5F

1. Ignition "OFF"

2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.

3. Remove the DAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to DAB connector of the clock spring harness connector.

NOTE

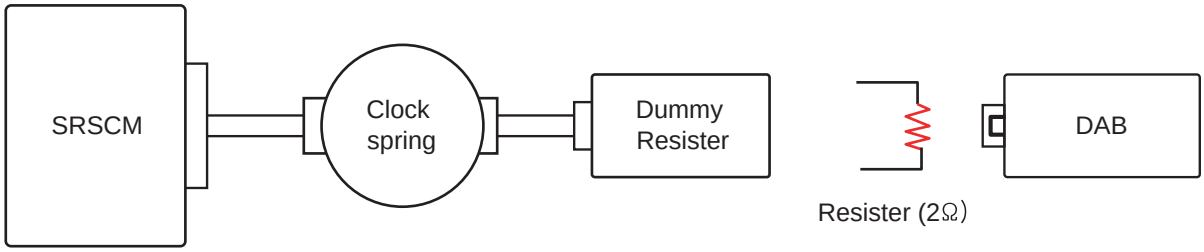
If dummy and dummy adaptor are not able to be prepared, use a known-good DAB or 2Ω resistor.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy .

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.

5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7238N

6. Is DTC present problem ?

YES

▶ Go to "Clock Spring Circuit Inspection" procedure.

NO

▶ Substitute a known-good DAB assembly, and check for proper operation.
If the problem is corrected, replace DAB and then go to "Verification of Vehicle Repair" procedure.

CLOCK SPRING CIRCUIT INSPECTION E678BBBA

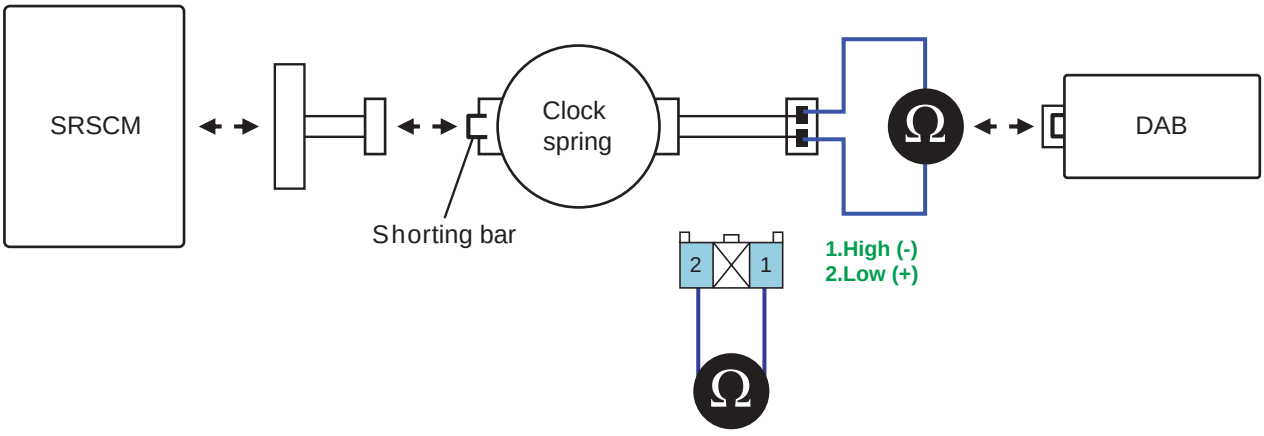
1. Ignition "OFF" .
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Remove DAB module and disconnect SRSCM connector of the clock spring harness.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy .

4. Measure resistance between terminal "1" and "2" of the Clock Spring harness connector.

■ Specification : approx. 1 Ω below



SGHRT7324N

5. Is the measured resistance within specifications?

YES

▶ Go to "Main harness circuit inspection" procedure.

NO

▶ Substitute the Clock spring and check for proper operation.
If the problem is corrected, replace Clock spring and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION ED991828

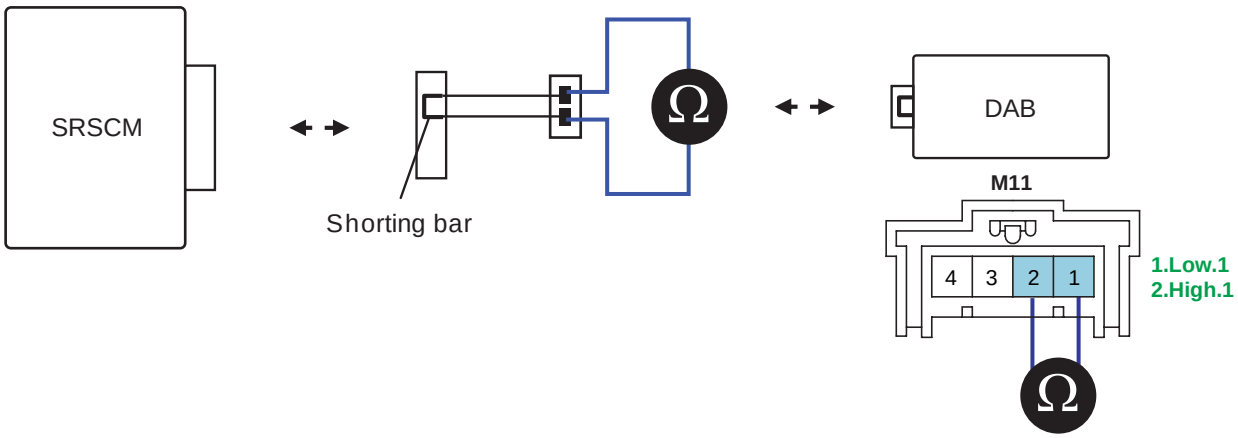
1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Remove DAB module and disconnect SRSCM connector of the clock spring harness.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy .

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

■ Specification : approx. 1 Ω below



SGHRT7322L

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E5877173

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1348 DRIVER AIRBAG RESISTANCE CIRCUIT SHORT TO GROUND(1ST STAGE)

GENERAL DESCRIPTION E3979DE7

Driver Air bag module (hereinafter referred to DAB) located at center of steering wheel protects driver by reducing impact of collision. DAB is consist of air bag, pat cover and inflator. There are power, circuit for ignition, gas generator and diffuser screen in inflator. Air bag reduces impact of collision by fillied up gas. In collision, pat cover splits and through this crack, air bag emerges and deploys. Inflator generates gas that expands air bag. Clock spring is located between steering wheel and column. It connects SCSRM to DAB.

CAUTION

Never measure resistance of DAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E7100493

The SRSCM sets DTC B1348 if there is a short to ground in DAB harness.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E9B313DC

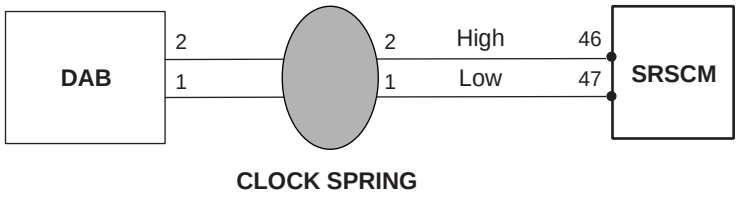
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in DAB harness. • Poor connection of connected part. • Faulty DAB. • Faulty Clock spring. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2㏀	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION EDA15AD0

Test Condition	Resistance
Ignition ON	RS >10㏀

SCHEMATIC DIAGRAM E8ED70B3

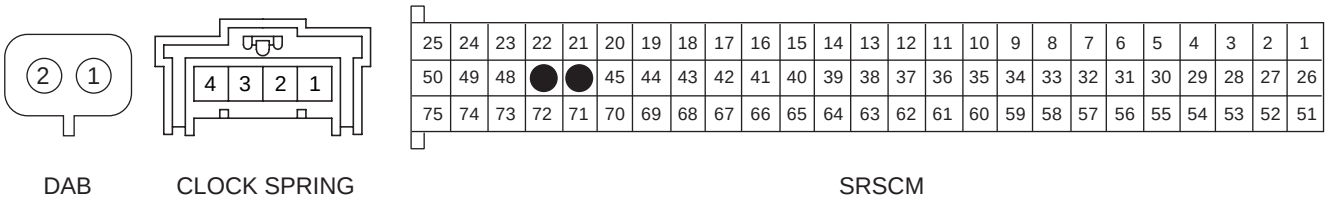
[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

Pin	Connected to	Function
2	SRSCM terminal 46	DAB High
1	SRSCM terminal 47	DAB Low

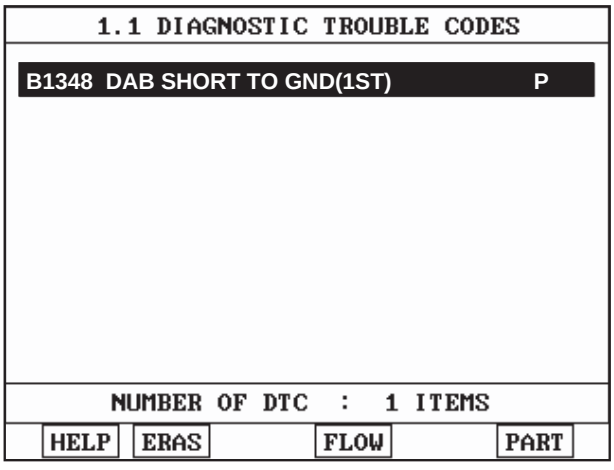
[HARNESS CONNECTORS]



SGHRT7320L

MONITOR SCANTOOL DATA EAFFFBC5

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7737L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION ED7366D0

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E914DC88

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Remove the DAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to DAB connector of the clock spring harness connector.

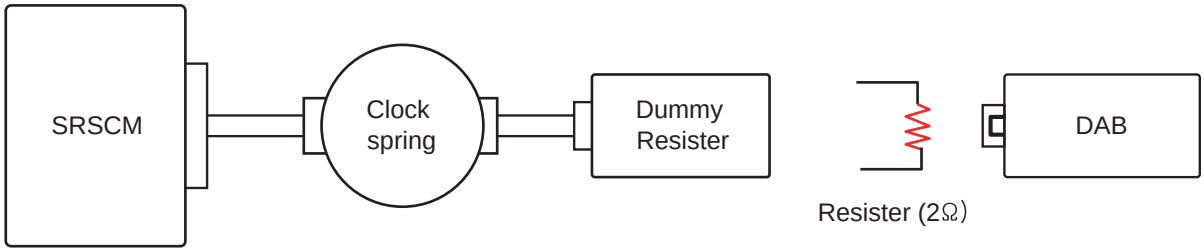
NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good DAB or 2Ω resistor.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7238N

6. Is DTC present problem ?

YES

▶ Go to "Clock Spring Circuit Inspection" procedure.

NO

▶ Substitute a known-good DAB assembly, and check for proper operation.
If the problem is corrected, replace PCAB and then go to "Verification of Vehicle Repair" procedure.

CLOCK SPRING CIRCUIT INSPECTION EA04EFE8

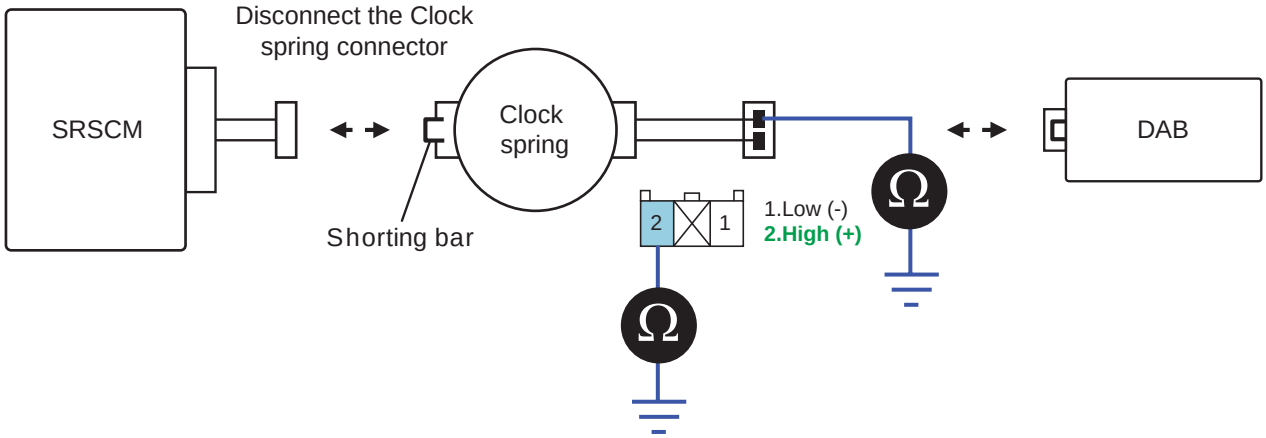
1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Remove DAB module and disconnect SRSCM connector of the clock spring harness.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy .

4. Measure resistance between terminal "1" or "2 "of the clock spring harness connector and chassis ground.

■ Specification : ∞



SGHRT7325N

5. Is the measured resistance within specifications?

YES

▶ Go to "Main harness circuit inspection" procedure.

NO

▶ Substitute the Clock spring and check for proper operation.
If the problem is corrected, replace Clock spring and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E249CB65

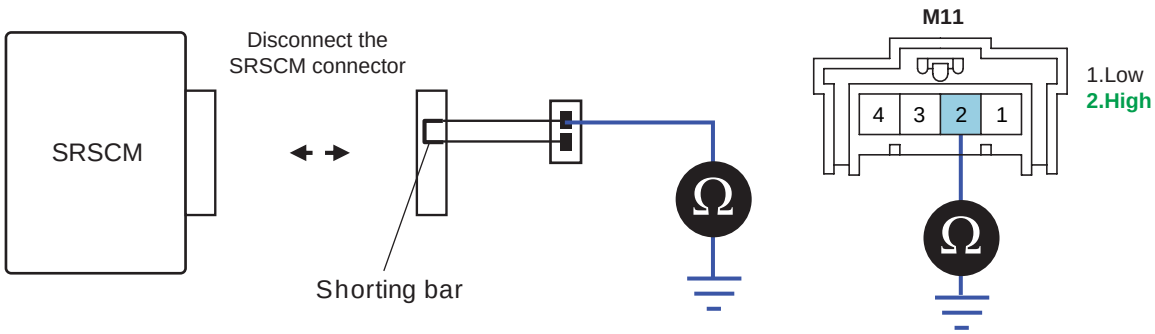
1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Remove DAB module and disconnect SRSCM connector of the clock spring harness.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy.

4. Measure resistance between terminal "1" or "2" of the DAB harness connector and chassis ground.

■ Specification : ∞



SGHRT7327L

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E7BEA011

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1349 DRIVER AIRBAG RESISTANCE CIRCUIT SHORT TO BATTERY(1ST STAGE)

GENERAL DESCRIPTION E117D677

Driver Air bag module (hereinafter referred to DAB) located at center of steering wheel protects driver by reducing impact of collision. DAB is consist of air bag, pat cover and inflator. There are power, circuit for ignition, gas generator and diffuser screen in inflator. Air bag reduces impact of collision by fillied up gas. In collision, pat cover splits and through this crack, air bag emerges and deploys. Inflator generates gas that expands air bag. Clock spring is located between steering wheel and column. It connects SCSRM to DAB.

CAUTION

Never measure resistance of DAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION EDDCC28A

The SRSCM sets DTC B1349 if there is a short to power in DAB harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION EEA48A40

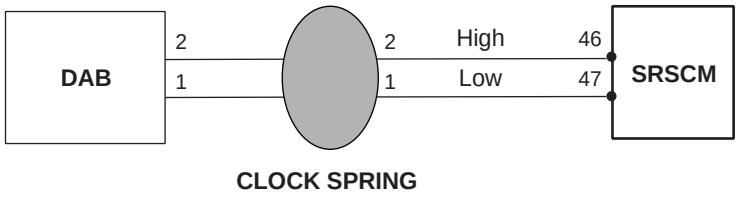
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to power in DAB harness. • Poor connection of connected part. • Faulty DAB. • Faulty Clock spring. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2kΩ	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION EF06CBD9

Test Condition	Resistance
Ignition ON	RS > 10kΩ

SCHEMATIC DIAGRAM E7B4E7B8

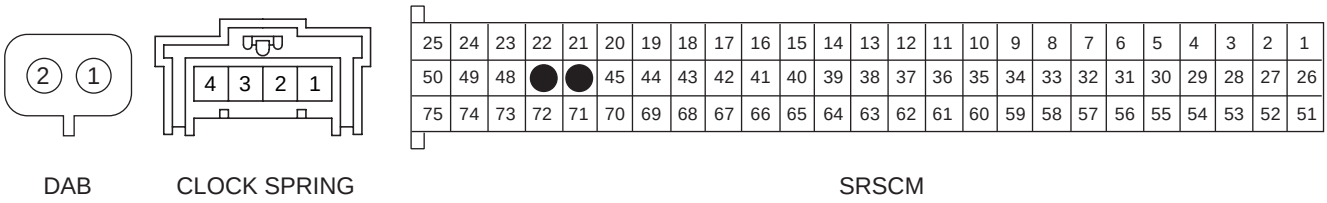
[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

Pin	Connected to	Function
2	SRSCM terminal 46	DAB High
1	SRSCM terminal 47	DAB Low

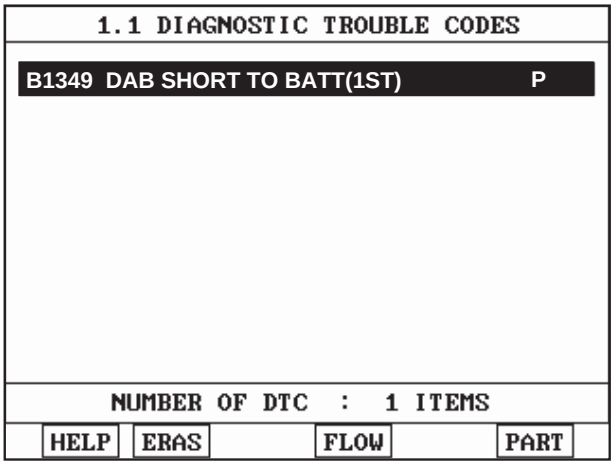
[HARNESS CONNECTORS]



SGHRT7320L

MONITOR SCANTOOL DATA EC14F9CA

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7738L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E9995921

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E71CC9A1

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Remove the DAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to DAB connector of the clock spring harness connector.

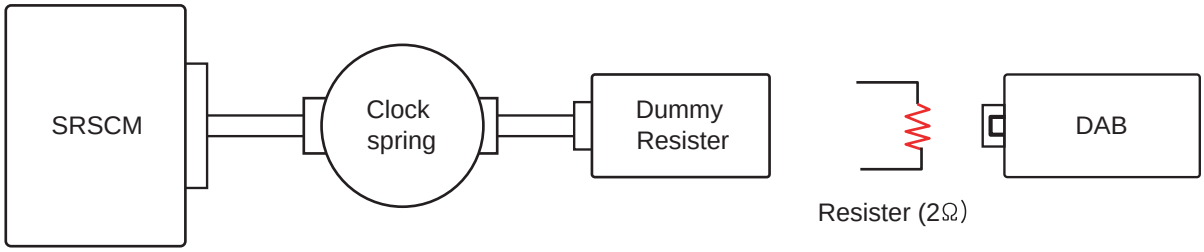
NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good DAB or 2Ω resistor.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7238N

6. Is DTC present problem ?

YES

▶ Go to "Clock Spring Circuit Inspection" procedure.

NO

▶ Substitute a known-good DAB assembly, and check for proper operation.
If the problem is corrected, replace DAB and then go to "Verification of Vehicle Repair" procedure.

CLOCK SPRING CIRCUIT INSPECTION E702A10E

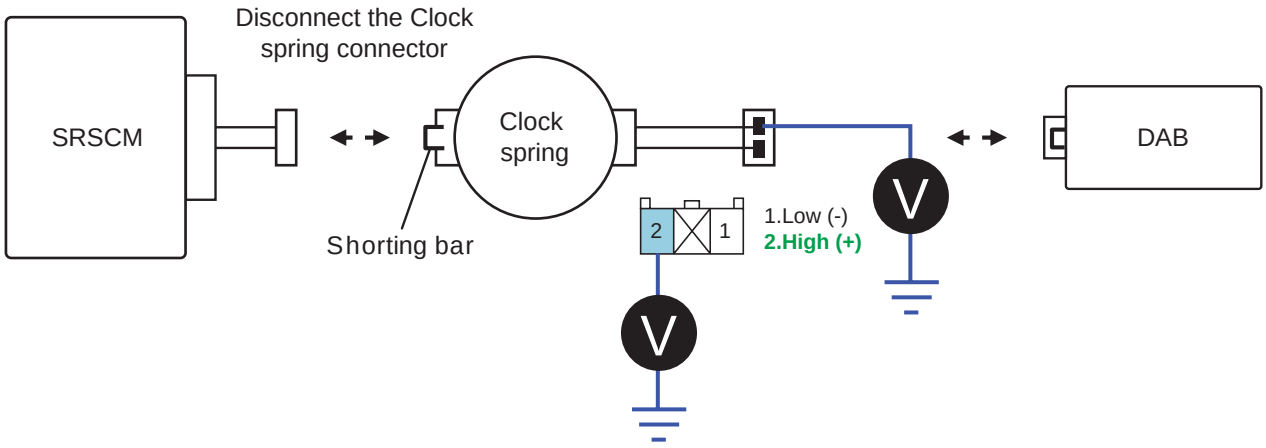
1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Remove DAB module and disconnect SRSCM connector of the clock spring harness.

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy .

4. Ignition "ON" & Engine "OFF".
5. Measure voltage between terminal "1" or "2 "of the clock spring harness connector and chassis ground.

■ Specification : 0V



SGHRT7329L

6. Is the measured voltage within specifications?

YES

▶ Go to "Main harness circuit inspection" procedure.

NO

▶ Substitute the Clock spring and check for proper operation.
If the problem is corrected, replace Clock spring and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION EF4EBBAA

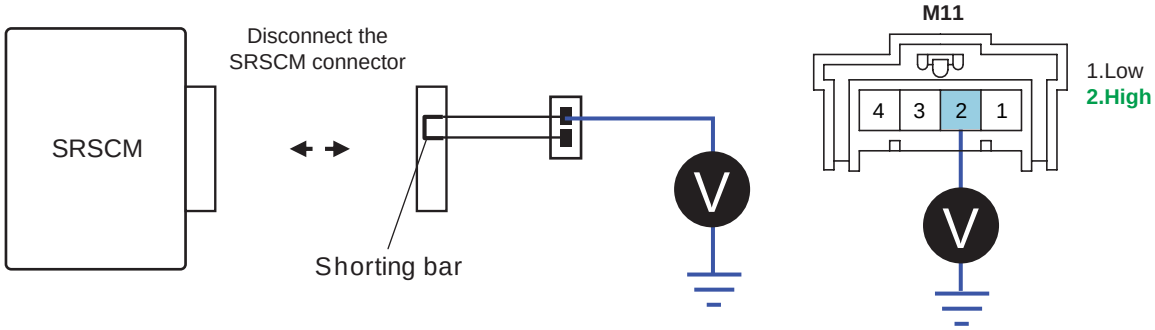
1. Ignition "OFF" and wait at least one minutes.
2. Remove DAB module and disconnect SRSCM connector of the main harness.
3. Ignition "ON" & Engine "OFF".

WARNING

Lay Removed DAB facing upward for unexpected air bag deploy.

4. Measure voltage between terminal "1" or "2" of the DAB harness connector and chassis ground.

■ Specification : approx. 0V



SGHRT7321L

5. Is the measured voltage within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E7C6267A

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1352 PASSENGER AIRBAG RESISTANCE TOO HIGH (1ST STAGE)
DTC B1353 PASSENGER AIRBAG RESISTANCE TOO LOW (1ST STAGE)

GENERAL DESCRIPTION EEAC7CD6

Passenger Air bag module (hereinafter referred to PAB) located at passenger side crush pad protects passenger by reducing impact of collision. PAB is consist of air bag, pat cover and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of PAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E3DAC8FA

The SRSCM sets DTC B1352 if the measured resistance value of PAB circuit is more than the threshold value.
The SRSCM sets DTC B1353 if the measured resistance value of PAB circuit is less than the threshold value.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E1ACE642

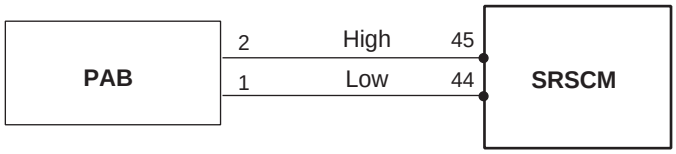
Item		Detecting Condition		Possible cause
DTC Strategy		• Check Resistance		• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty PAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"		
Threshold Value		B1352	• PAB resistance ≥ 7.62Ω	
		B1353	• PAB resistance ≤ 1.21Ω	
Diagnostic Time	Qualification	• More than 4 sec		
	De-Qualification	• More than 8 sec		

SPECIFICATION E8A26329

Test Condition	Resistance
Ignition OFF	1.77Ω < PAB resistance < 2.37Ω

SCHEMATIC DIAGRAM E51D8731

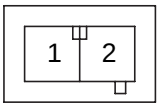
[CIRCUIT DIAGRAM]



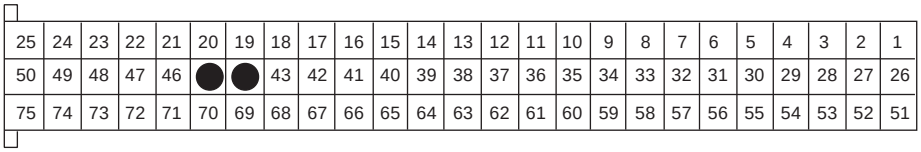
[CONNECTION INFORMATION]

Pin	Connected to	Function
1	SRSCM terminal 44	PAB Low
2	SRSCM terminal 45	PAB High

[HARNESS CONNECTORS]



Passenger Airbag



SRSCM

SGHRT7330L

MONITOR SCANTOOL DATA EB086A5C

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

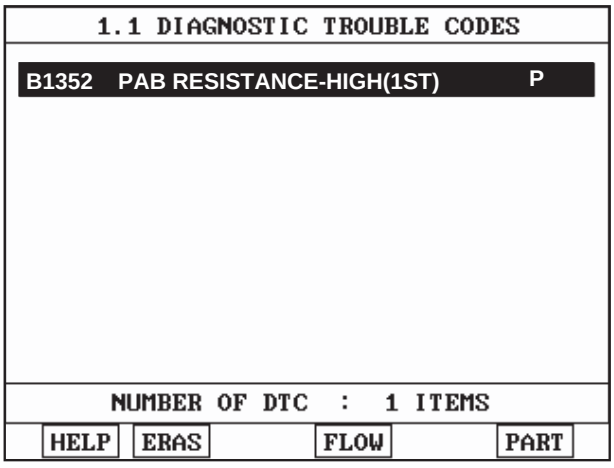


Fig.1

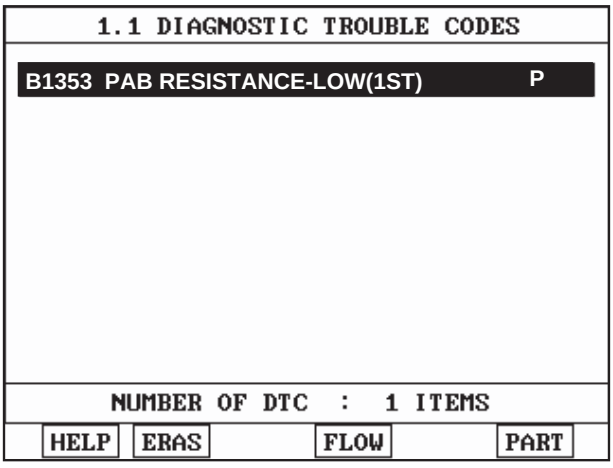


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7740N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EFCE8FF0

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E80D433B

1. Ignition "OFF"
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Remove the PAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38300) to PAB harness connector.

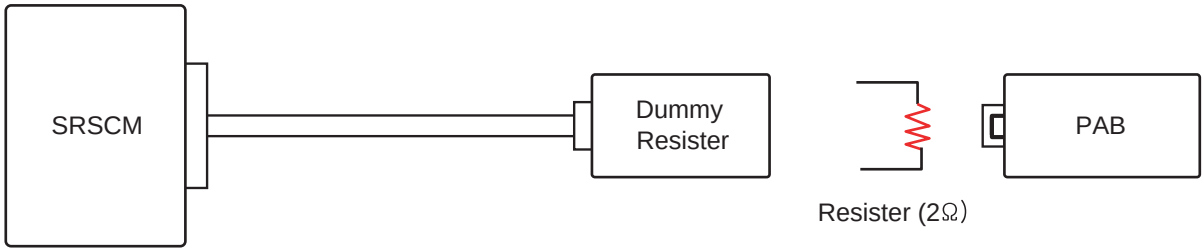
NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good PAB or 2Ω resistor.

WARNING

Lay Removed PAB facing upward for unexpected air bag deploy .

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7249N

6. Is DTC present problem ?

YES

▶ Go to "Main harness circuit inspection" procedure.

NO

▶ Substitute a known-good PAB assembly, and check for proper operation.
If the problem is corrected, replace PAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION EA2E26BD

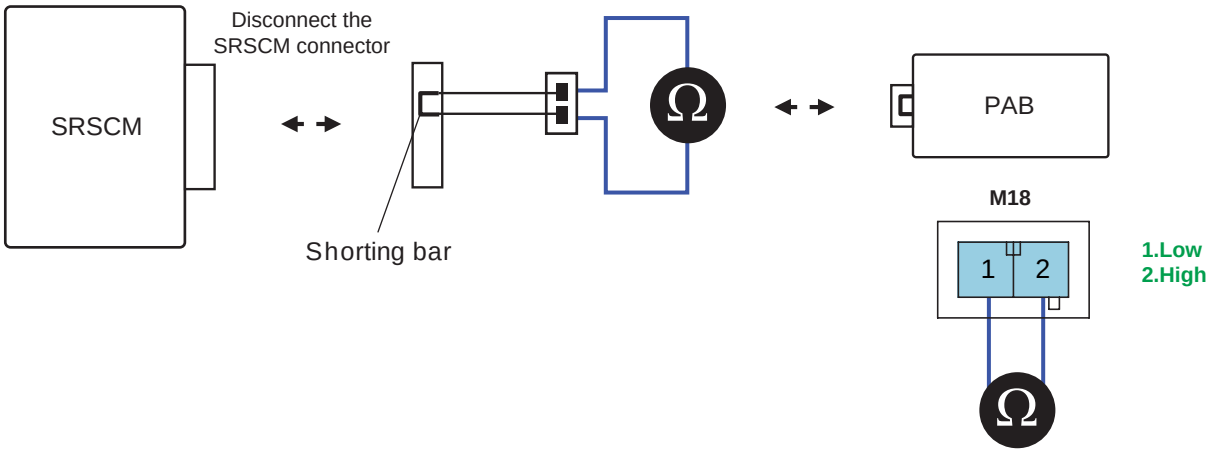
1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes..
3. Disconnect PAB connector and SRSCM main harness connector.

