

GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

⚠ WARNING

- Carefully read and observe the information in the SRS SERVICE PRECAUTIONS prior to any service.
- For information concerning diagnosis or maintenance, always observe the procedures in the SRS Diagnosis or the SRS Maintenance sections, respectively.
- If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section for the compartments involved.
- If you have any questions about the SRS, please contact the MMNA Tech Line.
- Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.

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GENERAL INFORMATION

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WARNING

Improper service could result in serious injury of the service personnel or the passenger.

The SRS* is designed to supplement the front seat belts. It reduces injury to the driver(s) and the front passenger(s) by deploying air bag(s) in case of a frontal collision. In addition, the side-airbag and curtain air bag inflate upon a side collision to reduce the risk of passenger injuries.

The SRS front air bags from an advanced air bag system together with sensors at the vehicle and sensors attached to front seats.

With the knee air bag system, when an impact exceeds the threshold upon a frontal collision, and the cushion air bag is instantaneously inflated for better protection of the driver.

Side-airbag systems in the front seats are activated when side impacts exceed a criteria to protect the occupants' upper bodies.

The curtain air bag system operates together with the side-airbag to protect the heads of passengers in the front and second seats.

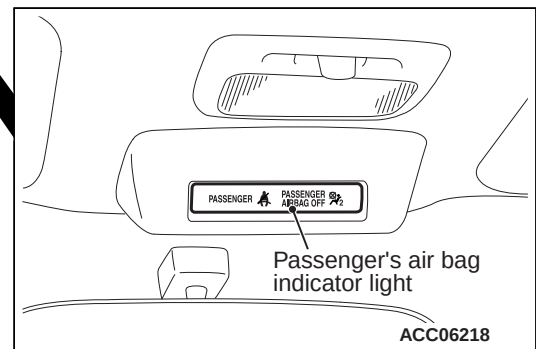
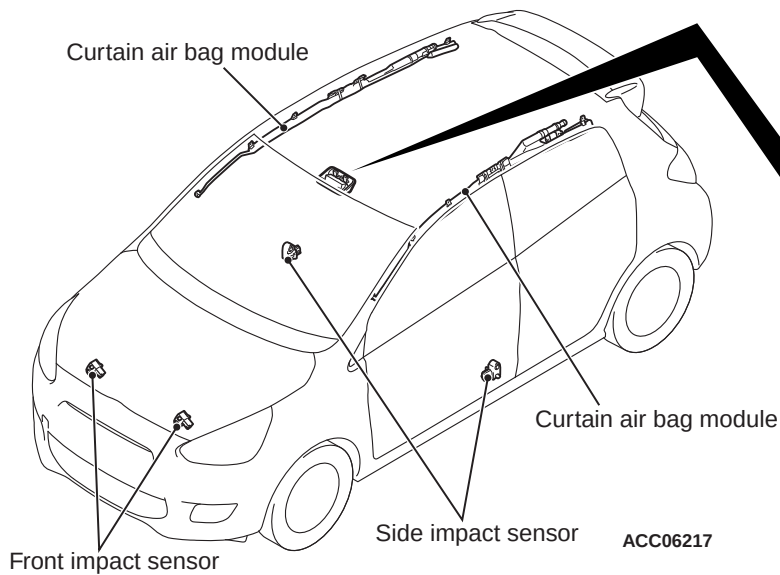
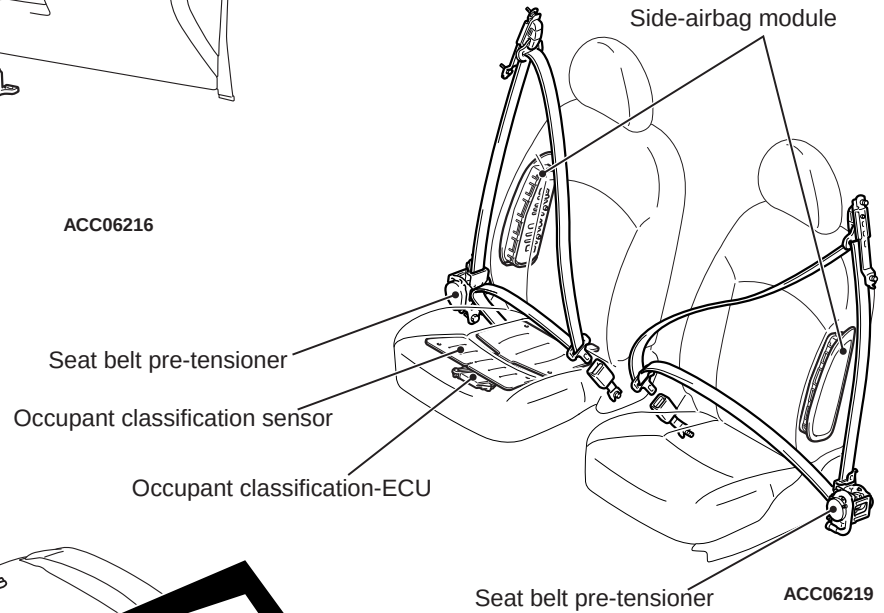
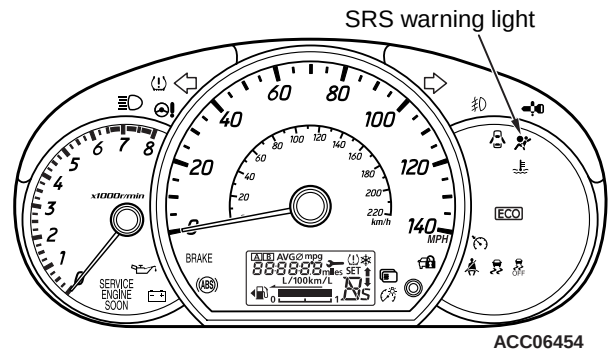
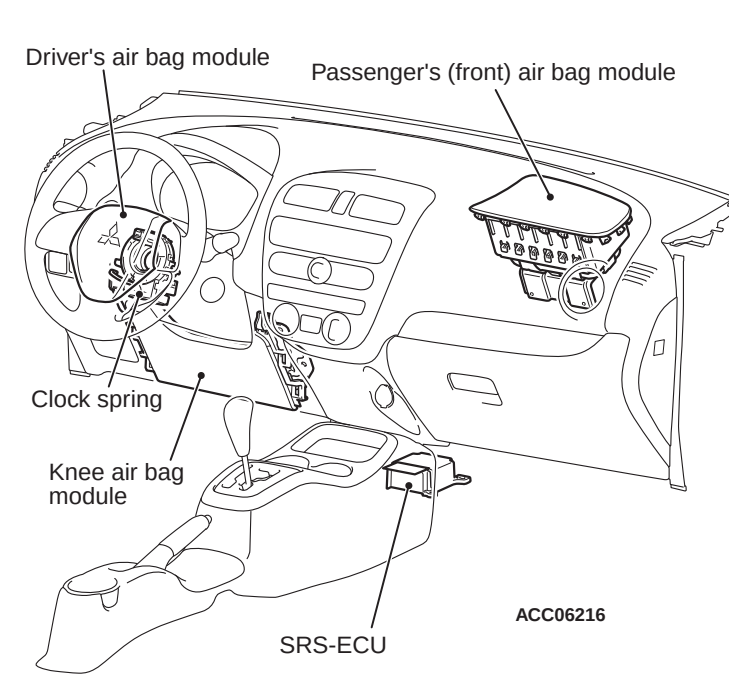
The seat belts with pre-tensioner work simultaneously with the SRS*. The seat belt incorporating the pre-tensioner automatically winds the seat belt upon front impact to reduce forward shifting of the driver's and passenger's. The seat belt use status is used to control the activation and deactivation of the pre-tensioner.

