长安汽车
CHANGAN

EADO Workshop Manual

Supplemental Restraint System

EADORM2H/3/1

4.2 Supplemental Restraint System

2012 EADO

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Specifications

Torque Specifications

Name	Nm	lb-ft	lb-in
Retaining bolts of front passenger's Air-bag	9	-	80
Retaining bolts of seat airbag	9	-	80
Curtain airbag retaining bolt	9	-	80
Retaining bolts of airbag control module	9	-	80
Impact sensor retaining bolt	9	-	80

Description and Operation

System Overview

WARNING: The vehicle is equipped with airbags restraint system, and failure to follow the correct procedures will lead to the following: a. Unexpected airbag deployment. b. Supplementary restraint system does not function when it's needed.

WARNING: Observe the following guidelines strictly to avoid the situation above: a. Before the start of work, make sure if you are undergoing maintenance operations around the supplementary restraint system components or on the circuits of them. b. If you are undergoing maintenance operations around the supplementary restraint system components or on the circuits of them, you should shut down the supplementary restraint system.

Supplementary restraint system (SRS AIRBAG) is a safety device used in conjunction with seat belts. Airbag can not replace the role of seat belts. Driver and passengers must wear safety belts all the time and adjust to the most comfortable state according to the body conditions.

CAUTION: Supplementary restraint system can not replace the role of seat belts, Failure to wear a seat belt may cause serious personal injury when airbag deployment. Chana Auto remind you of wearing seat belts when traveling by car. Only when your seat belts are fastened, supplementary restraint system can provide a better assistant protection for the crew when crashing.

Supplementary restraint system is designed for protecting the driver and front passengers when vehicles endure severe frontal collision. In case of collision, the sensor sends a collision signal to airbag controller which can judge if minimum requirement of airbag inflation is met according to the degree of collision and then issue the ignition command to inflate the airbag, quickly forming a soft air bag filled with air between passengers and interior structures (such as steering wheel, instrument panel and trim plates, etc.), buffering and absorbing collision energy under the damping action of airbag, and at the same time the seat belt pretensioner work, realizing the purpose of mitigating the injury to the passengers.

Supplementary restraint system is composed of the following components:

- Airbag indicator
- Airbag control module (SDM)
- Instrument cluster assembly
- Passenger side impact sensor
- Driver airbag
- Passenger airbag
- Side airbag at driver's side
- Side airbag at passenger's side
- Left&right side curtain airbags
- Pretensioner seat belt at driver's side
- Pretensioner seat belt at passenger's side

Supplementary restraint system provides a secondary protection except for seat belts for the crew. It is a passive safety system. Supplementary restraint system consists of multiple inflatable protection modules. They are distributed in different locations on the vehicle, including the steering wheel, instrument panel, roof and seat. Each inflatable module has a explosion loop which is controlled by the Airbag control module.

Airbag control module implemented a continuous diagnostic monitoring to the electrical components of supplementary restraint system. If the system detects a failure, airbag control module will set a fault diagnosis code and turn on the airbag indicator to remind the driver. Airbag control module will judge the severity grade of the collision. If the signal value is greater than the memory settings, airbag control module will give off a ignition instruction to spread corresponding inflatable modules of the supplementary restraint system.

After confirming the collision signal, airbag control module (SDM)will send a "collision unlock" signal to BCM. Upon receiving the said signal, BCM will execute the unlocking function.

Component Description

Airbag indicator

Airbag indicator is located within the instrument assembly. It is used for reminding the driver of the fault of supplementary restraint system and test whether the airbag control module is communicating with instrument panel. When turning the ignition switch to "ON" position, make sure the indicator is on. 4 seconds later, the indicator is off. If the indicator is still on or flashing at this time, the fault existing in the circuit of the supplementary restraint system must be tested. When there is no fault in the circuit of the supplementary restraint system, the indicator will go off after a 4 s long bright.

WARNING: If there is a failure in the supplementary restraint system, it may cause the airbag can not be deployed, or deploy the airbag when the collision does not reach the severity setting degree. If the airbag indicator is on, please go to the Chana Automobile authorized service stations for maintenance as soon as possible; the airbag indicator won't go off before the completion of fault repair.

Airbag control module (SDM)

WARNING: Air bag control module (SDM) is equipped with backup power supply which makes the air bag deploy successfully even in case of battery voltage loss during crash.

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

WARNING: In order to prevent the unexpected airbag deployment, causing personal injury, do not treat the undeployed airbag module as conventional plant waste. Use deployment program to scrap the undeployed airbag module safely. If the sealed container in the scrap process is damaged, some materials within the undeployed module may cause serious illness or personal injury.

Airbag control module (SDM) is a microprocessor which controls the center of the supplementary restraint system. When the crash occurs, airbag control module will compare the detected collision signal with the value in the memorizer, when the signal generated exceeds the value in the storage, airbag control module will give every ignition circuit a ignition order (Current signal) to deploy the airbag. When the airbag is deploying, airbag control module will record the situation of the supplementary restraint system and turn on the airbag indicator in the instrument circuit. After the car starts, airbag control module will execute continuous diagnostic monitoring to electrical components and wiring of the supplementary restraint system. If a failure is detected, airbag control module will store a fault diagnosis code and turn on the airbag indicator to inform the driver that there is a fault.

Side impact sensor

The side impact sensor is used to acquire lateral acceleration signal in case of an impact and transmit the signal to airbag control module to judge whether the airbag should be ignited.

Driver airbag, passenger airbag

WARNING: When transporting the undeployed airbag module: a. Shall not carry handling wires or connectors of the airbag module. b. Ensure that the airbag opening is not facing you or other people.

Driver airbag and passenger airbag consists of shell, inflatable airbags, an ignition device for igniting and the gas generating agent. When occurring a face collision and the impact of the collision is large enough, airbag control module will give ignition loop an ignition order and deploy the airbag. The gas generated in the reaction makes the airbag expand rapidly The gas generated from this action inflates the airbag quickly. Once airbag is filled with gas, it will release the gas through the release holes of the airbag. There is a short circuit slice in the wiring harness connector terminal of the airbag control module (driver airbag, passenger airbag deployment loop). When the connector is disconnected, short circuit bar will connect the airbag inflation module to deploy the loop, in order to prevent an unexpected airbag deployment during the maintenance.

Side airbags at driver's side and passenger's side

Side airbags at driver's side and passenger's side are located on the back of driver's seat and passenger seat respectively. The SRS side airbag module consists of airbag, ignition device and gas propellant. The igniter is a part of deployment loop of SRS side airbag module. When the vehicle encounters a side impact with adequate force, the side impact sensor will detect this impact and send a signal to the airbag control module. The airbag control module will compare the signal from the side impact sensor with the settings in the memory. When the generated signal exceeds the stored value, the airbag control module will issue the ignition command to deploy the SRS side airbag. In case of impact at passenger's side, the side airbag at driver's side is required to deploy and the side airbag at passenger's side to ignite. The airbag control module constantly monitors the deployment loop for malfunction and will illuminate the airbag indicator lamp once a malfunction occurs. There is a short circuit slice in the wiring harness connector terminal of the airbag control module (each side airbag deployment loop). A short-circuit plate can short the deployment loop of side airbag module to prevent accidental deployment during the servicing.

Side Air Curtain

The curtain airbag is mounted in the trim panel of side wall and head lining and will deploy in case of side impact, forming a soft air bag between passenger and interior structure to protect passengers. Its abbreviation is CAB.

Clock spring

WARNING: Wrong installation of the clock spring assembly could lead damage to the internal spiral coil and the coil fault to cause the air bag module failure and personal injury.

Airbag clock spring is in the steering column and on the bottom of the steering wheel. Clock spring can keep a electronic connection between driver deployment and driver airbag during the steering of the steering wheel. The clock spring can keep constant electric contact between driver deployment loop and driver airbag when the steering wheel rotates.

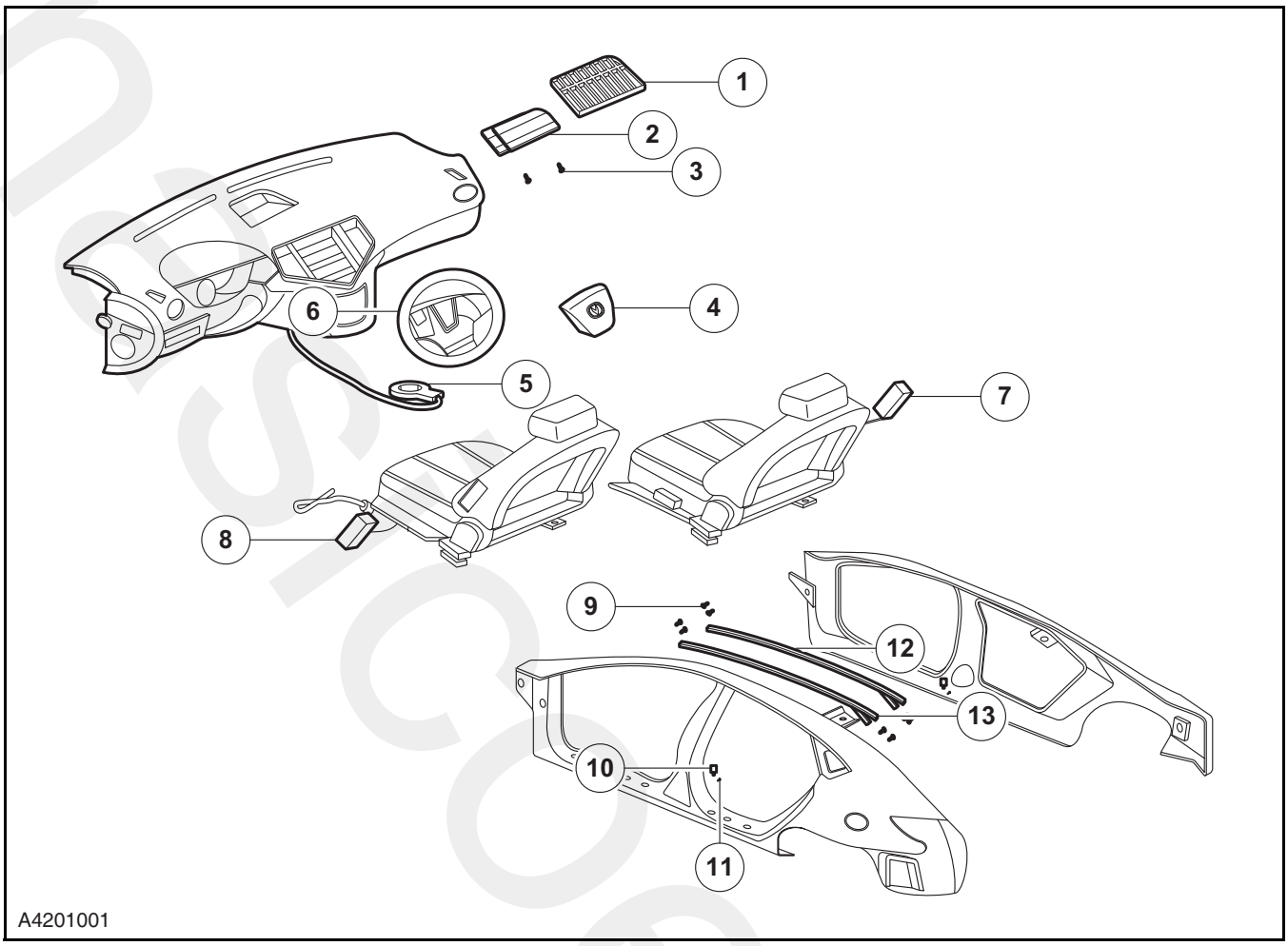
Airbag wiring harness system

Airbag system wiring harness connects control unit, inflatable module, deployment loop and data circuit via waterproof connector. The wiring harness of the Supplementary restraint system, please follow the corresponding testing and circuits repair program in this manual. The wring harness of the supplementary restraint system deployment loop are yellow, which is convenient to identify when repair. To service the supplemental restraint system wiring harness, please follow corresponding test and circuit repair procedures in this manual.

Driver side pretensioner seat belt, passenger side pretensioner seat belt

Driver side pretensioner seat belt and passenger side pretensioner seat belt each consists of a housing, an ignition device and gas generant. The igniter is a part of seat belt pretensioner deployment loop. In case of collision with adequate frontal or side impact force, the airbag control module will issue the ignition command (current signal) and the current will flow through the igniter to ignite the gas propellant, thus producing a great deal of gas quickly. The gas from this action will extend to the seat belt retractor module, quickly retracting the belt. A short-circuit plate is installed to the wiring harness connector terminal of airbag control module (deployment loop of each seat belt pretensioner force limiter). The short-circuit plate can short the deployment loop of pretensioner force limiter to prevent accidental deployment of the limiter during the servicing.

Component Location View



No.	Part	No.	Part
1	Instrument panel airbag frame	8	Seat side airbag (left)
2	Passenger airbag	9	Curtain airbag retaining bolt
3	Retaining bolts of front passenger's Aair-bag	10	Impact sensor
4	Driver airbag	11	Impact sensor retaining bolt
5	Airbag controller	12	Side air curtain (right)
6	Retaining bolts of airbag control module	13	Side air curtain (left)
7	Seat side airbag (right)		

Symptom Diagnosis and Testing

General equipment

Digital Multimeter
Changan Auto special diagnostic tool

Inspection and Verification

WARNING: When storing the inactivated airbag module, make sure that the airbag opening is not towards to the surface of the control module. Do not allow the airbag opening face down. Do not place any load on the airbag module. There shall be adequate space around the airbag to allow for its accidental deployment, otherwise it may cause personal injury.

WARNING: Do not put the inactivated airbag module in the water or contact other liquids.

WARNING: Do not put the inactivated airbag module in the place where is near fire or in hot environment. Failure to follow these instructions may result in personal injury.

1. Verify the customer concern.
2. Visually inspect for obvious signs of mechanical and electrical damage, whether there are obvious signs of collision or not.

Visual Inspection Chart

Mechanical	Electric
•Steering Wheel •Instrument panel assembly	•Circuit •Driver Airbag •Passenger Airbag •Side Airbag •Side Air Curtain •Clock spring •Combined instrument •SDM

3. Inspect the visible airbag system cables.

Connector joint and fulcrum of vibration are the main positions, which should be thoroughly inspected, and if the malfunction is caused by vibration, it is suggested that man can vibrate the possible failed position with fingers and inspect whether there is malfunction.

- Shake the connector in the vertical and horizontal directions gently.
- Shake the cables in the vertical and horizontal directions gently.

4. If an obvious cause for an observed or reported concern is found, correct the cause before proceeding to the next step.
5. If the cause is not visually evident, verify the symptom and refer to the Symptom Chart.