WARNING

Lay Removed PAB facing upward for unexpected air bag deploy .

4. Measure resistance between terminal "1 or 2" of the PAB harness connector and chassis ground.

■ Specification : approx. 1 Ω below



SGHRT7334L

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E3F89B3B

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1354 PASSENGER AIRBAG RESISTANCE CIRCUIT SHORT TO GROUND(1ST STAGE)

GENERAL DESCRIPTION E56851CF

Passenger Air bag module (hereinafter referred to PAB) located at passenger side crush pad protects passenger by reducing impact of collision. PAB is consist of air bag, pat cover and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of PAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E7CCDC42

The SRSCM sets DTC B1354 if there is a short to ground in PAB harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION ED1C16E1

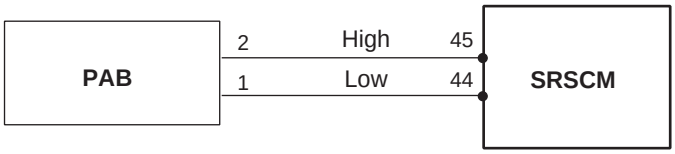
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in PAB harness. • Poor connection of connected part • Faulty PAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2㏀	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E1D627DC

Test Condition	Resistance
Ignition ON	RS > 10㏀

SCHEMATIC DIAGRAM E4947DF7

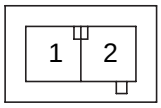
[CIRCUIT DIAGRAM]



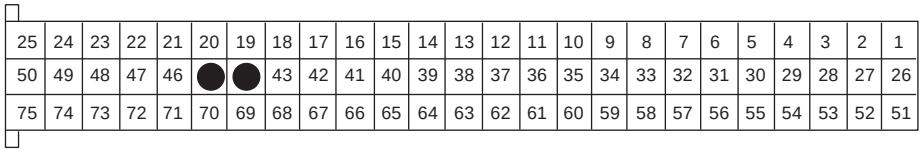
[CONNECTION INFORMATION]

Pin	Connected to	Function
1	SRSCM terminal 44	PAB Low
2	SRSCM terminal 45	PAB High

[HARNESS CONNECTORS]



Passenger Airbag

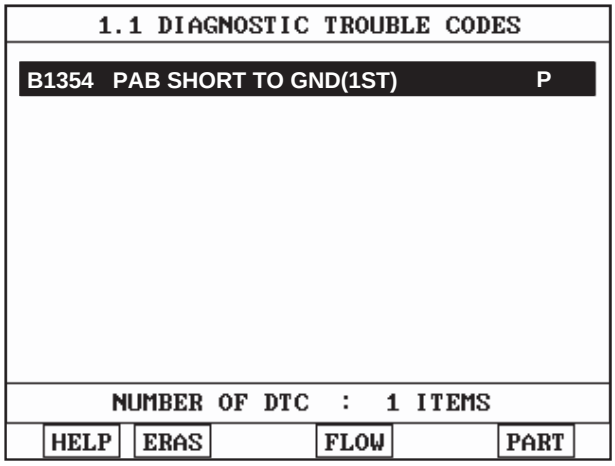


SRSCM

SGHRT7330L

MONITOR SCANTOOL DATA E1827834

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7742L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E853E50D

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E71F2BB2

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Remove the PAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38300) to PAB harness connector.

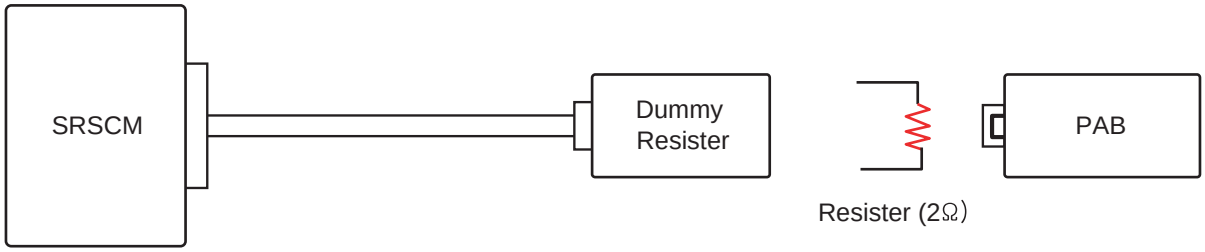
NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good PAB or 2Ω resistor.

WARNING

Lay Removed PAB facing upward for unexpected air bag deploy.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7249N

6. Is DTC present problem ?

YES

▶ Go to "Main harness circuit inspection" procedure.

NO

▶ Substitute a known-good PAB assembly, and check for proper operation.
If the problem is corrected, replace PAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E5637613

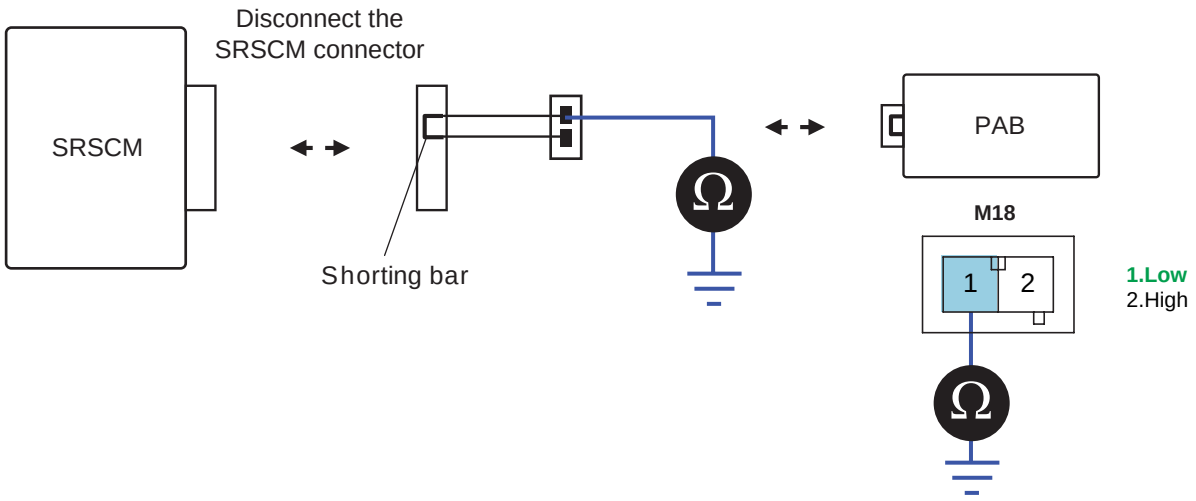
1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PAB connector and SRSCM main harness connector.

WARNING

Lay Removed PAB facing upward for unexpected air bag deploy.

4. Measure resistance between terminal "1" or "2" of the PAB harness connector and chassis ground.

■ Specification : ∞



SGHRT7335L

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E2A4D364

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1355 PASSENGER AIRBAG RESISTANCE CIRCUIT SHORT TO BATTERY(1ST STAGE)

GENERAL DESCRIPTION E8AA1E1D

Passenger Air bag module (hereinafter referred to PAB) located at passenger side crush pad protects passenger by reducing impact of collision. PAB is consist of air bag, pat cover and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of PAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E83B2C57

The SRSCM sets DTC B1355 if there is a short to power in PAB harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E9EAD928

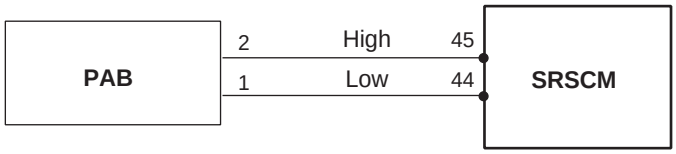
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in PAB harness. • Poor connection of connected part • Faulty PAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2kΩ	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E1BEC9B8

Test Condition	Resistance
Ignition ON	RS >10kΩ

SCHEMATIC DIAGRAM E7CF72B0

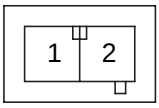
[CIRCUIT DIAGRAM]



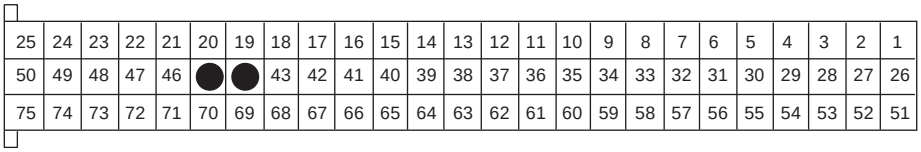
[CONNECTION INFORMATION]

Pin	Connected to	Function
1	SRSCM terminal 44	PAB Low
2	SRSCM terminal 45	PAB High

[HARNESS CONNECTORS]



Passenger Airbag

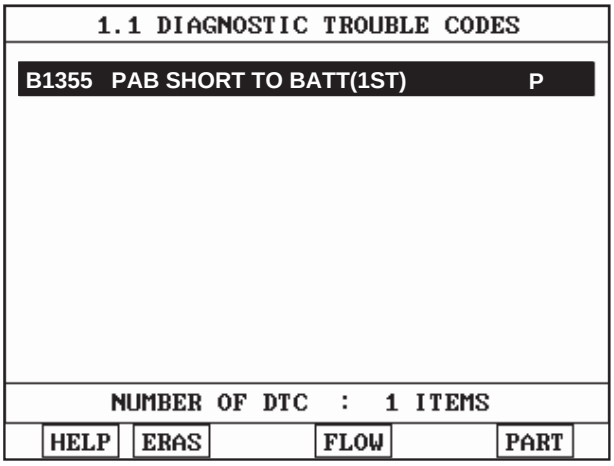


SRSCM

SGHRT7330L

MONITOR SCANTOOL DATA EE03DB1E

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7743L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E229EB10

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E600D08F

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Remove the PAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38300) to PAB harness connector.

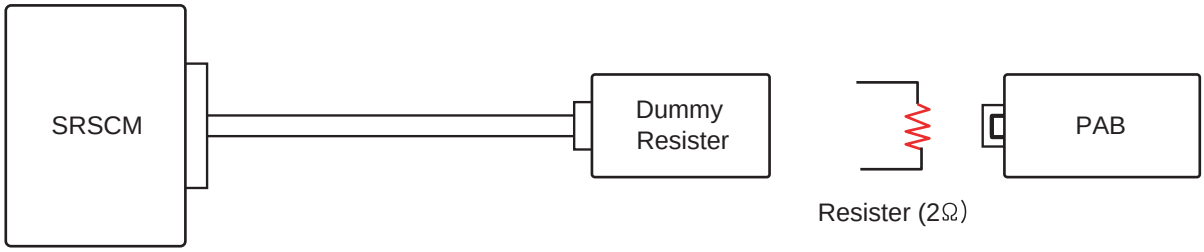
NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good PAB or 2Ω resistor.

WARNING

Lay Removed PAB facing upward for unexpected air bag deploy.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7249N

6. Is DTC present problem ?

YES

▶ Go to "Main harness circuit inspection" procedure.

NO

▶ Substitute a known-good PAB assembly, and check for proper operation.
If the problem is corrected, replace PAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E8ED3910

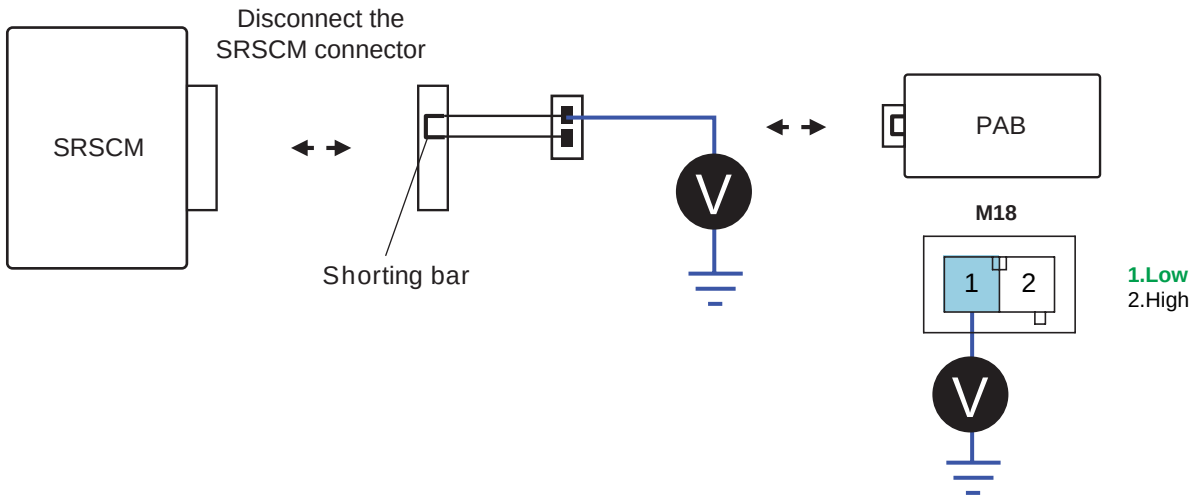
1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PAB connector and SRSCM main harness connector.

WARNING

Lay Removed PAB facing upward for unexpected air bag deploy.

4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & Engine "OFF".
5. Measure voltage between terminal "1" or "2" of the PAB harness connector and chassis ground.

■ Specification : approx. 0V



SGHRT7336L

6. Is the measured voltage within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EE8587BB

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1361 PRETENSIONER FRONT-DRIVER RESISTANCE TOO HIGH
DTC B1362 PRETENSIONER FRONT-DRIVER RESISTANCE TOO LOW
DTC B1367 PRETENSIONER FRONT-PASSENGER RESISTANCE TOO HIGH
DTC B1368 PRETENSIONER FRONT-PASSENGER RESISTANCE TOO LOW

GENERAL DESCRIPTION E7E48746

Seat Belt Pretensioner(hereinafter referred to BPT) is located at both side of center pillar. BPT tightens seat belt before air bag deploys to protect passenger from bumping against crush pad, steering wheel and front window. In BPT, there are a ignition circuit and cylinder for rewinding belt. Cylinder has piston that can rewind seat belt in it. Gas chamber generates expansive force of gases to push piston in cylinder.

CAUTION

Never measure resistance of BPT directly, Current of measuring device may cause unexpected BPT depoy.

DTC DESCRIPTION E38600CF

The SRSCM sets DTC B1361/B1367 if the measured resistance value of DBPT/PBPT circuit is more than the threshold value.
The SRSCM sets DTC B1362/B1368 if the measured resistance value of DBPT/PBPT circuit is less than the threshold value.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E6FBE8B9

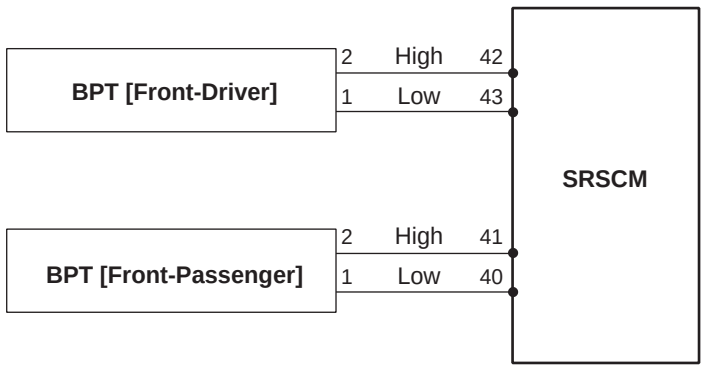
<table>
<tr><th colspan="2">Item</th><th colspan="2">Detecting Condition</th><th>Possible cause</th></tr>
<tr><td colspan="2">DTC Strategy</td><td colspan="2">• Check Resistance</td><td rowspan="5">• Poor connection of connected part.
• Poor connection between shorting bar and release pin.
• Faulty BPT.
• Faulty SRSCM.</td></tr>
<tr><td colspan="2">Enable Conditions</td><td colspan="2">• Ignition "ON"</td></tr>
<tr><td colspan="2" rowspan="2">Threshold Value</td><td>B1361
B1367</td><td>• BPT resistance ≥ 7.62Ω</td></tr>
<tr><td>B1362
B1368</td><td>• BPT resistance ≤ 1.21Ω</td></tr>
<tr><td rowspan="2">Diagnostic Time</td><td>Qualification</td><td colspan="2">• More than 4 sec</td></tr>
<tr><td>De-Qualification</td><td colspan="2">• More than 8 sec</td></tr>
</table>

SPECIFICATION E1BE6085

Test Condition	Resistance
Ignition OFF	1.93Ω < DBPT resistance < 2.53Ω 1.92Ω < PBPT resistance < 2.52Ω

SCHEMATIC DIAGRAM EB5F3484

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

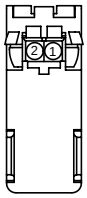
BPT [FRONT-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 43	BPT Low
2	SRSCM terminal 42	BPT High

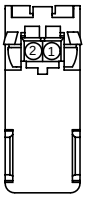
BPT [FRONT-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 40	BPT Low
2	SRSCM terminal 41	BPT High

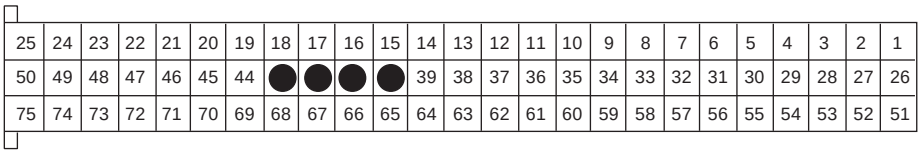
[HARNESS CONNECTORS]



BPT [Front-Driver]



BPT [Front-Passenger]



SRSCM

SGHRT7340N

MONITOR SCANTOOL DATA EB4DAE04

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

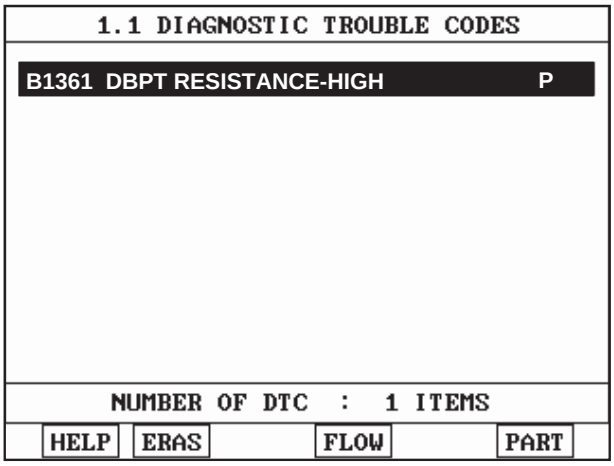


Fig. 1

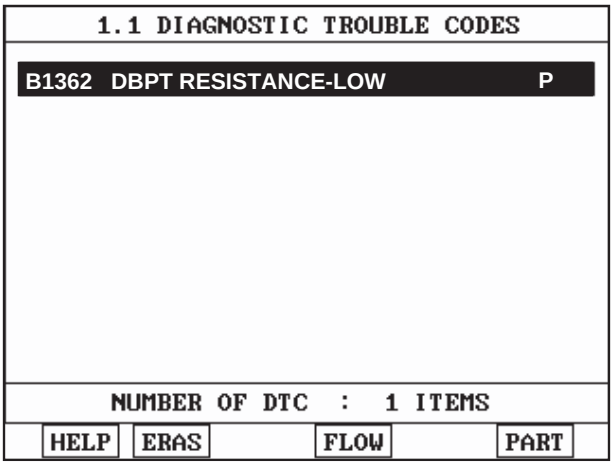


Fig. 2

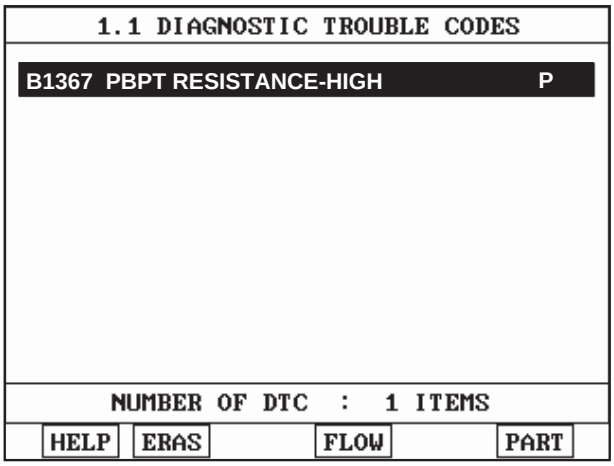


Fig. 3

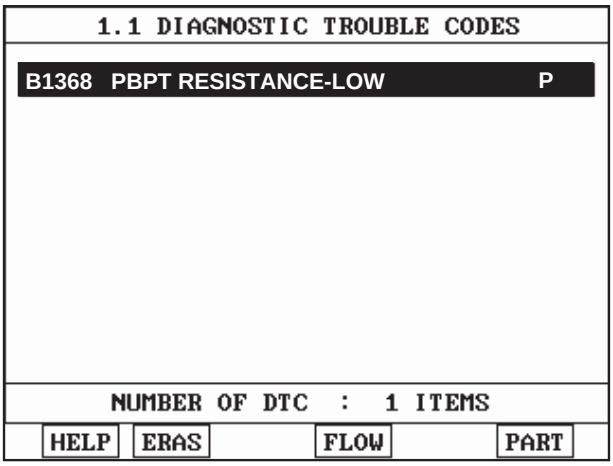


Fig. 4

Note) - H : Historical fault
- P : Present fault

SGHRT7749N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EC4FC40E

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
   Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

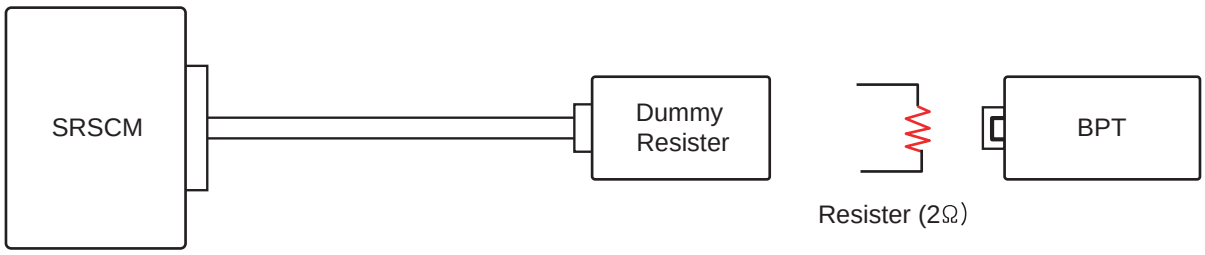
SQUIB CIRCUIT INSPECTION EDAD92F6

1. Ignition "OFF"
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect BPT module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to main harness connector.

NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good BPT or 2Ω resistor.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7257N

6. Is DTC present problem ?

YES

▶ Go to "Main harness circuit inspection" procedure.

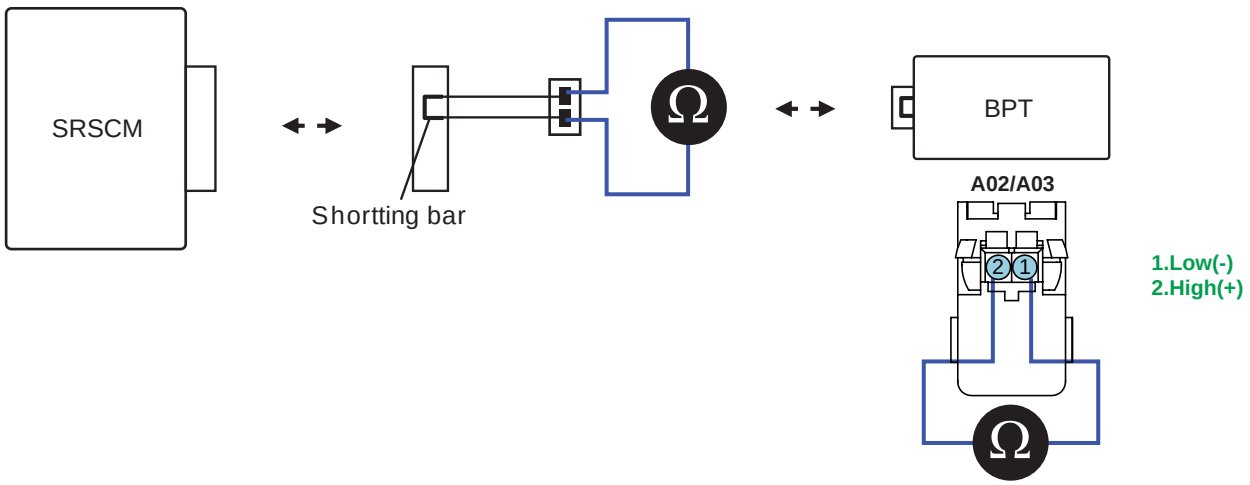
NO

▶ Substitute a known-good BPT assembly, and check for proper operation.
If the problem is corrected, replace BPT and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E43CBFCA

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect BPT connector and SRSCM main harness connector.
4. Measure resistance between terminal "2" and "1" of the BPT harness connector.

■ Specification : approx. 1 Ω below



SGHRT7341N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E8FB9681

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1363 PRETENSIONER FRONT-DRIVER RESISTANCE CIRCUIT SHORT TO GROUND
DTC B1369 PRETENSIONER FRONT-PASSENGER RESISTANCE CIRCUIT SHORT TO GROUND

GENERAL DESCRIPTION EB4C87EA

Seat Belt Pretensioner(hereinafter referred to BPT) is located at both side of center pillar. BPT tightens seat belt before air bag deploys to protect passenger from bumping against crush pad, steering wheel and front window. In BPT, there are a ignition circuit and cylinder for rewinding belt. Cylinder has piston that can rewind seat belt in it. Gas chamber generates expansive force of gases to push piston in cylinder.

CAUTION

Never measure resistance of BPT directly, Current of measuring device may cause unexpected BPT depoy.

DTC DESCRIPTION E90AF185

The SRSCM sets DTC B1363/B1369 if there is a short to ground in DBPT/PBPT harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E5239277

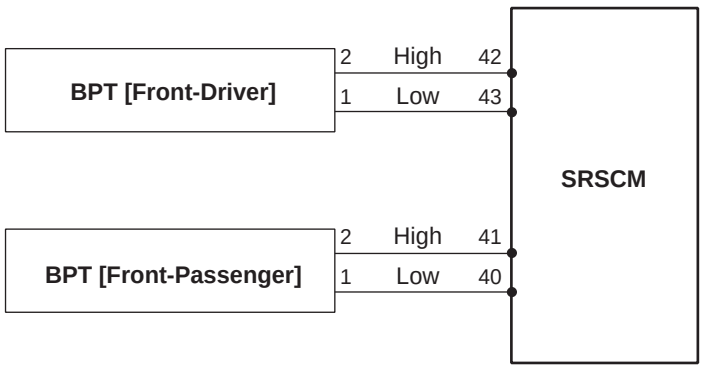
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in BPT harness. • Poor connection of connected part. • Faulty BPT. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2kΩ	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION EFA02A13

Test Condition	Resistance
Ignition ON (Closed circuit)	Rs > 10 kΩ

SCHEMATIC DIAGRAM E8506086

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

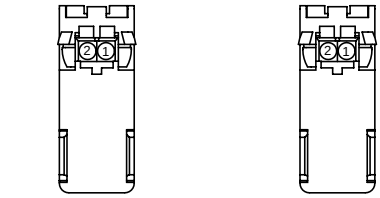
BPT [FRONT-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 43	BPT Low
2	SRSCM terminal 42	BPT High

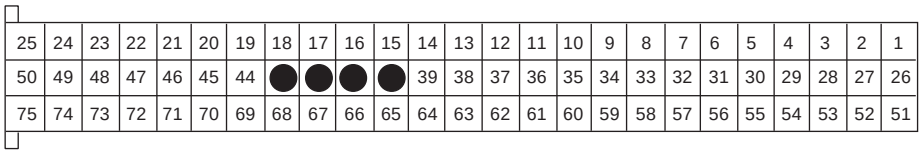
BPT [FRONT-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 40	BPT Low
2	SRSCM terminal 41	BPT High

[HARNESS CONNECTORS]



BPT [Front-Driver] BPT [Front-Passenger]



SRSCM

SGHRT7340N

MONITOR SCANTOOL DATA EADC08D6

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

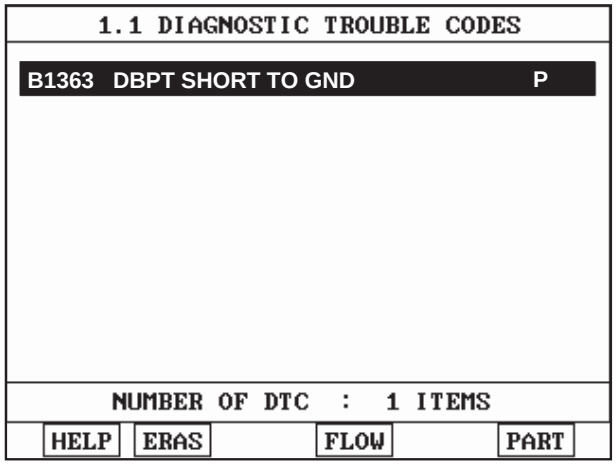


Fig. 1

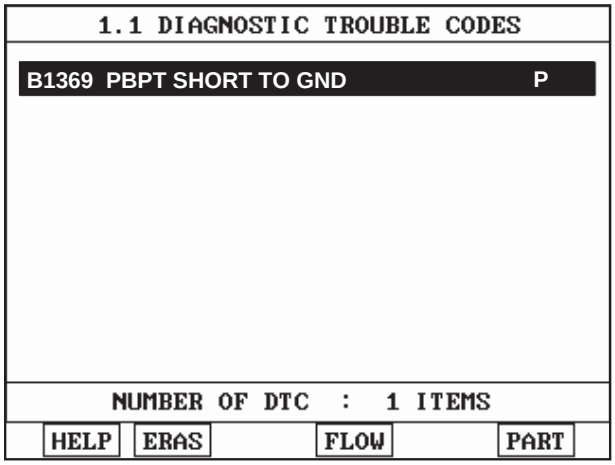


Fig. 2

Note) - H : Historical fault
- P : Present fault

SGHRT7751N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E31399AB

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

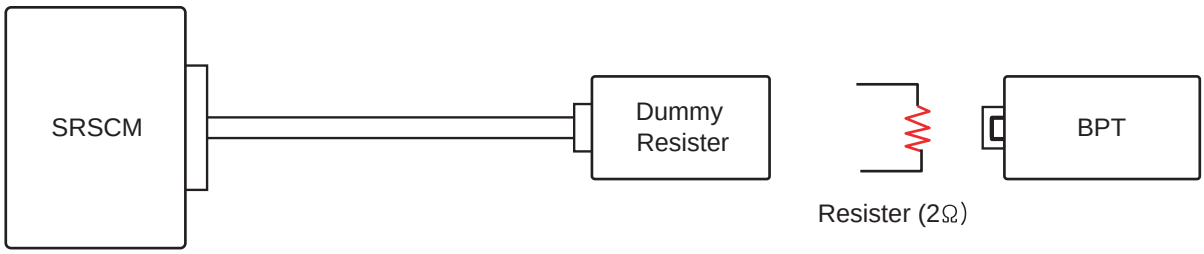
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION EB2703A2

1. Ignition "OFF"
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect BPT module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good BPT or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7257N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

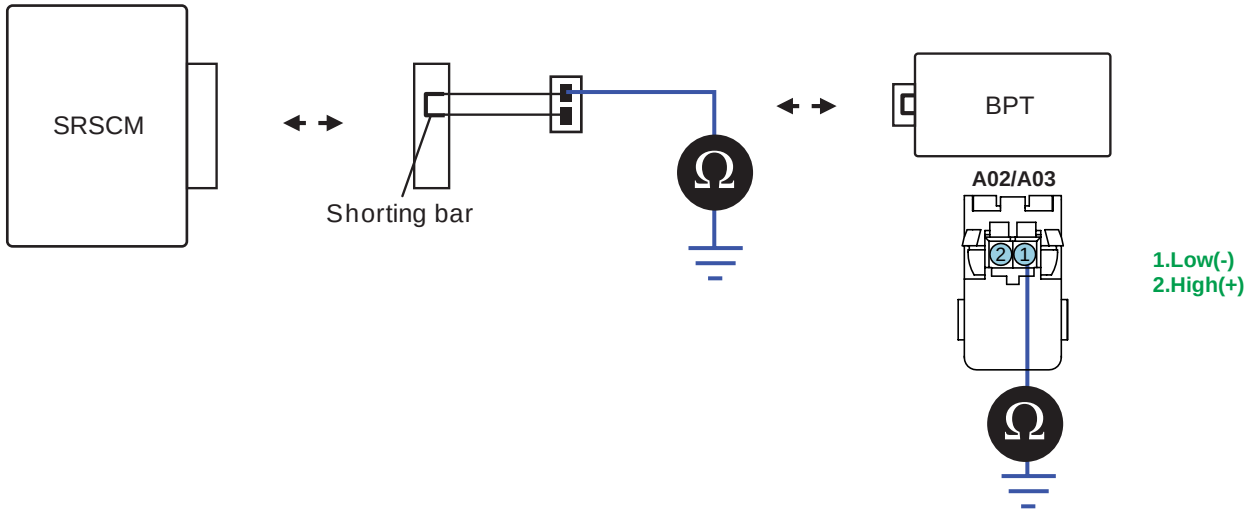
   ▶ Substitute a known-good BPT assembly, and check for proper operation.
   If the problem is corrected, replace BPT and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E209E517

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect BPT connector and SRSCM main harness connector.