The SRS* consists of driver's and passenger's (front) air bag modules, knee air bag module, side-airbag modules, curtain air bag modules, SRS* air bag control unit (SRS-ECU), two front impact sensors, two side impact sensors, SRS* warning light, passen-

ger's air bag OFF indicator light, passenger's seat belt warning light, clock spring, seat belt pre-tensioner, seat belt buckle switch, occupant classification sensor and occupant classification-ECU. Driver's and passenger's (front) air bag modules are located in the center of the steering wheel and above the glove box. The knee air bag module is installed to the instrument panel cover lower under the steering column. Side-airbags are located inside the front seatback frame. The curtain air bag module consists of an air bag, an inflator, and the fixing gear relating to those parts, and is installed in the roof side sections (from the driver's and the passenger's front pillars to the rear pillars). Each air bag consists of a folded air bag and an inflator unit. The SRS-ECU placed on the forefront of the floor monitors the system and has a front air bag analog G-sensor and a side-airbag analog G-sensor. The front impact sensor is assembled in the front end upper bar in the engine room to monitor impact in case of front impact. The side impact sensors inside the center pillars monitor the shock incurred by the sides of the vehicle. The SRS* warning light on the combination meter indicates the operational status of the SRS*. The clock spring is installed in the steering column. The seat belt pre-tensioner is built into the driver's and passenger's front seat belt retractor. The occupant classification sensor is installed underneath a rail of the passenger seat to detect the load on the seat. The passenger's air bag OFF indicator light is installed to the headlining, and illuminates when the passenger seat airbag is inactive. The passenger's seat belt warning light is installed to the headlining, and illuminates when the passenger is not wearing the seat belt. The seat belt switch detects whether the seat belt is used.

Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work.