Symptom Chart

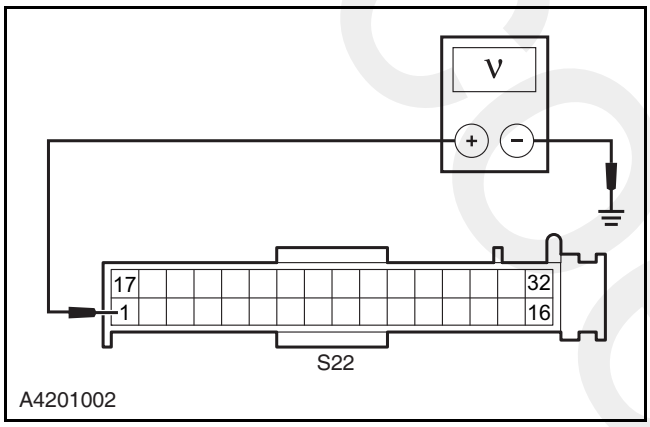
If there is a symptom but no diagnosis trouble code (DTC) is stored in control module and can not confirm symptom reasons in basic inspect, it is necessary to diagnosis and eliminate the symptoms in the following chart.

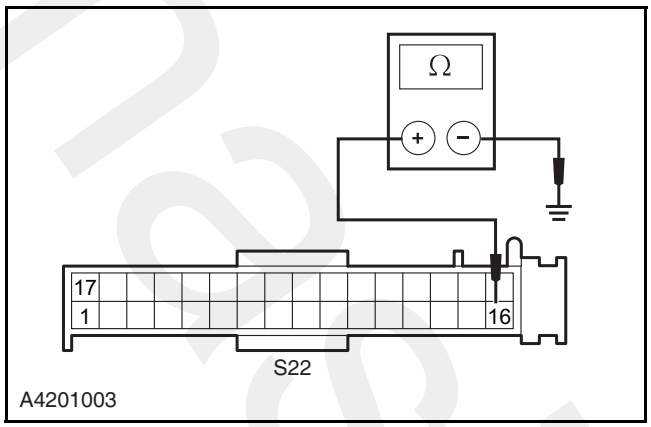
Symptom	Possible Sources	Action
The airbag indicator is not on	•Fuse •Circuit fault •Combined instrument •CAN communication circuit •SDM circuit •SDM	**Refer to: When the ignition switch is on, the airbag indicator does not shine (4.3.2 Instruments, Diagnosis and Testing).**
Airbag indicator flashes and has been on	•Fuse and circuit •A collision occurred •Non-standard operation performed •SDM control module records the times of collisions beyond the regulation •SDM control module SDM control module	**Refer to: Diagnosis procedure for abnormal airbag indicator (4.2.1 Supplementary Restraint System, diagnosis and testing).**
Airbag indicator is always on	•Fuse and circuit •Combined instrument •SDM control module SDM control module •Battery	**Refer to: Diagnosis procedure for airbag indicator always on (4.2.1 Supplementary Restraint System, diagnosis and testing).**

Diagnosis Procedure of the abnormal airbag indicator

WARNING: Disconnect the battery cathode cable for 60 seconds before the operation on the airbag.

Test Conditions	Details/Results/Actions
1. General Procedures	
	A. Inspect the wiring harness connectors of the clock spring, SDM control module and instrument for damage, poor contact, aging and loose. Is it normal? **Y** Go to step 2. **N** Repair the fault.
2. Inspect the state of instrument cluster airbag indicator	
	A. Turn the ignition switch to the “ON” position, execute the self-Inspect of air bag indicator. Is the airbag indicator always on, after it flashes? **Y** Go to step 3. **N** Repair when the airbag indicator is not on. **Refer to: When the ignition switch is on, the airbag indicator is not on (4.3.2 Instruments, Diagnosis and Testing).** Repair when the airbag indicator is always on. **Refer to: Diagnosis procedure for airbag indicator always on (4.2.1 Supplementary Restraint System, diagnosis and testing).**
3. Clear the historical DTC of the supplementary restraint system	
	A. Connect the Chana Automobile special Diagnostic tool. B. Turn the ignition switch to "ON" and read and clear the historical DTC of the supplementary restraint system. C. Start the motor and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. Is there still the phenomenon, that airbag indicator flashes and has been? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Read the DTC of the supplementary restraint system	
	A. Connect the Chana Automobile special Diagnostic tool. B. Turn the ignition switch to “ON” and read the DTC of the supplementary restraint system on the special diagnosis tool. Are there any DTCs of the supplementary restraint system? **Y** Repair according to the instruction of DTCs. **Refer to: Diagnosis Procedure of the DTC (4.2.1 Supplementary restraint system, Diagnosis and Testing of DTC).** **N** Go to step 5.
5. Inspect the airbag control module power supply circuit	
	A. Turn the ignition switch to LOCK position and disconnect the battery cathode cable. B. Disconnect harness connector S22 of air bag control module. C. Connect the battery cathode cablecathode and turn the ignition switch to ON position. D. Measure the voltage of the terminal 1 of the airbag control module wiring harness connector S22. **Standard Voltage Value: 11~14 V** Is the voltage normal? **Y** Go to step 6. **N** Repair the power circuit of the airbag control module.

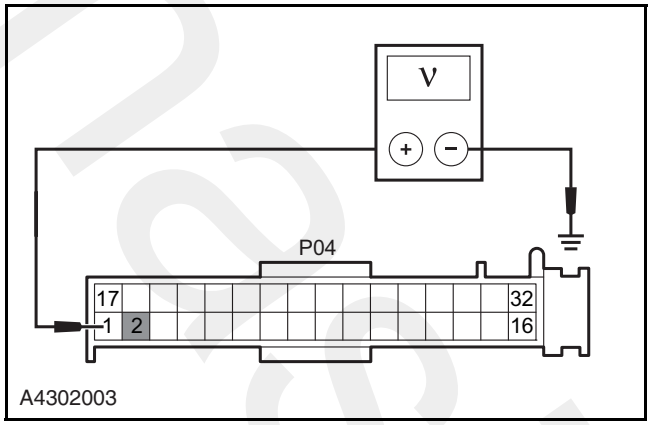
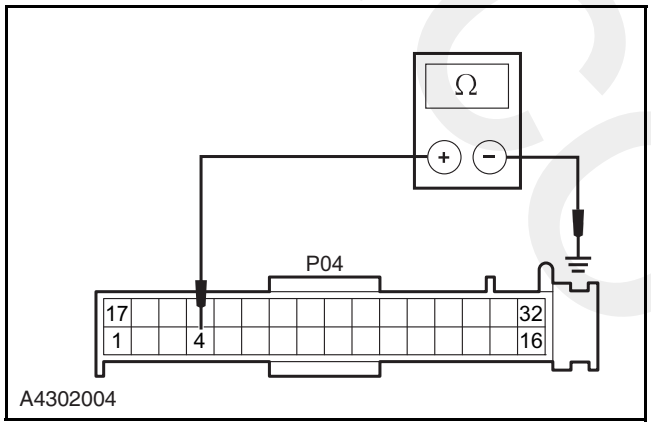
Test Conditions	Details/Results/Actions
6. Inspect the grounding circuit of the airbag control module	
	A. Turn the ignition switch to LOCK position and disconnect the battery cathode cable. B. Disconnect harness connector S22 of air bag control module. C. Measure the resistance between terminal 16 of the airbag control module wiring harness connector S22 and the grounding point wiring harness. **Standard Resistance Value: less than 5 Ω** Is the resistance value normal? **Y** Go to step 7. **N** Repair the circuit of the airbag control module.
7. Replace airbag control module	
	A. Turn the ignition switch to "LOCK" position and disconnect the battery cathode cable. B. Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

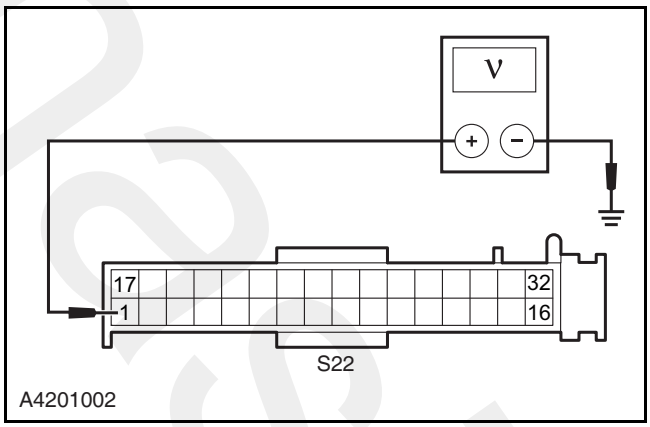
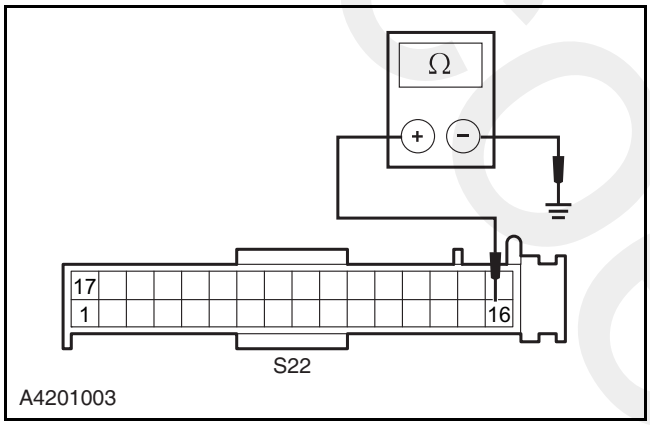
Diagnosis Procedure when the airbag indicator always is on

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

Test Conditions	Details/Results/Actions
1. General Procedures	
	A. Inspect the wiring harness connectors of the clock spring, SDM and instrument for damage, poor contact, aging and loose. Is it normal? **Y** Go to step 2. **N** Repair the fault.

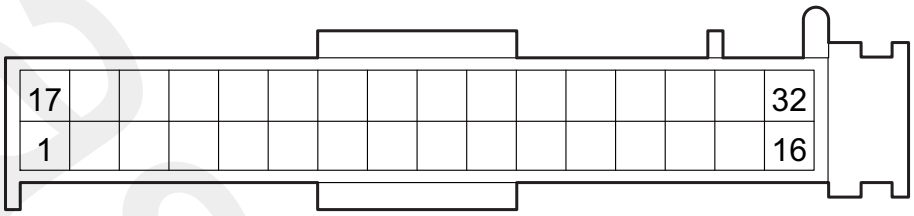
Test Conditions	Details/Results/Actions
2. Inspect the battery voltage	
	A. Turn the ignition switch to “ON” and inspect the voltage at the positive cable of the battery with a multimeter. **Standard Voltage Value: 11~14 V** B. Start the engine and keep the engine speed at 2,000 rpm. Inspect the voltage at the positive cable of the battery with a multimeter. **Standard Voltage Value: 11~16 V** Is the battery voltage normal? **Y** Go to step 3. **N** Inspect the battery performance. **Refer to: The battery charing voltage is too low or too high (3.1.10 Charging System, Diagnosis and Testing).**
3. Read the DTC of the supplementary restraint system	
	A. Connect the Chana Automobile special Diagnostic tool. B. Turn the ignition switch to “ON” and read the DTC of the supplementary restraint system on the special diagnosis tool. Are there any DTCs of the supplementary restraint system? **Y** Repair according to the instruction of DTCs. **Refer to: Diagnosis Procedure of the DTC (4.2.1 Supplementary restraint system, Diagnosis and Testing of DTC).** **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the power supply circuit of the instrument cluster	
 A4302003	A. Turn the ignition switch to "ON" position and measure the voltage of the terminal 1 of the instrument cluster wiring harness connector P04. **Standard Voltage Value: 11~14 V** B. Turn the ignition switch to "ON" position and measure the voltage of the terminal 2 of the instrument cluster wiring harness connector P04. **Standard Voltage Value: 11~14 V** Is the voltage normal? **Y** Go to step 5. **N** Repair the instrument cluster power supply circuit.
5. Inspect the grounding circuit of the instrument cluster	
 A4302004	A. Turn the ignition switch to LOCK position. B. Disconnect the instrument cluster wiring harness P04. C. Measure the resistance between the terminal 4 of the instrument cluster wiring harness connector P04 and the grounding point wiring harness. **Standard Resistance Value: less than 5 Ω** Is the resistance value normal? **Y** Go to step 6. **N** Repair the instrument cluster grounding circuit.
6. Replace the instrument cluster.	
	A. Turn the ignition switch to "LOCK" position and disconnect the battery cathode cable. B. Replace the instrument cluster. **Refer to: Instrument Assembly (4.3.2 Instrument, Removal and Installation).** Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 7.

Test Conditions	Details/Results/Actions
7. Inspect the airbag control module power supply circuit	
 A4201002	A. Turn the ignition switch to “LOCK” position and disconnect the battery cathode cable. B. Disconnect harness connector S22 of air bag control module. C. cathode cable Connect the battery cathode and turn the ignition switch to “ON” position. D. Measure the voltage of the terminal 1 of the airbag control module wiring harness connector S22. **Standard Voltage Value: 11~14 V** Is the voltage normal? **Y** Go to step 8. **N** Repair the power circuit of the airbag control module.
8. Inspect the grounding circuit of the airbag control module	
 A4201003	A. Turn the ignition switch to “LOCK” position and disconnect the battery cathode cable. B. Disconnect harness connector S22 of air bag control module. C. Measure the resistance between terminal 16 of the airbag control module wiring harness connector S22 and the grounding point wiring harness. **Standard Resistance Value: less than 5 Ω** Is the resistance value normal? **Y** Go to step 9. **N** Repair the grounding circuit of the airbag control module.
9. Replace airbag control module	
	A. Turn the ignition switch to "LOCK" position and disconnect the battery cathode cable. B. Replace the airbag control module. **Refer to: Airbag Control Module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC Diagnosis and Test

Airbag Control Module Terminal List



S22

A4201006

Terminal No.	Connection	Terminal Description
S22-1	0.5 WH	Power Supply
S22-2	0.3 LG/BK	CAN-L
S22-3	0.3 VT	Driver Airbag +
S22-4	0.3 BU	Driver Airbag -
S22-5	0.3 RD	Passenger Airbag -
S22-6	0.3 GN	Passenger Airbag +
S22-7	0.3 BK	Driver seat belt pretensioner +
S22-8	0.3 RD	Driver seat belt pretensioner -
S22-9	0.3 BU/VT	Passenger seat belt pretensioner -
S22-10	0.3 BU/GY	Passenger seat belt pretensioner +
S22-11	0.3 YE	Driver side airbag +
S22-12	0.3 YE/GN	Driver side airbag -
S22-13	0.3 YE/BK	Passenger side airbag -
S22-14	0.3 YE/WH	Passenger side airbag +
S22-15	-	-
S22-16	0.5 BK	GND
S22-17	0.3 LG	CAN-H
S22-18	0.3 BU	Left side impact sensor +
S22-19	0.3 GN	Left side impact sensor -
S22-20	0.3 BK/WH	Passenger safety belt buckle
S22-21	-	-
S22-22	-	-

Terminal No.	Connection	Terminal Description
S22-23	0.3 RD/BU	Right side curtain airbag +
S22-24	0.3 RD/BK	Right side curtain airbag -
S22-25	0.3 BN	Driver seat belt buckle
S22-26	0.3 WH/BK	Collision Output
S22-27	0.3 OG	Right side impact sensor +
S22-28	0.3 YE/OG	Right side impact sensor -
S22-29	-	-
S22-30	-	-
S22-31	0.5RD/WH	Left side curtain airbag +
S22-32	0.3 RD/GN	Left side curtain airbag -

Diagnostic Trouble Code (DTC) type

Fault type	Definition
type 1	Type 1 indicates power supply fault. Diagnostic path of power supply fault: carry out the self-test with the ignition in the ON position for at most 6 times. If it doesn't pass the self-test, the airbag control module illuminates the indicator lamp.
type 2	Type 2 indicates component installation fault. Airbag component fault and a circuit connection fault are detected. The indicator lamp flickers for many times and then stays permanently illuminated. In this fault condition, the intact route way could still be ignited and the system will record relevant faults.
type 3	Type 3 indicates an internal fault of the controller. In the case of an internal fault of the airbag control module, the airbag indicator lamp will be on constantly.