4. Measure resistance between terminal "1" or "2" of the BPT harness connector and chassis ground.

■ Specification : ∞



SGHRT7342N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E3E70E6E

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1364 PRETENSIONER FRONT-DRIVER RESISTANCE CIRCUIT SHORT TO BATTERY
DTC B1370 PRETENSIONER FRONT-PASSENGER RESISTANCE CIRCUIT SHORT TO BATTERY

GENERAL DESCRIPTION EB241B85

Seat Belt Pretensioner(hereinafter referred to BPT) is located at both side of center pillar. BPT tightens seat belt before air bag deploys to protect passenger from bumping against crush pad, steering wheel and front window. In BPT, there are a ignition circuit and cylinder for rewinding belt. Cylinder has piston that can rewind seat belt in it. Gas chamber generates expansive force of gases to push piston in cylinder.

CAUTION

Never measure resistance of BPT directly, Current of measuring device may cause unexpected BPT depoy.

DTC DESCRIPTION EBE8821F

The SRSCM sets DTC B1364/B1370 if there is a short to power in DBPT/PBPT harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION EC37B0E6

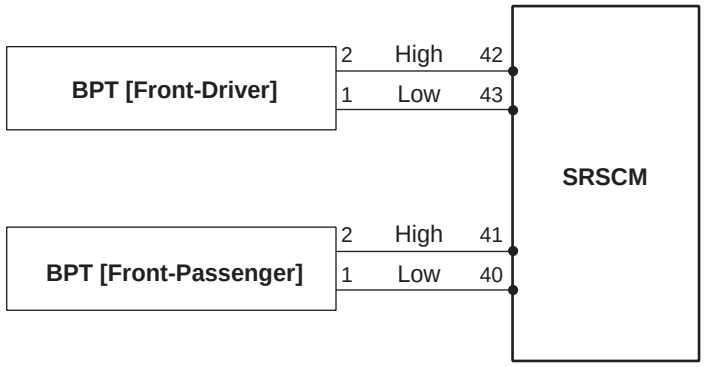
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in BPT harness. • Poor connection of connected part. • Faulty BPT. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2kΩ	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E46924E6

Test Condition	Resistance
Ignition ON (Closed circuit)	RS > 10kΩ

SCHEMATIC DIAGRAM EAE1E31B

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

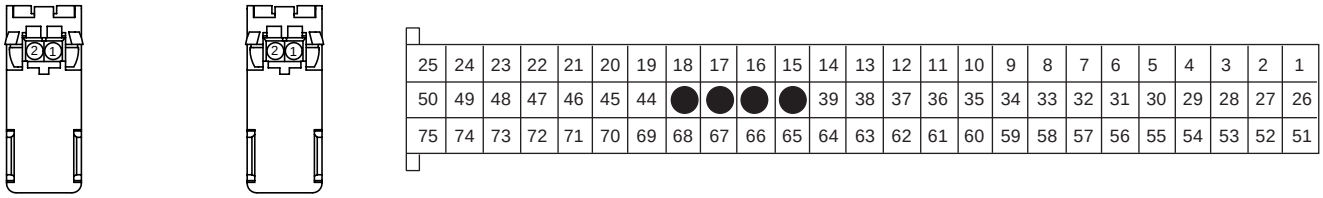
BPT [FRONT-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 43	BPT Low
2	SRSCM terminal 42	BPT High

BPT [FRONT-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 40	BPT Low
2	SRSCM terminal 41	BPT High

[HARNESS CONNECTORS]



SGHRT7340N

MONITOR SCANTOOL DATA EEF61159

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

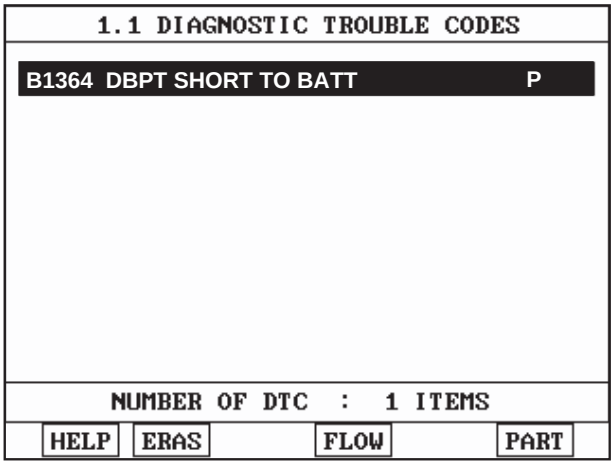


Fig. 1

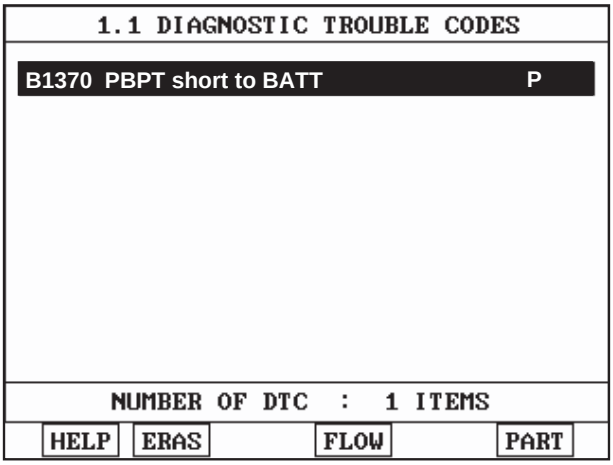


Fig. 2

Note) - H : Historical fault
- P : Present fault

SGHRT7752N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E8B184C9

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

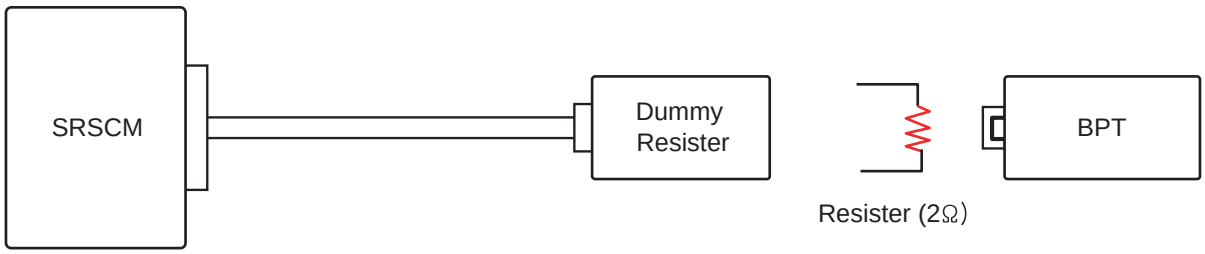
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E4C5CEAD

1. Ignition "OFF"
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect BPT module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good BPT or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7257N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

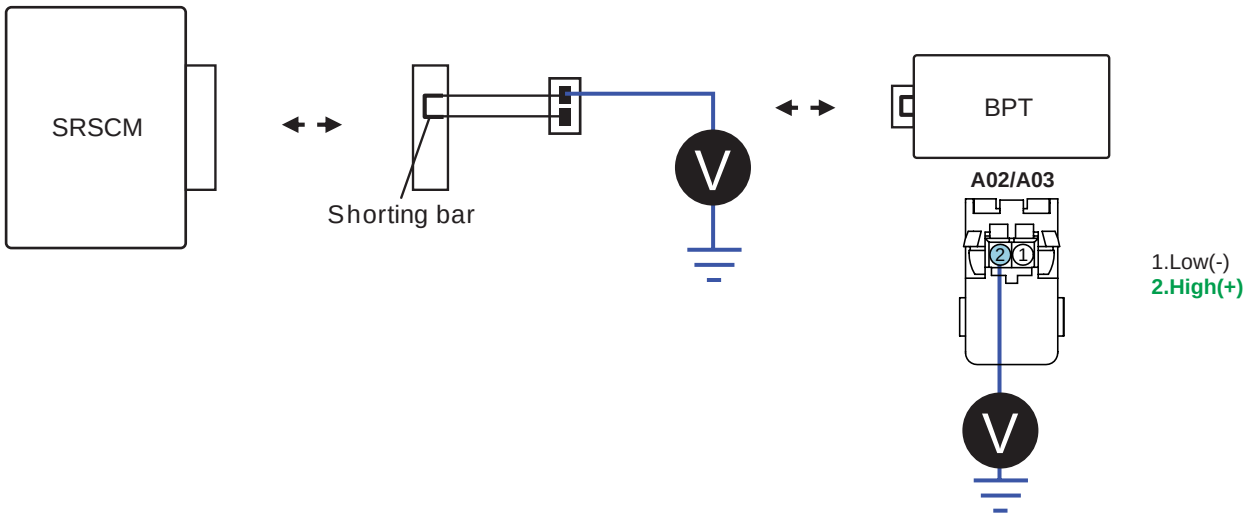
   ▶ Substitute a known-good BPT assembly, and check for proper operation.
   If the problem is corrected, replace BPT and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION ED5C553F

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect BPT connector and SRSCM main harness connector.
4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & "OFF".

5. Measure voltage between terminal "1" or "2" of the BPT harness connector and chassis ground.

■ Specification : approx. 0V



SGHRT7343N

6. Is the measured voltage within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E57263CD

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1378 SIDE AIRBAG FRONT-DRIVER RESISTANCE TOO HIGH
DTC B1379 SIDE AIRBAG FRONT-DRIVER RESISTANCE TOO LOW
DTC B1382 SIDE AIRBAG FRONT-PASSENGER RESISTANCE TOO HIGH
DTC B1383 SIDE AIRBAG FRONT-PASSENGER RESISTANCE TOO LOW

GENERAL DESCRIPTION E9CD620A

Side Airbag (hereinafter referred to SAB) located in driver and passenger seat protects passenger's head and shoulder. SAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of SAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION ED046A5F

The SRSCM sets DTC B1378/B1382 if the measured resistance value of DSAB/PSAB circuit is more than the threshold value.
The SRSCM sets DTC B1379/B1383 if the measured resistance value of DSAB/PSAB circuit is less than the threshold value.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E8FEA107

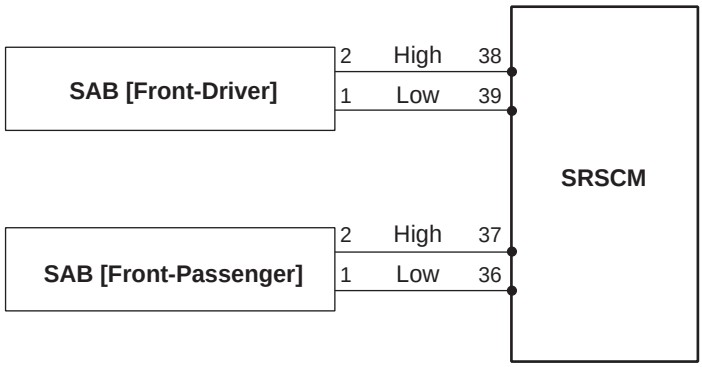
Item		Detecting Condition		Possible cause
DTC Strategy		• Check Resistance		• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty SAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"		
Threshold Value		B1378 B1382	• SAB resistance ≥ 5.75Ω	
		B1379 B1383	• SAB resistance ≤ 1.3Ω	
Diagnostic Time	Qualification	• More than 4 sec		
	De-Qualification	• More than 8 sec		

SPECIFICATION E8639D75

Test Condition	Resistance
Ignition OFF	1.84Ω < PSAB resistance < 2.44Ω 1.85Ω < DSAB resistance < 2.45Ω

SCHEMATIC DIAGRAM E4A17D4A

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

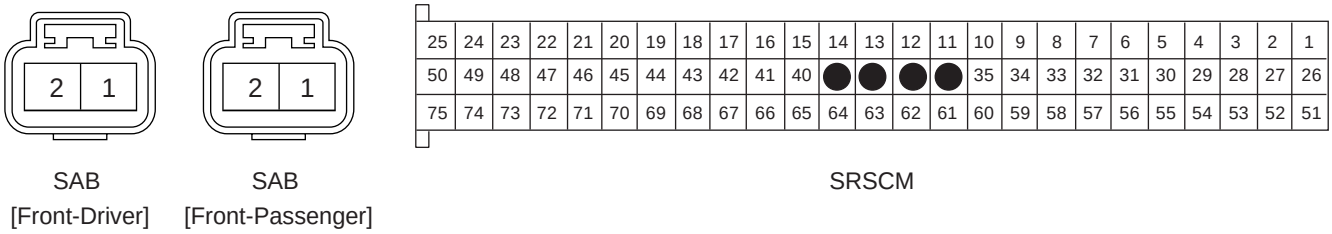
SAB [FRONT-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 39	SAB Low
2	SRSCM terminal 38	SAB High

SAB [FRONT-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 36	SAB Low
2	SRSCM terminal 37	SAB High

[HARNESS CONNECTORS]



SGHRT7350N

MONITOR SCANTOOL DATA E274686D

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

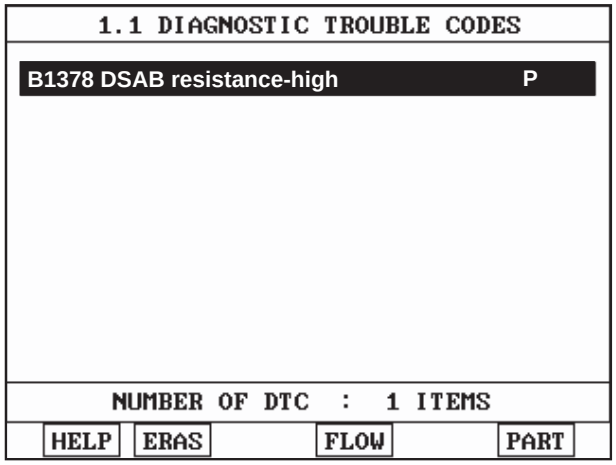


Fig.1

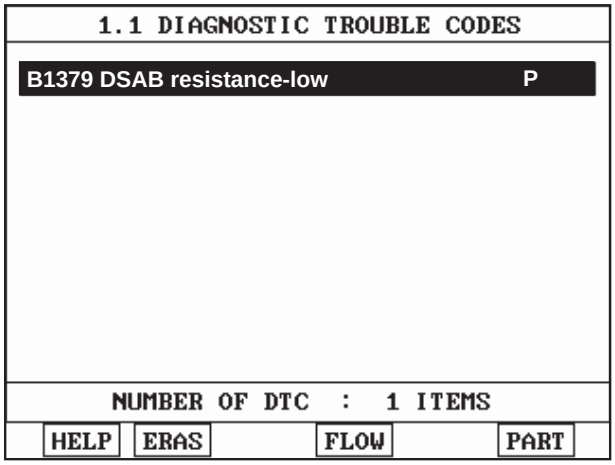


Fig.2

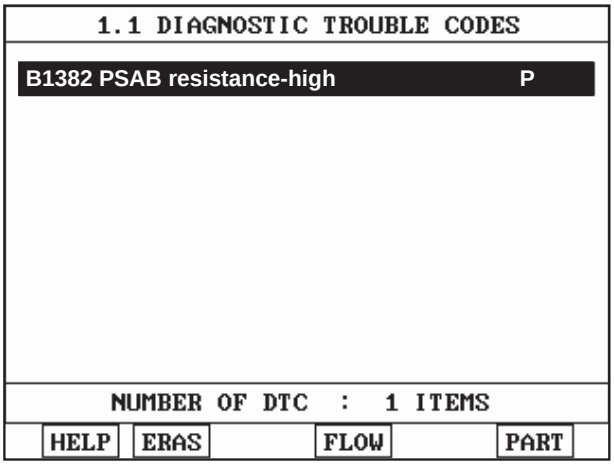


Fig.3

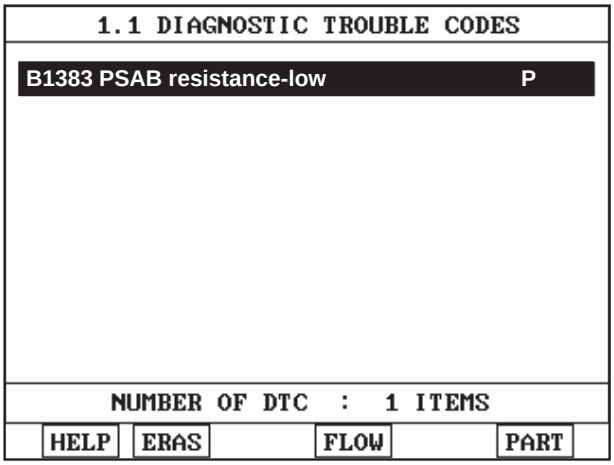


Fig.4

Note) - H : Historical fault
- P : Present fault

SGHRT7761N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E8A34C2D

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
   Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

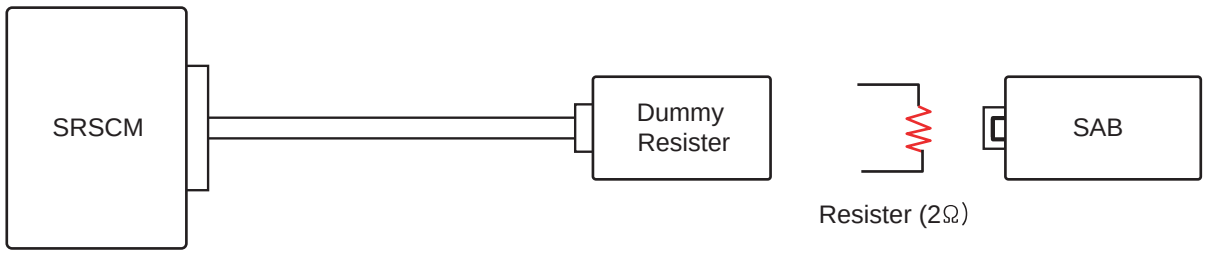
SQUIB CIRCUIT INSPECTION E311EB4F

1. Ignition "OFF"
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect SAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-3F000) to main harness connector.

NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good SAB or 2Ω resistor.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7274N

6. Is DTC present problem ?

YES

▶ Go to "Main harness circuit inspection" procedure.

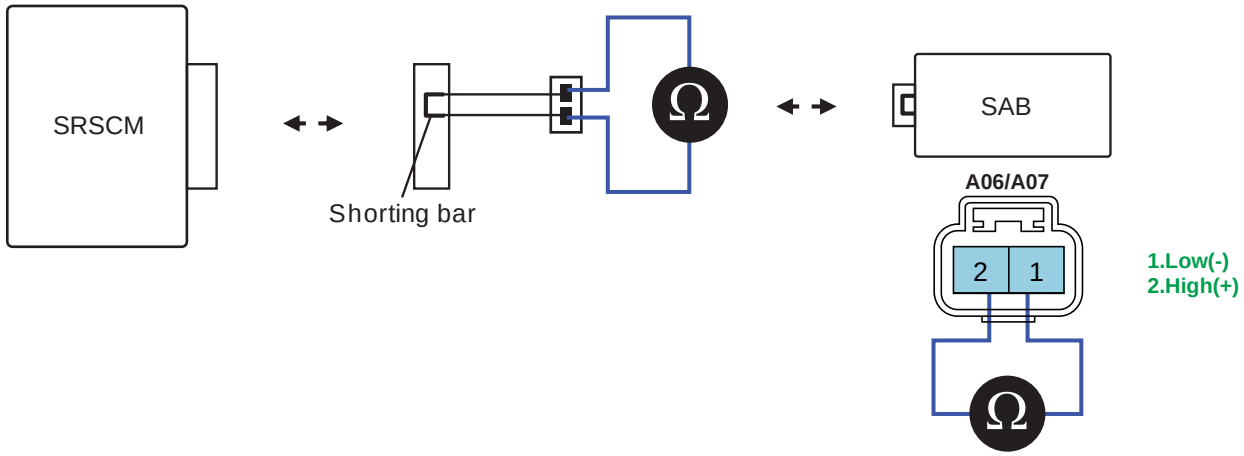
NO

▶ Substitute a known-good SAB assembly, and check for proper operation.
If the problem is corrected, replace SAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E792BFE7

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect SAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "2" and "1" of the SAB harness connector.

■ Specification : approx. 1 Ω below



SGHRT7351N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E623851C

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1380 SIDE AIRBAG FRONT-DRIVER RESISTANCE CIRCUIT SHORT TO GROUND
DTC B1384 SIDE AIRBAG FRONT-PASSENGER RESISTANCE CIRCUIT SHORT TO GROUND

GENERAL DESCRIPTION E56BCCFF

Side Airbag (hereinafter referred to SAB) located in driver and passenger seat protects passenger's head and shoulder. SAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of SAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E15B215B

The SRSCM sets DTC B1380/B1384 if there is a short to ground in DSAB/PSAB harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E4FBE8E6

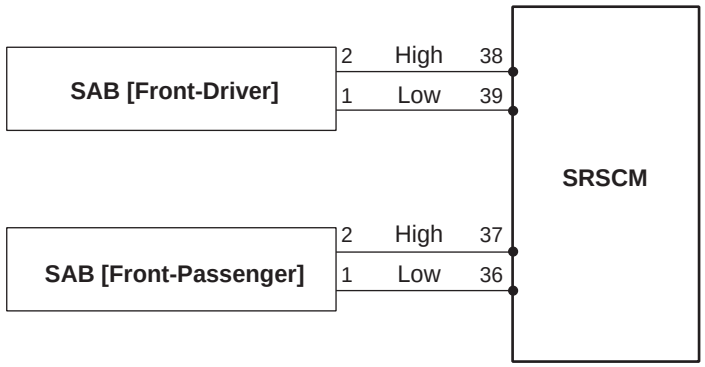
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in DSAB harness. • Poor connection of connected part. • Faulty SAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2㏀	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E0CAAB25

Test Condition	Resistance
Ignition ON (Closed circuit)	RS >10㏀

SCHEMATIC DIAGRAM E7285D57

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

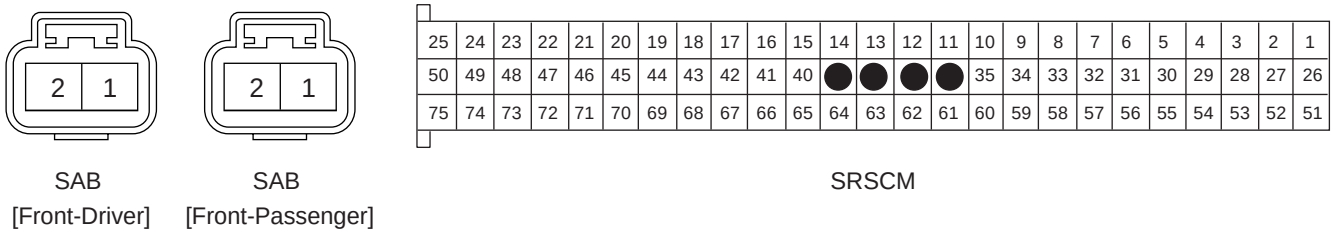
SAB [FRONT-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 39	SAB Low
2	SRSCM terminal 38	SAB High

SAB [FRONT-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 36	SAB Low
2	SRSCM terminal 37	SAB High

[HARNESS CONNECTORS]



SGHRT7350N

MONITOR SCANTOOL DATA EDED0314

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

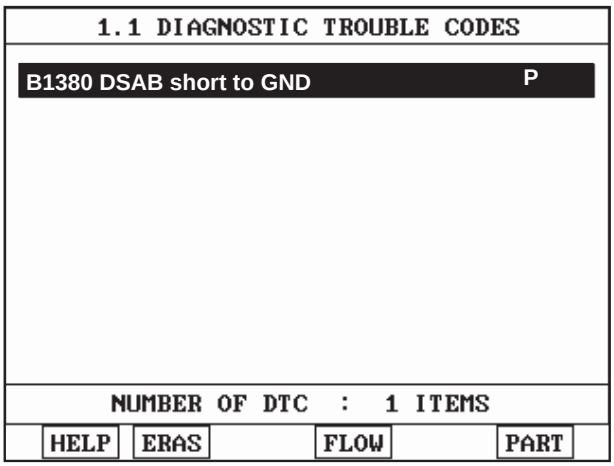


Fig.1

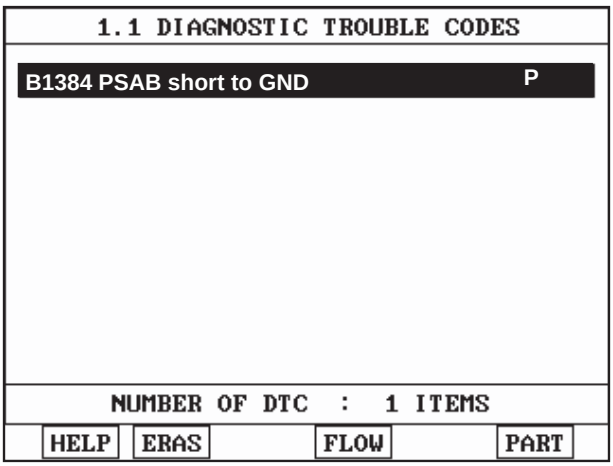


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7763N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E9606DD2

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

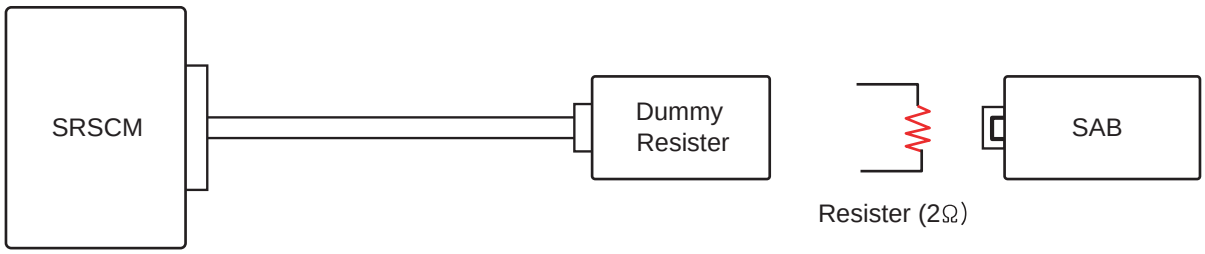
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION EB725F02

1. Ignition "OFF"
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect SAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-3F000) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good SAB or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7274N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

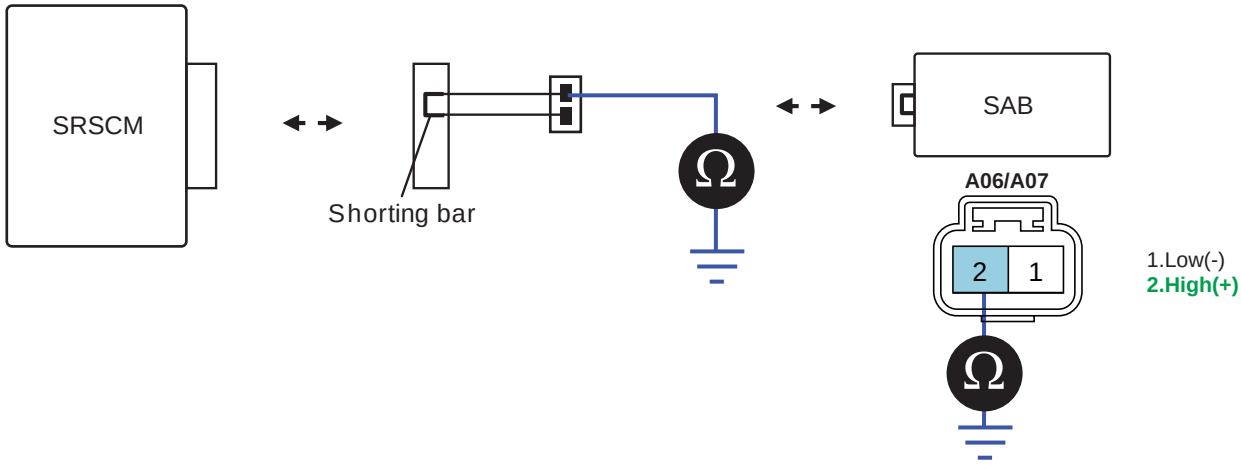
   ▶ Substitute a known-good SAB assembly, and check for proper operation.
   If the problem is corrected, replace SAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION EC52345E

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect SAB connector and SRSCM main harness connector.