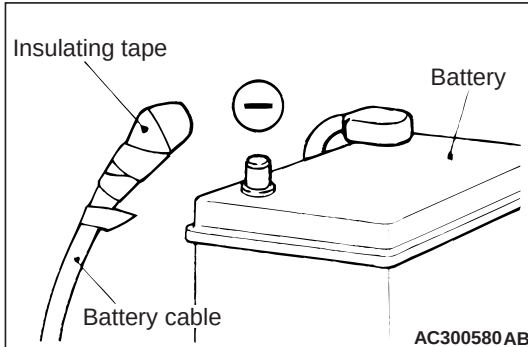
NOTE: *: SRS (Supplemental Restraint System)



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SERVICE PRECAUTIONS

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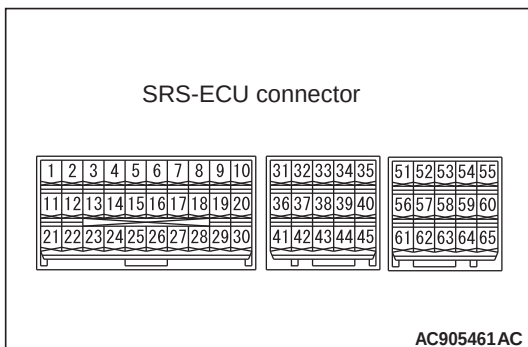


⚠ DANGER

- *In order to avoid injury to yourself or others from accidental deployment of the air bag during servicing, read and carefully follow all the precautions and procedures described in this manual.*
- *After disconnecting the battery cable, wait 60 seconds or more before proceeding with the following work. The SRS system is designed to retain enough voltage to deploy the air bag for a short time even after the battery has been disconnected, so serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cables are disconnected.*

⚠ WARNING

- *Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.*
- *Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.*
- *Do not use any electrical test equipment on or near the SRS components, except those specified on [P.52B-10](#).*
- *Never Attempt to Repair the Following Components: SRS-ECU, Clock Spring, Air Bag Modules, Front impact sensor, Side Impact Sensor, Seat Belt with Pre-tensioner. If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the INDIVIDUAL COMPONENT SERVICE procedures in this manual, starting on [P.52B-224](#).*
- *Do not attempt to repair the wiring harness connectors of the SRS. If any of the connectors are diagnosed as faulty, replace the wiring harness. If the wires are diagnosed as faulty, replace or repair the wiring harness according to the following table.*



⚠ CAUTION

Never heat or incinerate the airbag modules and the seat belt pre-tensioners.

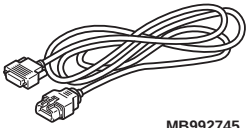
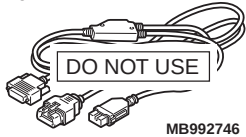
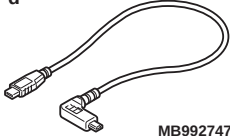
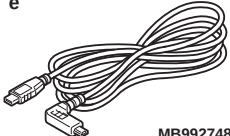
SRS-ECU terminal No.	Destination of wiring harness	Measures
5, 6	Instrument panel wiring harness → clock spring → driver's air bag module (squib)	Replace the clock spring, or repair or replace the instrument panel wiring harness.
7, 8	Instrument panel wiring harness → passenger's (front) air bag module (squib)	Repair or replace the instrument panel wiring harness.
13	Floor wiring harness → passenger's air bag OFF indicator lamp	Repair or replace the floor wiring harness.
17, 27	Instrument panel wiring harness → front wiring harness → front impact sensor	Repair or replace the wiring harnesses.
21	Floor wiring harness → ETACS-ECU (fuse No. 21)	Repair or replace the floor wiring harness.
22	Floor wiring harness → ETACS-ECU (fuse No. 15)	
24	Instrument panel wiring harness → ground	Repair or replace the instrument panel wiring harness.
25, 26	Instrument panel wiring harness → passenger's air bag cut OFF switch	
29, 30	Instrument panel wiring harness → CAN bus line	
31, 32	Floor wiring harness → front passenger's seat belt pre-tensioner	Repair or replace the floor wiring harness.
34, 35	Floor wiring harness → front passenger's seat belt lap pre-tensioner	
36, 37	Floor wiring harness → curtain air bag module (LH)	
39, 40	Floor wiring harness → side-airbag module (LH)	
41, 42	Floor wiring harness → side impact sensor (LH)	
51, 52	Floor wiring harness → driver's seat belt lap pre-tensioner	
54, 55	Floor wiring harness → driver's seat belt pre-tensioner	
56, 57	Floor wiring harness → side-airbag module (RH)	
59, 60	Floor wiring harness → curtain air bag module (RH)	
64, 65	Floor wiring harness → side impact sensor (RH)	

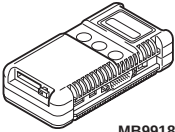
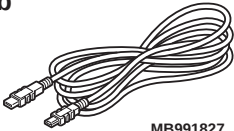
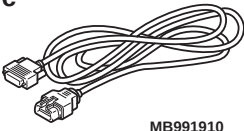
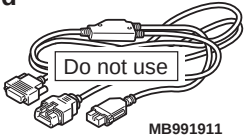
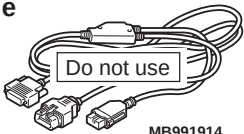
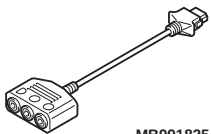
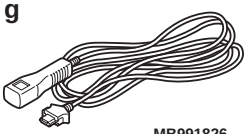
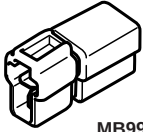
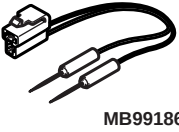
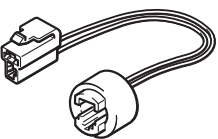
 WARNING