WARNING: Internal malfunction of controller is not repairable by ordinary service personnel and the only solution in this case is to replace SDM.

Diagnostic Trouble Code (DTC) List

Code	Code Fault Description	Fault type
B1B00	•ECU interior fault	3
B1B01	•Configuration fault	2
B1B02	•Improper installation of driver side peripheral sensor	2
B1B02	•Driver side peripheral sensor damage	2
B1B02	•Driver side peripheral sensor communication fault	2
B1B03	•Improper installation of passenger side peripheral sensor	2
B1B03	•Passenger side peripheral sensor reliability fault	2
B1B03	•Passenger side peripheral sensor communication fault	2
B1B03	•Passenger side peripheral sensor damage	2
B1B08	•Driver peripheral sensor circuit	2
B1B08	•Driver peripheral sensor short circuit to power	2

Code	Code Fault Description	Fault type
B1B08	•Passenger side peripheral sensor circuit	2
B1B09	•Passenger side peripheral sensor circuit	2
B1B09	•Passenger side peripheral sensor short circuit to ground	2
B1B09	•Passenger side peripheral sensor short circuit to power	2
B1B10	•Driver front airbag circuit	2
B1B10	•Short circuit between ground and driver airbag	2
B1B10	•Short circuit between driver airbag and power supply	2
B1B10	•Driver front airbag open circuit	2
B1B10	•Driver airbag resistance low	2
B1B11	•Passenger front airbag circuit	2
B1B11	•Short circuit between ground and front passenger airbag	2
B1B11	•Passenger airbag short circuit to power supply	2
B1B11	•Passenger front airbag open circuit	2
B1B11	•Passenger front airbag resistance low	2
B1B12	•Driver seat belt pretensioner circuit	2
B1B12	•Driver seat belt pretensioner short circuit to ground	2
B1B12	•Driver seal belt pretensioner short circuit to power supply	2
B1B12	•Driver seat belt pretensioner open circuit	2
B1B12	•Driver seat belt pretensioner resistance low	2
B1B13	•Passenger seat belt pretensioner circuit	2
B1B13	•Passenger seat belt pretensioner short circuit to ground	2
B1B13	•Passenger seat belt pretensioner short circuit to power	2
B1B13	•Passenger seat belt pretensioner open circuit	2
B1B13	•Passenger seat belt pretensioner resistance too low	2
B1B50	•Front passenger airbag and seat belt pretensioner ignited	2
B1B51	•Curtain airbag ignited	3
B1B52	•ECU lockup, replace controller	3
U1580	•CAN communication fault	2
B1B14	•Driver side airbag circuit	2
B1B14	•Driver side airbag short circuit to ground	2
B1B14	•Driver side airbag short circuit to power	2
B1B14	•Driver side airbag open circuit	2
B1B14	•Driver airbag resistance low	2
B1B15	•Passenger side airbag circuit	2
B1B15	•Passenger side airbag short circuit to ground	2

Code	Code Fault Description	Fault type
B1B15	•Passenger curtain airbag short circuit to power	2
B1B15	•Passenger side airbag open circuit	2
B1B15	•Passenger side airbag resistance too low	2
B1B16	•Passenger curtain airbag circuit	2
B1B16	•Passenger curtain airbag short circuit to ground	2
B1B16	•Passenger curtain airbag short circuit to power	2
B1B16	•Passenger curtain airbag open circuit	2
B1B16	•Passenger curtain airbag resistance too low	2
B1B17	•Driver curtain airbag circuit	2
B1B17	•Driver curtain airbag short circuit to ground	2
B1B17	•Driver curtain airbag short circuit to power	2
B1B17	•Driver curtain airbag open circuit	2
B1B17	•Driver curtain airbag resistance too low	2
B1B20	•Driver seat belt buckle circuit	2
B1B20	•Driver seat belt buckle resistance too low	2
B1B20	•Driver seat belt buckle resistance undefined	2
B1B20	•Driver seat belt buckle resistance excessive	2
B1B20	•Driver seat belt buckle short circuit to power	2
B1B21	•Passenger seat belt buckle circuit	2
B1B21	•Passenger seat belt buckle resistance too low	2
B1B21	•Passenger seat belt buckle resistance undefined	2
B1B21	•Passenger seat belt buckle resistance excessive	2
B1B21	•Passenger seat belt buckle short circuit to power	2
B1B34	•Passenger seat belt buckle short circuit to power	2
B1B34	•Impact output short circuit to ground	2
B1B40	•Power supply voltage is too high	1
B1B40	•Power supply voltage is too low	1
U1585	•No communication with ABS	2
U1581	•No communication with instrument	2
U1582	•Message transmission fault	2
U1583	•Vehicle speed status failure	2
U1584	•Warning lamp status fault	2

Data stream list

Data Stream Item	Ignition switch ON
Driver front airbag loop resistance value	2.8 Ohm
Passenger airbag loop resistance value	2.2 Ohm
Driver seat belt pretensioner loop resistance value	2.0 Ohm
Passenger seat belt pretensioner loop resistance value	2.0 Ohm
Driver side airbag loop resistance value	2.9 Ohm
Passenger side airbag loop resistance value	2.2 Ohm
Driver side curtain airbag loop resistance value	2.3 Ohm
Passenger side curtain airbag loop resistance value	2.5 Ohm
Passenger front airbag resistance value	0.0 Ohm
Driver seat belt buckle resistance value	0.0 Ohm
Passenger seat belt buckle resistance value	23.0 Ohm
Passenger detection sensor resistance value	0.0 Ohm
ISOFIX	0
Seat position sensor	0

DTC diagnosis flow index

Fault code	Description	Diagnosis Procedures
B1B12	•Driver seat belt pretensioner circuit	Refer to: DTC B1B12 Diagnosis Procedure
	•Driver seat belt pretensioner short circuit to ground	
	•Driver seat belt pretensioner short circuit to power	
	•Driver seat belt pretensioner open circuit	
	•Driver seat belt pretensioner resistance low	
B1B10	•Driver front airbag circuit	Refer to: DTC B1B10 Diagnosis Procedure
	•Driver airbag short circuit to the ground	
	•Driver airbag short circuit to power supply	
	•Driver front airbag open circuit	
	•Driver airbag resistance low	
B1B40	Battery voltage too high (or supply voltage)	Refer to: DTC B1B40 Diagnosis Procedure
	Battery voltage too low (or supply voltage)	

Fault code	Description	Diagnosis Procedures
B1B11	•Passenger front airbag circuit	Refer to: DTC B1B11 Diagnosis Procedure
	•Passenger airbag short circuit to the ground	
	•Front passenger airbag short circuit to power supply	
	•Passenger front airbag open circuit	
	•Passenger airbag resistance low	
B1B13	•Passenger seat belt pretensioner circuit	Refer to: DTC B1B13 Diagnosis Procedure
	•Passenger seat belt pretensioner short circuit to ground	
	•Passenger seat belt pretensioner short circuit to power	
	•Passenger seat belt pretensioner open circuit	
	•Passenger seat belt pretensioner resistance too low	
U1584	Warning lamp malfunction	Refer to: DTC U1584 Diagnosis Procedure
B1B08	•Driver peripheral sensor circuit	Refer to: DTC B1B08 Diagnosis Procedure
	•Driver peripheral sensor short circuit to ground	
	•Driver peripheral sensor short circuit to power	
B1B09	•Passenger side peripheral sensor circuit	Refer to: DTC B1B09 Diagnosis Procedure
	•Passenger side peripheral sensor short circuit to ground	
	•Passenger side peripheral sensor short circuit to power	
B1B00	•ECU interior fault	Refer to: DTC B1B09, B1B01, B1B52 Diagnosis Procedure
B1B01	•Configuration fault	
B1B52	•ECU lockup, replace controller	
B1B02	•Improper installation of driver side peripheral sensor	Replace the sensors Refer to: Impact sensor (4.2.1 Supplementary Restraint System, Removal and Installation)
	•Driver side peripheral sensor damage	
	•Driver side peripheral sensor communication fault	
B1B03	•Improper installation of passenger side peripheral sensor	
	•Passenger side peripheral sensor reliability fault	
	•Passenger side peripheral sensor communication fault	
	•Passenger side peripheral sensor damage	

Fault code	Description	Diagnosis Procedures
B1B14	•Driver side airbag circuit	Refer to: DTC B1B14 Diagnosis Procedure
	•Driver side airbag short circuit to ground	
	•Driver side airbag short circuit to power	
	•Driver side airbag open circuit	
	•Driver airbag resistance low	
B1B15	•Passenger side airbag circuit	Refer to: DTC B1B15 Diagnosis Procedure
	•Passenger side airbag short circuit to ground	
	•Passenger curtain airbag short circuit to power	
	•Passenger side airbag open circuit	
	•Passenger side airbag resistance too low	
B1B16	•Passenger curtain airbag circuit	Refer to: DTC B1B16 Diagnosis Procedure
	•Passenger curtain airbag short circuit to ground	
	•Passenger curtain airbag short circuit to power	
	•Passenger curtain airbag open circuit	
	•Passenger curtain airbag resistance too low	
B1B17	•Driver curtain airbag circuit	Refer to: DTC B1B17 Diagnosis Procedure
	•Driver curtain airbag short circuit to ground	
	•Driver curtain airbag short circuit to power	
	•Driver curtain airbag open circuit	
	•Driver curtain airbag resistance too low	
B1B20	•Driver seat belt buckle circuit	Refer to: DTC B1B20 Diagnosis Procedure
	•Driver seat belt buckle resistance too low	
	•Driver seat belt buckle resistance undefined	
	•Driver seat belt buckle resistance excessive	
	•Driver seat belt buckle short circuit to power	
B1B21	•Passenger seat belt buckle circuit	Refer to: DTC B1B21 Diagnosis Procedure
	•Passenger seat belt buckle resistance too low	
	•Passenger seat belt buckle resistance undefined	
	•Passenger seat belt buckle resistance excessive	
	•Passenger seat belt buckle short circuit to power	
B1B34	•Impact output short circuit to ground	Refer to: DTC B1B34 Diagnosis Procedure
	•Impact output short circuit to power	

Fault code	Description	Diagnosis Procedures
B1B50	•Front passenger airbag and seat belt pretensioner ignited	Refer to: DTC B1B50, B1B51 Diagnosis Procedure
B1B51	•Curtain airbag ignited	
U1850	•CAN communication malfunction	Refer to: DTC U1850, U1585, U1581, U1582, U1583 Diagnosis Procedure
U1585	•No communication with ABS	
U1581	•No communication with instrument	
U1582	•Message transmission fault	
U1583	•Vehicle speed status failure	

DTC B1B12

WARNING: cathode cable Disconnect the battery cathode cable for 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
B1B12	•Driver seat belt pretensioner circuit	•System detects driver seat belt pretensioner circuit
	•Driver seat belt pretensioner short circuit to ground	•System detects driver seat belt pretensioner short circuit to ground
	•Driver seat belt pretensioner short circuit to power	•System detects driver seat belt pretensioner short circuit to power
	•Driver seat belt pretensioner open circuit	•System detects driver seat belt pretensioner open circuit
	•Driver airbag pretensioner resistance low	•System detects that the driver seat belt pretensioner resistance is less than 1.1Ω

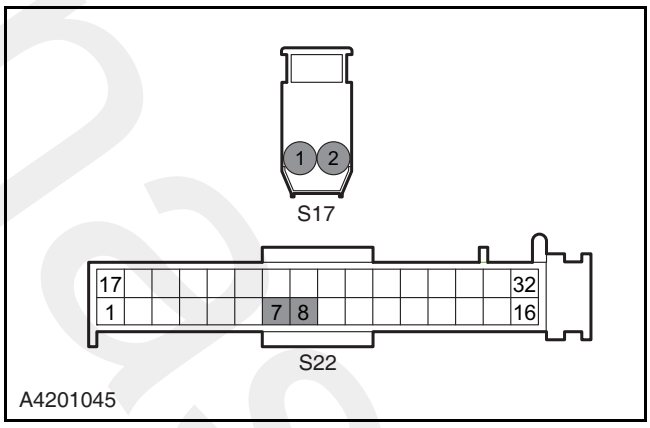
2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B12	Hardware Circuit Inspection	Carry out the self-test. Hardware circuit fault is detected.	•Wiring harness •Pretensioner seat belt at driver's side •Airbag Control Module

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Frequently turn on the ignition switch to perform airbag self-test. D. Read DTC again. Is there any other DTCs expect PO717 **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.
2. Inspect the driver seat belt pretensioner wiring harness connector	
	A. Inspect the driver seat belt pretensioner wiring harness connector for correct connection. Is the connection of wiring harness connector normal? **Y** Go to step 3. **N** Reconnect the wiring harness connector correctly.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

4. Inspect the driver seat belt pretensioner circuit



A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec.