4. Measure resistance between terminal "1" or "2" of the SAB harness connector and chassis ground.

■ Specification : ∞



SGHRT7352N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E4D12837

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1381 SIDE AIRBAG FRONT-DRIVER RESISTANCE CIRCUIT SHORT TO BATTERY
DTC B1385 SIDE AIRBAG FRONT-PASSENGER RESISTANCE CIRCUIT SHORT TO BATTERY

GENERAL DESCRIPTION E692B90A

Side Airbag (hereinafter referred to SAB) located in driver and passenger seat protects passenger's head and shoulder. SAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of SAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION EF24282E

The SRSCM sets DTC B1381/B1385 if there is a short to power in DSAB/PSAB harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E7352077

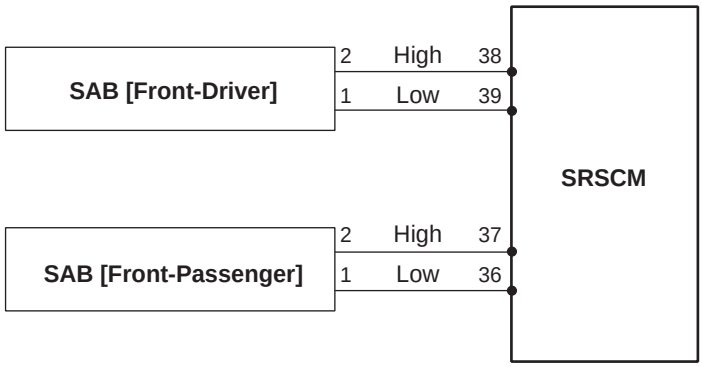
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in SAB harness. • Poor connection of connected part. • Faulty SAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2kΩ	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION EDE23F39

Test Condition	Resistance
Ignition ON	RS > 10kΩ

SCHEMATIC DIAGRAM E11B22A2

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

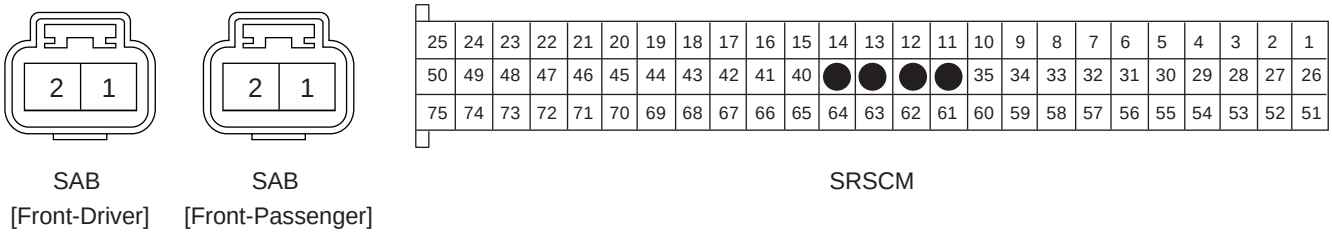
SAB [FRONT-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 39	SAB Low
2	SRSCM terminal 38	SAB High

SAB [FRONT-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 36	SAB Low
2	SRSCM terminal 37	SAB High

[HARNESS CONNECTORS]



SGHRT7350N

MONITOR SCANTOOL DATA EEFE5D07

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

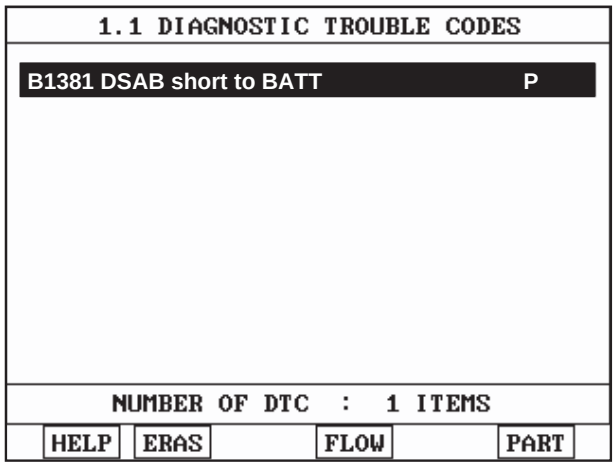


Fig.1

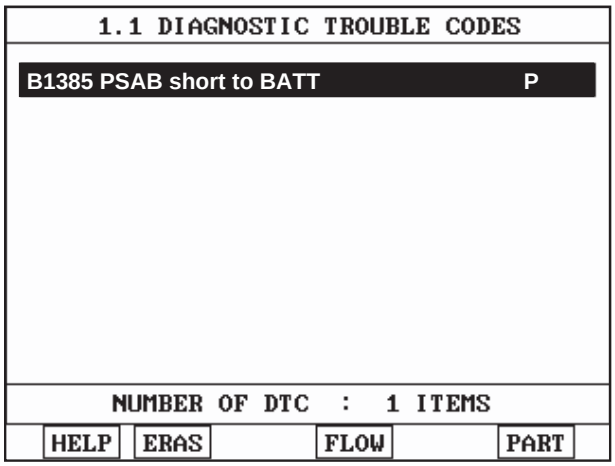


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7764N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E8858D58

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

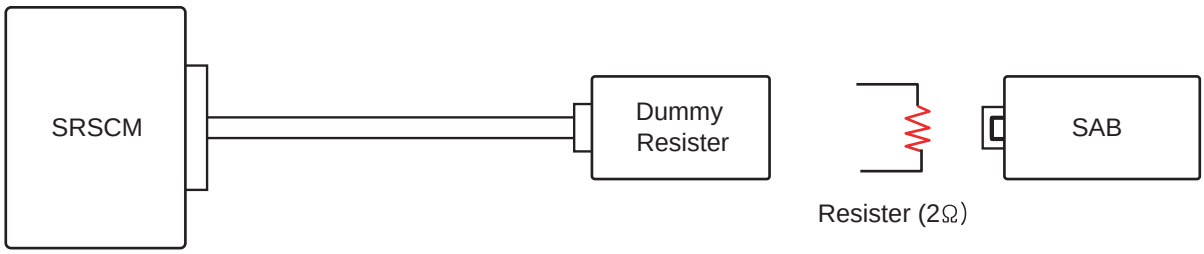
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E31F7BEB

1. Ignition "OFF"
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect SAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-3F000) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good SAB or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7274N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

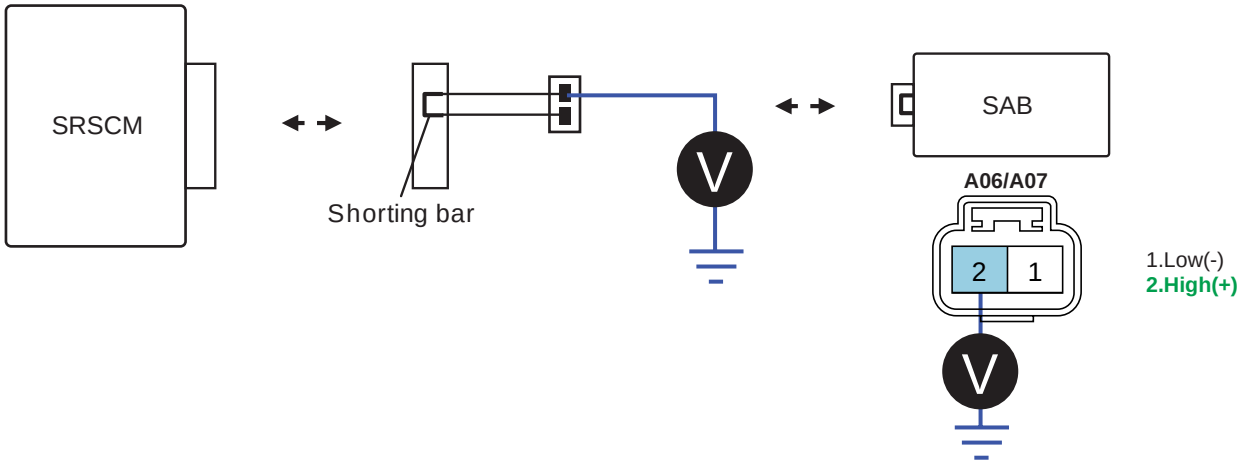
   ▶ Substitute a known-good SAB assembly, and check for proper operation.
   If the problem is corrected, replace SAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION EA3BB395

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect SAB connector and SRSCM main harness connector.
4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & Engine "OFF".

5. Measure voltage between terminal "1" or "2" of the SAB harness connector and chassis ground.

■ Specification : approx. 0V



SGHRT7353N

6. Is the measured voltage within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EDB0A87C

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1395 FIRING LOOP INTERCONNECTION FAULT

GENERAL DESCRIPTION EC1ED7CC

Every air bag module has its firing circuit that ignits powder to deploy air bag according to signal of SRSCM. SRSCM checks every air bag module when ignition "ON". Once any fault is detected, it is erased only by scantool.

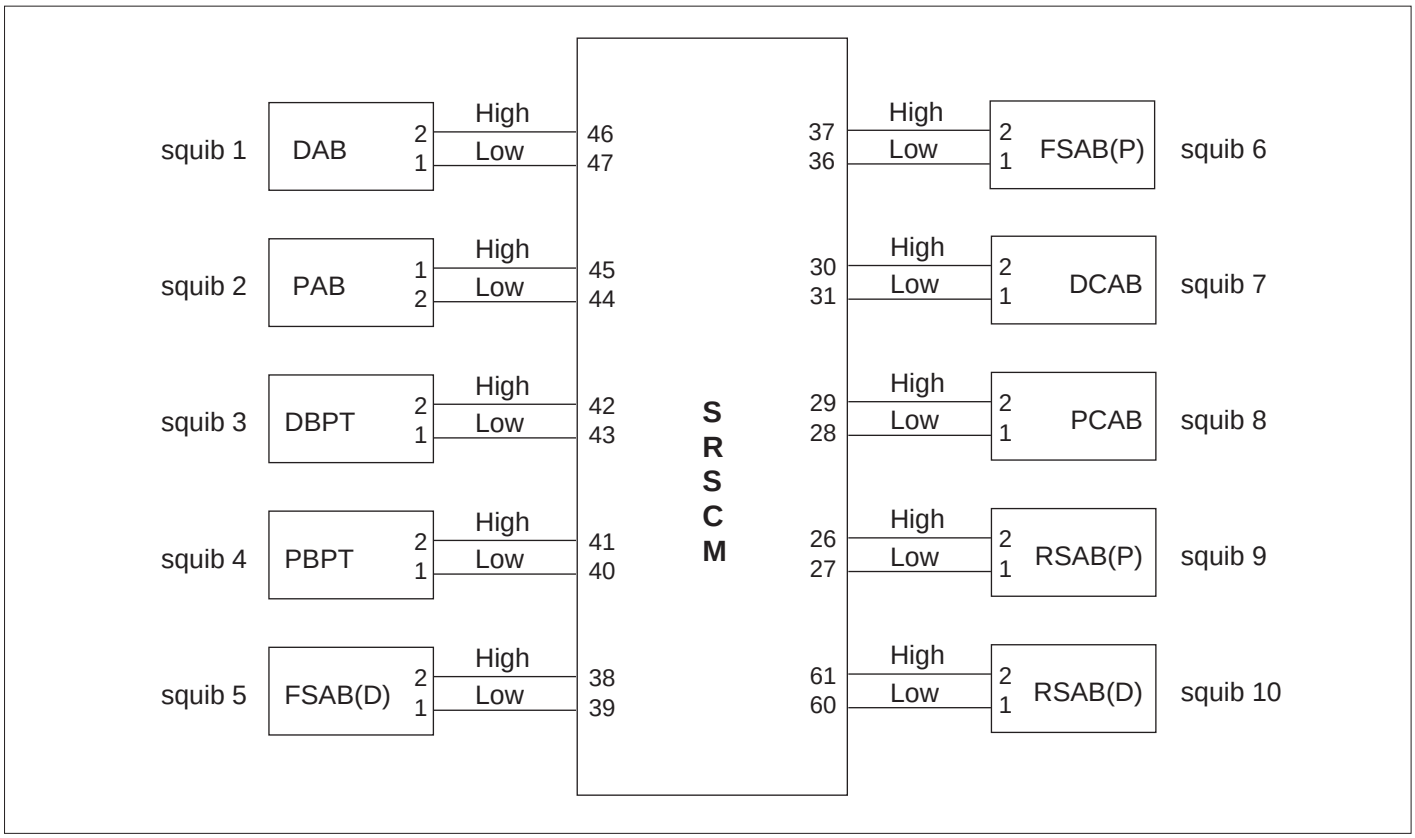
DTC DESCRIPTION E621D21C

The SRSCM sets DTC B1395 if there's any short circuit in harness of every firing circuit to one another.

DTC DETECTING CONDITION EF94C053

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• short circuit in squib harness. • SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold value		• Only check during start-up phase	
Diagnostic Time	Qualification	• More than 4 sec (at only start-up)	
	De-Qualification	• At next start-up	

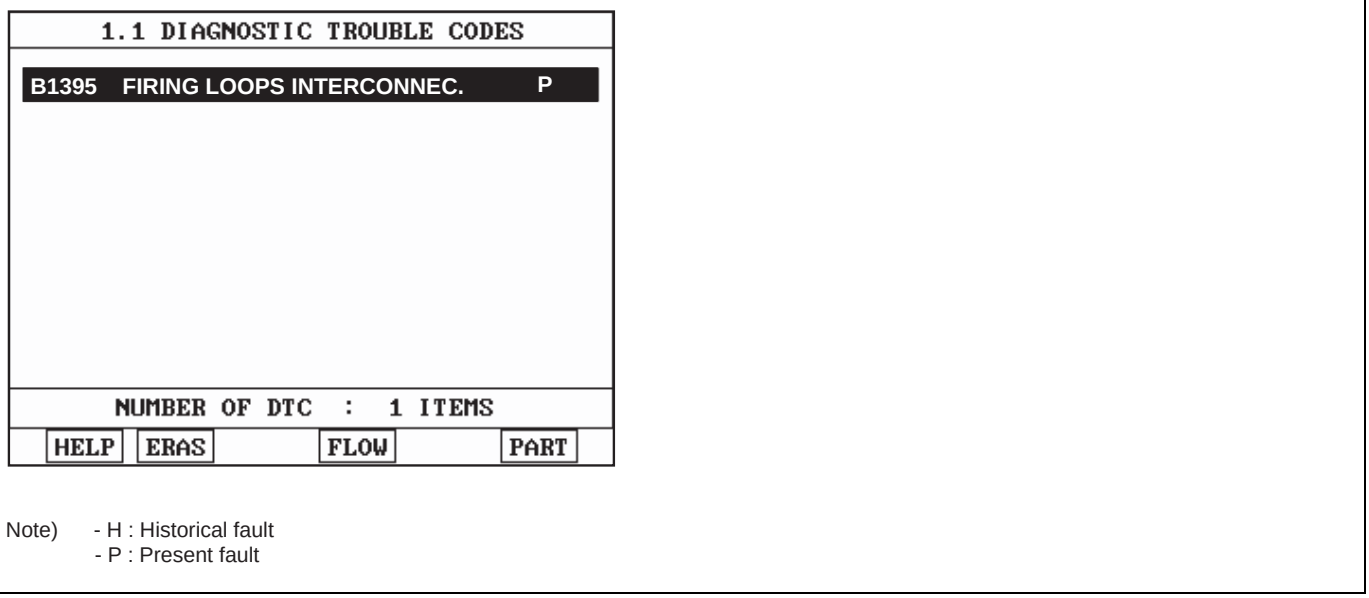
SCHEMATIC DIAGRAM E3D2419E



SGHRT7370L

MONITOR SCANTOOL DATA EE19755E

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7778N

5. Is DTC present problem ?

YES

▶ Check for short between circuits of DAB, PAB, BPT, CAB, SAB. If the condition of harness and component is OK, this fault is caused by SRSCM internal error so replace a known-good SRSCM and then go to "Verification of vehicle Repair" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault in intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or dagmage.
▶ Repair or replace as necessary and then go to "Verification of vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E59C0D4B

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1400 SIS(SIDE IMPACT SENSOR) FRONT-DRIVER DEFECT
DTC B1403 SIS(SIDE IMPACT SENSOR) FRONT-PASSENGER DEFECT
DTC B1409 SIS(SIDE IMPACT SENSOR) FRONT-DRIVER COMMUNICATION ERROR
DTC B1410 SIS(SIDE IMPACT SENSOR) FRONT-PASSENGER COMMUNICATION ERROR

GENERAL DESCRIPTION E2CC5787

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision. When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

DTC DESCRIPTION EF8A468F

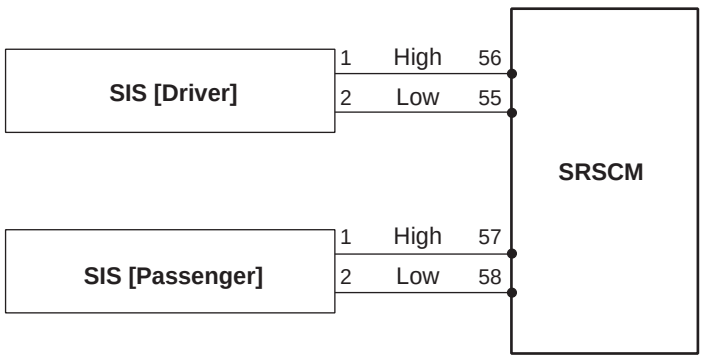
The SRSCM sets DTC B1400/B1403 if there is any fault in DSIS/PSIS circuit.
The SRSCM sets DTC B1409/B1410 if there is any error in communication between DSIS/PSIS and SRSCM.

DTC DETECTING CONDITION EA8E9DDA

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• Faulty SIS circuit. • Faulty SIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SCHEMATIC DIAGRAM E869474E

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

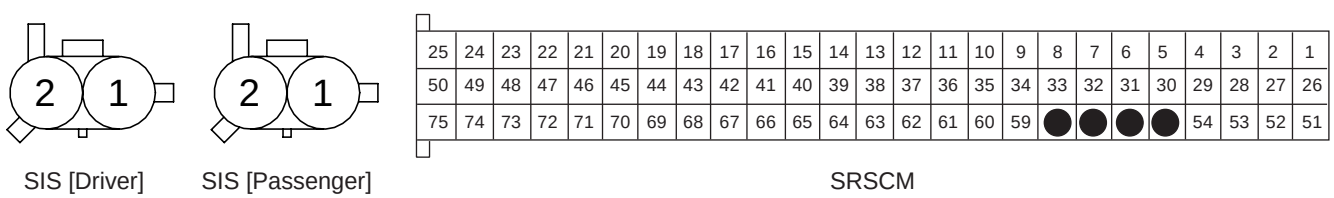
SIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 56	SIS High
2	SRSCM terminal 55	SIS Low

SIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 57	SIS High
2	SRSCM terminal 58	SIS Low

[HARNESS CONNECTORS]



SGHRT7380L

MONITOR SCANTOOL DATA EB77C8EB

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

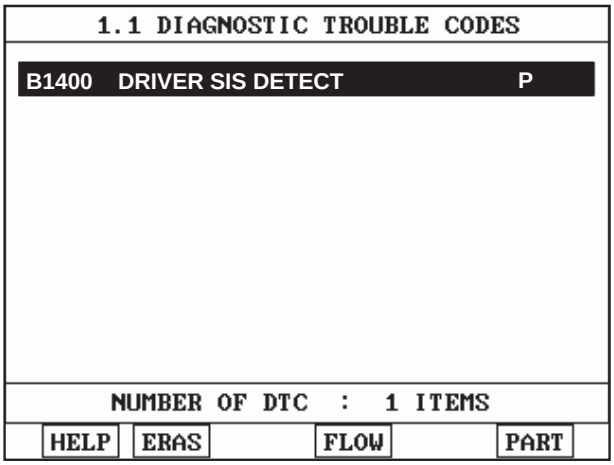


Fig.1

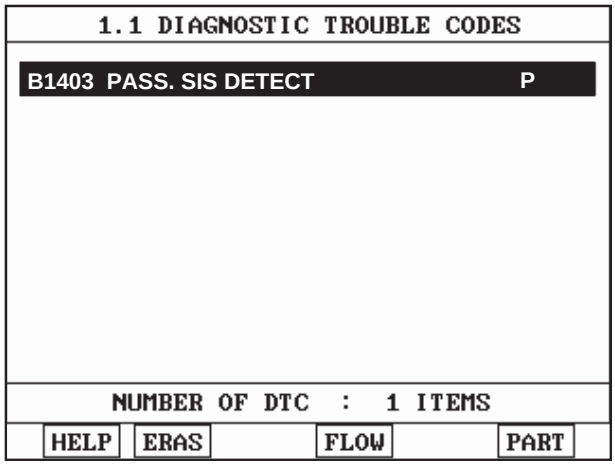


Fig.2

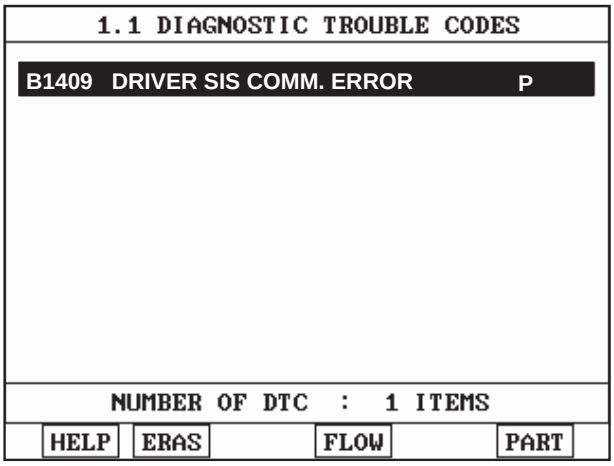


Fig.3

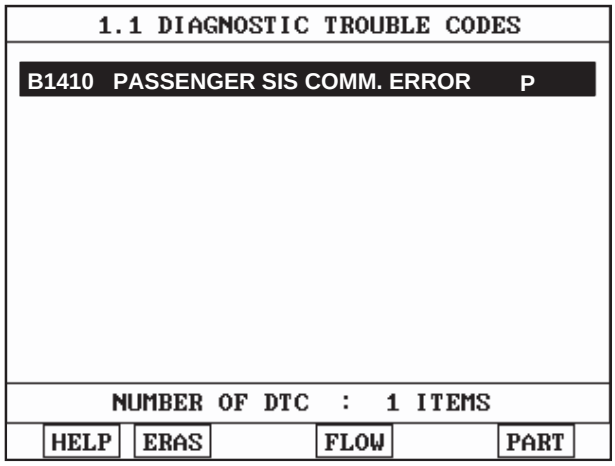


Fig.4

Note) - H : Historical fault
- P : Present fault

SGHRT7783N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EDB94AA7

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
   Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Component Inspection" procedure.

COMPONENT INSPECTION ED6B0FFC

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect SIS connector .
5. Substitute the SIS and check for proper operation.
6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good SIS, and check for proper operation.
If the problem is corrected, replace SIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EC554CED

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1401 SIS(SIDE IMPACT SENSOR) FRONT-DRIVER CIRCUIT SHORT TO GROUND
DTC B1404 SIS(SIDE IMPACT SENSOR) FRONT-PASSENGER CIRCUIT SHORT TO GROUND

GENERAL DESCRIPTION EE465F86

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision. When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

DTC DESCRIPTION E8B5D12F

The SRSCM sets DTC B1401/D1404 if there is a short to ground in DSIS/PSIS harness.

DTC DETECTING CONDITION EE0E96D1

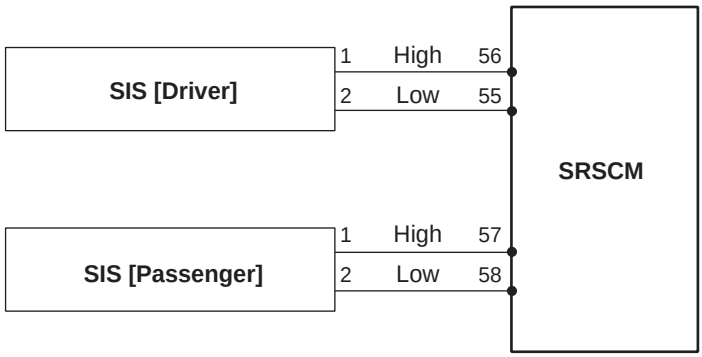
Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• Faulty SIS circuit. • Faulty SIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 250Ω	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION EC729BFC

Test Condition	resistance
Ignition ON	RS > 4.5kΩ

SCHEMATIC DIAGRAM E8C06885

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

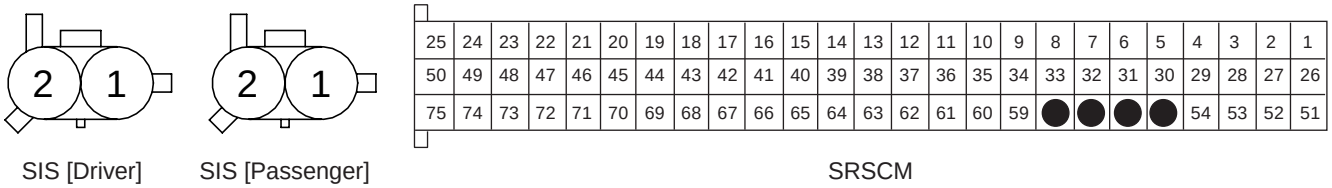
SIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 56	SIS High
2	SRSCM terminal 55	SIS Low

SIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 57	SIS High
2	SRSCM terminal 58	SIS Low

[HARNESS CONNECTORS]



SGHRT7380L

MONITOR SCANTOOL DATA E27B6F51

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

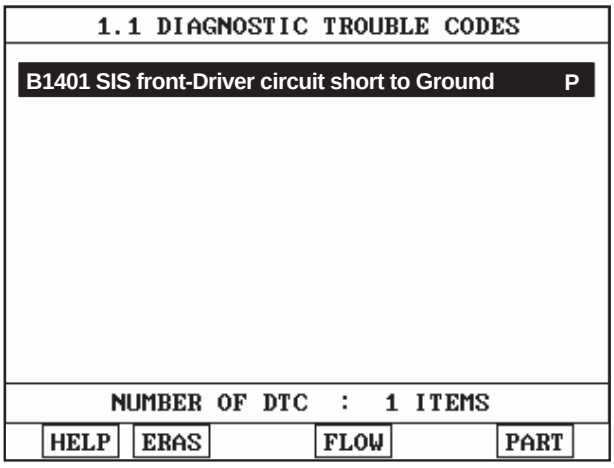


Fig.1

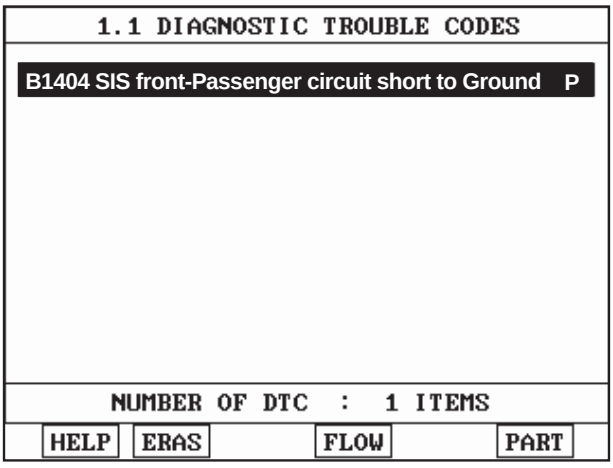


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7784N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EA70DB2A

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

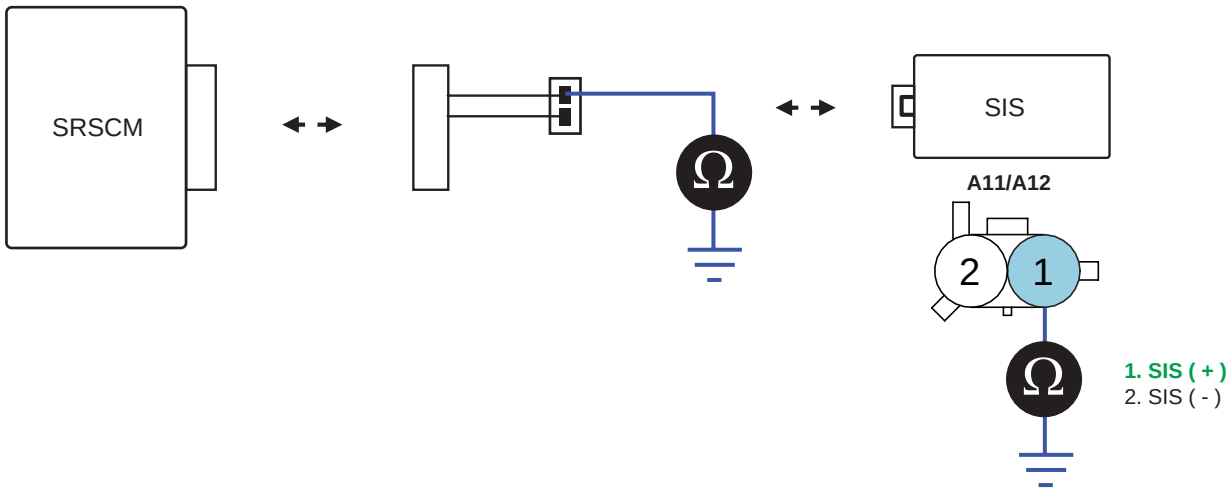
NO

▶ Go to "Main harness circuit inspection" procedure.

MAIN HARNESS CIRCUIT INSPECTION E8127171

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect SIS connector and SRSCM main harness connector.
4. Measure resistance between terminal "1" or "2" of the SIS harness connector and chassis ground.

■ Specification : ∞



SGHRT7381L

5. Is the measured resistance within specifications?

YES

▶ Go to "Component Inspection" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

COMPONENT INSPECTION EA9BE93C

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect SIS connector .
5. Substitute the SIS and check for proper operation.
6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good SIS, and check for proper operation.
If the problem is corrected, replace SIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E4DE656D

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1402 SIS(SIDE IMPACT SENSOR) FRONT-DRIVER CIRCUIT SHORT TO BATTERY
DTC B1405 SIS(SIDE IMPACT SENSOR) FRONT-PASSENGER CIRCUIT SHORT TO BATTERY

GENERAL DESCRIPTION E38321FB

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision. When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

DTC DESCRIPTION E8163CF7

The SRSCM sets DTC B1402/B1405 if there is short to power harness in DSIS/PSIS harness.