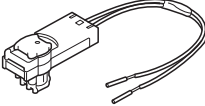
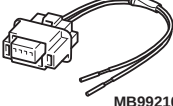
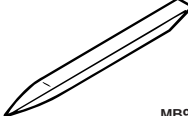
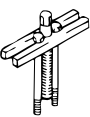
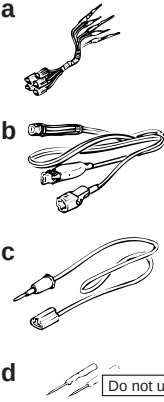
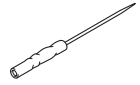
- *The SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, driver's and front passenger's air bag modules, clock spring, knee air bag module, side-airbag modules, Curtain air bag modules, front and side impact sensor and seat belt pre-tensioner before drying or baking the vehicle after painting.*
 - *SRS-ECU, air bag module, clock spring, impact sensor: 93 °C (199 °F) or more*
 - *Seat belt with pre-tensioner 90 °C (194 °F) or more*
- *After servicing the SRS system, check the warning light operation to make sure that the system functions properly (Refer to [P.52B-3](#)).*
- *Make certain that the ignition switch is in the "LOCK"(OFF) position when the scan tool is connected or disconnected.*

SPECIAL TOOLS

M1524000701854

Tool	Tool number and name	Supersession	Application
a  MB992744	a. MB992744 b. MB992745 c. MB992746 d. MB992747 e. MB992748		Checking diagnostic trouble code
b  MB992745	a. Vehicle communication interface-Lite (V.C.I.-Lite) b. V.C.I.-Lite main harness A (for vehicles with CAN communication)		
c  MB992746	c. V.C.I.-Lite main harness B (for vehicles without CAN communication) d. V.C.I.-Lite USB cable short e. V.C.I.-Lite USB cable long		
d  MB992747			
e  MB992748 ACB05421AB			

Tool	Tool number and name	Supersession	Application
a  MB991824 b  MB991827 c  MB991910 d  MB991911 e  MB991914 f  MB991825 g  MB991826 MB991958	MB991958 a: MB991824 b: MB991827 c: MB991910 d: MB991911 e: MB991914 f: MB991825 g: MB991826 Scan tool (M.U.T.-III sub assembly) a: Vehicle communication interface (V. C. I.) b: M.U.T.-III USB cable c: M.U.T.-III main harness A (Vehicles with CAN communication system) d: M.U.T.-III main harness B (Vehicles without CAN communication system) e: M.U.T.-III main harness C (for Chrysler models only) f: M.U.T.-III measurement adapter g: M.U.T.-III trigger harness	MB991824-KIT <i>NOTE: g: MB991826 M.U.T.-III Trigger Harness is not necessary when pushing V.C.I. ENTER key.</i>	⚠ CAUTION For vehicles with CAN communication, use M.U.T.-III main harness A to send simulated vehicle speed. If you connect M.U.T.-III main harness B instead, the CAN communication does not function correctly. Checking diagnostic trouble code
 MB991865	MB991865 Dummy resistor		SRS air bag and seat belt pre-tensioner circuit check
 MB991866	MB991866 Resistor harness		Driver's and passenger's (front) air bag and side-air bag circuit check
 MB991884	MB991884 Resistor harness		Curtain air bag and seat belt pre-tensioner circuit check

Tool	Tool number and name	Supersession	Application
 MB991885	MB991885 Adapter harness		Deployment of Knee air bag, curtain air bag and seat belt pre-tensioner inside or outside the vehicle
 MB992102	MB992102 Air bag inflation adapter harness		Deployment of driver's and passenger's (front) air bag module inside or outside the vehicle
 MB990784	MB990784 Ornament remover	General service tool	Removal of cover.
 MB990803 A	MB990803 Steering wheel puller	General service tool	Steering wheel removal
 a b c d MB991223 Do not use	MB991223 a: MB991219 b: MB991220 c: MB991221 d: MB991222 Harness set a: Test harness b: LED harness c: LED harness adaptor d: Probe	General service tools	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
 MB992006	MB992006 Extra fine probe	General service tool	Continuity check and voltage measurement at harness wire or connector for loose, corroded or damaged terminals, or terminals pushed back in the connector.

TEST EQUIPMENTS

M1524000800591

Tool	Name	Use
 AC000019	Digital multi-meter	Checking SRS electrical circuitry (Use multi-meter for which the maximum test current is 2 mA or less at minimum range of resistance measurement)

SRS AIR BAG DIAGNOSIS

INTRODUCTION TO DIAGNOSIS

The SRS system is controlled by the SRS-ECU. The SRS-ECU judges how severe a collision is by detecting signals from the left and right front impact sensors and side impact sensors, front air bag analog G-sensor and side-airbag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the analog G-sensor is on, the SRS air bag will inflate (The passenger's air bag may not inflate according to the occupant detection data from the occupant classification-ECU).

The SRS warning light in the combination meter alerts a malfunction of the SRS system. If the following symptoms occur even when the vehicle has not been in a collision, there may be a malfunction in the SRS system.

- The SRS warning light does not go off within approximately seven seconds after the ignition switch has been turned to the "ON" position.
- The SRS warning light does not illuminate when the ignition switch is turned to the "ON" position.