B. Disconnect harness connector of air bag control module.

C. Inspect the driver seat belt pretensioner wiring harness connector S17.

D. Measure the resistance value between Terminal 7 of wiring harness connector S22 and Terminal 1 of connector S17, between Terminal 8 of S22 and Terminal 2 of S17 (check for open circuit).

Standard Resistance Value: less than 1 Ω

E. Measure the resistance value between Terminals 7 and 8 of wiring harness connector S22 (check for short circuit).

Standard Resistance Value: 10 MΩ or more

F. Measure the resistance value between Terminal 7 of wiring harness connector S22 and reliable ground, between Terminal 8 of S22 and reliable ground (check vehicle body ground for short circuit).

Standard Resistance Value: 10 MΩ or more

G. Connect battery cathode cable and wait for a moment.

H. Turn the ignition switch to "ON" position.

I. Measure the voltage between Terminal 7 of wiring harness connector S22 and reliable ground, between Terminal 8 of S22 and reliable ground (check for short circuit to power).

Standard voltage: 0 V

Is it normal?

Y

Go to step 5.

N

Replace the airbag wiring harness with fault.

5. Replace the driver seat belt pretensioner	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the driver seat belt pretensioner. **Refer to: Front safety belt (5.1.4 Safety belt system, Removal and Installation).** C. Connect battery cathode cable and wait for a moment. D. Turn the ignition switch to "ON" position. E. Connect the diagnostic tool and clear historical DTCs. F. Read DTC again. Is the system normal? **Y** Confirm the maintenance is finished. **N** Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B10

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
B1B10	•Driver front airbag circuit	•System detects driver front airbag circuit
	•Short circuit between ground and driver airbag	•System detects driver front airbag short circuit to ground
	•Short circuit between driver airbag and power supply	•System detects driver front airbag short circuit to power
	•Driver front airbag open circuit	•System detects driver front airbag open circuit
	•Driver airbag resistance low	•System detects driver front airbag resistance less than 1.7Ω

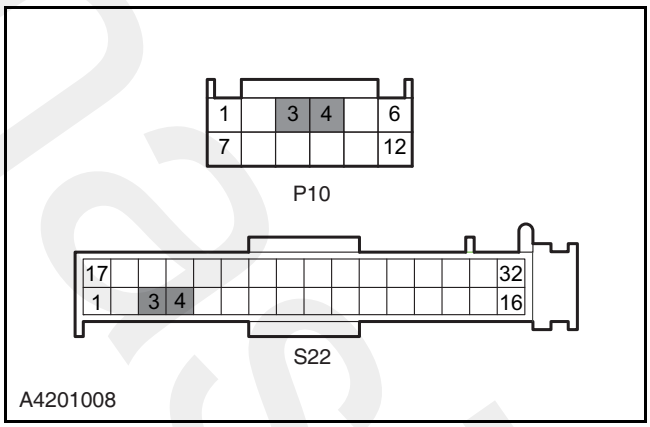
2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B10	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •Clock spring •Driver Airbag •Airbag Control Module

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 mins. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there any other DTCs expect B1B10? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing)** **N** Go to step 2.
2. Inspect the connector of clock spring wiring harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of clock spring wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.

Test Conditions	Details/Results/Actions
3. Inspect the clock spring resistance	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect the clock spring wiring harness as well as the connection between clock spring and driver airbag. C. Inspect the exterior of the clock spring. Deformation, breakage and melting traces are not allowed. D. Inspect the clock spring resistance. **Standard Resistance Value: less than 1 Ω** Is the resistance value of clock spring normal? **Y** Go to step 4. **N** Replace the clock spring. **Refer to: Clock Spring (4.2.1 Supplementary Restraint System, Removal and Installation).**
4. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 5.

Test Conditions	Details/Results/Actions
5. Inspect the circuit between the airbag control module and the clock spring	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the clock spring wiring harness connector P10. D. Measure the resistance value between Terminal 4 of wiring harness connector S22 and Terminal 3 of clock spring wiring harness connector P10, between Terminal 3 of wiring harness connector S22 and Terminal 4 of P10, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 4 and 3 of wiring harness connector S22 (check for open circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 4 of wiring harness connector S22 and reliable ground, between Terminal 3 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 4 of wiring harness connector S22 and reliable ground, between Terminal 3 of S22 and reliable ground (check for short circuit to power). **WARNING: Do not measure resistance value of airbag inflation module with a multimeter. Special diagnostic tool shall be used for malfunction detection.** **Standard voltage: 0 V** Is the circuit normal? **Y** Go to step 6. **N** Replace the wiring harness.

Test Conditions	Details/Results/Actions
6. Replace the driver airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the driver airbag. **Refer to: Driver Airbag and Steering Wheel (4.2.1 Supplementary Restraint System, Removal and Installation).** Is the system normal? **Y** The system is normal. **N** Go to step 7.
7. Replace airbag control module	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Confirm the maintenance is finished.

DTC B1B40

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
B1B40	Battery voltage too high (or supply voltage)	•Carry out the self-test for six times. The power supply voltage is greater than 17.25V
	Battery voltage too low (or supply voltage)	•Carry out the self-test for six times. The power supply voltage is less than 8.25V

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B40	Hardware Circuit Inspection	Carry out the self-test. Hardware circuit fault is detected.	•Wiring harness •Charging System

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there any DTC other than B1B40? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.
2. Inspect the battery voltage	
	A. Turn the ignition switch to "ON" position, inspect the battery voltage with the multimeter. **Standard Voltage Value: 11~14V** B. Start the engine, inspect the battery voltage with the multimeter. **Standard Voltage Value: 11~ 16V** Is the battery voltage normal? **Y** Go to step 3. **N** Inspect and repair the charging system. **Refer to: Battery Undercharge Diagnosis, Battery Overcharge Diagnosis (3.1.10 Charging System, Symptom Diagnosis and Testing).**

Test Conditions	Details/Results/Actions
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.
4. Inspect the airbag control module power supply circuit	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the airbag control module power supply wiring harness. Replace the airbag wiring harness at fault. Verify the system is normal.

DTC B1B11

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

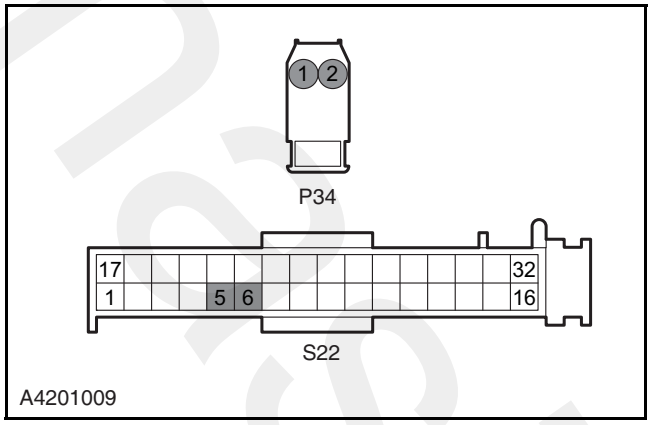
Fault code	Description	Definition
B1B11	•Passenger front airbag circuit	•System detects passenger front airbag circuit
	•Passenger airbag short circuit to the ground	•System detects passenger front airbag short circuit to ground
	•Passenger airbag short circuit to power supply	•System detects passenger front airbag short circuit to power
	•Passenger front airbag open circuit	•System detects passenger front airbag open circuit
	•Passenger airbag resistance low	•System detects passenger front airbag resistance less than 1.1Ω

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B11	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •Passenger Airbag •Airbag Control Module

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Are there other malfunction except B1B11? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing)** **N** Go to step 2.
2. Inspect the connector of passenger airbag wiring harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of passenger airbag harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag control module and passenger airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector of air bag control module S22. C. Disconnect passenger air bag harness connector P34. D. Measure the resistance value between Terminal 6 of wiring harness connector S22 and Terminal 2 of wiring harness connector P34, between Terminal 5 of S22 and Terminal 1 of P34, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 6 and 5 of wiring harness connector S22 (check for short circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 6 of wiring harness connector S22 and reliable ground, between Terminal 5 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 6 of wiring harness connector S22 and reliable ground, between Terminal 5 of S22 and reliable ground(check for short circuit to power). **WARNING: Do not measure resistance value of airbag inflation module with a multimeter. Special diagnostic tool shall be used for malfunction detection.** **Standard voltage: 0 V** Is it normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Replace passenger airbag.	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace passenger airbag. **Refer to: Passenger air bag (4.2.1 Supplementary Restraint System, Removal and Installation).** Is the system normal? **Y** The system is normal. **N** Go to step 6.
6. Replace airbag control module	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Confirm the maintenance is finished.

DTC B1B13

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

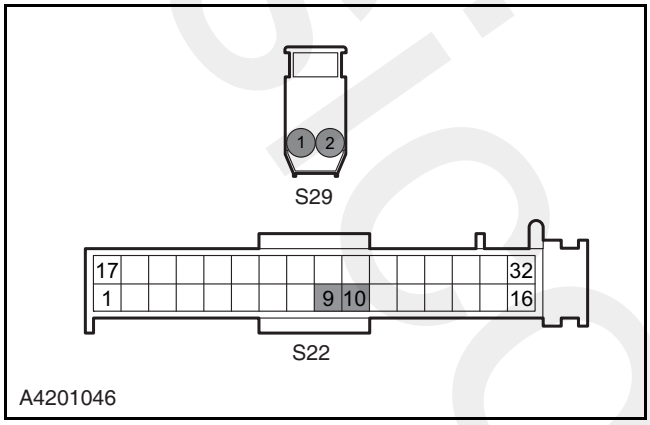
Fault code	Description	Definition
B1B13	•Passenger seat belt pretensioner circuit	•System detects passenger seat belt pretensioner circuit
	•Passenger seat belt pretensioner short circuit to ground	•System detects passenger seat belt pretensioner short circuit to ground
	•Passenger seat belt pretensioner short circuit to power	•System detects passenger seat belt pretensioner short circuit to power
	•Passenger seat belt pretensioner open circuit	•System detects passenger seat belt pretensioner open circuit
	•Passenger seat belt pretensioner resistance too low	•System detects passenger seat belt pretensioner resistance less than 1.1Ω

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B13	Hardware circuit inspection	Carry out the self-test. Hardware circuit fault is detected.	•Wiring harness •Pretensioner seat belt at passenger's side •Airbag control module

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Frequently turn on the ignition switch to perform airbag self-test. D. Read DTC again. Is there any other DTCs expect PO717? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1Airbag Restraint System, DTC Diagnosis and Testing)** **N** Go to step 2.
2. Inspect the passenger seat belt pretensioner wiring harness connector	
	A. Inspect the passenger seat belt pretensioner wiring harness connector for correct connection. Is the connection of wiring harness connector normal? **Y** Go to step 3. **N** Reconnect the wiring harness connector correctly.
3. Inspect the connector of airbag control module harness	

Test Conditions	Details/Results/Actions
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.
4. Inspect the circuit between airbag control module and passenger seat belt pretensioner	
 A4201046	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the passenger seat belt pretensioner wiring harness connector S29. D. Measure the resistance value between Terminal 9 of wiring harness connector S22 and Terminal 1 of wiring harness connector S29, between Terminal 10 of S22 and Terminal 2 of S29, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 9 and 10 of wiring harness connector S22 (check for short circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 9 of wiring harness connector S22 and reliable ground, between Terminal 10 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 9 of wiring harness connector S22 and reliable ground, between Terminal 10 of S22 and reliable ground (check for short circuit to power). **Standard voltage: 0 V** Is it normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Replace the passenger seat belt pretensioner	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the passenger seat belt pretensioner. **Refer to: Front safety belt (5.1.4Safety belt system, Removal and Installation).** C. Connect battery cathode cable and wait for a moment. D. Turn the ignition switch to "LOCK" position. E. Connect the diagnostic tool and clear historical DTCs. F. Read DTC again. Is the system normal? **Y** Confirm the maintenance is finished. **N** Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC U1584

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
U1584	Warning lamp malfunction	•SDM Internal Algorithm Parameter Lack or Error •Output circuit fault

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
U1584	Control Module Hardware Inspection	Hardware circuit fault detected	•Wiring harness •SDM

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect diagnostic unit and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 mins. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again Is there any DTC other than U1584? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1Airbag Restraint System, DTC Diagnosis and Testing)** **N** Go to step 2.
2. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of passenger airbag harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.

Test Conditions	Details/Results/Actions
3. Inspect the communication circuit between the instrument cluster and the airbag control module	
	A. Inspect the CAN network cable between the instrument cluster and the SDM. Is the data communication state between the instrument cluster and the SDM normal? **Y** Go to step 4. **N** Inspect and repair CAN network cable. **Refer to: Can Not Communicate With SDM Diagnostic Tool (4.3.16 Vehicle Network System, Symptom Chart).** Is the system normal? **Y** The system is normal. **N** Go to step 4.
4. Replace the airbag control module	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B08

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
B1B08	•Driver peripheral sensor circuit	•System detects driver peripheral sensor circuit
	•Driver peripheral sensor short circuit to ground	•System detects driver peripheral sensor short circuit to ground
	•Driver peripheral sensor short circuit to power	•System detects driver peripheral sensor short circuit to power

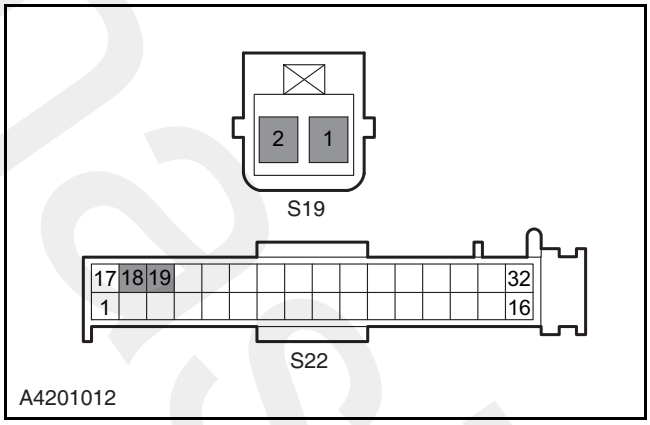
2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B08	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •Driver side impact sensor

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 mins. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there DTC except B1B08? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.