DTC DETECTING CONDITION EF04DDFC

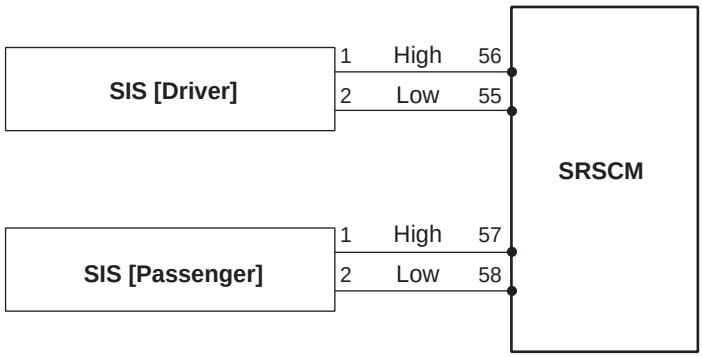
Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• Short to power in SIS harness. • Faulty SIS. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 25Ω	
Diagnostic Time	Qualification	• More than 4 sec	

SPECIFICATION E8EFC59C

Test Condition	resistance
Ignition ON (Closed circuit)	RS > 2.5㏀

SCHEMATIC DIAGRAM E4EE9061

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

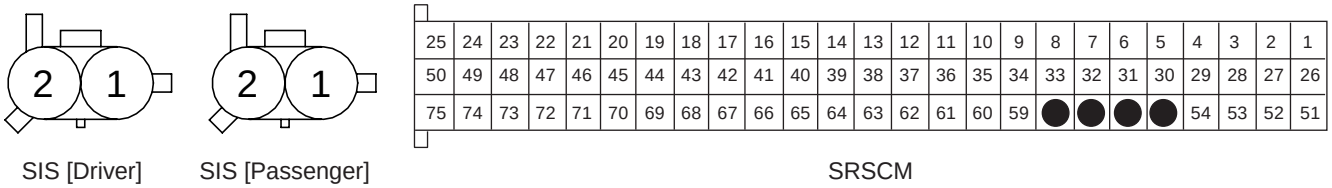
SIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 56	SIS High
2	SRSCM terminal 55	SIS Low

SIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 57	SIS High
2	SRSCM terminal 58	SIS Low

[HARNESS CONNECTORS]



SGHRT7380L

MONITOR SCANTOOL DATA E998387C

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

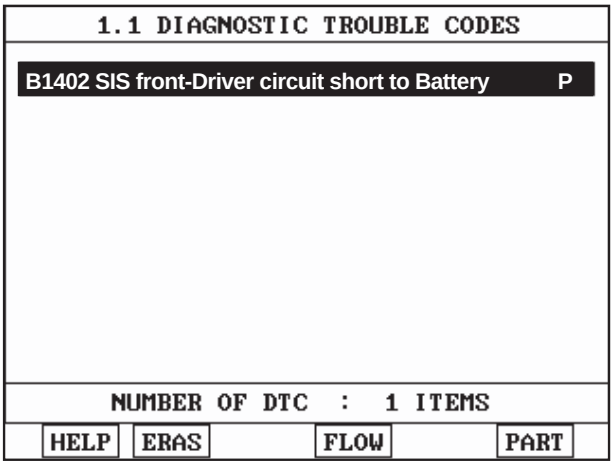


Fig.1

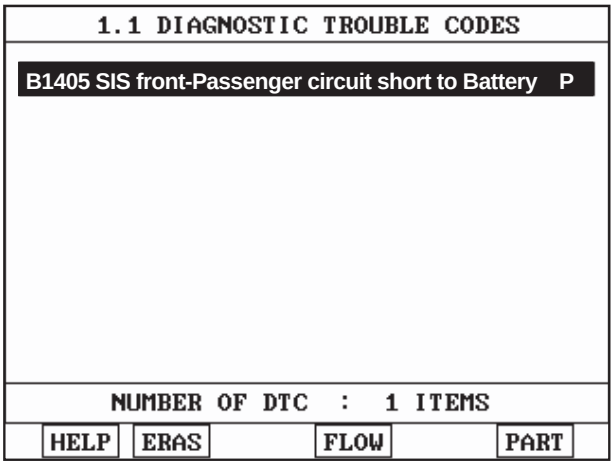


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7785N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EB56EE70

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

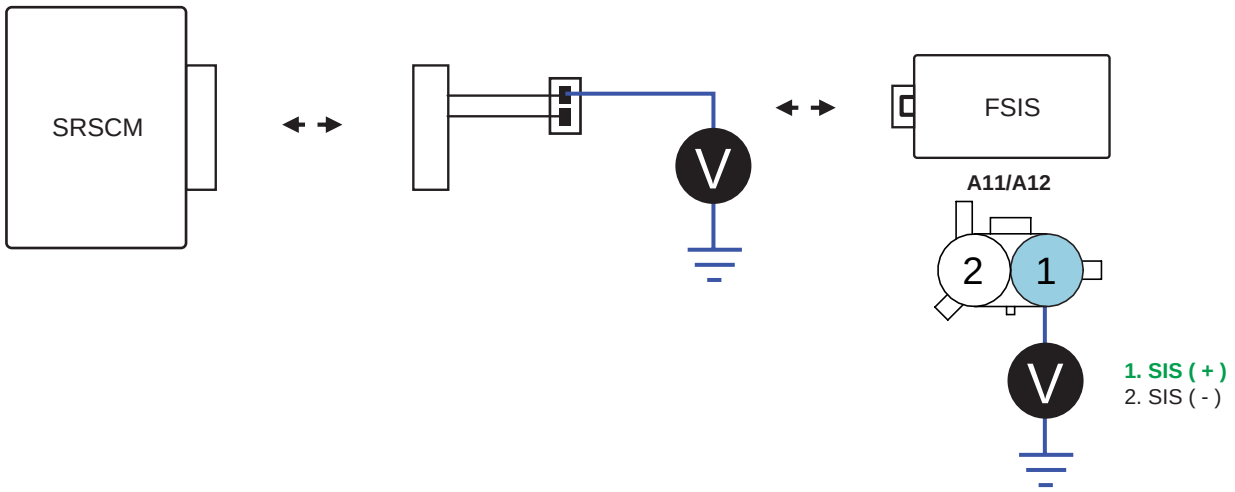
NO

▶ Go to "Main harness circuit inspection" procedure.

MAIN HARNESS CIRCUIT INSPECTION EBC8377F

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
3. Disconnect SIS connector and SRSCM main harness connector.
4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & Egnie "OFF".
5. Measure voltage between terminal "1" or "2" of the SIS harness connector and chassis ground.

■ Specification : 0V



SGHRT7382L

6. Is the measured voltage within specifications?

YES

▶ Go to "Component Inspection" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

COMPONENT INSPECTION EC1309F6

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect SIS connector .
5. Substitute the SIS and check for proper operation.
6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good SIS, and check for proper operation.
If the problem is corrected, replace SIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EBC4F8C8

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1414 SIS(SIDE IMPACT SENSOR) FRONT-DRIVER WRONG ID
DTC B1415 SIS(SIDE IMPACT SENSOR) FRONT-PASSENGER WRONG ID

GENERAL DESCRIPTION E99A942B

Side Impact Sensor(SIS) is located in both side of center pillar detects broad collision. When SIS delivers collision signal to SRSCM, SRSCM checks if safing sensor located in SRSCM detects collusion. And if both SIS and safing sensor detects collision simultaneously, SRSCM operates side air bag.

DTC DESCRIPTION ECA9F276

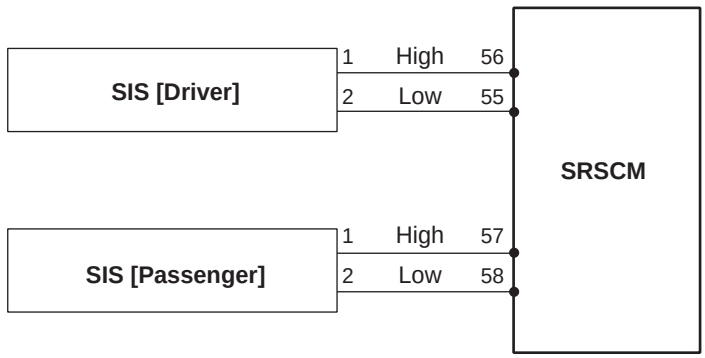
The SRSCM sets DTC B1414/B1415 if DSIS/PSIS with wrong ID is detected.

DTC DETECTING CONDITION E263DF26

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current(PWM type)	• SIS with wrong ID. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SCHEMATIC DIAGRAM EFA72192

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

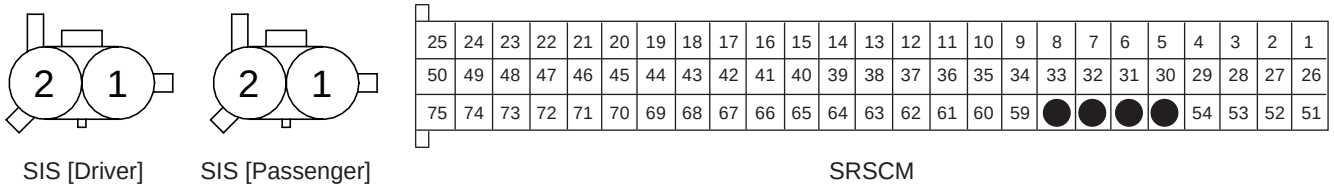
SIS [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 56	SIS High
2	SRSCM terminal 55	SIS Low

SIS [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 57	SIS High
2	SRSCM terminal 58	SIS Low

[HARNESS CONNECTORS]



SGHRT7380L

MONITOR SCANTOOL DATA ED6A31B2

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

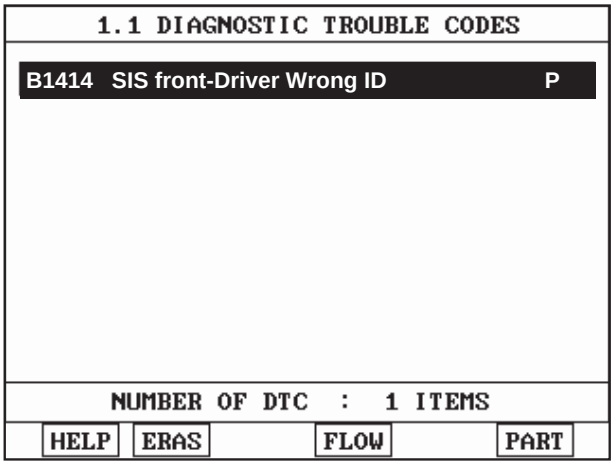


Fig. 1

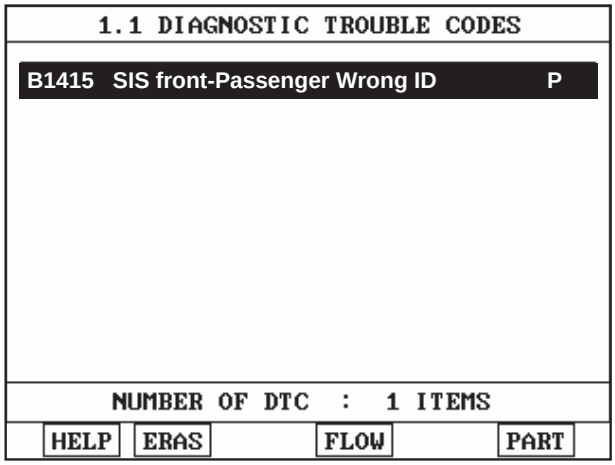


Fig. 2

Note) - H : Historical fault
- P : Present fault

SGHRT7795N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EEFCE44F

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Component Inspection" procedure.

COMPONENT INSPECTION E0779B1B

1. Ignition "ON" & Engine "OFF" and Using a scantool, clear the DTC.
2. Ignition "OFF".
3. Disconnect the battery (-) terminal cable from the battery, and wait at least one minutes.
4. Disconnect SIS connector .
5. Substitute the SIS and check for proper operation.
6. Is DTC present problem ?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good SIS, and check for proper operation.
If the problem is corrected, replace SIS and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR ED8B2611

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1429 SIDE AIRBAG REAR-DRIVER RESISTANCE TOO HIGH
DTC B1430 SIDE AIRBAG REAR-DRIVER RESISTANCE TOO LOW
DTC B1433 SIDE AIRBAG REAR-PASSENGER RESISTANCE TOO HIGH
DTC B1434 SIDE AIRBAG REAR-PASSENGER RESISTANCE TOO LOW

GENERAL DESCRIPTION E138E513

Rear Side Airbag (hereinafter referred to RSAB) is located in driver and passenger side rear seat. It protects passenger's head and shoulder in broad collision. RSAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of RSAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E4EDF90D

The SRSCM sets DTC B1429/B1433 if the measured resistance value of DRSAB/PRSAB circuit is more than the threshold value.
The SRSCM sets DTC B1430/B1434 if the measured resistance value of DRSAB/PRSAB circuit is less than the threshold value.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E44D201B

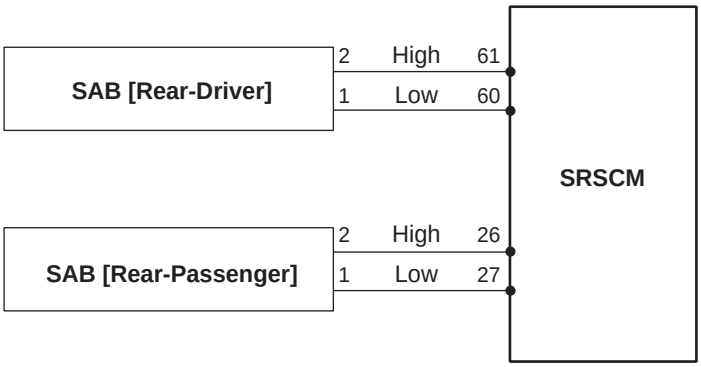
<table>
<tr><th colspan="2">Item</th><th colspan="2">Detecting Condition</th><th>Possible cause</th></tr>
<tr><td colspan="2">DTC Strategy</td><td colspan="2">• Check Resistance</td><td rowspan="5">• Poor connection of connected part.
• Poor connection between shorting bar and release pin.
• Faulty RSAB.
• Faulty SRSCM.</td></tr>
<tr><td colspan="2">Enable Conditions</td><td colspan="2">• Ignition "ON"</td></tr>
<tr><td colspan="2" rowspan="2">Threshold Value</td><td>B1429
B1433</td><td>• RSAB resistance ≥ 5.7Ω</td></tr>
<tr><td>B1430
B1434</td><td>• RSAB resistance ≤ 1.3Ω</td></tr>
<tr><td rowspan="2">Diagnostic Time</td><td>Qualification</td><td colspan="2">• More than 4 sec</td></tr>
<tr><td>De-Qualification</td><td colspan="2">• More than 8 sec</td></tr>
</table>

SPECIFICATION EB3BF378

Test Condition	Resistance
Ignition OFF	1.85Ω < DRSAB resistance < 2.45Ω 1.84Ω < PRSAB resistance < 2.44Ω

SCHEMATIC DIAGRAM E2665CA0

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

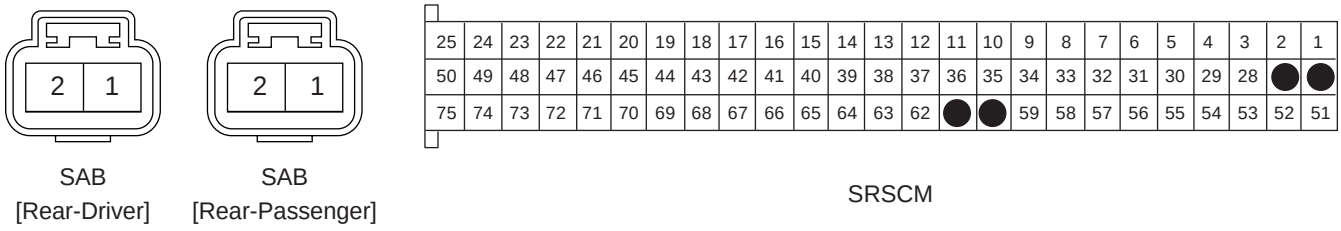
SAB [REAR-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 60	SAB Low
2	SRSCM terminal 61	SAB High

SAB [REAR-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 27	SAB Low
2	SRSCM terminal 26	SAB High

[HARNESS CONNECTORS]



SGHRT7390N

MONITOR SCANTOOL DATA EA33915A

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

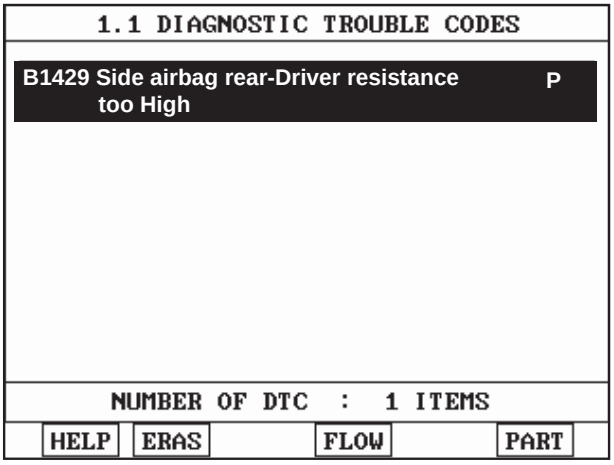


Fig.1

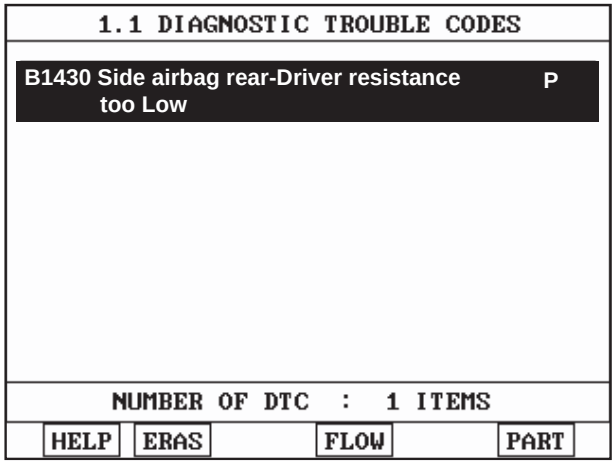


Fig.2

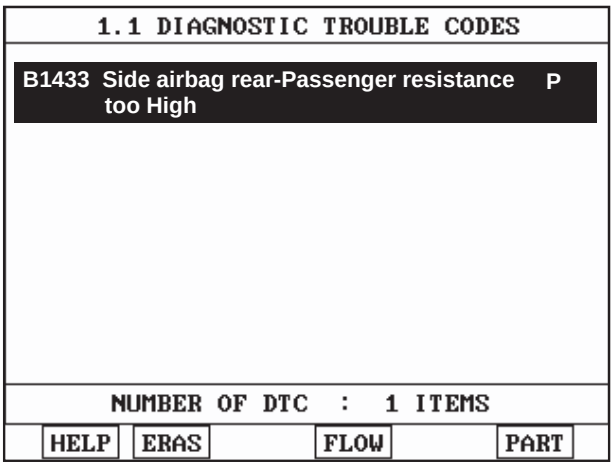


Fig.3

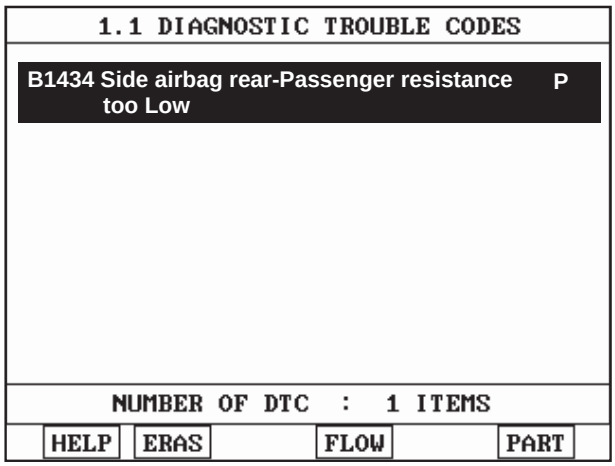


Fig.4

Note) - H : Historical fault
- P : Present fault

SGHRT7809N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E7C22063

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
   Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection,connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

   YES

   ▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

   NO

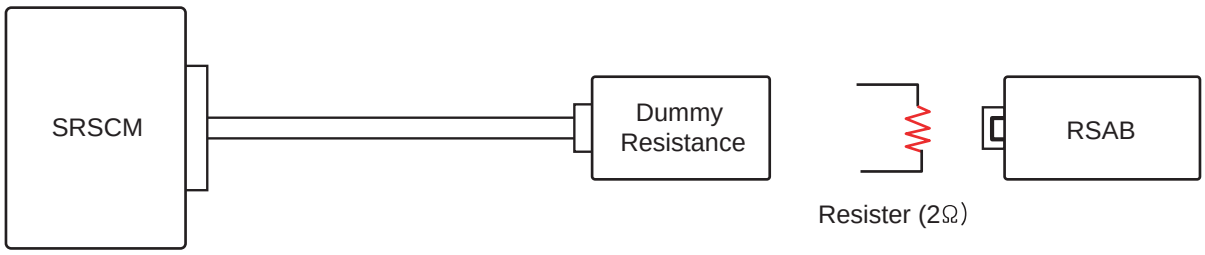
   ▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E44412E8

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect RSAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-3F000) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good RSAB or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7296N

6. Is DTC present problem ?

YES

▶ Go to "Main harness circuit inspection" procedure.

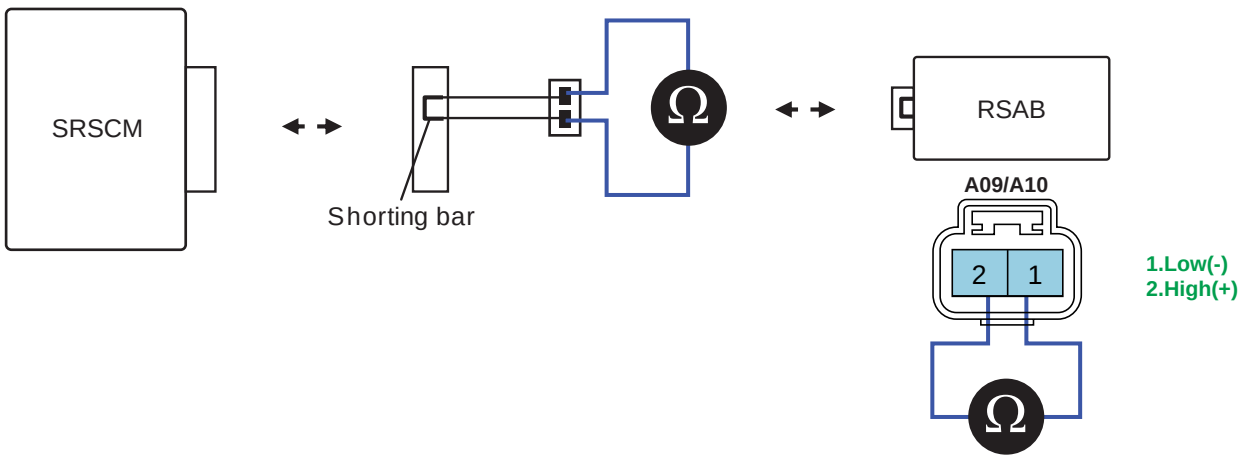
NO

▶ Substitute a known-good RSAB assembly, and check for proper operation. If the problem is corrected, replace RSAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E20FF14E

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect RSAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "2" and "1" of the RSAB harness connector.

■ Specification : approx. 1 Ω below



SGHRT7391N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E217B6A1

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1431 SIDE AIRBAG REAR-DRIVER CIRCUIT SHORT TO GROUND
DTC B1435 SIDE AIRBAG REAR-PASSENGER CIRCUIT SHORT TO GROUND

GENERAL DESCRIPTION EE165E7C

Rear Side Airbag (hereinafter referred to RSAB) is located in driver and passenger side rear seat. It protects passenger's head and shoulder in broad collision. RSAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of RSAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E5002FBC

The SRSCM sets DTC B1431/B1435 if there is a short to ground in DRSAB/PRSAB harness.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION EC830E9A

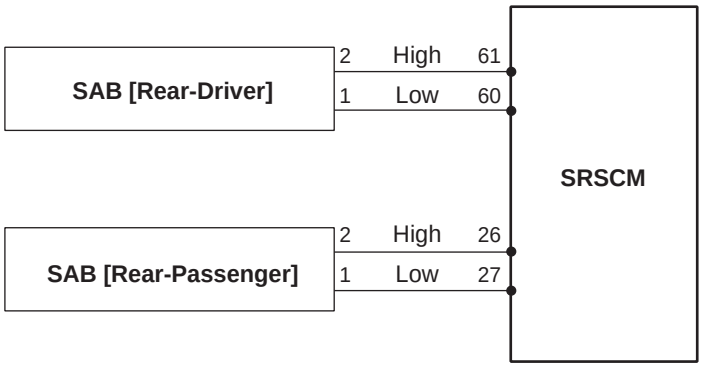
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty RSAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2㏀	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E44A37AD

Test Condition	Resistance
Ignition ON	RS >10㏀

SCHEMATIC DIAGRAM EC52CA8B

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

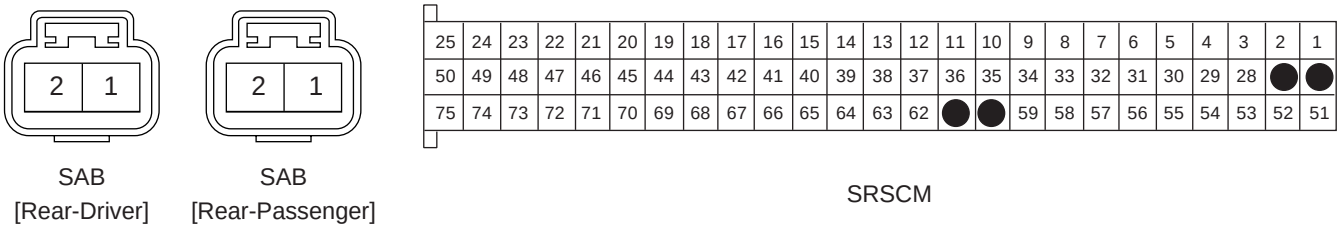
SAB [REAR-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 60	SAB Low
2	SRSCM terminal 61	SAB High

SAB [REAR-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 27	SAB Low
2	SRSCM terminal 26	SAB High

[HARNESS CONNECTORS]



SGHRT7390N

MONITOR SCANTOOL DATA E370D0C3

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

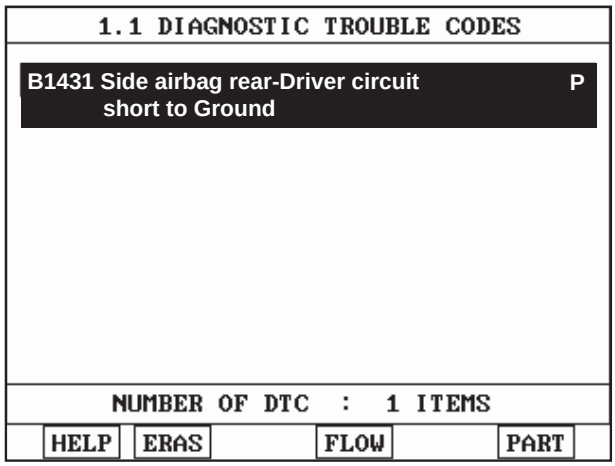


Fig. 1

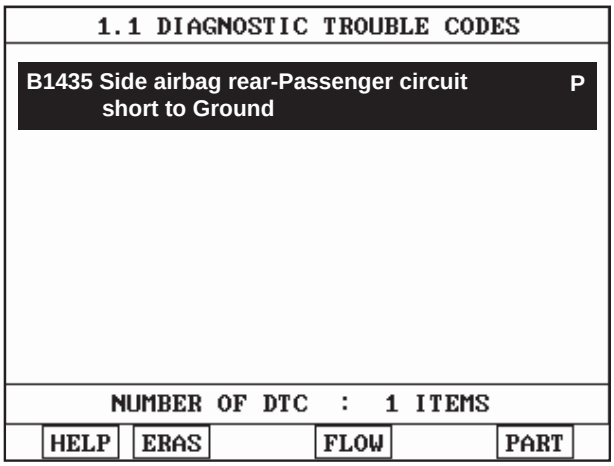


Fig. 2

Note) - H : Historical fault
- P : Present fault

SGHRT7811N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E51F54AE

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

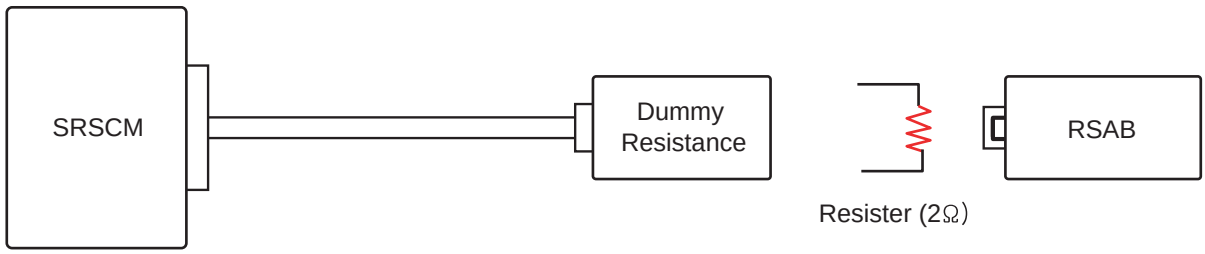
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION EC82AA35

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect RSAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-3F000) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good RSAB or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7296N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

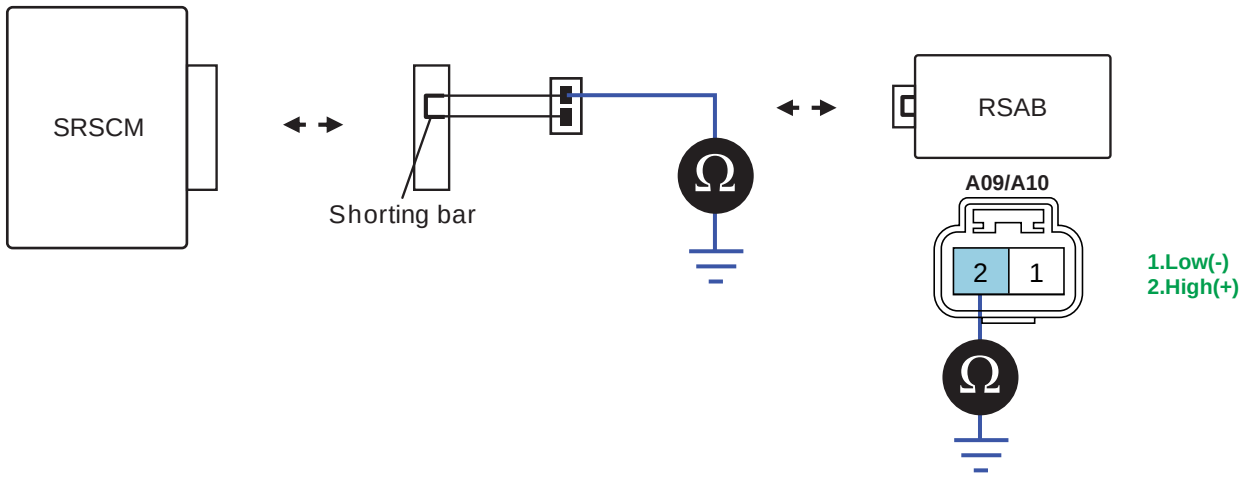
   ▶ Substitute a known-good RSAB assembly, and check for proper operation. If the problem is corrected, replace RSAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E652A7C0

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect RSAB connector and SRSCM main harness connector.