Refer to Post-collision Diagnosis when inspecting and servicing a vehicle that has been in a collision (Refer to [P.52B-218](#)).

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TROUBLESHOOTING STRATEGY

Use these steps to plan your diagnostic strategy. If you follow them carefully, you will be sure that you have exhausted all of the possible ways to find a SRS fault.

1. Gather information about the problem from the customer.
2. Verify that the condition described by the customer exists.
3. Check the vehicle for any SRS diagnostic trouble codes (SRS DTC).
4. If you cannot verify the condition but there are no SRS DTCs, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting – Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#).

5. If there is a SRS DTC, record the code number, then erase the code from vehicle memory using scan tool (M.U.T.-III).
6. Recreate the SRS DTC set conditions to see if the same SRS DTC will be stored again.
 - If the same SRS DTC is stored again, follow the Inspection Chart for the DTC and find the fault.
 - If you cannot get the same SRS DTC to be stored again, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting – Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#).

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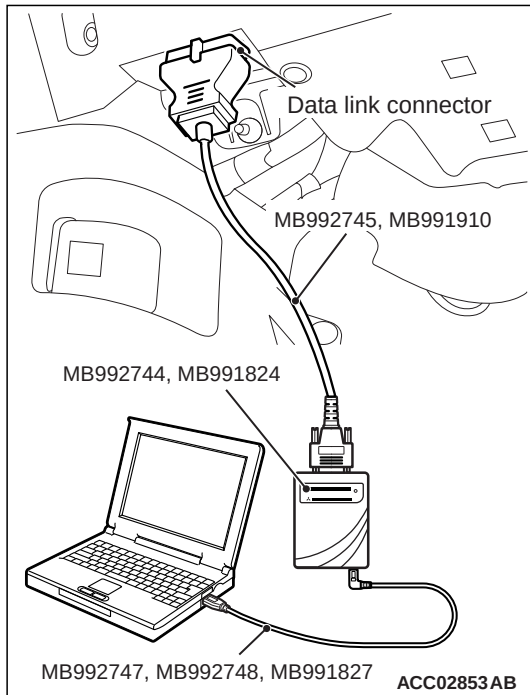
DIAGNOSIS FUNCTION

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HOW TO CONNECT THE SCAN TOOL (M.U.T.-III)

Required Special Tools:

- MB992744: Vehicle communication interface-Lite (V.C.I.-Lite)
- MB992745: V.C.I.-Lite main harness A (for vehicles with CAN communication)
- MB992747: V.C.I.-Lite USB cable short
- MB992748: V.C.I.-Lite USB cable long
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: M.U.T.-III USB Cable
 - MB991910: M.U.T.-III Main Harness A

**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

1. Ensure that the ignition switch is at the "LOCK" (OFF) position.
2. Start up the personal computer.
3. Connect special tool MB992747/MB991748 or special tool MB991827 to special tool MB992744 or special tool MB991824 and the personal computer.
4. Connect special tool MB992745 or special tool MB991910 to special tool MB992744 or special tool MB991824.
5. Connect special tool MB992745 or special tool MB991910 to the data link connector.

NOTE: when the special tool MB992745 is connected to the data link connector, the special tool MB992744 indicator light will be illuminated in a green color

6. Turn the power switch of special tool MB991824 to the "ON" position <When using the special tool MB991824>.

NOTE: When special tool MB991824 is energized, special tool MB991824 indicator light will be illuminated in a green color.

7. Start the M.U.T.-III system on the personal computer.

NOTE: Disconnecting scan tool (M.U.T.-III) is the reverse of the connecting sequence, making sure that the ignition switch is at the "LOCK" (OFF) position.

HOW TO READ AND ERASE DIAGNOSTIC TROUBLE CODES

Required Special Tools:

- MB992744: Vehicle communication interface-Lite (V.C.I.-Lite)
- MB992745: V.C.I.-Lite main harness A (for vehicles with CAN communication)
- MB992747: V.C.I.-Lite USB cable short
- MB992748: V.C.I.-Lite USB cable long
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: M.U.T.-III USB Cable
 - MB991910: M.U.T.-III Main Harness A

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the power supply mode of the engine switch to the OFF position before connecting or disconnecting scan tool (M.U.T.-III).

NOTE: If the battery voltage is low, diagnostic trouble codes will not be stored. Check the battery if scan tool (M.U.T.-III) does not display.

1. Connect scan tool (M.U.T.-III) to the data link connector.
2. Turn the ignition switch to the "ON" position.

3. Select "System select" from the start-up screen.
4. Select "From 2006 MY" of "Model Year." When the "Vehicle Information" is displayed, check the contents.
5. Select "ETACS" from "System List", and press the "OK" button.

NOTE: When the "Loading Option Setup" list is displayed, check the applicable item.

6. Select "Diagnostic Trouble Code." to read the DTC.
7. If a DTC is stored, it is shown.
8. Choose "Erase DTCs" to erase the DTC.