Test Conditions	Details/Results/Actions
2. Inspect the driver side impact sensor wiring harness connector	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect and clean the driver side impact sensor wiring harness connector. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag control module and driver side impact sensor	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the driver side impact sensor wiring harness connector S19. D. Measure the resistance value between Terminal 18 of wiring harness connector S22 and Terminal 1 of wiring harness connector S19, between Terminal 19 of S22 and Terminal 2 of S19, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 19 and 18 of wiring harness connector S22 (check for short circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 19 of wiring harness connector S22 and reliable ground, between Terminal 18 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 19 of wiring harness connector S22 and reliable ground, between Terminal 18 of S22 and reliable ground (check for short circuit to power). **Standard voltage: 0 V** Is the circuit normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.
5. Replace the driver side impact sensor	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the driver side impact sensor. **Refer to: Impact sensor (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC BIB09

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
B1B09	•Passenger side peripheral sensor circuit	•System detects passenger side peripheral sensor circuit
	•Passenger side peripheral sensor short circuit to ground	•System detects passenger side peripheral sensor short circuit to ground
	•Passenger side peripheral sensor short circuit to power	•System detects passenger side peripheral sensor short circuit to power

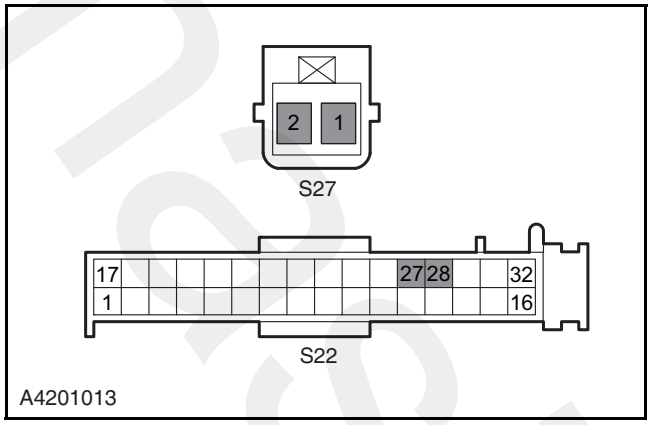
2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B09	Module Hardware Inspection	Hardware circuit fault detected	•Wiring harness •Passenger side impact sensor

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 mins. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there any DTC other than B1B09? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.

Test Conditions	Details/Results/Actions
2. Inspect the passenger side impact sensor wiring harness connector	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect and clean the passenger side impact sensor wiring harness connector. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag control module and passenger side impact sensor	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector of air bag control module S22. C. Disconnect the passenger side impact sensor wiring harness connector S27. D. Measure the resistance value between Terminal 28 of wiring harness connector S22 and Terminal 2 of wiring harness connector S27, between Terminal 27 of S22 and Terminal 1 of S27, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 27 and 28 of wiring harness connector S22 (check for short circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 27 of wiring harness connector S22 and reliable ground, between Terminal 28 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 27 of wiring harness connector S22 and reliable ground, between Terminal 28 of S22 and reliable ground (check for short circuit to power). **Standard voltage: 0 V** Is it normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.
5. Replace the passenger side impact sensor	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the passenger side impact sensor. **Refer to: Impact sensor (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B00, B1B01, B1B52

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
B1B00	ECU interior fault	•SDM internal algorithm parameter lack or error •Collision recorded
B1B01	Configuration fault	
B1B52	ECU lockup, replace controller	

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B00 B1B01 B1B52	Control Module Hardware Inspection	Carry out the system self-test. Module hardware fault is detected. Carry out the system self-test. Collision record is detected.	•SDM

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there any DTC other than B1B00, B1B01 and B1B52? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.

Test Conditions	Details/Results/Actions
2. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Replace the airbag control module	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B14

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

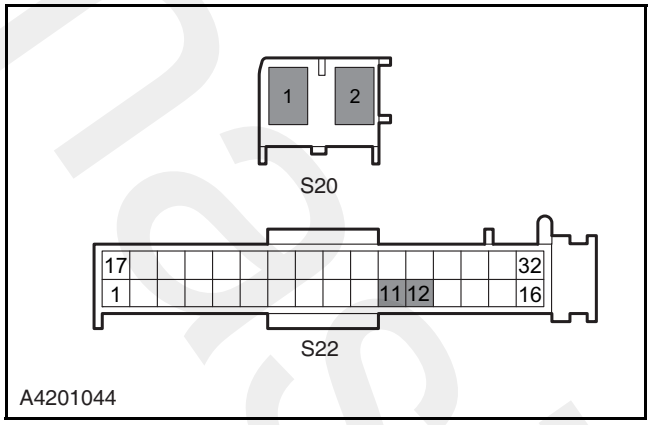
Fault code	Description	Definition
B1B14	•Driver side airbag circuit	•System detects driver side airbag circuit
	•Driver side airbag short circuit to ground	•System detects driver side airbag short circuit to ground
	•Driver side airbag short circuit to power	•System detects driver side airbag short circuit to power
	•Driver side airbag open circuit	•System detects driver side airbag open circuit
	•Driver airbag resistance low	•System detects driver side airbag resistance less than 1.1Ω

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B14	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •Side airbag at driver's side

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again Is there any other DTCs expect PO717? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing)** **N** Go to step 2.
2. Inspect the wiring harness connector of side airbag at driver's side	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of passenger airbag harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag control module and driver curtain side airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the harness connector S20 of driver airbag. D. Measure the resistance value between Terminal 11 of wiring harness connector S22 and Terminal 1 of wiring harness connector S20, between Terminal 12 of S22 and Terminal 2 of S20, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 11 and 12 of wiring harness connector S22 (check for short circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 12 of wiring harness connector S22 and reliable ground, between Terminal 11 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 12 of wiring harness connector S22 and reliable ground, between Terminal 11 of S22 and reliable ground (check for short circuit to power). **WARNING: Do not measure resistance value of airbag inflation module with a multimeter. Special diagnostic tool shall be used for malfunction detection.** **Standard voltage: 0 V** Is it normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Replace the driver side airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the driver curtain airbag. **Refer to: Curtain Airbag (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B15

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

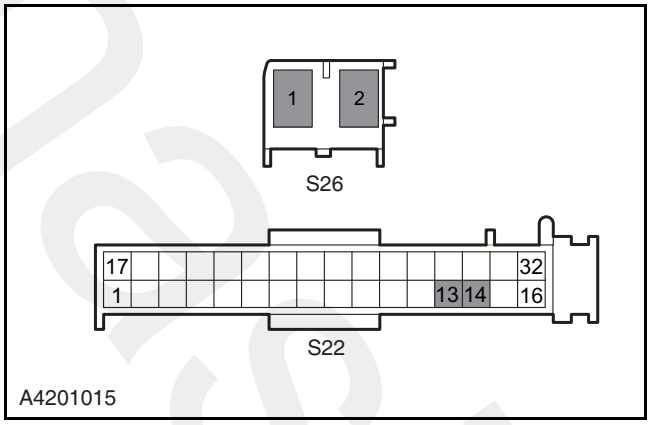
Fault code	Description	Definition
B1B15	•Passenger side airbag circuit	•System detects Passenger side airbag circuit
	•Passenger side airbag short circuit to ground	•System detects Passenger side airbag short circuit to ground
	•Passenger curtain airbag short circuit to power	•System detects Passenger side airbag short circuit to power
	•Passenger side airbag open circuit	•System detects Passenger side airbag short or open circuit and resistance greater than 5.5Ω
	•Passenger side airbag resistance too low	•System detects Passenger front airbag resistance less than 1.1Ω

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B15	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •Side airbag at passenger's side

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again Is there any other DTCs expect B1B15? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.
2. Inspect the connector of passenger airbag wiring harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of passenger curtain airbag harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag control module and passenger curtain airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of airbag control module. C. Disconnect the wiring harness connector S26 of passenger curtain airbag D. Measure the resistance value between Terminal 14 of wiring harness connector S22 and Terminal 2 of wiring harness connector S26, between Terminal 13 of S22 and Terminal 1 of S26, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 13 and 14 of wiring harness connector S22 (check for short circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 13 of wiring harness connector S22 and reliable ground, between Terminal 14 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 13 of wiring harness connector S22 and reliable ground, between Terminal 14 of S22 and reliable ground (check for short circuit to power). **WARNING: Do not measure resistance value of airbag inflation module with a multimeter. Special diagnostic tool shall be used for malfunction detection.** **Standard voltage: 0 V** Is the circuit normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Replace passenger curtain airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the passenger curtain airbag **Refer to: Lateral Airbag (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B16

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

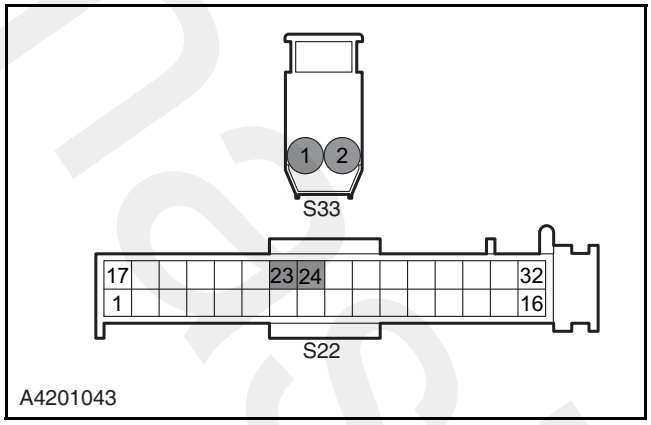
Fault code	Description	Definition
B1B16	•Passenger curtain airbag circuit	•System detects passenger curtain airbag circuit
	•Passenger curtain airbag short circuit to ground	•System detects passenger airbag short circuit to ground
	•Passenger curtain airbag short circuit to power	•System detects passenger airbag short circuit to power
	•Passenger curtain airbag open circuit	•System detects passenger airbag short or open circuit and resistance greater than 5.5Ω
	•Passenger curtain airbag resistance too low	•System detects passenger curtain airbag resistance less than 1.1Ω

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B16	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •Passenger side curtain airbag

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there any DTC other than B1B16? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.
2. Inspect the connector of passenger airbag wiring harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of passenger curtain airbag harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag control module and Passenger side curtain airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the wiring harness connector S33 of passenger side curtain airbag. D. Measure the resistance value between Terminal 23 of wiring harness connector S22 and Terminal 1 of wiring harness connector S33, between Terminal 24 of S22 and Terminal 2 of S33, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 23 and 24 of wiring harness connector S22 (check for short circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 23 of wiring harness connector S22 and reliable ground, between Terminal 24 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 23 of wiring harness connector S22 and reliable ground, between Terminal 24 of S22 and reliable ground (check for short circuit to power). **WARNING: Do not measure resistance value of airbag inflation module with a multimeter. Special diagnostic tool shall be used for malfunction detection.** **Standard voltage: 0 V** Is it normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Replace the passenger side curtain airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the passenger side curtain airbag. **Refer to: Curtain Airbag (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B17

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

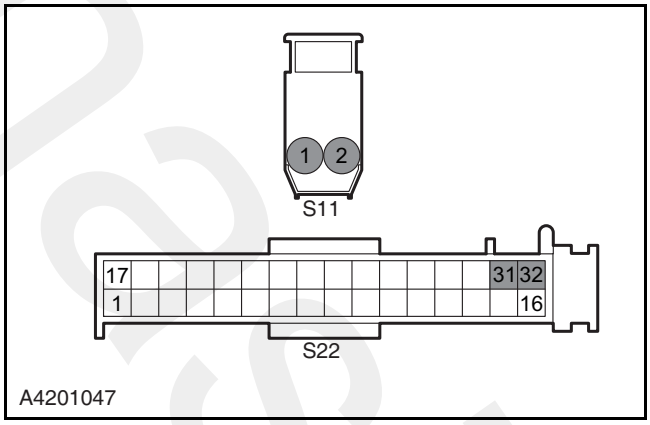
Fault code	Description	Definition
B1B17	•Driver curtain airbag circuit	•System detects driver curtain airbag circuit
	•Driver curtain airbag short circuit to ground	•System detects driver curtain airbag short circuit to ground
	•Driver curtain airbag short circuit to power	•System detects driver curtain airbag short circuit to power
	•Driver curtain airbag open circuit	•System detects passenger curtain airbag short or open circuit and resistance greater than 5.5Ω
	•Driver curtain airbag resistance too low	•System detects driver curtain airbag resistance less than 1.1Ω

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B17	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •Driver side curtain airbag

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there any other DTCs expect PO717? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.
2. Inspect the wiring harness connector of driver side curtain airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect and clean the driver side curtain airbag wiring harness connector. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag control module and driver side curtain airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the wiring harness connector S11 of driver side curtain airbag. D. Measure the resistance value between Terminal 31 of wiring harness connector S22 and Terminal 1 of wiring harness connector S11, between Terminal 32 of S22 and Terminal 2 of S11, and check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminals 31 and 32 of wiring harness connector S22 (check for open circuit). **Standard Resistance Value: 10 MΩ or more** F. Measure the resistance value between Terminal 31 of wiring harness connector S22 and reliable ground, between Terminal 32 of S22 and reliable ground (check vehicle body ground for short circuit). **Standard Resistance Value: 10 MΩ or more** G. Connect battery cathode cable and wait for a moment. H. Turn the ignition switch to "ON" position. I. Measure the voltage between Terminal 31 of wiring harness connector S22 and reliable ground, between Terminal 32 of S22 and reliable ground (check for short circuit to power). **WARNING: Do not measure resistance value of airbag inflation module with a multimeter. Special diagnostic tool shall be used for malfunction detection.** **Standard voltage: 0 V** Is the circuit normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Replace passenger curtain airbag	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the passenger curtain airbag. **Refer to: Curtain Airbag (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B20

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

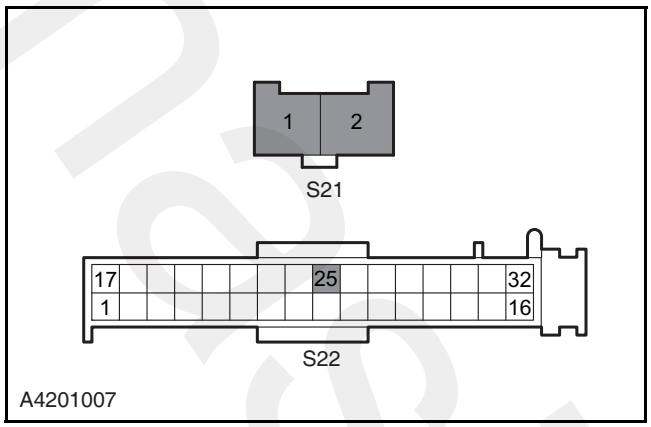
Fault code	Description	Definition
B1B20	•Driver seat belt buckle circuit	•System detects driver seat belt pretensioner buckle circuit
	•Driver seat belt buckle resistance too low	•System detects the fault is not displayed
	•Driver seat belt buckle resistance undefined	•System detects the fault is not displayed
	•Driver seat belt buckle resistance excessive	•System detects the fault is not displayed
	•Driver seat belt buckle short circuit to power	•System detects driver seat belt buckle short circuit to power