4. Measure resistance between terminal "1" or "2" of the RSAB harness connector and chassis ground.

■ Specification : ∞



SGHRT7392N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EB9C23F8

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1432 SIDE AIRBAG REAR-DRIVER CIRCUIT SHORT TO BATTERY
DTC B1436 SIDE AIRBAG REAR-PASSENGER CIRCUIT SHORT TO BATTERY

GENERAL DESCRIPTION E027E8B0

Rear Side Airbag (hereinafter referred to RSAB) is located in driver and passenger side rear seat. It protects passenger's head and shoulder in broad collision. RSAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of RSAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION EE01E317

The SRSCM sets DTC B1432/B1436 if there is a short to power in DRSAB/PRSAB harness.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION EAABBD5C

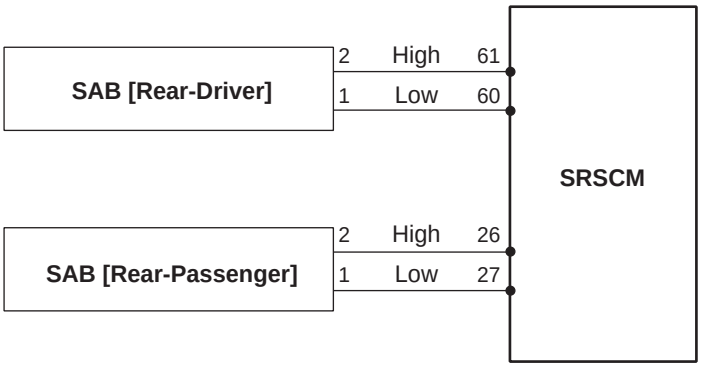
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to power in RSAB harness. • Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty RSAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2kΩ	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E5D802CD

Test Condition	Resistance
Ignition ON	RS > 10kΩ

SCHEMATIC DIAGRAM E96D7EEF

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

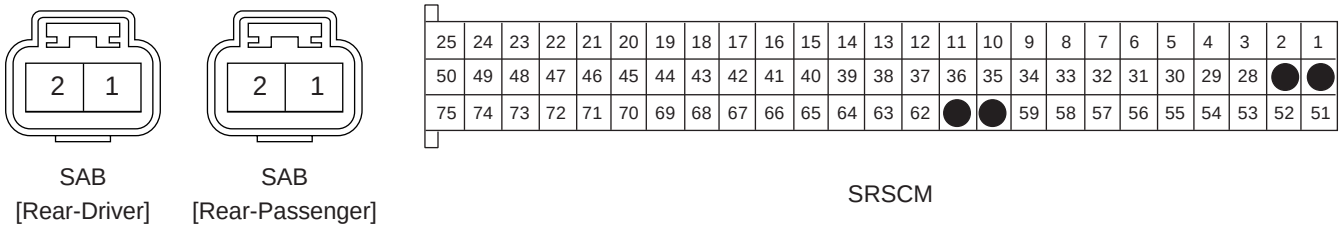
SAB [REAR-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 60	SAB Low
2	SRSCM terminal 61	SAB High

SAB [REAR-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 27	SAB Low
2	SRSCM terminal 26	SAB High

[HARNESS CONNECTORS]



SGHRT7390N

MONITOR SCANTOOL DATA E1CF6E99

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

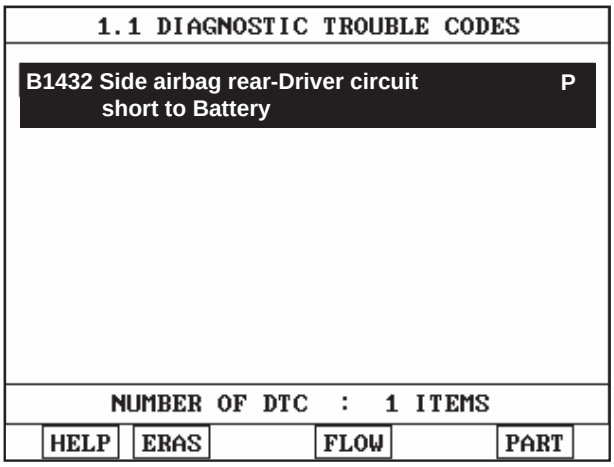


Fig. 1

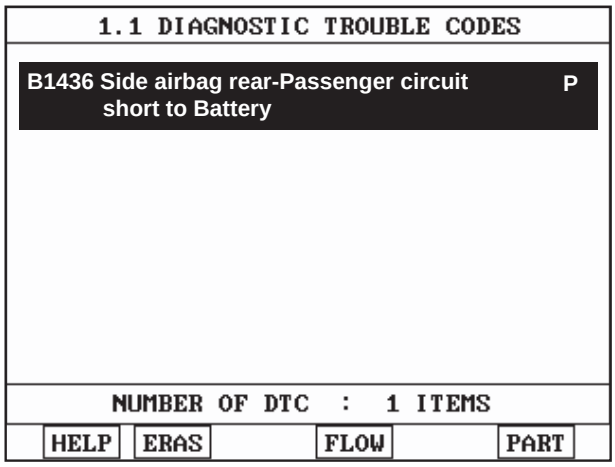


Fig. 2

Note) - H : Historical fault
- P : Present fault

SGHRT7812N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EC787F92

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

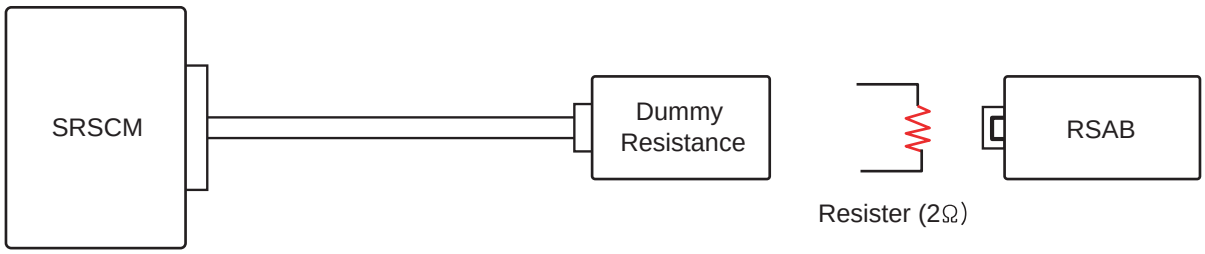
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION EAD86BD9

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect RSAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-3F000) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good RSAB or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SHDRT7296N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

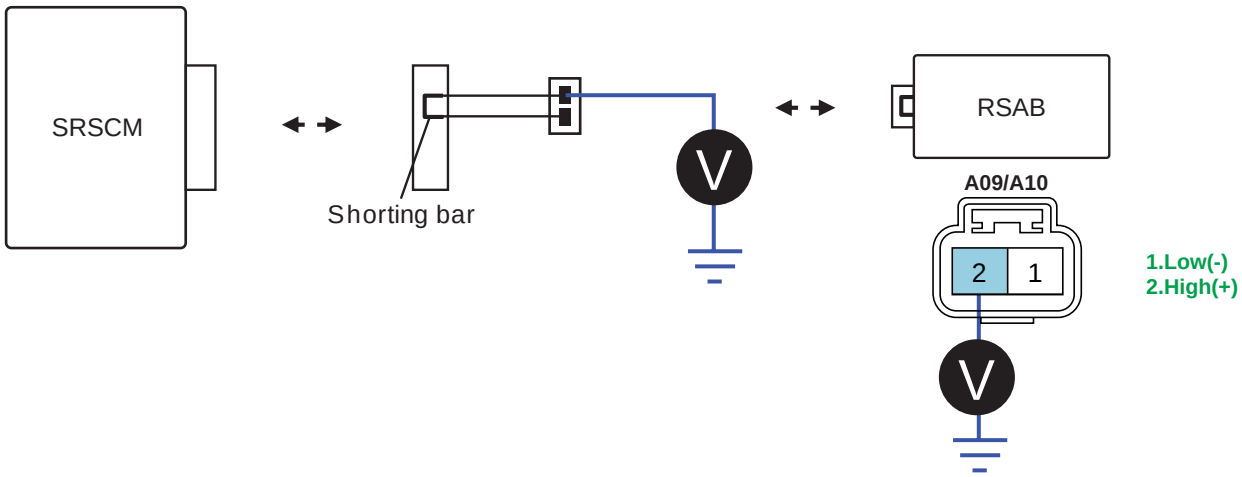
   ▶ Substitute a known-good RSAB assembly, and check for proper operation. If the problem is corrected, replace RSAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E8253F61

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect RSAB connector and SRSCM main harness connector.
4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & Engine "OFF".

5. Measure voltage between terminal "1" or "2" of the RSAB harness connector and chassis ground.

■ Specification : approx. 0V



SGHRT7393N

6. Is the measured voltage within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation. If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation. If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EF881DC5

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1473 INFLATABLE CURTAIN AIRBAG FRONT-DRIVER RESISTANCE TOO HIGH
DTC B1474 INFLATABLE CURTAIN AIRBAG FRONT-DRIVER RESISTANCE TOO LOW
DTC B1477 INFLATABLE CURTAIN AIRBAG FRONT-PASSENGER RESISTANCE TOO HIGH
DTC B1478 INFLATABLE CURTAIN AIRBAG FRONT-PASSENGER RESISTANCE TOO LOW

GENERAL DESCRIPTION ECD23878

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner. It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn. CAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E31D97DC

The SRSCM sets DTC B1473/B1477 if the measured resistance value of DCAB/PCAB circuit is more than the threshold value.
The SRSCM sets DTC B1474/B1478 if the measured resistance value of DCAB/PCAB circuit is less than the threshold value.
*In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E7C86A07

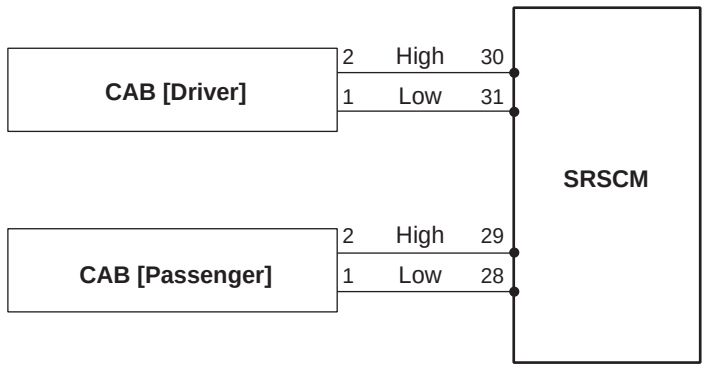
Item		Detecting Condition		Possible cause
DTC Strategy		• Check Resistance		• Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty CAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"		
Threshold Value		B1473 B1477	• CAB resistance ≥ 5.7Ω	
		B1474 B1478	• CAB resistance ≤ 1.3Ω	
Diagnostic Time	Qualification	• More than 4 sec		
	De-Qualification	• More than 8 sec		

SPECIFICATION E8D46650

Test Condition	Resistance
Ignition OFF	1.85Ω < DCAB resistance < 2.45Ω 1.84Ω < PCAB resistance < 2.44Ω

SCHEMATIC DIAGRAM EB24B003

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

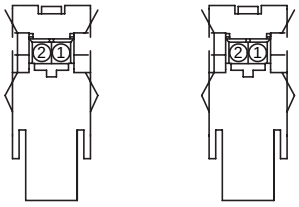
CAB [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 31	CAB Low
2	SRSCM terminal 30	CAB High

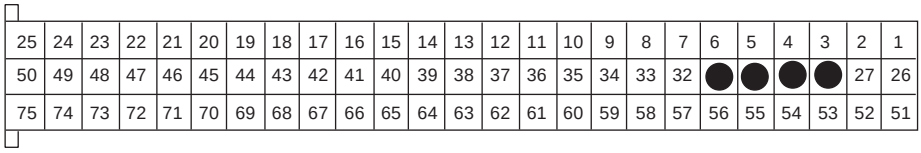
CAB [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 28	CAB Low
2	SRSCM terminal 29	CAB High

[HARNESS CONNECTORS]



CAB [Driver] CAB [Passenger]



SRSCM

SGHRT7410N

MONITOR SCANTOOL DATA E852229C

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

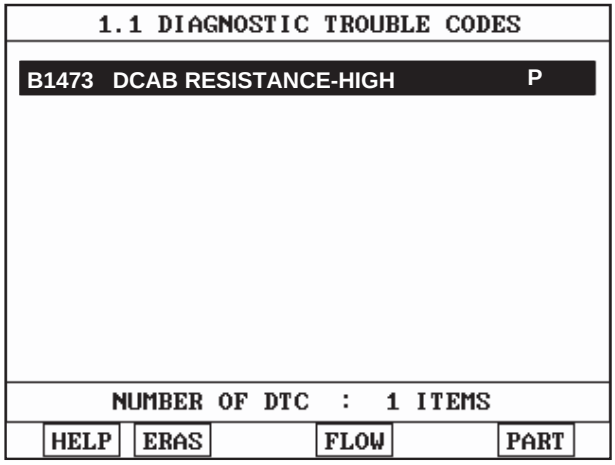


Fig.1

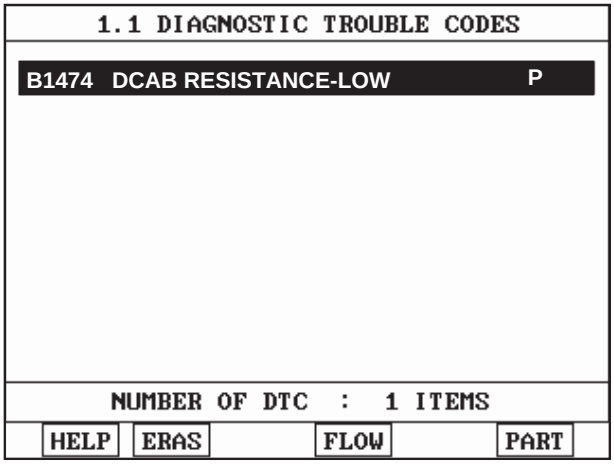


Fig.2

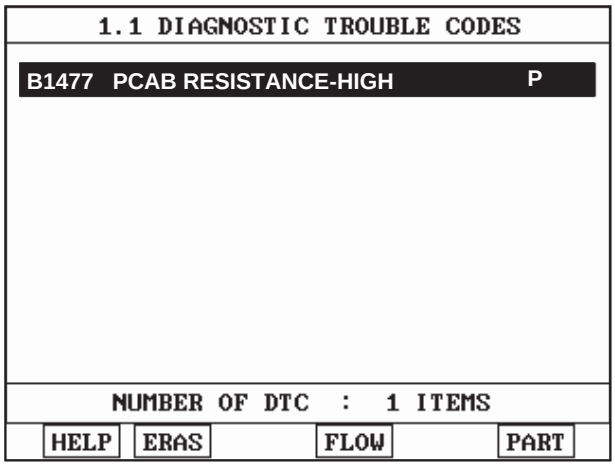


Fig.3

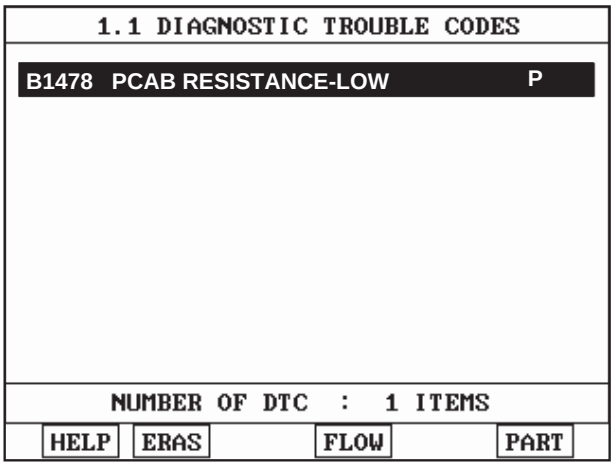


Fig.4

Note) - H : Historical fault
- P : Present fault

SGHRT7844N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EBD491A8

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
   Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Squib Circuit Inspection" procedure.

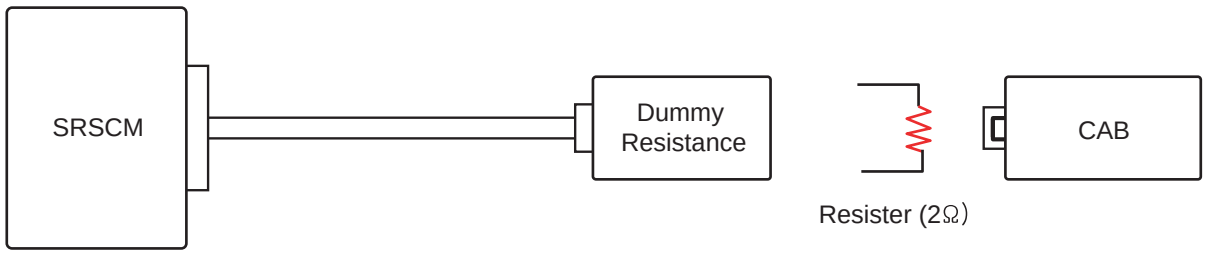
SQUIB CIRCUIT INSPECTION E45E3F08

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect CAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to main harness connector.

NOTE

If dummy and dummy adaptor are not able to be prepared, use a known-good CAB or 2Ω resistor.

4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SGHRT7411N

6. Is DTC present problem ?

YES

▶ Go to "Main harness circuit inspection" procedure.

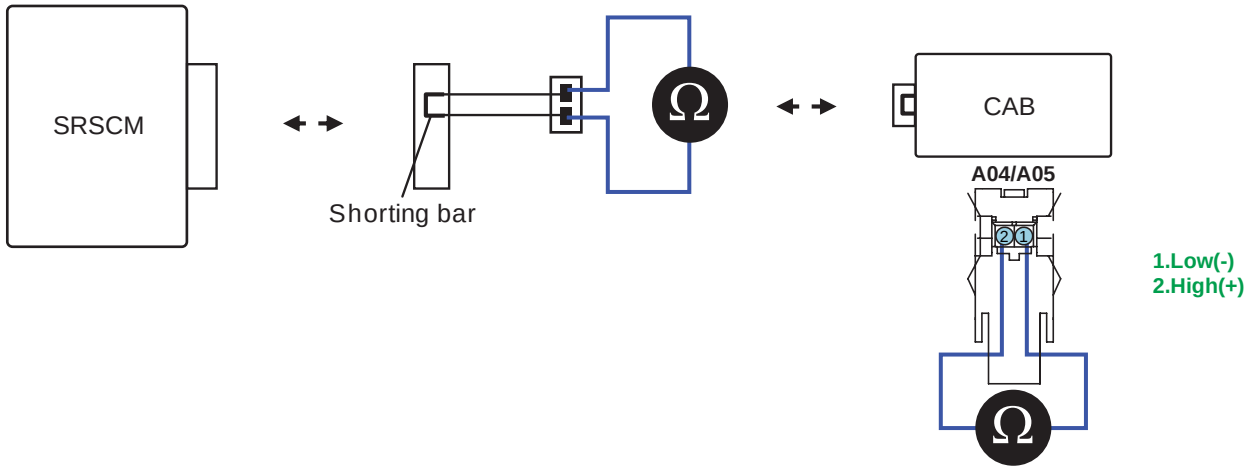
NO

▶ Substitute a known-good CAB assembly, and check for proper operation.
If the problem is corrected, replace CAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E98FE8DE

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect CAB connector and SRSCM main harness connector.
4. Measure resistance between terminal "2" and "1" of the CAB harness connector.

■ Specification : approx. 1 Ω below



SGHRT7412N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E98A9E78

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1475 INFLATABLE CURTAIN AIRBAG FRONT-DRIVER RESISTANCE CIRCUIT SHORT TO GROUND
DTC B1479 INFLATABLE CURTAIN AIRBAG FRONT-PASSENGER RESISTANCE CIRCUIT SHORT TO GROUND

GENERAL DESCRIPTION EE72C955

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner. It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn. CAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION EBCA7FA0

The SRSCM sets DTC B1475/B1479 if there is a short to ground in DCAB/PCAB harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION E35B6129

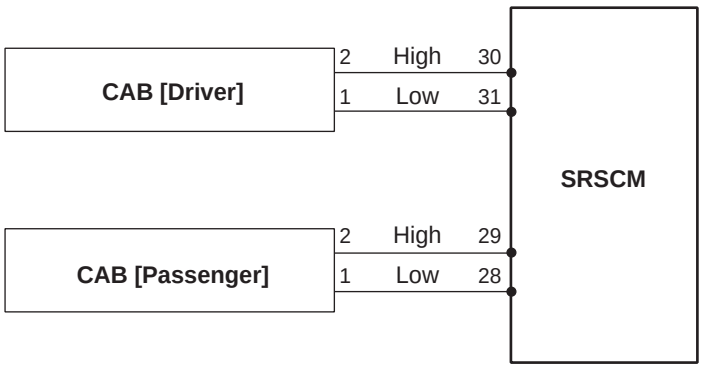
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in CAB harness. • Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty CAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2㏀	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION EE27B811

Test Condition	Resistance
Ignition ON (Closed circuit)	RS >10㏀

SCHEMATIC DIAGRAM E1B42E38

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

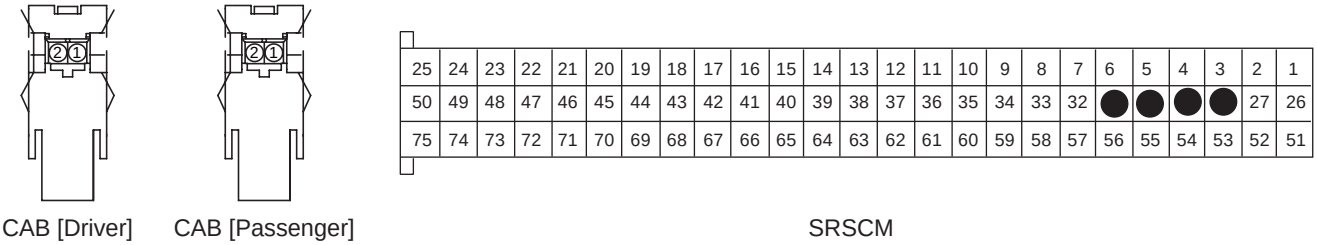
CAB [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 31	CAB Low
2	SRSCM terminal 30	CAB High

CAB [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 28	CAB Low
2	SRSCM terminal 29	CAB High

[HARNESS CONNECTORS]



SGHRT7410N

MONITOR SCANTOOL DATA E4660F87

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

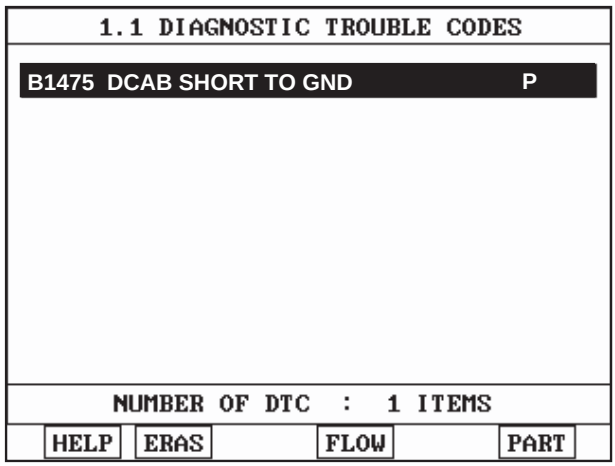


Fig.1

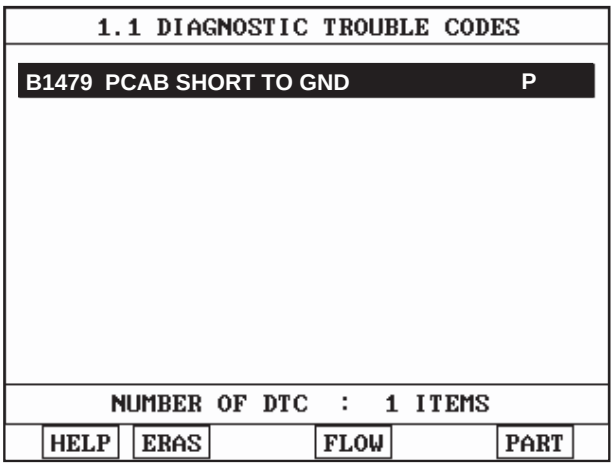


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7846N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E438A1A6

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

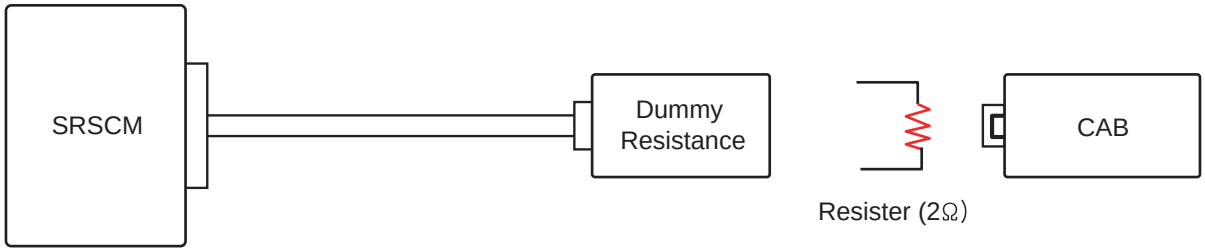
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION EA75C967

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect CAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good CAB or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SGHRT7411N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

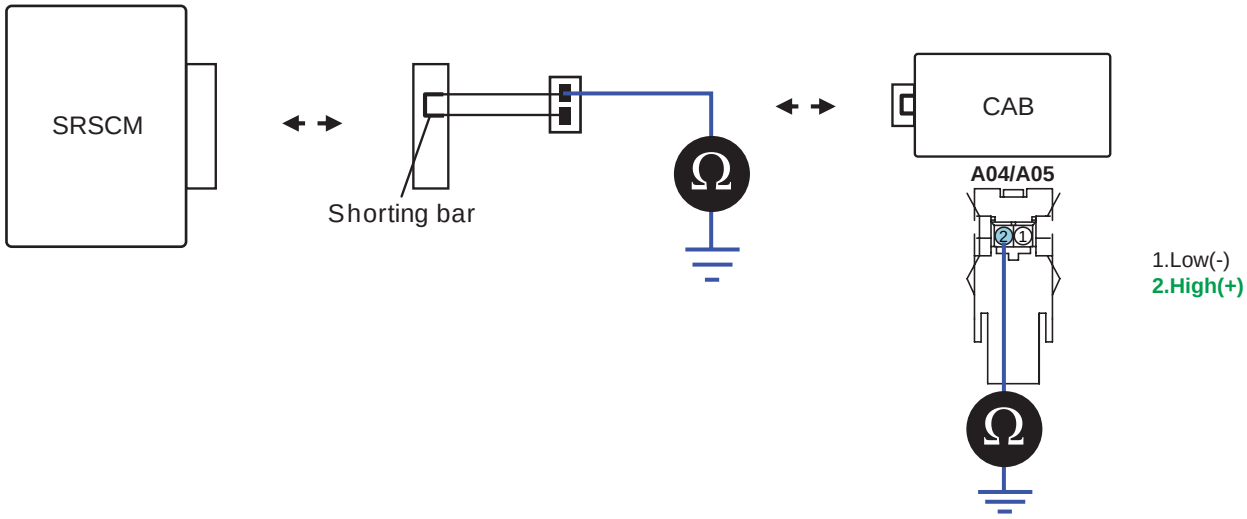
   ▶ Substitute a known-good CAB assembly, and check for proper operation.
   If the problem is corrected, replace CAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION E1E37DEE

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect CAB connector and SRSCM main harness connector.

4. Measure resistance between terminal "1" or "2" of the CAB harness connector and chassis ground.

■ Specification : ∞



SGHRT7413N

5. Is the measured resistance within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E9DE65CF

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1476 INFLATABLE CURTAIN AIRBAG FRONT-DRIVER RESISTANCE CIRCUIT SHORT TO BATTERY
DTC B1480 INFLATABLE CURTAIN AIRBAG FRONT-PASSENGER RESISTANCE CIRCUIT SHORT TO BATTERY

GENERAL DESCRIPTION E25B4268

Curtain Airbag (hereinafter referred to CAB)is located at driver and passenger side of headliner. It protects passenger's head and shoulder from fragments of glass or something sharpen caused by overturn. CAB is consist of air bag and inflator. Air bag reduces impact of collision by fillied up gas. Inflator keeps gas and uses it to deploy air bag on collision.

CAUTION

Never measure resistance of CAB directly, Current of measuring device may cause unexpected air bag deploy.

DTC DESCRIPTION E17762EC

The SRSCM sets DTC B1476/B1480 if there is a short to power in DCAB/PCAB harness.
* In this case, SRSCM checks if there's any fault in circuit by sending current for a while.