HOW TO DIAGNOSE THE CAN BUS LINES

Required Special Tools:

- MB992744: Vehicle communication interface-Lite (V.C.I.-Lite)
- MB992745: V.C.I.-Lite main harness A (for vehicles with CAN communication)
- MB992747: V.C.I.-Lite USB cable short
- MB992748: V.C.I.-Lite USB cable long
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
 - MB991824: Vehicles Communication Interface (V.C.I.)
 - MB991827: M.U.T.-III USB Cable
 - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

1. Connect scan tool (M.U.T.-III) to the data link connector.
2. Turn the ignition switch to the "ON" position.
3. Select "CAN bus diagnosis" from the start-up screen.
4. When the vehicle information is displayed, confirm that it matches the vehicle being diagnosed.
 - If they match, go to Step 8.
 - If not, go to Step 5.
5. Select the "view vehicle information" button.
6. Enter the vehicle information and select the "OK" button.
7. When the vehicle information is displayed, confirm again that it matches the vehicle being diagnosed.
 - If they match, go to Step 8.
 - If not, go to Step 5.
8. Select the "OK" button.
9. When the optional equipment screen is displayed, choose the one which the vehicle is fitted with, and then select the "OK" button.

CHECK OF FREEZE FRAME DATA

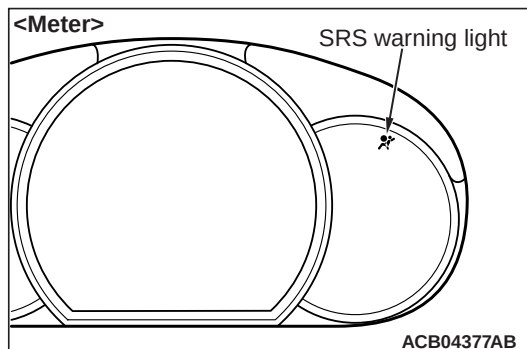
The freeze frame data can be checked by using the scan tool (GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

When detecting the trouble and storing the diagnostic trouble code, the ECU connected to CAN bus line obtains the data when the diagnostic trouble code is confirmed, and then stores the ECU status of that time. By analyzing each data from scan tool (M.U.T.-III), the troubleshooting can be performed more efficiently. The displayed items are as the table below.

Display item list

Item No.	Item name	Data item	Unit
01	Odometer	Total driving distance after the diagnostic trouble code is generated	mile*
02	Ignition cycle	Number of times the ignition switch is turned "ON" or "LOCK (OFF)" after the past failure transition	Number of counts is displayed.
04	Current trouble accumulative time	Cumulative time for current malfunction of diagnostic trouble code	min

NOTE: *: If a failure occurs to both the ASC-ECU and ETACS-ECU, 0000 mile or FFFF mile is displayed on the scan tool (M.U.T.-III).



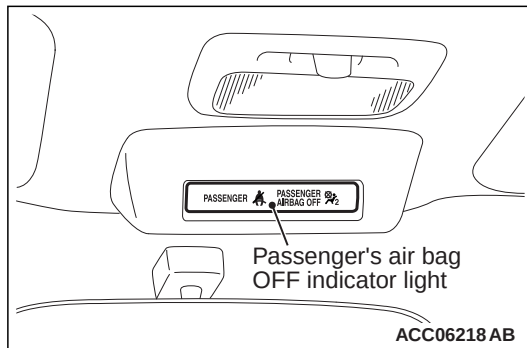
SRS WARNING LIGHT CHECK

M1524004301416

1. Check that the SRS warning light is illuminated when the ignition switch is turned ON.
2. Check that the light is extinguished after the approximately 6 to 8 seconds illumination. Check that the warning light is extinguished afterward.
3. Except the above, the SRS system is abnormal. Thus, check the diagnostic trouble code (Refer to [P.52B-14](#)).

PASSENGER'S AIR BAG OFF INDICATOR LIGHT CHECK

M1524026300295



1. Check that the "PASSENGER AIR BAG OFF" indicator light illuminates when the ignition switch is turned ON.
2. Check that the light is extinguished after the approximately 6 to 8 seconds illumination. Check that the warning light is extinguished afterward.
3. Except the above, the SRS system is abnormal. Thus, check the diagnostic trouble code (Refer to [P.52B-14](#)).

CHECK CHART FOR DIAGNOSTIC TROUBLE CODES

M1524003302944

CAUTION

During diagnosis, a diagnostic trouble code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for diagnostic trouble code(s). If diagnostic trouble code(s) are set, erase them all.

Inspect according to the inspection chart that is appropriate for the DTC.