2. Possible Causes

Fault code	Test Tactics	Installation Conditions(Control Tactics)	Fault Component
B1B20	Hardware Circuit Inspection	Carry out the self-test. Hardware circuit fault is detected.	•Wiring harness •Driver seat belt buckle •Airbag Control Module

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Frequently turn on the ignition switch to perform airbag self-test. D. Read DTC again. Is there any DTC other than B1B20? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.
2. Inspect the driver seat belt buckle wiring harness connector	
	A. Inspect the driver seat belt buckle wiring harness connector S21 for correct connection. Is the connection of wiring harness connector normal? **Y** Go to step 3. **N** Reconnect the wiring harness connector corretly.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the driver seat belt buckle circuit	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the harness connector S21 of driver airbag. D. Measure the resistance value between Terminal 25 of wiring harness connector S22 and Terminal 1 of wiring harness connector S21 (check for open circuit). **Standard Resistance Value: less than 1 Ω** E. Measure the resistance between terminal 2 of wiring harness connector S21 and reliable grounding. **Standard Resistance Value: less than 1 Ω** F. Connect battery cathode cable and wait for a moment. G. Turn the ignition switch to "ON" position. H. Measure the voltage between terminal 25 of wiring harness connector S22 and the reliable grounding terminal (check for short circuit to power supply). **Standard voltage: 0 V** Is the circuit normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Replace the driver seat belt buckle	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the driver seat belt buckle. **Refer to: Front safety belt (5.1.4 Safety belt system, Removal and Installation).** C. Connect battery cathode cable and wait for a moment. D. Turn the ignition switch to "ON" position. E. Connect the diagnostic tool and clear historical DTCs. F. Read DTC again. Is the system normal? **Y** Confirm the maintenance is finished. **N** Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B21

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

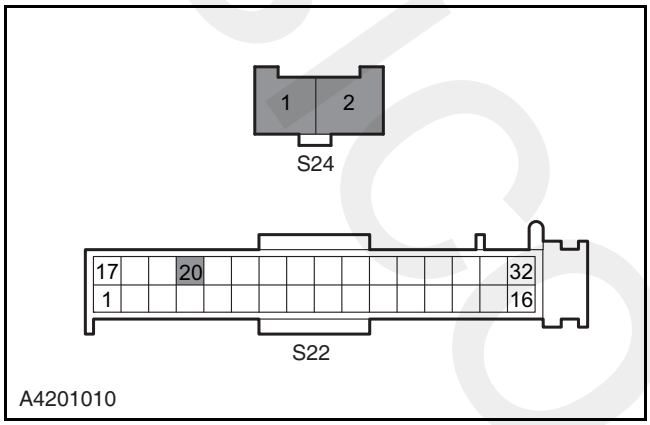
Fault code	Description	Definition
B1B21	•Passenger seat belt buckle circuit	•System detects passenger seat belt buckle circuit
	•Passenger seat belt buckle resistance too low	•System detects the fault is not displayed
	•Passenger seat belt buckle resistance undefined	•System detects the fault is not displayed
	•Passenger seat belt buckle resistance excessive	•System detects the fault is not displayed
	•Passenger seat belt buckle short circuit to power	•System Passenger seat belt buckle short circuit to power

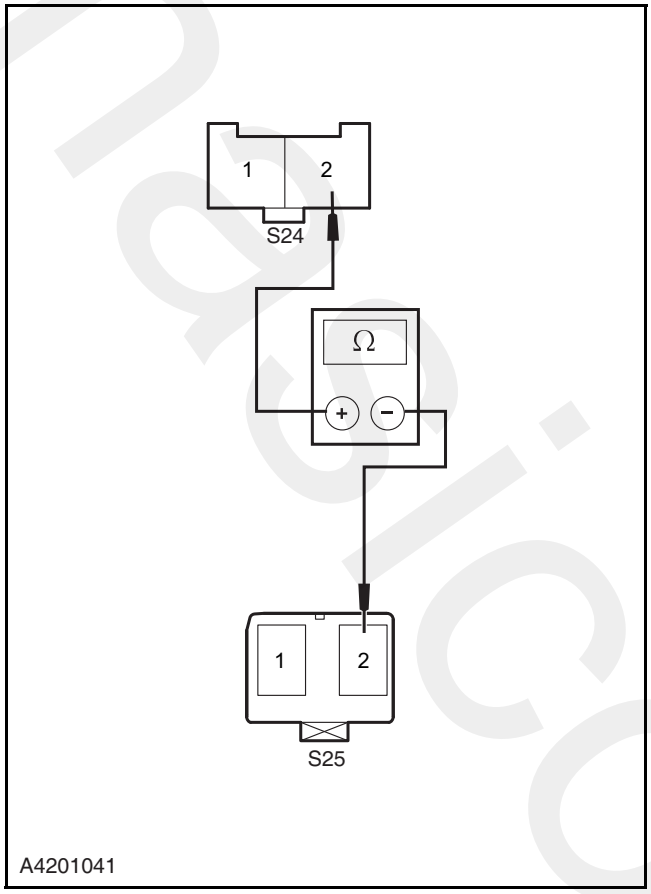
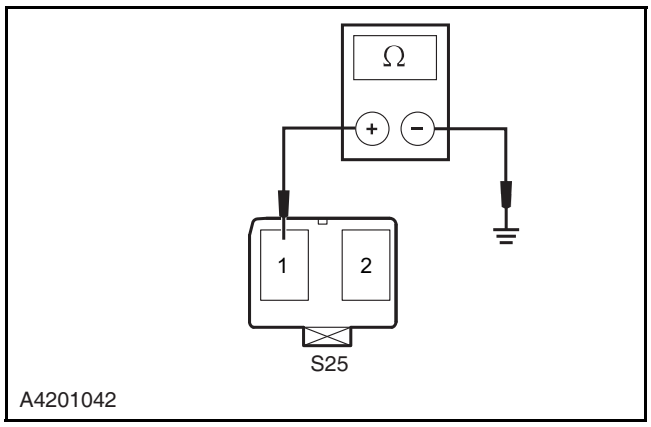
2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B21	Hardware Circuit Inspection	Carry out the self-test. Hardware circuit fault is detected.	•Wiring harness •Passenger side sensing transducer •Passenger seat belt buckle. •Airbag Control Module

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Frequently turn on the ignition switch to perform airbag self-test. D. Read DTC again. Is there any DTC other than B1B21? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing)** **N** Go to step 2.
2. Inspect the Passenger seat belt buckle wiring harness connector	
	A. Inspect the passenger seat belt buckle wiring harness connector S24 for correct connection. Is the connection of wiring harness connector normal? **Y** Go to step 3. **N** Reconnect the wiring harness connector corretly.

Test Conditions	Details/Results/Actions
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.
4. Inspect the circuit between airbag control module and passenger seat belt buckle	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the passenger seat belt buckle wiring harness connector S24. D. Measure the resistance value between Terminal 20 of wiring harness connector S22 and Terminal 1 of wiring harness connector S24 (check for open circuit). **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminal 20 of wiring harness connector S22 and reliable ground (check for short to body ground). **Standard Resistance Value: 10 MΩ or more** F. Connect battery cathode cable and wait for a moment. G. Turn the ignition switch to "ON" position. H. Measure the voltage between terminal 20 of wiring harness connector S22 and the reliable grounding terminal (power short circuit). **Standard voltage: 0 V** Is the circuit normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.

Test Conditions	Details/Results/Actions
5. Inspect the circuit between passenger side seat detection sensor and passenger seat belt buckle	
 A4201041	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect the passenger side seat detection sensor wiring harness connector S25. C. Disconnect the Passenger seat belt buckle wiring harness connector S24. D. Measure the resistance value between Terminal 2 of wiring harness connector S25 and Terminal 2 of wiring harness connector S24 (check for open circuit). **Standard Resistance Value: less than 5 Ω** Is the circuit normal? **Y** Go to step 6. **N** Replace the airbag wiring harness with fault.
6. Inspect the ground circuit of passenger side seat detection sensor	
 A4201042	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect the passenger side seat detection sensor wiring harness connector S25. C. Measure the resistance value between Terminal 1 of wiring harness connector S25 and ground connection (check for open circuit). **Standard Resistance Value: less than 5 Ω** Is it normal? **Y** Go to step 7. **N** Inspect and repair the open circuit between the wiring harness connector S25 terminal 1 and the grounding point.

Test Conditions	Details/Results/Actions
7. Replace the passenger side seat detection sensor	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the passenger side seat detection sensor. Is the system normal? **Y** The system is normal. **N** Go to step 8.
8. Replace the passenger seat belt buckle	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the passenger seat belt buckle. **Refer to: Front safety belt (5.1.4 Safety belt system, Removal and Installation).** C. Connect battery cathode cable and wait for a moment. D. Turn the ignition switch to "ON" position. E. Connect the diagnostic tool and clear historical DTCs. F. Read DTC again. Is the system normal? **Y** Confirm the maintenance is finished. **N** Replace the airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B34

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
B1B34	•Impact output short circuit to ground	•SDM internal algorithm parameter lack or error •Output circuit fault
	•Impact output short circuit to power	

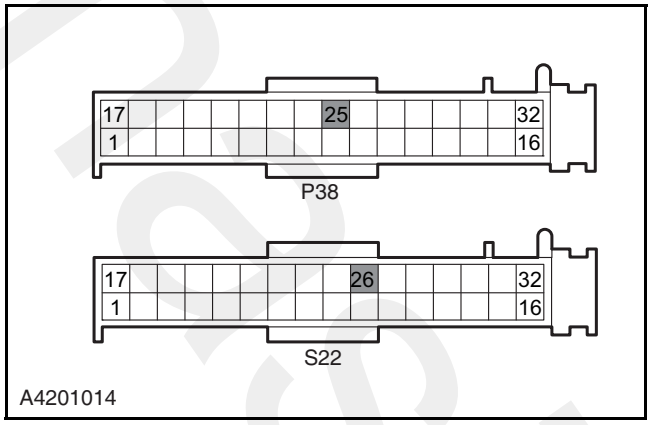
2. Possible Causes

Fault code	Test Tactics	Installation Conditions(Control Tactics)	Fault Component
B1B34	Control Module Hardware Inspection	Hardware circuit fault detected	•Wiring harness •SDM
	Hardware Circuit Inspection		

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again Is there any other fault code except for B1B34? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.

Test Conditions	Details/Results/Actions
2. Inspect the connector of airbag impact output wiring harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag impact output wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.

Test Conditions	Details/Results/Actions
4. Inspect the circuit between airbag and BCM	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Disconnect harness connector S22 of air bag control module. C. Disconnect the BCM wiring harness connector P38. D. Measure the resistance between the terminal 26 of wiring harness connector S22 and the terminal 25 of wiring harness connector P38. Check for open circuit. **Standard Resistance Value: less than 1 Ω** E. Measure the resistance value between Terminal 26 of wiring harness connector S22 and reliable ground (check for short to body ground). **Standard Resistance Value: 10 MΩ or more** F. Connect battery cathode cable and wait for a moment. G. Turn the ignition switch to "ON" position. H. Measure the voltage between terminal 26 of wiring harness connector S22 and the reliable grounding terminal. **WARNING: Do not measure resistance value of airbag inflation module with a multimeter. Special diagnostic tool shall be used for malfunction detection.** **Standard voltage: 0 V** Is the circuit normal? **Y** Go to step 5. **N** Replace the airbag wiring harness with fault.
5. Replace airbag control module	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Airbag control module **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC B1B50, B1B51

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definiton
B1B50	•Front passenger airbag and seat belt pretensioner ignited	•System detects front airbag and seat belt pretensioner ignited
B1B51	•Curtain airbag ignited	•System detects curtain airbag ignited

2. Possible Causes

Fault code	Test Tactics	Installation Conditions (Control Tactics)	Fault Component
B1B50 B1B51	Hardware Circuit Inspection	Hardware circuit fault detected	•Wiring harness •SDM

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again Is there any DTC other than B1B50 and B1B51 ? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.

Test Conditions	Details/Results/Actions
2. Inspect the connector of airbag control module harness	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Replace the front passenger airbag, seat belt pretensioner, side airbag and curtain airbag.	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Replace the front passenger airbag, seat belt pretensioner, side airbag and curtain airbag. **Refer to: (4.2.1 Supplementary Restraint System, Removal and Installation).** Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 4.
4. Replace airbag control module	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

DTC U1580, U1581, U1582, U1583, U1585

WARNING: Disconnect the battery cathode cable for more than 60 seconds before the operation on the airbag.

1. DTC description

Fault code	Description	Definition
U1580	•CAN communication malfunction	•SDM communicates with ABS and instrument via CAN network and the diagnostic tool may be used to access ABS and instrument cluster through diagnostic interface DLC.
U1581	•No communication with instrument	
U1582	•Message transmission fault	
U1583	•Vehicle speed status failure	
U1585	•No communication with ABS	

2. Possible Causes

Fault code	Test Tactics	Installation Conditions(Control Tactics)	Fault Component
U1580 U1581 U1582 U1583 U1585	Hardware Circuit Inspection	Communication signal lost, signal logic error.	•CAN bus malfunction •SDM malfunction •ABS malfunction •Instrument fault

3. Diagnosis Procedure

Test Conditions	Details/Results/Actions
1. Inspect DTC	
	A. Connect Chanan special diagnostic tool and diagnose supplementary restraint system. B. Read and clear historical DTC. C. Start the engine and run it for 5 min. Meanwhile turn the steering wheel all the way to the left and right several times. D. Read DTC again. Is there any DTC other than U1580, U1581, U1582, U1583 and U1585 ? **Y** Repair according to the instruction of DTCs. **Refer to: DTC Diagnosis Procedure Index (4.2.1 Airbag Restraint System, DTC Diagnosis and Testing).** **N** Go to step 2.

Test Conditions	Details/Results/Actions
2. Inspect the connector of airbag control module harness	
	A.Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B.Inspect the connector of airbag control module wiring harness and clean it. Is the system normal? **Y** Confirm the maintenance is finished. **N** Go to step 3.
3. Inspect and repair CAN bus	
	A. Inspect and repair CAN bus. **Refer to: CAN integrity inspection (4.3.16 Onboard Network System, General Procedures).** Is the network normal? Y Go to step 4. N Inspect and repair CAN network circuit of each control module, and replace the failed modules.
4. Replace airbag control module	
	A. Turn the ignition switch to the "LOCK" position and disconnect the battery cathode wiring harness for at least 60 sec. B. Airbag control module. **Refer to: Airbag control module (4.2.1 Supplementary Restraint System, Removal and Installation).** Verify the system is normal.