DTC DETECTING CONDITION EED17743

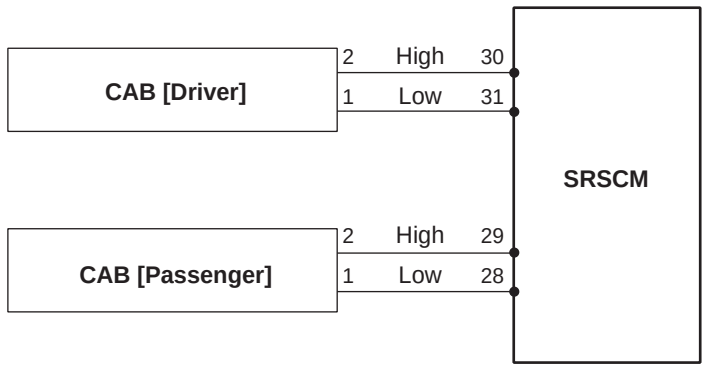
Item		Detecting Condition	Possible cause
DTC Strategy		• Check Resistance	• Short to ground in CAB harness. • Poor connection of connected part. • Poor connection between shorting bar and release pin. • Faulty CAB. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Threshold Value		• Rs < 2㏀	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SPECIFICATION E06F3927

Test Condition	Resistance
Ignition ON (Closed circuit)	RS >10㏀

SCHEMATIC DIAGRAM EA35D621

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

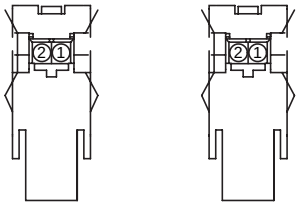
CAB [DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 31	CAB Low
2	SRSCM terminal 30	CAB High

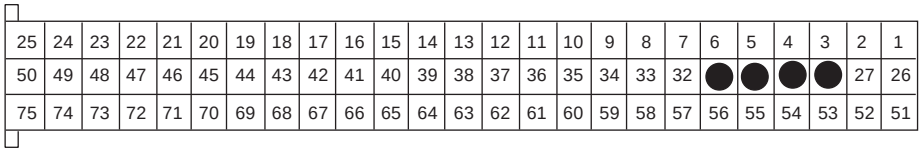
CAB [PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 28	CAB Low
2	SRSCM terminal 29	CAB High

[HARNESS CONNECTORS]



CAB [Driver] CAB [Passenger]



SRSCM

SGHRT7410N

MONITOR SCANTOOL DATA E538E662

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

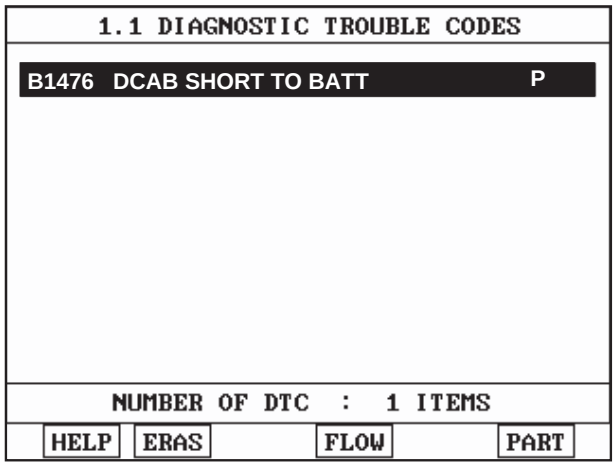


Fig.1

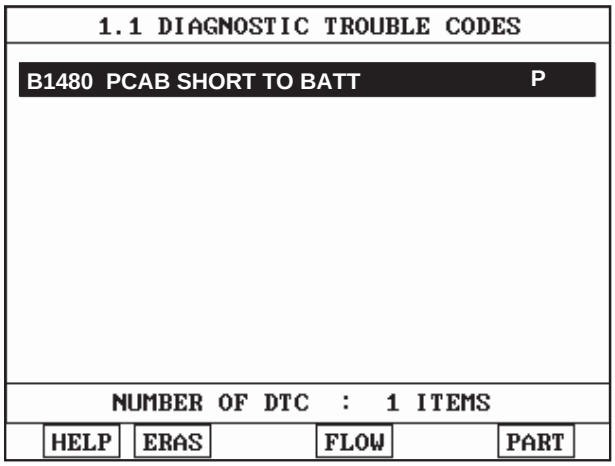


Fig.2

Note) - H : Historical fault
- P : Present fault

SGHRT7847N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E6642C2E

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

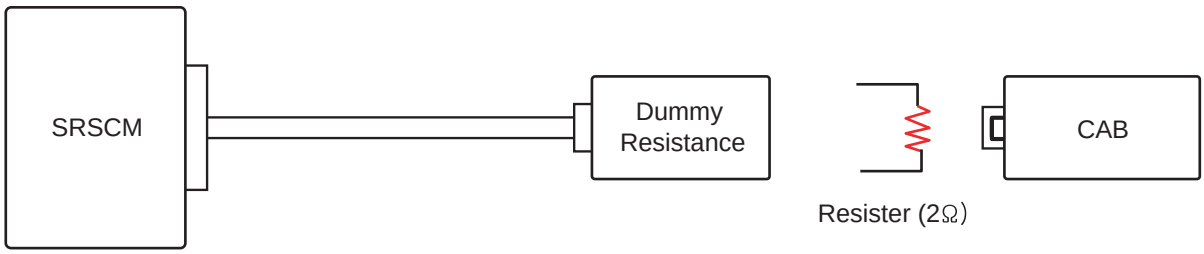
▶ Go to "Squib Circuit Inspection" procedure.

SQUIB CIRCUIT INSPECTION E4EFAC93

1. Ignition "OFF".
2. Disconnect (-) terminal cable from battery and wait for 1 minutes or more.
3. Disconnect CAB module and connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to main harness connector.

   NOTE

   If dummy and dummy adaptor are not able to be prepared, use a known-good CAB or 2Ω resistor.
4. Connect (-) terminal cable to battery and Ignition "ON" & Engine "OFF" and wait for 30 seconds or more.
5. Connect scantool to Data Link Connector(DLC) and clear DTC with scantool and diagnose again.



SGHRT7411N

6. Is DTC present problem ?

   YES

   ▶ Go to "Main harness circuit inspection" procedure.

   NO

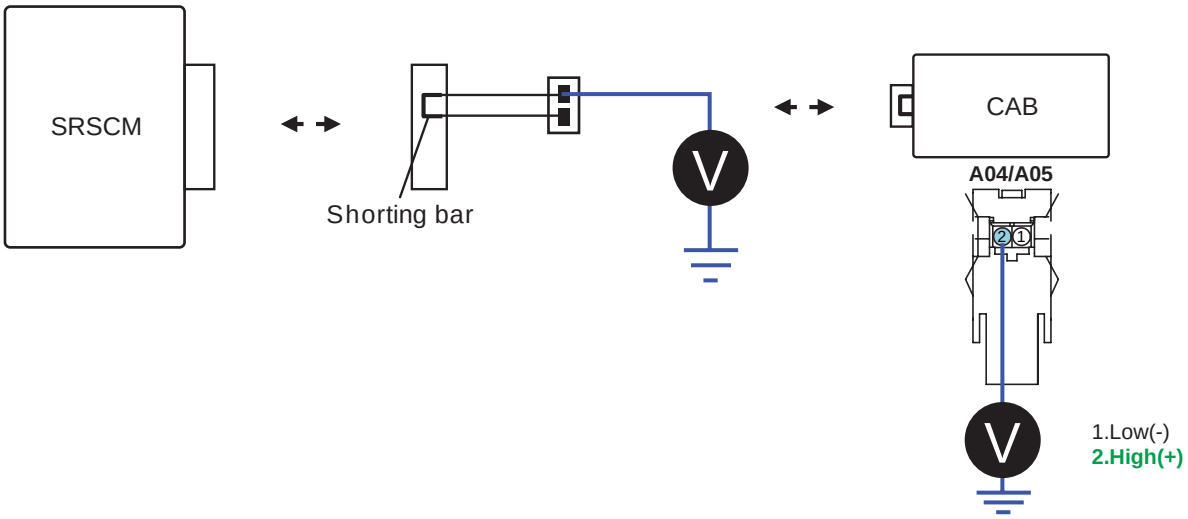
   ▶ Substitute a known-good CAB assembly, and check for proper operation.
   If the problem is corrected, replace CAB and then go to "Verification of Vehicle Repair" procedure.

MAIN HARNESS CIRCUIT INSPECTION EDCDDCEB

1. Ignition "OFF".
2. Disconnect the battery (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect CAB connector and SRSCM main harness connector.
4. Connect the battery (-) terminal cable to the battery and Ignition "ON" & Engine "OFF".

5. Measure voltage between terminal "1" or "2" of the CAB harness connector and chassis ground.

■ Specification : approx. 0V



SGHRT7414N

6. Is the measured voltage within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EC49ED8C

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1527 PASSENGER AIRBAG ON-OFF SWITCH OPEN OR SHORT TO BATTERY

GENERAL DESCRIPTION EA475BDD

PAD Switch(Passenger airbag deactivation Switch) is the device which prevents Passenger airbag from being deployed when the passenger seat is unoccupied as driver turning OFF PAD Switch.
When PAD Switch turned OFF, " PASSENGER SRS OFF" lamp on cluster turns ON.

DTC DESCRIPTION E47865E9

The above DTC is recorded when open or short to battery in PAD Switch occur.

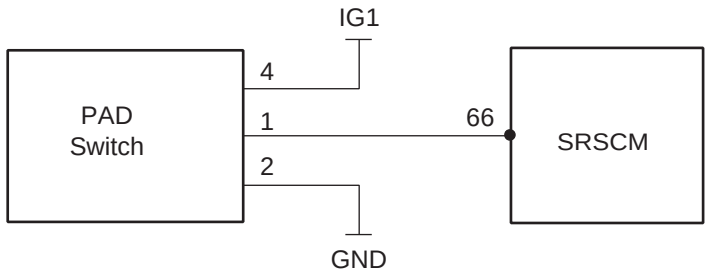
DTC DETECTING CONDITION E897532E

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current	• Short to Battery in the warning lamp circuit • Open, poor contact in the warning lamp
Enable Conditions		• Ignition "ON"	
Threshold Value		• Current(Ib) < 2.4 mA	
Diagnostic Time	Qualification	• More than 4sec	
	De-Qualification	• More than 8sec	

SPECIFICATION E252BEA0

Test Condition	Current
Ignition ON (Closed circuit)	• PAB ON (Enabled) : 3.7mA < current < 7.5mA • PAB OFF (Disabled) : 10mA < current < 17mA

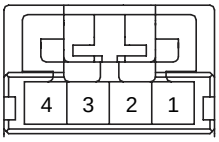
SCHEMATIC DIAGRAM E67D243E



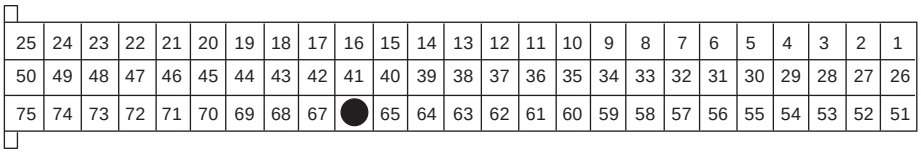
[PAD Switch]

Terminal	Connected to	Function
1	SRSCM Terminal 66	PAD SW
2	Ground	Chassis ground
4	IG1	Battery Voltage

[HARNESS CONNECTOR]



PAD SWITCH



SRSCM

SGHRT7450L

MONITOR SCANTOOL DATA EAEA5ABD

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

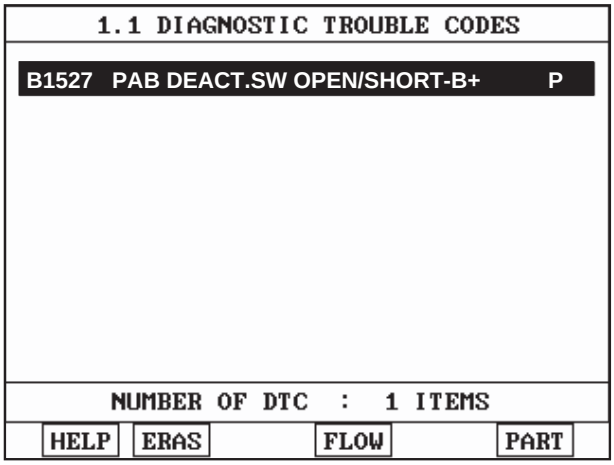


Fig.1

Note) - H : Historical fault
- P : Present fault

SGHRT7880L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Do not change the Passenger airbag deactivation switch, Passenger airbag deactivation switch is OK at this moment. Fault is intermittent and caused either by poor contact in connectors or wiring harness, or it has been repaired and SRSCM memory is not cleared yet. Thoroughly check all connectors (and connections) for looseness, bending, corrosion, contamination, deterioration, and/or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EE0C9CF9

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

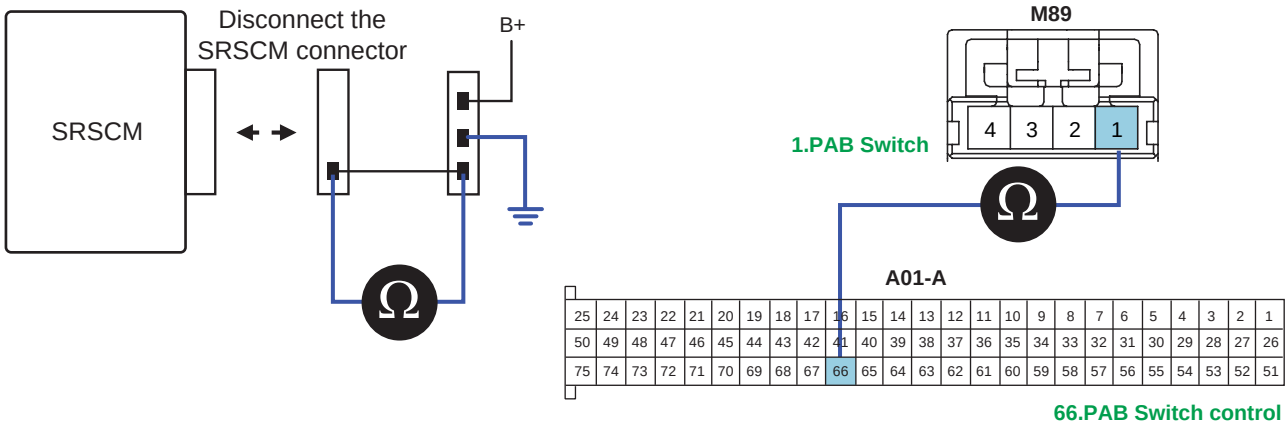
NO

▶ Go to "Control Circuit Open Inspection" procedure.

CONTROL CIRCUIT OPEN INSPECTION ECFBFD74

1. Ignition "OFF".
2. Disconnect the battery (+) & (-) terminal cable from the battery and wait at least one minutes.
3. Disconnect PAB SWITCH connector and SRSCM main harness connector.
4. Measure resistance between terminal "66" of the SRSCM main harness connector and terminal "1" of PAB SWITCH connector.

pecification : 0 Ω "



SGHRT7451L

5. Is the measured resistance within specifications?

YES

▶ Go to"Control Circuit short to Battery Inspection"

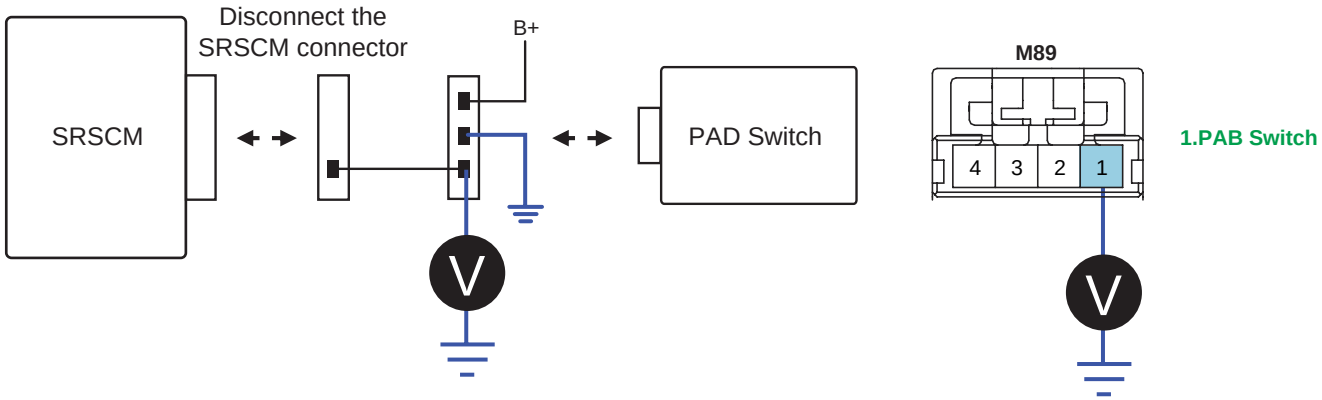
NO

▶ After replacing harness and go to "Verification and Vehicle Repair".

CONTROL CIRCUIT SHORT TO BATTERY INSPECTION

1. Ignition "OF"
2. Disconnect PAB SWITCH connector and SRSCM main harness connector.
3. Connect the battery (+) & (-) terminal cable to the battery and Ignition "ON" & Engine "OFF".
4. Measure voltage between terminal "1" of the main harness connector and chassis ground.

Specification : approx. 0V



SGHRT7452L

5. Is the measured voltage within specifications?

YES

▶ Go to "Component Inspection".

NO

▶ Substitute the SRS main harness and check for proper operation.
▶ If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EA14AD6B

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1528 PASSENGER AIRBAG ON-OFF SWITCH SHORT OR SHORT TO GROUND

GENERAL DESCRIPTION E7E62F84

PAD Switch(Passenger airbag deactivation Switch) is the device which prevents Passenger airbag from being deployed when the passenger seat is unoccupied as driver turning OFF PAD Switch.
When PAD Switch turned OFF, " PASSENGER SRS OFF" lamp on cluster turns ON.

DTC DESCRIPTION EF827B4B

The above DTC is recorded when short to ground or battery in PAD Switch occur.

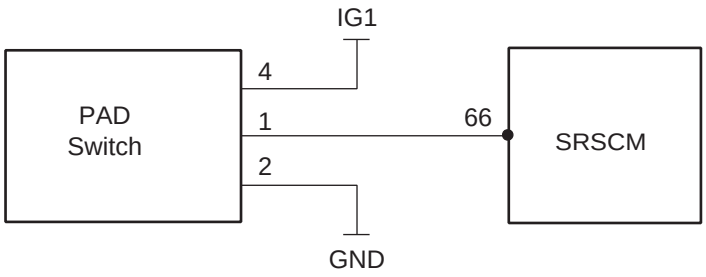
DTC DETECTING CONDITION E05859CE

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current	• Open/short to ground in the warning lamp circuit • Short, poor contact in the warning lamp
Enable Conditions		• Ignition "ON"	
Threshold Value		• Current (Ib) > 22mA	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8sec	

SPECIFICATION E2CF337B

Test Condition	Current
Ignition ON	• PAB ON (Enabled) : 3.7mA < current < 7.5mA • PAB OFF (Disabled) : 10mA < current < 17mA

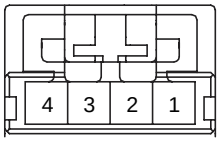
SCHEMATIC DIAGRAM EB0DB7D4



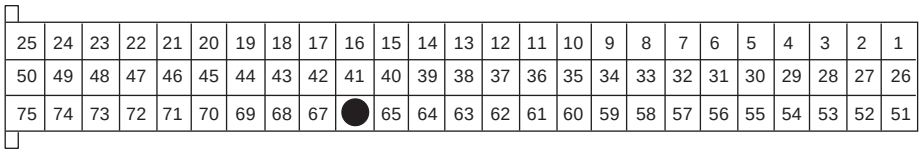
[PAD Switch]

Terminal	Connected to	Function
1	SRSCM Terminal 66	PAD SW
2	Ground	Chassis ground
4	IG1	Battery Voltage

[HARNESS CONNECTOR]



PAD SWITCH



SRSCM

SGHRT7450L

MONITOR SCANTOOL DATA E7C32B3C

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

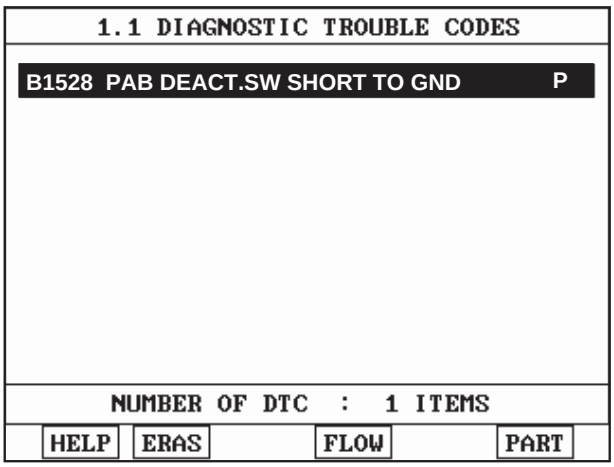


Fig.1

Note) - H : Historical fault
- P : Present fault

SGHRT7881L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Do not change the Passenger airbag deactivation switch, Passenger airbag deactivation switch is OK at this moment. Fault is intermittent and caused either by poor contact in connectors or wiring harness, or it has been repaired and SRSCM memory is not cleared yet. Thoroughly check all connectors (and connections) for looseness, bending, corrosion, contamination, deterioration, and/or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION E0F0A255

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Control Circuit Open Inspection" procedure.

CONTROL CIRCUIT OPEN INSPECTION E662FA67

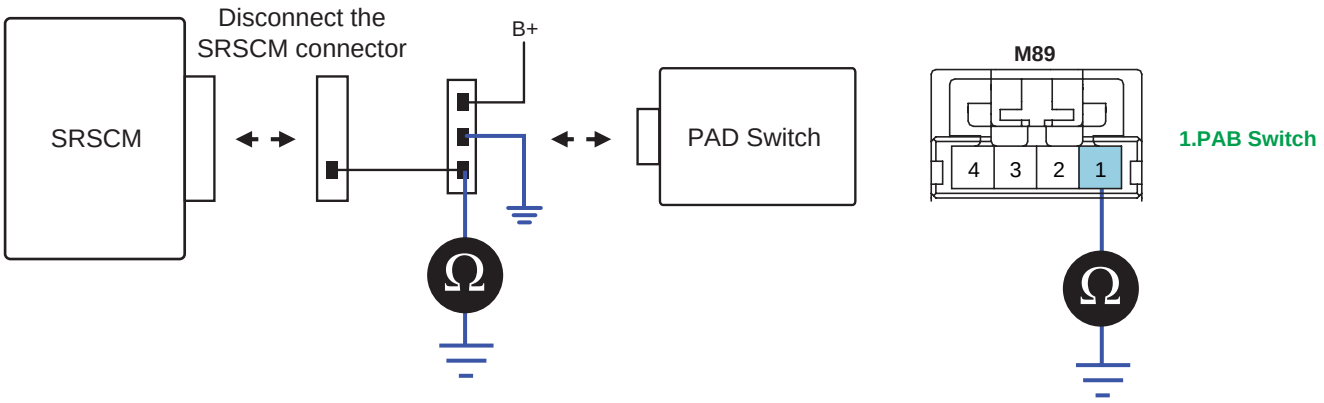
1. Ignition "OFF".

2. Disconnect the battery (+) & (-) terminal cable from the battery and wait at least one minutes.

3. Disconnect PAB SWITCH connector and SRSCM main harness connector.

4. Measure resistance between terminal "1" of the PAB SWITCH harness connector and chassis ground.

pecification : ∞



SGHRT7453L

5. Is the measured resistance within specifications?

YES

▶ After checking connecting condition and short to ground from PAB SWITCH harness to SRSCM harness, repair or replace it if needed and go to "Verification and Vehicle Repair".
▶ Go to "Component Inspection".

NO

▶ After replacing harness and go to "Verification and Vehicle Repair".

COMPONENT INSPECTION EDC4923B

1. Ignition "OFF".
2. Substitute with a known-good PAB SWITCH.
3. Using a scantool, clear the DTCs.
4. Is DTC "B1528" present ?

YES

▶ Poor contact at the SRS main harness connector; check the connector.
▶ If the connector is OK,substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ If the problem is still present, substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good PAB SWITCH, and check for proper operation.
If the problem is corrected, replace satellite driver sensor and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EF74E2C7

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1530 PASSENGER AIRBAG ON-OFF SWITCH INSTABILITY

GENERAL DESCRIPTION E8EAEE46

PAD Switch(Passenger airbag deactivation Switch) is the device which prevents Passenger airbag from being deployed when the passenger seat is unoccupied as driver turning OFF PAD Switch.
When PAD Switch turned OFF, " PASSENGER SRS OFF" lamp on cluster turns ON.

DTC DESCRIPTION E4E2A1FE

The above DTC is recorded when PAD switch signal inputted to SRSCM changes for a while from ON to OFF and vise versa.

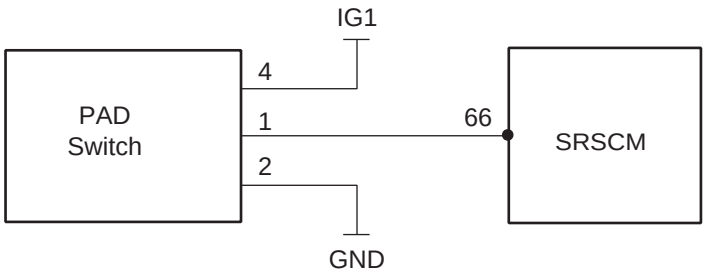
DTC DETECTING CONDITION E1A3D347

Item		Detecting Condition	Possible cause
DTC Strategy		• Check current	• Faulty PAD Switch. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• N/A	

SPECIFICATION EB98877E

Test Condition	Current
Ignition ON	• PAB ON (Enabled) : 3.7mA < current < 7.5mA • PAB OFF (Disabled) : 10mA < current < 17mA

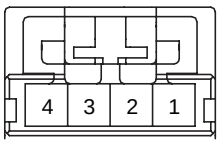
SCHEMATIC DIAGRAM E077CA0F



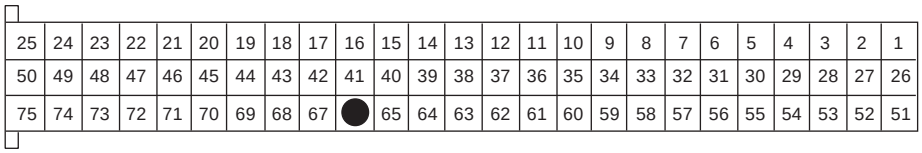
[PAD Switch]

Terminal	Connected to	Function
1	SRSCM Terminal 66	PAD SW
2	Ground	Chassis ground
4	IG1	Battery Voltage

[HARNESS CONNECTOR]



PAD SWITCH

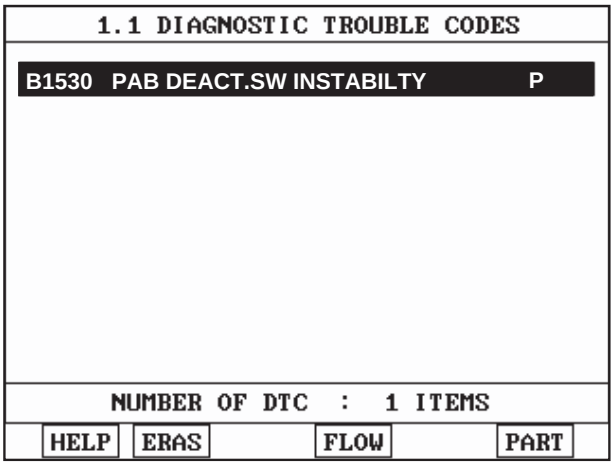


SRSCM

SGHRT7450L

MONITOR SCANTOOL DATA E8449E9B

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7883L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Do not change the Passenger airbag deactivation switch, Passenger airbag deactivation switch is OK at this moment. Fault is intermittent and caused either by poor contact in connectors or wiring harness, or it has been repaired and SRSCM memory is not cleared yet. Thoroughly check all connectors (and connections) for looseness, bending, corrosion, contamination, deterioration, and/or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION ED6A11FA

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.

2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Go to "Control Circuit Open Inspection" procedure.

CONTROL CIRCUIT OPEN INSPECTION EE1AD607

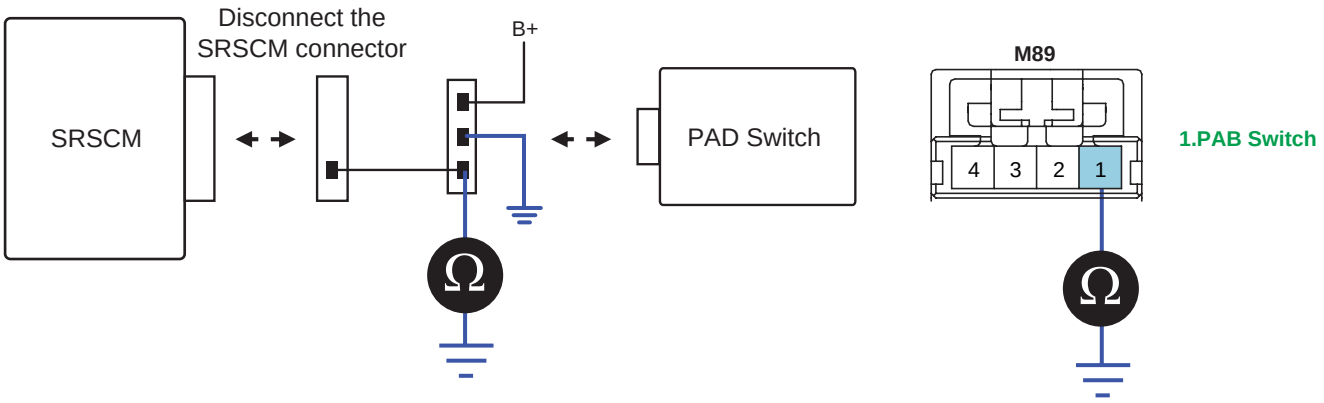
1. Ignition "OFF".

2. Disconnect the battery (+) & (-) terminal cable from the battery and wait at least one minutes.

3. Disconnect PAB SWITCH connector and SRSCM main harness connector.

4. Measure resistance between terminal "1" of the PAB SWITCH harness connector and chassis ground.

pecification : ∞



SGHRT7453L

5. Is the measured resistance within specifications?

YES

▶ After checking connecting condition and short to ground from PAB SWITCH harness to SRSCM harness, repair or replace it if needed and go to "Verification and Vehicle Repair".
▶ Go to "Component Inspection".

NO

▶ After replacing harness and go to "Verification and Vehicle Repair".

COMPONENT INSPECTION EF7F63E2

1. Ignition "OFF".
2. Substitute with a known-good PAB SWITCH.
3. Using a scantool, clear the DTCs.
4. Is DTC "B1530" present ?

YES

▶ Poor contact at the SRS main harness connector; check the connector.
▶ If the connector is OK,substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.
▶ If the problem is still present, substitute the SRS main harness and check for proper operation.
If the problem is corrected, replace SRS main harness and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Substitute a known-good PAB SWITCH, and check for proper operation.
If the problem is corrected, replace satellite driver sensor and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EC645228

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1620 AIRBAG UNIT INTERNAL FAULT

GENERAL DESCRIPTION E4A8E24B

In collision, SRSCM sends current to pertinent air bag for deployment. Besides SRSCM performs diagnosis of overall air bag system and light warning lamp if there's any fault in it. Main functions of SRSCM are as follows.

1. Collision and Passenger presence Detection.
2. Determination of BPT and air bag deployment in accordane with given condition.
3. Internal and external diagnosis of air bag system.
4. Warning by warning lamp if there's any fault in airbag system.
5. Proffering data for scantool diagnosis.

DTC DESCRIPTION EAC53CFE

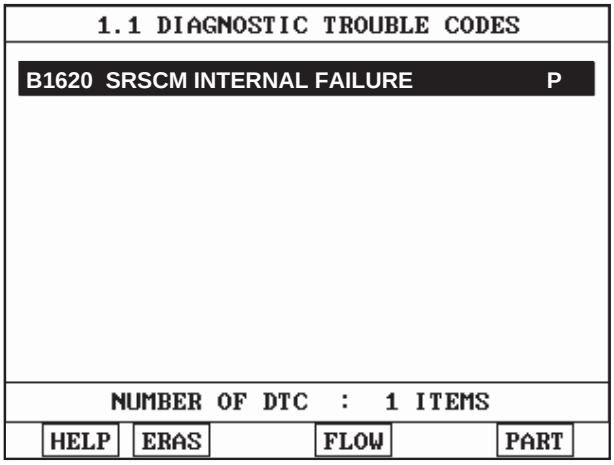
The SRSCM sets DTC B1620 if there is any fault in SRSCM.

DTC DETECTING CONDITION E851D38B

Item		Detecting Condition	Possible cause
DTC Strategy		• Check SRSCM	• SRSCM. • DAB,PAB,SAB,CAB deploys.
Enable Conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• -	
	De-Qualification	• ∞(infinite-DTC cannot be erased)	

MONITOR SCANTOOL DATA E2ECE401

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7894L

5. Is DTC present problem ?

YES

▶ Internal fault of SRSCM. Substitute with a SRSCM and check for proper operation. If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure..