Code No.	Diagnostic item	Reference page
B1400*2	Driver's air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-19
B1401*2	Driver's air bag module (1st squib) system (open circuit of squib circuit)	P.52B-25

Code No.	Diagnostic item	Reference page
B1402 ^{*2}	Driver's air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-30
B1403 ^{*2}	Driver's air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-35
B1404 ^{*4}	Driver's air bag module (1st squib) activating circuit short-circuited	P.52B-40
B1405 ^{*4}	Driver's air bag module (1st squib) activating circuit open-circuited	P.52B-40
B1406 ^{*3}	Malfunction of Front Impact Sensor (RH)	P.52B-42
B1407 ^{*3}	Front Impact Sensor (RH) Voltage Error	P.52B-43
B1408 ^{*3}	Front Impact Sensor (RH) Communication Error	P.52B-45
B1409 ^{*3}	Front Impact Sensor (RH) Communication Impossible	P.52B-45
B1410 ^{*2}	Passenger's (front) air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-47
B1411 ^{*2}	Passenger's (front) air bag module (1st squib) system (open circuit of squib circuit)	P.52B-52
B1412 ^{*2}	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-55
B1413 ^{*2}	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-59
B1414 ^{*4}	Passenger's (front) air bag module (1st squib) activating circuit short-circuited	P.52B-40
B1415 ^{*4}	Passenger's (front) air bag module (1st squib) activating circuit open-circuited	P.52B-40
B1416 ^{*3}	Malfunction of inside front impact sensor (LH)	P.52B-62
B1417 ^{*3}	Front impact sensor (LH) voltage error	P.52B-63
B1418 ^{*3}	Front impact sensor (LH) communication error	P.52B-65
B1419 ^{*3}	Front impact sensor (LH) communication impossible	P.52B-65
B1420 ^{*2}	Side-airbag module (RH) (squib) system (short circuit between squib terminals)	P.52B-67
B1421 ^{*2}	Side-airbag module (RH) (squib) system (open circuit of squib circuit)	P.52B-71
B1422 ^{*2}	Side-airbag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-74
B1423 ^{*2}	Side-airbag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-77
B1424 ^{*4}	Side-airbag module (RH) (squib) activating circuit short-circuited	P.52B-40
B1425 ^{*4}	Side-airbag module (RH) (squib) activating circuit open-circuited	P.52B-40
B1426 ^{*3}	Malfunction of side impact sensor (RH)	P.52B-80
B1427 ^{*3}	Side impact sensor (RH) voltage error	P.52B-81
B1428 ^{*3}	Side impact sensor (RH) communication error	P.52B-83
B1429 ^{*3}	Side impact sensor (RH) communication impossible	P.52B-83

Code No.	Diagnostic item	Reference page
B1430 ^{*2}	Side-airbag module (LH) (squib) system (short circuit between squib terminals)	P.52B-85
B1431 ^{*2}	Side-airbag module (LH) (squib) system (open circuit of squib circuit)	P.52B-89
B1432 ^{*2}	Side-airbag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-92
B1433 ^{*2}	Side-airbag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-95
B1434 ^{*4}	Side-airbag module (LH) (squib) activating circuit short-circuited	P.52B-40
B1435 ^{*4}	Side-airbag module (LH) (squib) activating circuit open-circuited	P.52B-40
B1436 ^{*3}	Malfunction of side impact sensor (LH)	P.52B-80
B1437 ^{*3}	Side impact sensor (LH) voltage error	P.52B-98
B1438 ^{*3}	Side impact sensor (LH) communication error	P.52B-100
B1439 ^{*3}	Side impact sensor (LH) communication impossible	P.52B-100
B1440 ^{*2}	Curtain air bag module (RH) (squib) system (short circuit between squib terminals)	P.52B-101
B1441 ^{*2}	Curtain air bag module (RH) (squib) system (open circuit of squib circuit)	P.52B-105
B1442 ^{*2}	Curtain air bag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-108
B1443 ^{*2}	Curtain air bag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-112
B1444 ^{*4}	Curtain air bag module (RH) (squib) activating circuit short-circuited	P.52B-40
B1445 ^{*4}	Curtain air bag module (RH) (squib) activating circuit open-circuited	P.52B-40
B1450 ^{*2}	Curtain air bag module (LH) (squib) system (short circuit between squib terminals)	P.52B-115
B1451 ^{*2}	Curtain air bag module (LH) (squib) system (open circuit of squib circuit)	P.52B-119
B1452 ^{*2}	Curtain air bag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-122
B1453 ^{*2}	Curtain air bag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-126
B1454 ^{*4}	Curtain air bag module (LH) (squib) activating circuit short-circuited	P.52B-40
B1455 ^{*4}	Curtain air bag module (LH) (squib) activating circuit open-circuited	P.52B-40
B1466 ^{*4}	Analog G-sensor system in the SRS-ECU (front air bag)	P.52B-40
B1476 ^{*3}	IG1 power supply open circuit (Fuse No. 15 circuit)	P.52B-129
B1477 ^{*3}	IG1 power supply open circuit (Fuse No. 21 circuit)	P.52B-129
B1478 ^{*4}	SRS-ECU Backup capacitor circuit voltage too High	P.52B-40