Removal and Installation

Driver Airbag and Steering Wheel

Removal

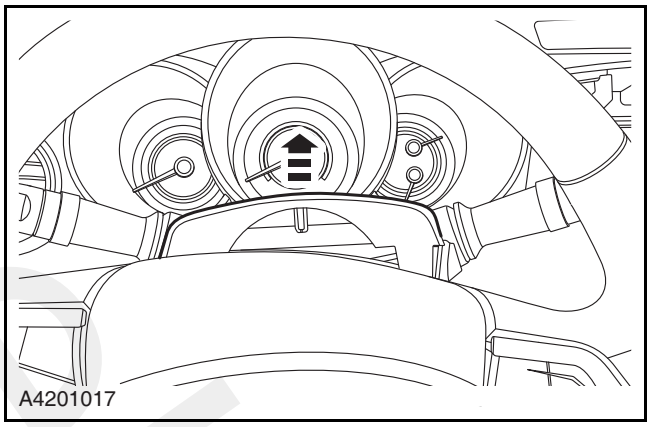
WARNING: Disconnect the battery negative cable for more than 60 seconds before the operation on the airbag.

WARNING: The product barcode on all the airbag system parts is an only permanent identification and is not allowed to tear up or pollute during the removal so that the manufacturers of the parts conduct quality tracking and performance check.

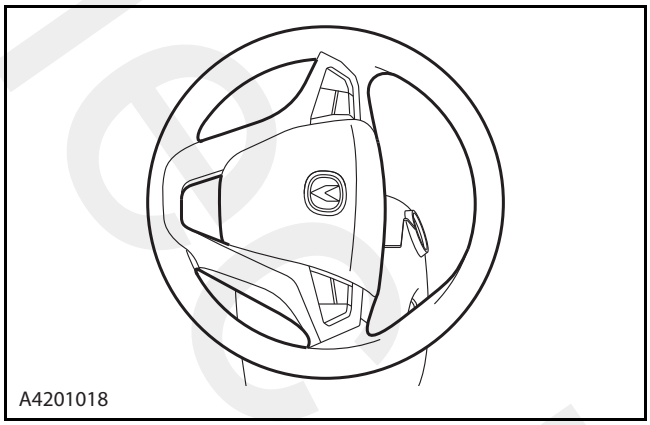
1. Disconnect the battery negative cable.

   Refer to: Battery Inspection (3.1.10 Charging System, General Procedures).

2. Remove the decorative cover on the steering column with a proper tool.


A4201017

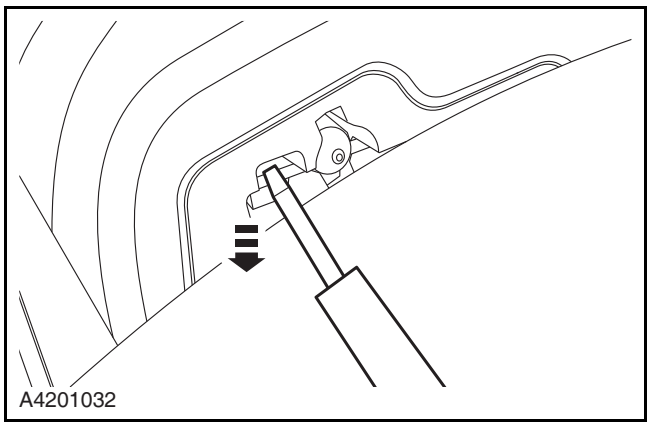
3. Rotate the steering wheel for 90 degrees clockwise.


A4201018

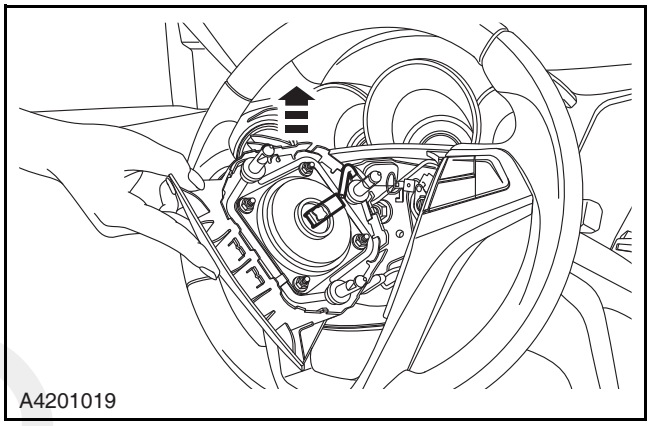
4. Insert the small screwdriver in the steel wire of the airbag steel clip pin from the steering lock housing, press it downward firmly, and release the steel wire from the clip pin.

5. Rotate it for 180° anticlockwise, repeat the operation in the Step 4.

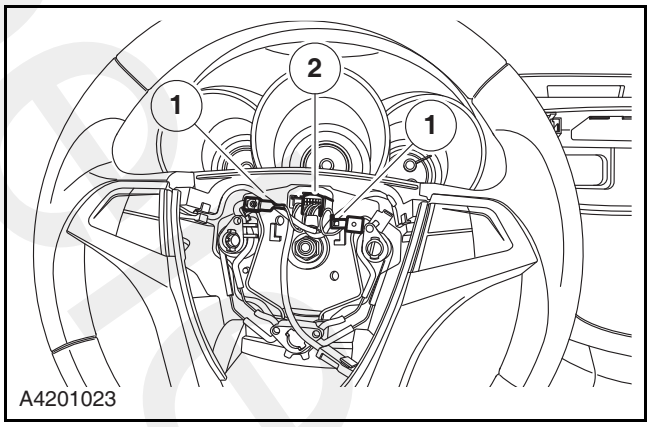
6. Continue to rotate it for 90° anticlockwise, repeat the operation in the Step 4, and remove the driver airbag connector.


A4201032

7. Disconnect the wiring harness connector of the driver airbag.


A4201019

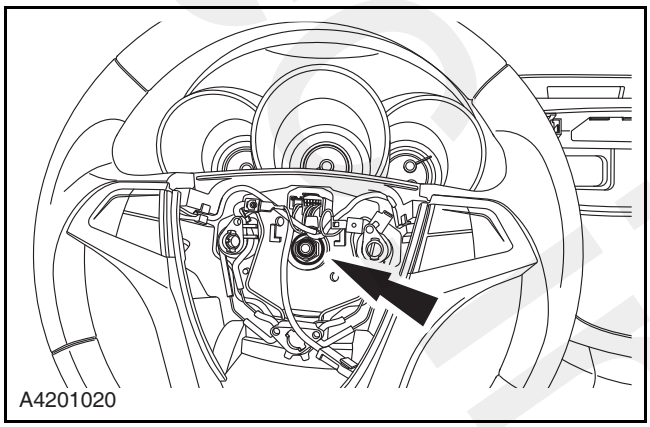
8. Disconnect the wiring harness connector 1 and 2 of the horn and the steering wheel audio control switch.



A4201023

9. Remove the steering wheel retaining nut and detach the steering wheel.

Torque: 33 Nm


A4201020

Installation

1. To install, reverse the removal procedure.

Clock Spring

Removal

WARNING: Disconnect the battery negative cable for more than 60 seconds before the operation on the airbag.

WARNING: The product barcode on all the airbag system parts is an only permanent identification and is not allowed to tear up or pollute during the removal so that the manufacturers of the parts conduct quality tracking and performance check.

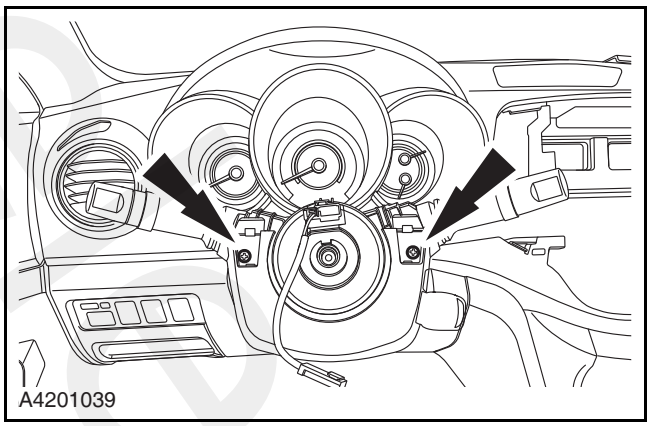
1. Disconnect the battery negative cable.

   Refer to: Battery Inspection (3.1.10 Charging System, General Procedures).

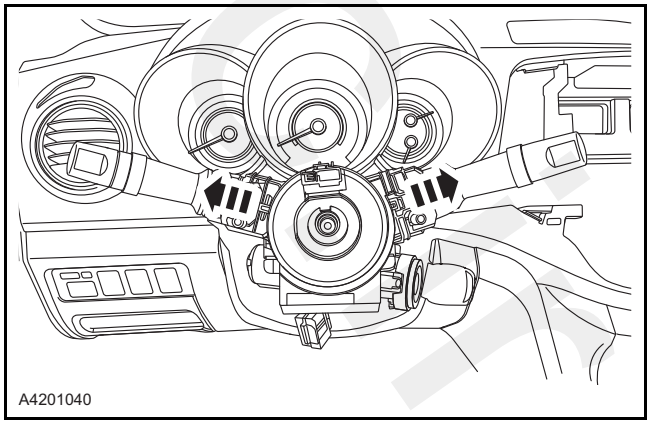
2. Remove the driver airbag and the steering wheel.

   Refer to: Driver Airbag and Steering Wheel (4.2.1 Supplementary Restraint System, Removal and Installation).

3. Remove the retaining bolts on the outer housing of the steering lock lower outer side.


A4201039

4. Remove the clock spring.


A4201040

Installation

1. To install, reverse the removal procedure.

CAUTION: Rotate the clock spring clockwise till the end during the installation of the clock spring, and rotate it for 3.2 turns anticlockwise to align it with the mark.

Side Airbag

WARNING: Disconnect the battery negative cable for more than 60 seconds before the operation on the airbag.

WARNING: The product barcode on all the airbag system parts is an only permanent identification and is not allowed to tear up or pollute during the removal so that the manufacturers of the parts conduct quality tracking and performance check.

Refer to: Front Seat (5.1.3 Seat，Removal and Installation).

Passenger Airbag

Removal

Special Tool

 CA501-002	Interior and Exterior Trim Remover CA501-002

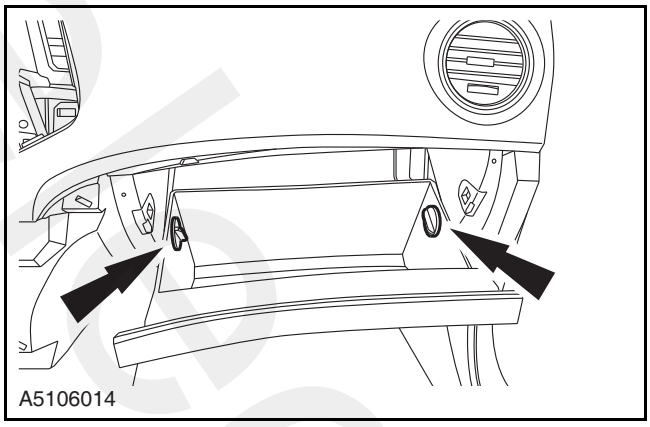
WARNING: Disconnect the battery negative cable for more than 60 seconds before the operation on the airbag.

WARNING: The product barcode on all the airbag system parts is an only permanent identification and is not allowed to tear up or pollute during the removal so that the manufacturers of the parts conduct quality tracking and performance check.

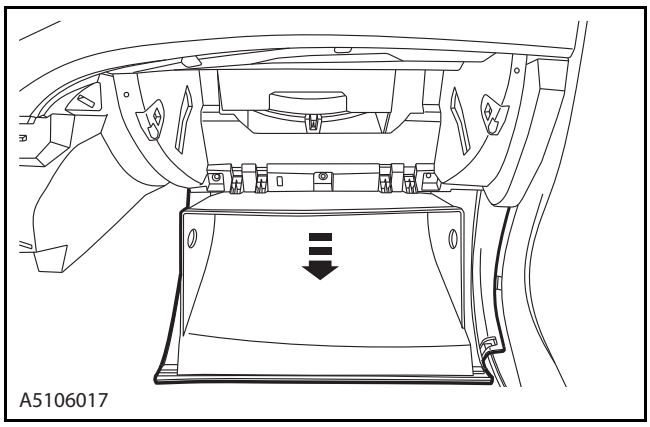
1. Disconnect the battery negative cable.

   Refer to: Battery Inspection (3.1.10 Charging System, General Procedures).

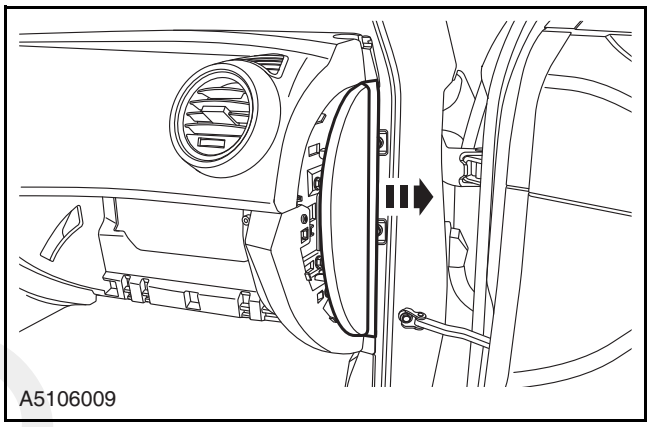
2. Remove the retaining clips on both sides of the glove box.


A5106014

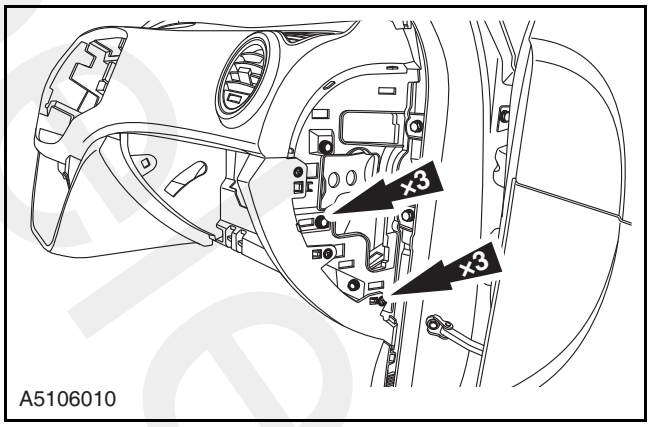
3. Remove the glove box.