VERIFICATION OF VEHICLE REPAIR E0014DFC

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1650 CRASH RECORDED IN 1ST STAGE ONLY (FRONTAL - REPLACE SRSCM)
DTC B1651 CRASH RECORDED IN FRONT-DRIVER SIDE AIRBAG (REPLACE SRSCM)
DTC B1652 CRASH RECORDED IN FRONT-PASSENGER SIDE AIRBAG (REPLACE SRSCM)

GENERAL DESCRIPTION EAA110AC

In collision, SRSCM sends current to pertinent air bag for deployment. Besides SRSCM performs diagnosis of overall air bag system and light warning lamp if there's any fault in it. Main functions of SRSCM are as follows.

1. Collision and Passenger presence Detection.
2. Determination of BPT and air bag deployment in accordane with given condition.
3. Internal and external diagnosis of air bag system.
4. Warning by warning lamp if there's any fault in airbag system.
5. Proffering data for scantool diagnosis.

DTC DESCRIPTION ECA1A445

The SRSCM sets DTC B1650 if DAB or PAB deploys.
The SRSCM sets DTC B1651 if DSAB,DRSAB,DCAB deploys.
The SRSCM sets DTC B1652 if PSAB,PRSAB,PCAB deploys.

DTC DETECTING CONDITION E0939687

<table>
<tr><th colspan="2">Item</th><th colspan="2">Detecting Condition</th><th>Possible cause</th></tr>
<tr><td colspan="2" rowspan="3">DTC Strategy</td><td>B1650</td><td>• Check DAB or PAB deployment</td><td rowspan="5">• SRSCM.
• DAB,PAB,SAB,CAB deploys.</td></tr>
<tr><td>B1651</td><td>• Check DSAB or DCAB deployment</td></tr>
<tr><td>B1652</td><td>• Check PSAB or PCAB deployment</td></tr>
<tr><td colspan="2">Enable Conditions</td><td colspan="2">• Ignition "ON"</td></tr>
<tr><td rowspan="2">Diagnostic Time</td><td>Qualification</td><td colspan="2">• -</td></tr>
<tr><td>De-Qualification</td><td colspan="2">• ∞(infinite-DTC cannot be erased)</td></tr>
</table>

MONITOR SCANTOOL DATA E660ACE7

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

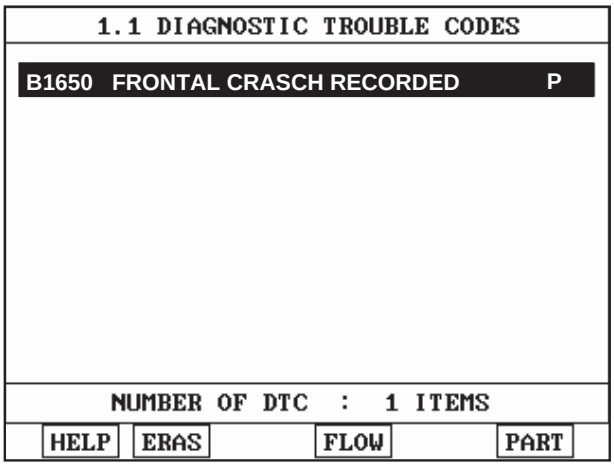


Fig.1

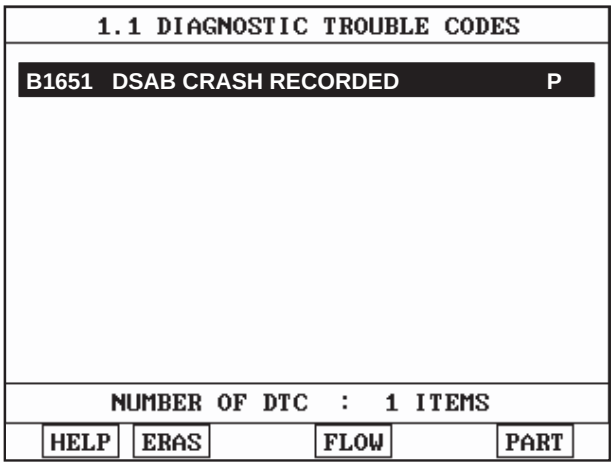


Fig.2

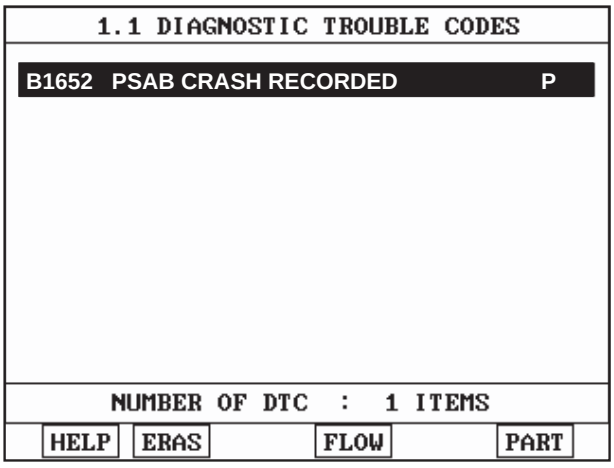


Fig.3

Note) - H : Historical fault
- P : Present fault

SGHRT7900L

5. Is DTC present problem ?

YES

▶ DTC caused by deployment of air bag(DAB,PAB,SAB,CAB). Sibstitute with a SRSCM and check for proper operation. If the problem is corrected, replace SRSCM and then to to "Verification of Vehicle Pepair" procedure.

VERIFICATION OF VEHICLE REPAIR E5B192D0

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B1657 CRASH RECORDED IN BELT PRETENSIONER ONLY
DTC B1658 BELT PRETENSIONER 6 TIMES DEPLOYMENT

GENERAL DESCRIPTION E2E656EE

In collision, SRSCM sends current to pertinent air bag for deployment. Besides SRSCM performs diagnosis of overall air bag system and light warning lamp if there's any fault in it. Main functions of SRSCM are as follows.

1. Collision and Passenger presence Detection.
2. Determination of BPT and air bag deployment in accordane with given condition.
3. Internal and external diagnosis of air bag system.
4. Warning by warning lamp if there's any fault in airbag system.
5. Proffering data for scantool diagnosis.

DTC DESCRIPTION EBB56290

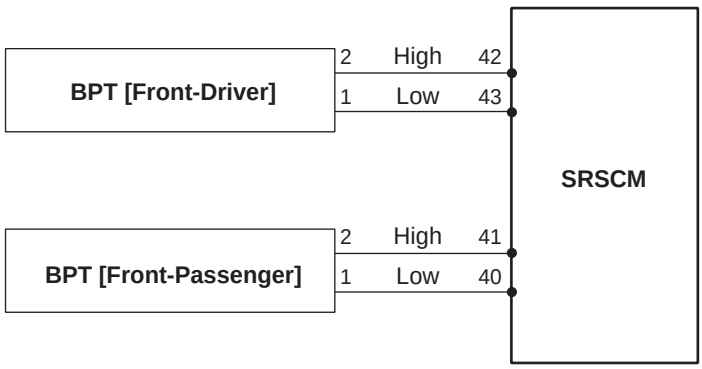
[B1657] The SRSCM sets DTC B1657 if any BPT deploys.
[B1658] When the Crash (Belt pretensioner 6 times deployment) recorded in the SRSCM.

DTC DETECTING CONDITION E7CF1070

<table>
<tr><th colspan="2">Item</th><th colspan="2">Detecting Condition</th><th>Possible cause</th></tr>
<tr><td colspan="2">DTC Strategy</td><td colspan="2">• Check BPT deployment</td><td rowspan="4">• SRSCM.
• BPT deploys.</td></tr>
<tr><td colspan="2">Enable Conditions</td><td colspan="2">• Ignition "ON"</td></tr>
<tr><td rowspan="3">Diagnostic Time</td><td>Qualification</td><td colspan="2">• N/A</td></tr>
<tr><td rowspan="2">De-Qualification</td><td>B1657</td><td>• -</td></tr>
<tr><td>B1658</td><td>• ∞(infinite-DTC cannot be erased)</td></tr>
</table>

SCHEMATIC DIAGRAM E43A1D93

[CIRCUIT DIAGRAM]



[CONNECTION INFORMATION]

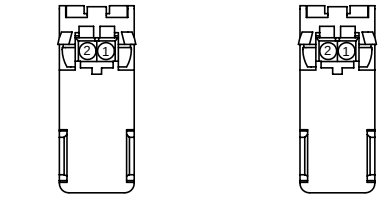
BPT [FRONT-DRIVER]

Pin	Connected to	Function
1	SRSCM terminal 43	BPT Low
2	SRSCM terminal 42	BPT High

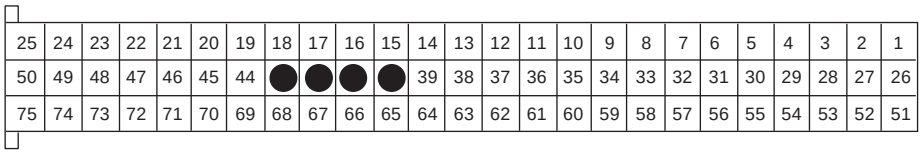
BPT [FRONT-PASSENGER]

Pin	Connected to	Function
1	SRSCM terminal 40	BPT Low
2	SRSCM terminal 41	BPT High

[HARNESS CONNECTORS]



BPT [Front-Driver] BPT [Front-Passenger]



SRSCM

SGHRT7340N

MONITOR SCANTOOL DATA E9AADE8D

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.

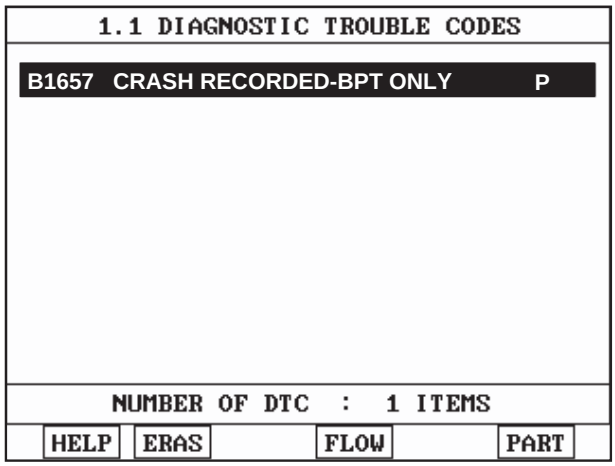


Fig. 1

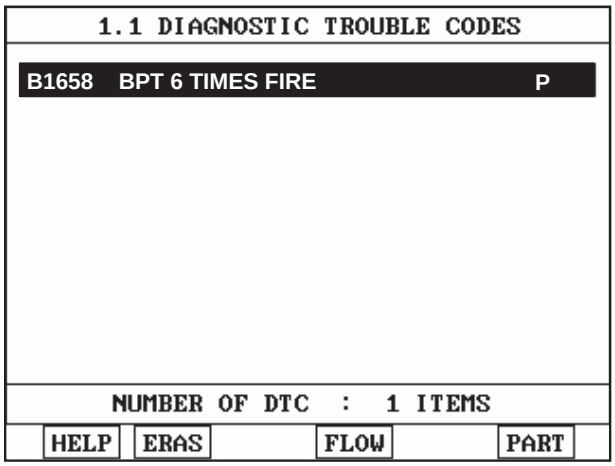


Fig. 2

Note) - H : Historical fault
- P : Present fault

SGHRT7907N

5. Is DTC present problem ?

YES

▶ DTC caused by deployment of BPT. Substitute with a SRSCM and check for proper operation. If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR E942364A

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B2500 SRS WARNING LAMP FAILURE

GENERAL DESCRIPTION EA30C74B

Air bag warning lamp is located at cluster. When key is in 'ignition on' position, SRSCM performs diagnosis of overall air bag system.If there's no fault, air bag. Warning lamp in cluster flickers for a whlie and then goes out. SRSCM measures voltage of out terminal of warning lamp to check if warnning lamp is operated in accordance with signal SRSCM sends.

DTC DESCRIPTION ED02DC21

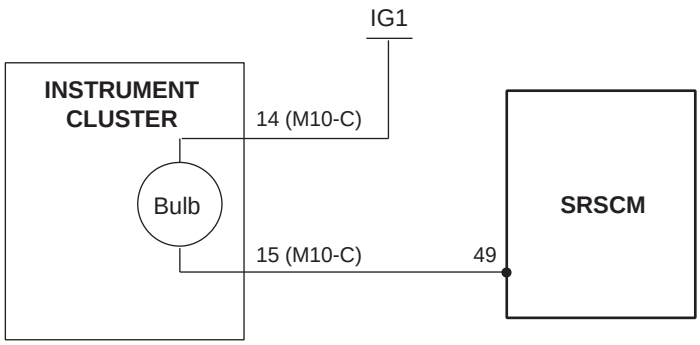
The SRSCM sets DTC B2500 if there is any fault in air bag warning light circuit.

DTC DETECTING CONDITION E361CC9A

Item		Detecting Condition	Possible cause
DTC Strategy		• Check voltage	• Burnt-out fuse. • Burnt-out warning lamp. • Open circuit in warning lamp harness. • Short circuit in warning lamp harness. • Faulty SRSCM.
Enable conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SCHEMATIC DIAGRAM EB3390EC

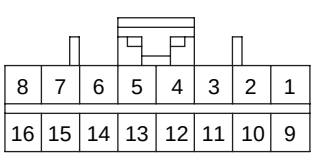
[CIRCUIT DIAGRAM]



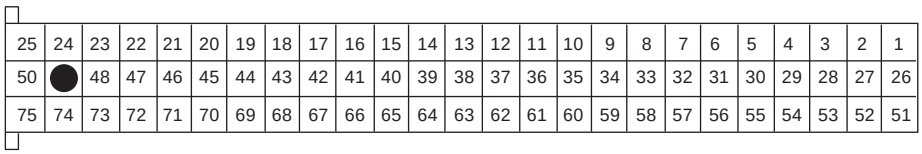
[CONNECTION INFORMATION]

Pin	Connected to	Function
14	IG1	Battery Voltage
15	SRSCM terminal 49	Lamp Control

[HARNESS CONNECTORS]



INSTRUMENT CLUSTER
- (C) CONNECTOR

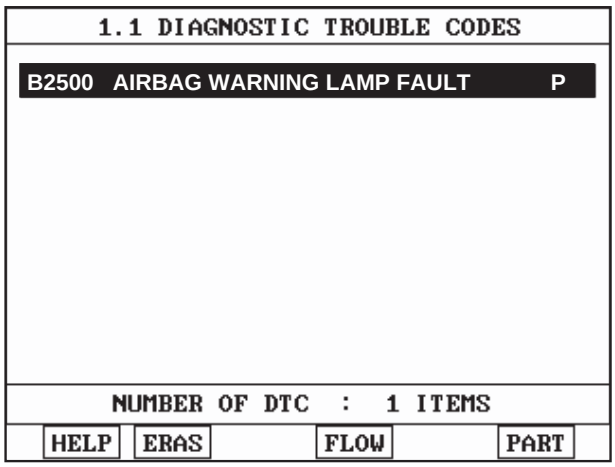


SRSCM

SGHRT7430L

MONITOR SCANTOOL DATA E7BC64FA

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7947N

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check shorting bar/shorting bar release pin and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION EE67D782

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check shorting connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

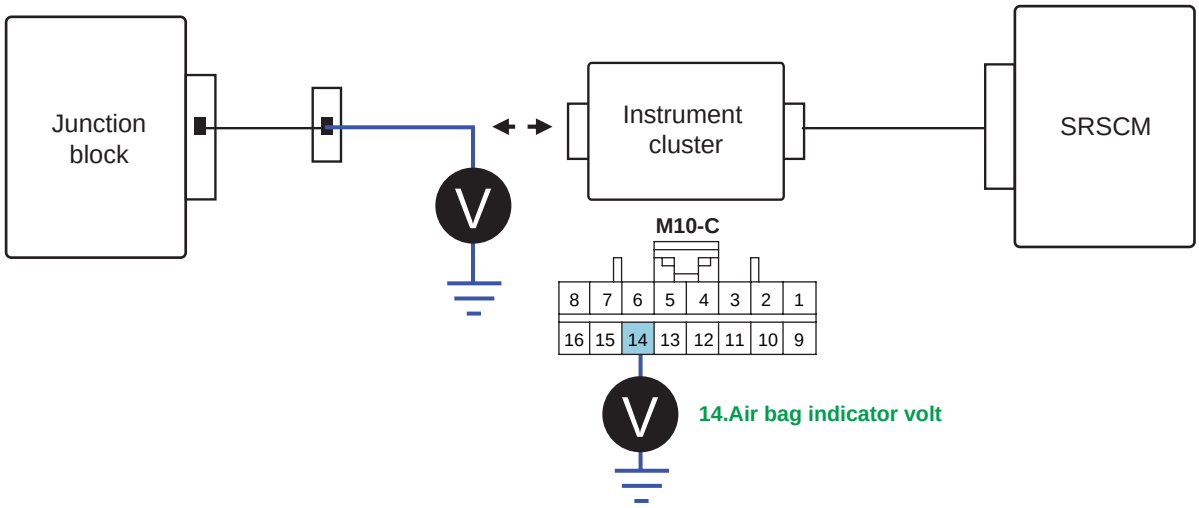
NO

▶ Go to "Component Inspection" procedure.

WARNING LAMP CIRCUIT INSPECTION EBE5B340

1. Ignition "OFF".
2. Remove the Instrument cluster from crash pad assembly.
3. Ignition "ON" & Engine "OFF".
4. Measure voltage between terminal "14"of the Instrument cluster harness connector and chassis ground.

■ Specification : Batt Voltage



SGHRT7431N

5. Is the measured voltage within specifications?

YES

▶ Check warning lamp and connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage. Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Check airbag fuse, junction block, Warning Lamp, harness between junction block and SRSCM . Repair as necessary and go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EEFAE0A2

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

DTC B2505 PASSENGER AIRBAG DISABLE LAMP FAILURE

GENERAL DESCRIPTION EDD0BF3E

PAD Switch(Passenger airbag deactivation Switch) is the device which prevents Passenger airbag from being deployed when the passenger seat is unoccupied as driver turning OFF PAD Switch.
When PAD Switch turned OFF, " PASSENGER SRS OFF" lamp on cluster turns ON.

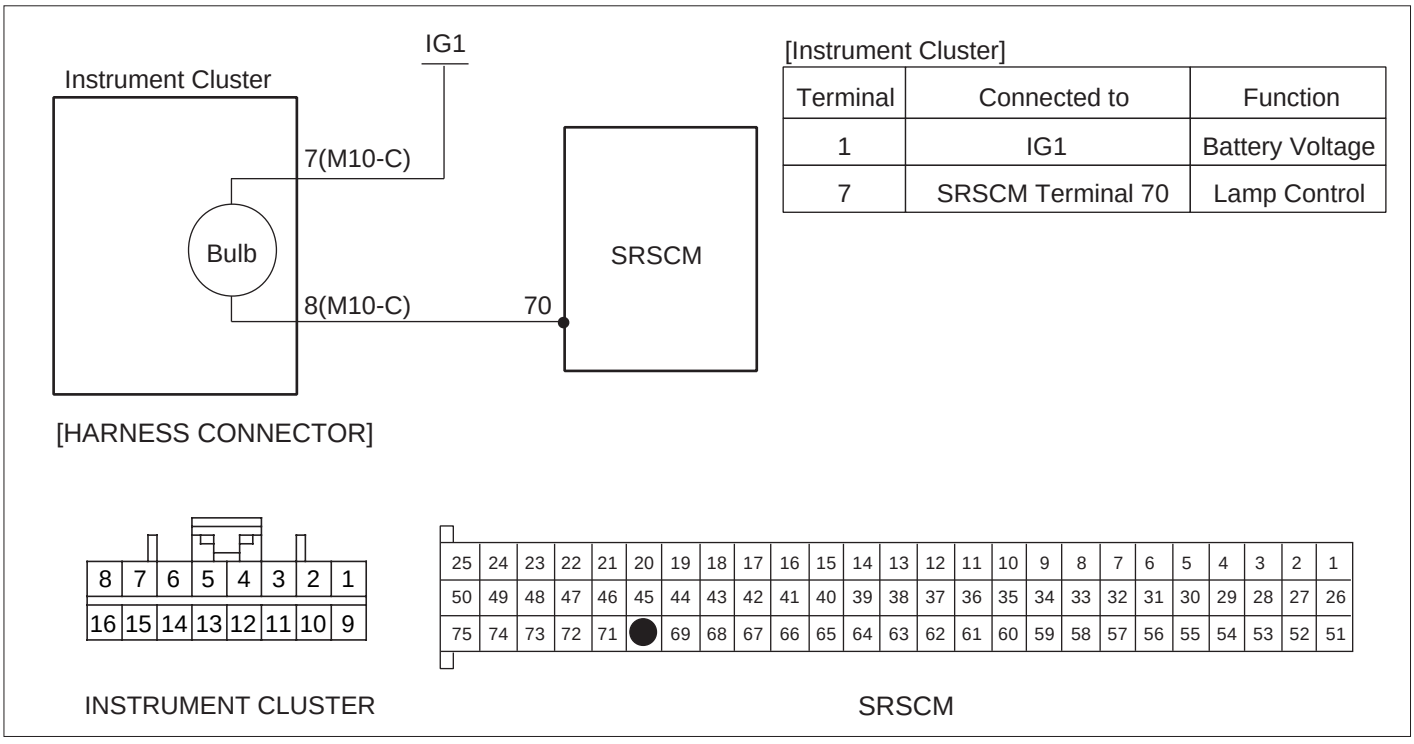
DTC DESCRIPTION E6CE5254

The above DTCs are recorded when the defect of the Passenger airbag off warning lamp is detected in Passenger airbag off warning lamp circuit.

DTC DETECTING CONDITION E392F00F

Item		Detecting Condition	Possible cause
DTC Strategy		• Check voltage	• Burnt-out fuse. • Burnt-out airbag off warning lamp. • Open circuit in airbag off warning lamp harness. • Short circuit in airbag off warning lamp harness. • Faulty SRSCM.
Enable Conditions		• Ignition "ON"	
Diagnostic Time	Qualification	• More than 4 sec	
	De-Qualification	• More than 8 sec	

SCHEMATIC DIAGRAM EEEFE17B



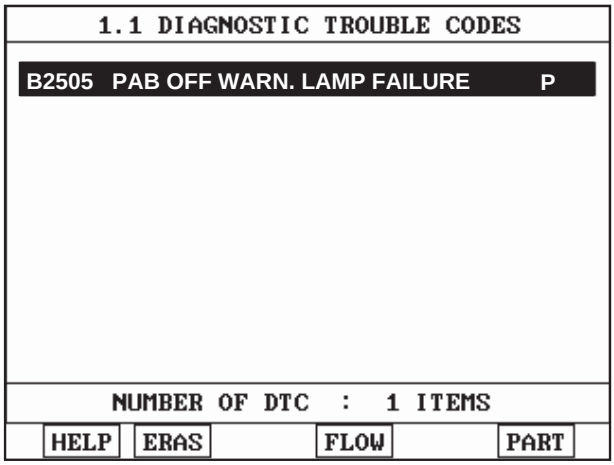
[Instrument Cluster]

Terminal	Connected to	Function
1	IG1	Battery Voltage
7	SRSCM Terminal 70	Lamp Control

SGHRT7460L

MONITOR SCANTOOL DATA E1B75E68

1. Ignition "OFF", connect scantool.
2. Ignition "ON" & Engine "OFF", select "Diagnostic Trouble Codes(DTC)" mode.
3. Monitor diagnostic trouble code and present of trouble code.
4. Using a scantool, clear the DTC.



Note) - H : Historical fault
- P : Present fault

SGHRT7952L

5. Is DTC present problem ?

YES

▶ Go to "W/Harness Inspection" procedure.

NO

▶ Displaying nothing(no DTC) or DTC with label "H"(historical) shows that Fault is intermittent caused by poor contact in the part's and/or SRSCM connector or was repaired and SRSCM memory was not cleared.
Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.
▶ Repair or replace as necessary and then go to "Verification of Vehicle Repair" procedure.

TERMINAL AND CONNECTOR INSPECTION ED898B66

1. Many malfunctions in the electrical system are caused by poor harness and terminals.
Faults can also be caused by interference from other electrical systems, and mechanical or chemical damage.
2. Thoroughly check connectors for looseness, poor connection, bending, corrosion, contamination, deterioration, or damage.

3. Has a problem been found?

YES

▶ Repair as necessary and then go to "Verification of Vehicle Repair" procedure.

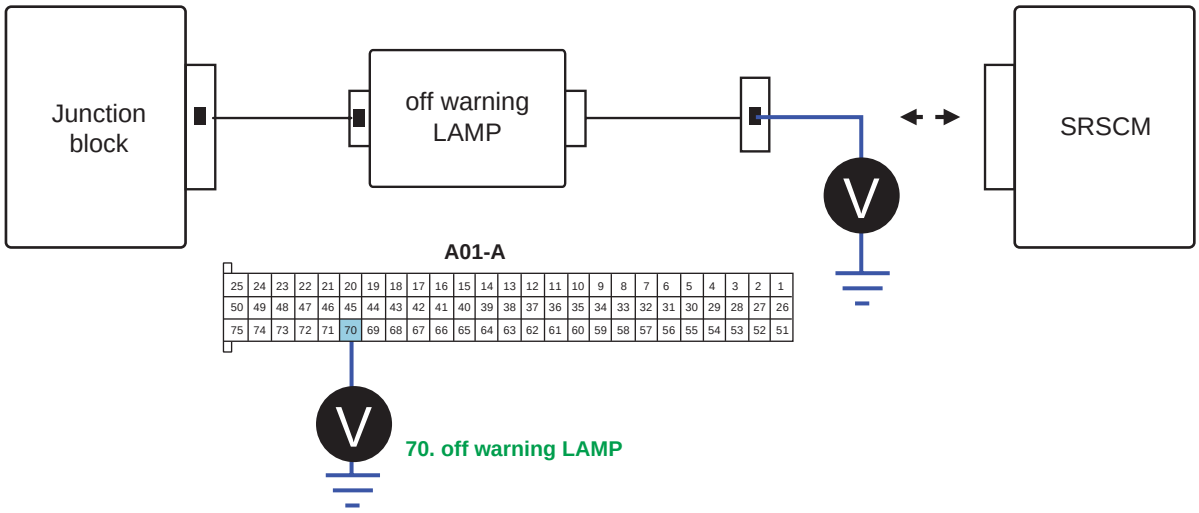
NO

▶ Go to "Warning lamp Circuit Inspection" procedure.

WARNING LAMP CIRCUIT INSPECTION EF0A364E

1. Ignition "OFF".
2. Disconnect SRSCM main harness connector.
3. Ignition "ON" & Engine "OFF".
4. Measure voltage between terminal "70" of the SRSCM main harness connector and chassis ground.

pecification : Batt Voltage



SGHRT7461L

5. Is the measured voltage within specifications?

YES

▶ Substitute a known-good SRSCM, and check for proper operation.
If the problem is corrected, replace SRSCM and then go to "Verification of Vehicle Repair" procedure.

NO

▶ Check airbag fuse, airbag off warning lamp, junction box, harness between junction block and SRS .
Repair as necessary and go to "Verification of Vehicle Repair" procedure.

VERIFICATION OF VEHICLE REPAIR EC3317DD

Refer to the DESCRIPTION in this TROUBLESHOOTING section.

AIR BAG MODULE DISPOSAL

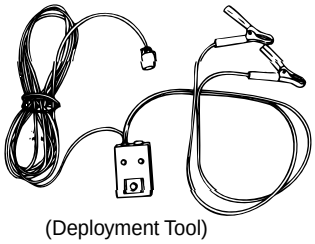
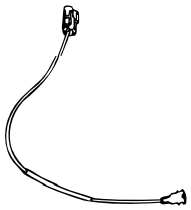
AIRBAG MODULE DISPOSAL PROCEDURES EB1DB760

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

CAUTION

When handling the deployed airbag be careful that not the dust enters your eyes and always wear gloves to avoid direct contact with the dust.

AIRBAG REMOTE DEPLOYMENT DEVICES

Tool Name and Tool Number	Use
1. Deployment tool: 0957A-34100A 2. Deployment tool adapter A. DAB, BPT, CAB: 0957A-1C000 B. PAB: 0957A-38100 C. FSAB, RSAB: 0957A-3F100  (Deployment Tool)  (Deployment Tool Adapter) LRCD545A	To deploy a airbag module by compulsion.

DISPOSAL PLAN

Take the following disposal steps.

CASE		DISPOSAL PLAN
Car scrapping	DAB, PAB, BPT, FSAB, RSAB, CAB	Deploy the airbag module with the SST
Crash (Deployed)		Discard

UNDEPLOYED AIRBAG MODULE DISPOSAL

CAUTION

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

DEPLOYMENT INSIDE THE VEHICLE

WHEN VEHICLE WILL NO LONGER BE DRIVEN :

1. Open all windows and doors of the vehicle. Move the vehicle to an isolated spot.

2. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle

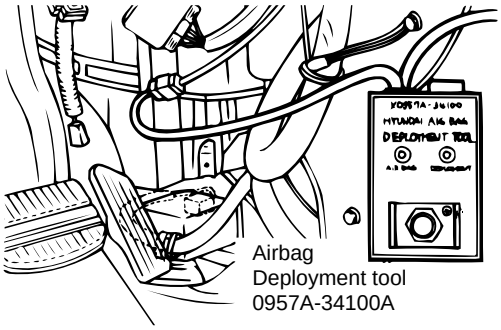
CAUTION

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

3. Remove the center crash pad side cover.

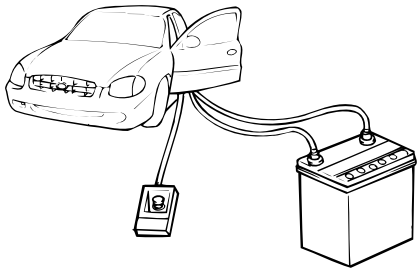
4. Remove the Airbag SRSCM connector.

5. Connect the deployment tool to the connector of each module.



ERDA034B

6. As far away from the vehicle as possible, press the push button on the depolyment tool to deploy the airbag.



ERA9009B

CAUTION

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

DEPLOYED AIRBAG MODULE DISPOSAL PROCEDURES

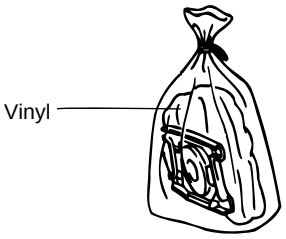
After deployment, the airbag module should be disposed of in the same manner as any other scrap part, except thath the following points should be carefully noted during disposal.

1. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it.

2. Do not put water or oil on hte airbag after deployment.

3. There may be adhered to the deployed airbag module, material that could irritate the eyes and/or skin, so wear gloves and safety glasses when handling a deployed airbag module. If despite these precautions, the material does get into your eyes or on your skin, immediately rinse the affected area with a large amount of clean water, If any irritation develops, seek medical attention.

4. Tightly seal the airbag module in a strong viny bag for disposal.



ERA9009C

5. Be sure to always wash your hands after completing this operation.