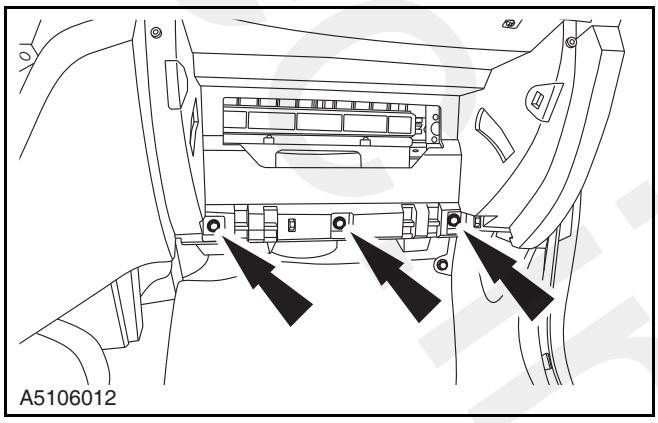
4. Use a suitable tool to remove the right trim panel on the instrument cluster.



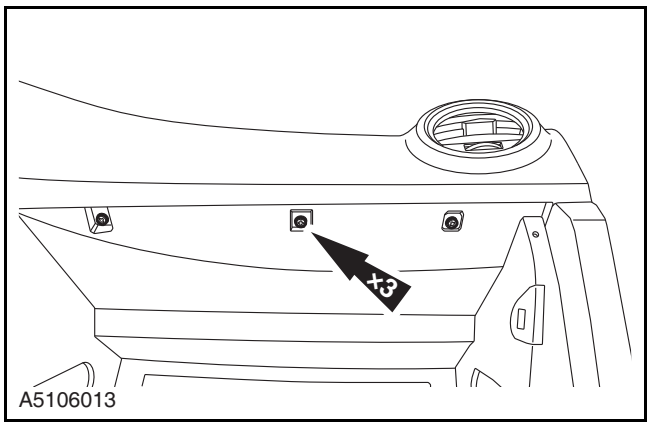
5. Remove the instrument right side retaining bolts and screws.



6. Remove the lower side retaining bolts on the glove box fixed base.

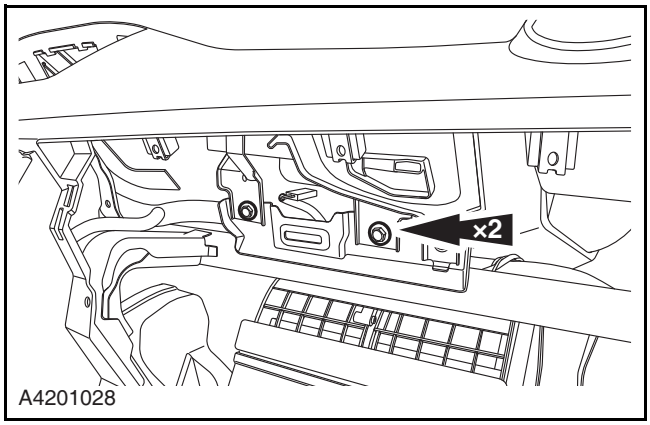


7. Remove the upper side retaining screws on the glove box fixed base, and detach the glove box fixed base.



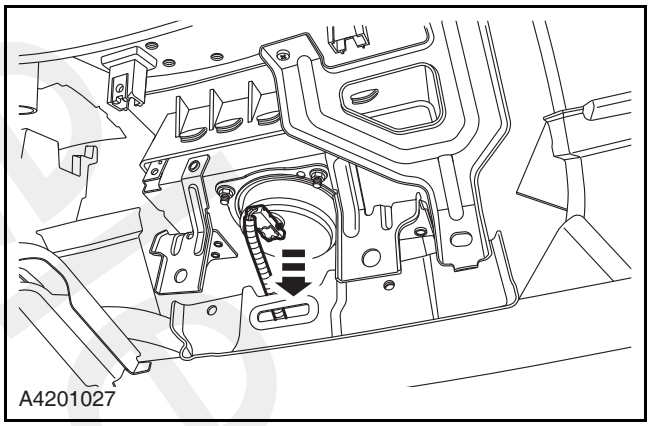
8. Remove the passenger airbag and the instrument console inner frame retaining bolts.

   Torque: 9 Nm

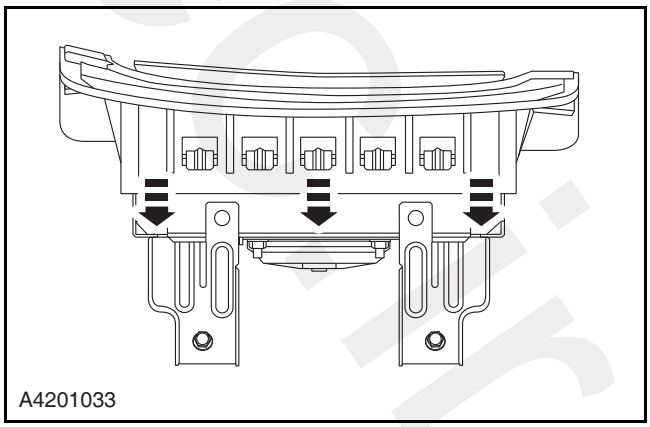


9. Disconnect the passenger airbag harness connector.
10. Remove the instrument cluster.

    Refer to: Instrument Cluster (5.1.6 Instrument Cluster and Console， Removal and Installation).



11. Exist the passenger airbag hook from the instrument cluster airbag frame.



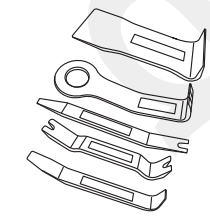
Installation

1. To install, reverse the removal procedure.

Side Air Curtain

Removal

Special Tool

 CA501-002	Interior and Exterior Trim Remover CA501-002

WARNING: Disconnect the battery negative cable for more than 60 seconds before the operation on the airbag.

WARNING: The product barcode on all the airbag system parts is an only permanent identification and is not allowed to tear up or pollute during the removal so that the manufacturers of the parts conduct quality tracking and performance check.

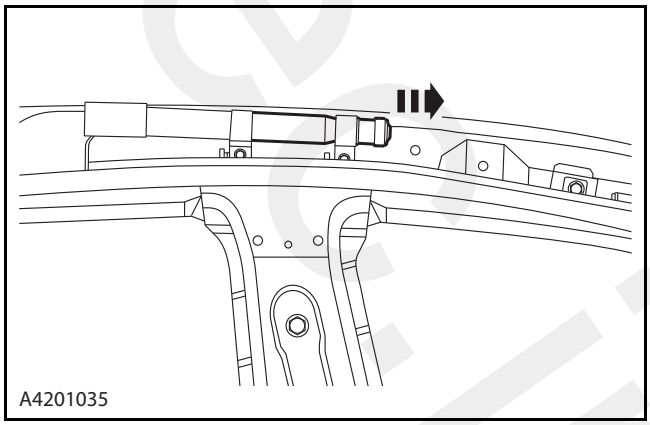
1. Disconnect the battery negative cable.

   Refer to: Battery Inspection (3.1.10 Charging System, General Procedures).

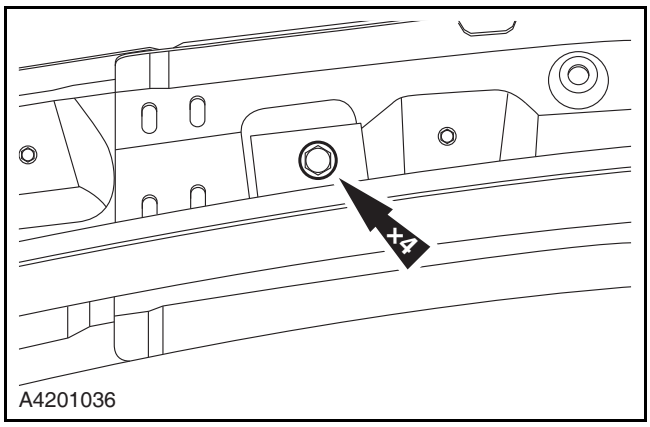
2. Remove the A-pillar trim panel/B-pillar trim panel/C-pillar trim panel.

   Refer to: (5.1.9 Interior Trim and Ornamentation, Removal and Installation).

3. Disconnect the side air curtain wiring harness connector.

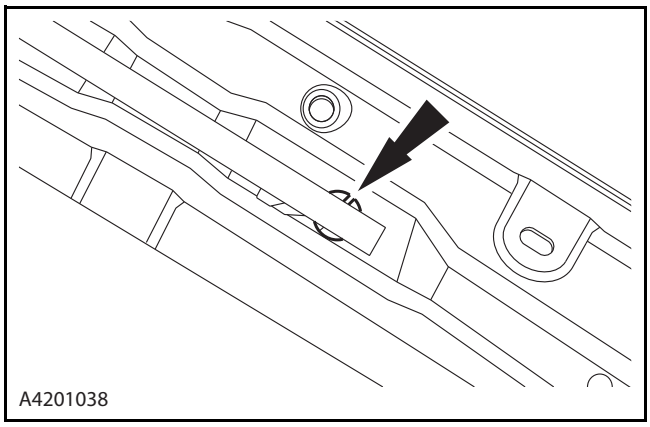

A4201035

4. Remove the side air curtain retaining bolts.



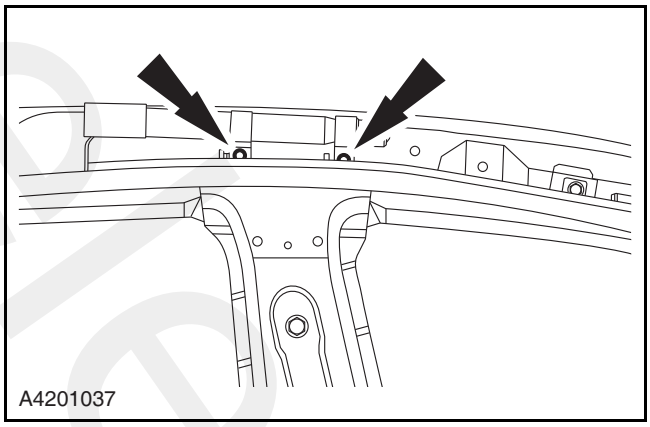
5. Remove the side air curtain retaining clips.

1. Take the drawstring metal anti-rotating piece from the mounting hole of the A-pillar, and remove the drawstring plastic clip.



6. Remove the side air curtain generator retaining bolts.

Torque: 9 Nm



Installation

1. To install, reverse the removal procedure.

Airbag Control Module

Removal

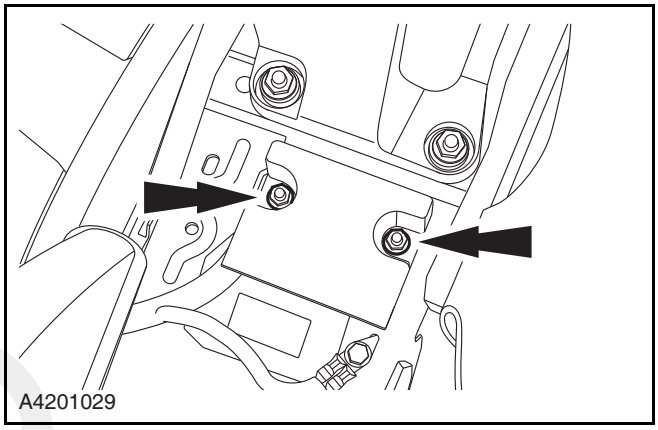
1. Disconnect the battery negative cable.

   Refer to: Battery Inspection (3.1.10 Charging System, General Procedures).

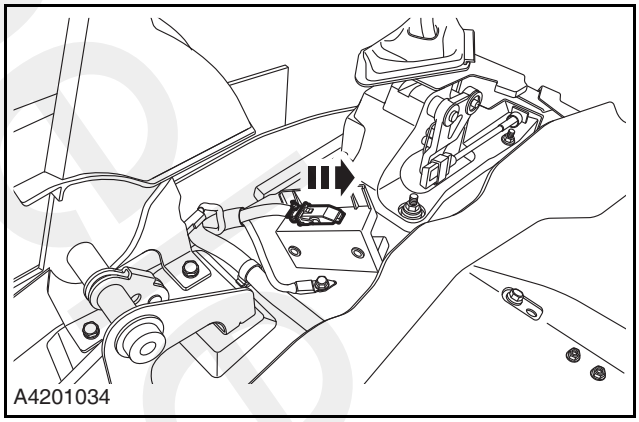
2. Remove the center console.

   Refer to: Console (5.1.6 Instrument Cluster and Console，Removal and Installation).

3. Remove the retaining bolts of the airbag control module.



4. Disconnect the wiring harness connector of the airbag control module.



Installation

1. To install, reverse the removal procedure.

WARNING: Handle the airbag with care to avoid bang, knock and drop. Do not allow unauthorized disassembly of the controller housing. Inspect the torque value of the retaining bolt no less than 9 Nm after tightening the controller.

WARNING: The product barcode on all the airbag system parts is an only permanent identification and is not allowed to tear up or pollute during the removal so that the manufacturers of the parts conduct quality tracking and performance check.

Impact Sensor

Removal

1. Disconnect the battery negative cable.

   Refer to: Battery Inspection (3.1.10 Charging System, General Procedure).

2. Remove the door threshold trim panel.

   Refer to: Door Threshold Trim (5.1.9 Interior Trim and Ornamentation, Removal and Installation).

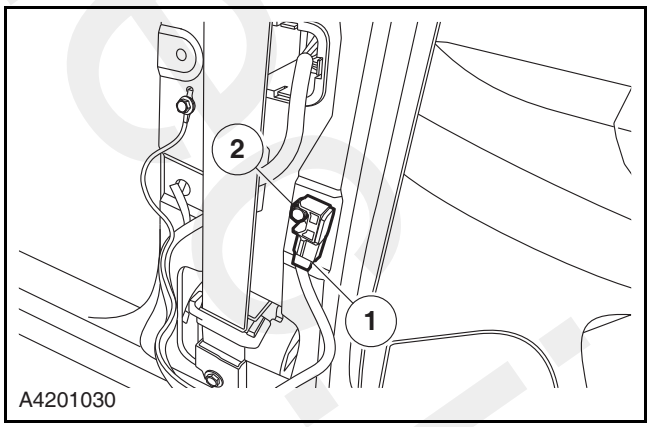
3. Remove the B-pillar trim panel.

   Refer to: B-pillar Trim (5.1.9 Interior Trim and Ornamentation, Removal and Installation).

4. Remove the impact sensor.

   1. Disconnect the wiring harness connector of the impact sensor.

   2. Remove the impact sensor retaining bolt.



Installation

1. To install, reverse the removal procedure.