Code No.	Diagnostic item	Reference page
B1479 ^{*4}	SRS-ECU Backup capacitor circuit voltage too Low	P.52B-40
B1480 ^{*2}	Driver's air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-19
B1481 ^{*2}	Driver's air bag module (2nd squib) system (squib circuit open)	P.52B-25
B1482 ^{*2}	Driver's air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-30
B1483 ^{*2}	Driver's air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-35
B1484 ^{*4}	Driver's air bag module (2nd squib ignition drive circuit) system detected short circuit	P.52B-40
B1485 ^{*4}	Driver's air bag module (2nd squib ignition drive circuit) system detected open circuit	P.52B-40
B1488 ^{*4}	Passenger's air bag OFF indicator light (short circuit)	P.52B-132
B1489 ^{*2}	Passenger's air bag OFF indicator light (open circuit)	P.52B-134
B1490 ^{*2}	Passenger's (front) air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-47
B1491 ^{*2}	Passenger's (front) air bag module (2nd squib) system (squib circuit open)	P.52B-52
B1492 ^{*2}	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-55
B1493 ^{*2}	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-59
B1494 ^{*4}	Passenger's (front) air bag module (2nd squib ignition drive circuit) system detected short circuit	P.52B-40
B1495 ^{*4}	Passenger's (front) air bag module (2nd squib ignition drive circuit) system detected open circuit	P.52B-40
B1496 ^{*4}	SRS-ECU non-volatile memory (EEPROM ^{*1})	P.52B-40
B1498 ^{*4}	SRS-ECU abnormal condition in ROM or RAM	P.52B-40
B1499 ^{*4}	Air bag deployment determined by SRS-ECU	P.52B-137
B1509 ^{*2}	Incorrect installation of SRS-ECU	P.52B-137
B1530 ^{*2}	Seat belt switch (passenger's side) malfunction	P.52B-137
B1537 ^{*2}	Seat belt switch (passenger's side) circuit open	P.52B-137
B1538 ^{*2}	Seat belt switch (passenger's side) circuit (ground side) shorted	P.52B-137
B1557 ^{*4}	SRS-ECU application specific integrated circuit	P.52B-40
B1558 ^{*2}	OCM (Occupant Classification-ECU) DTC Present	P.52B-141
B1603 ^{*2}	Seat belt pre-tensioner (driver's side) (squib) system (short circuit between squib circuit terminals)	P.52B-142
B1604 ^{*2}	Seat belt pre-tensioner (driver's side) (squib) system (open circuit of squib circuit)	P.52B-146
B1605 ^{*2}	Seat belt pre-tensioner (driver's side) (squib) system (shorted to squib circuit ground)	P.52B-149

Code No.	Diagnostic item	Reference page
B1606 ^{*2}	Seat belt pre-tensioner (driver's side) (squib) system (shorted to squib circuit power supply)	P.52B-152
B1607 ^{*4}	Seat belt pre-tensioner (driver's side) activating circuit short-circuited	P.52B-40
B1608 ^{*4}	Seat belt pre-tensioner (driver's side) activating circuit open-circuited	P.52B-40
B1609 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (short circuit between squib circuit terminals)	P.52B-155
B1610 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (open circuit of squib circuit)	P.52B-159
B1611 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit ground)	P.52B-162
B1612 ^{*4}	Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit power supply)	P.52B-166
B1613 ^{*4}	Seat belt pre-tensioner (passenger's side) (squib) activating circuit short-circuited	P.52B-40
B1614 ^{*2}	Seat belt pre-tensioner (passenger's side) (squib) activating circuit open-circuited	P.52B-40
B1631 ^{*2}	Driver's knee air bag module (squib) system (short circuit between squib circuit terminals)	P.52B-169
B1632 ^{*2}	Driver's knee air bag module (squib) system (open circuit between squib circuit terminals)	P.52B-173
B1633 ^{*2}	Driver's knee air bag module (squib) system (shorted to squib circuit ground)	P.52B-169
B1634 ^{*2}	Driver's knee air bag module (squib) system (shorted to squib circuit power supply)	P.52B-180
B1635 ^{*4}	Driver's knee air bag module (squib) activating circuit short-circuited	P.52B-40
B1636 ^{*4}	Driver's knee air bag module (squib) activating circuit open-circuited	P.52B-40
B1646	Coding data mismatch	P.52B-183
B1697 ^{*5}	SRS-ECU system (emergency call has been judged)	—
B1699 ^{*4}	SRS-ECU collective deployment	P.52B-183
U0154	Occupant classification-ECU CAN timeout	P.52B-183
U1100	Engine CAN timeout	P.52B-185
U1102	ASC/TCL/ABS timeout/Not equipped	P.52B-187
U1104	SAS timeout/Not equipped	P.52B-189
U1108	Combination meter CAN timeout	P.52B-190
U1109	ETACS CAN timeout	P.52B-192
U1190 ^{*3}	No receive fault detect signal	P.52B-193
U1195 ^{*3}	Coding not completed	P.52B-194
U1199	VIN code not programmed	P.52B-195

Code No.	Diagnostic item	Reference page
U119A	VIN code mismatch	P.52B-196

NOTE:

- ^{*1}: Electrically Erasable Programmable ROM
- ^{*2}: This diagnostic trouble code will remain in memory and the SRS warning light will be switched on even if the system returns to normal condition.
- ^{*3}: This diagnostic trouble code will remain in memory and the SRS warning light will be switched off when the system returns to normal condition.
- ^{*4}: This diagnostic trouble code cannot be erased by "Erase diagnostic trouble codes" function.
- ^{*5}: Though the SRS does not have emergency call function, this diagnostic trouble code is set.

DIAGNOSTIC TROUBLE CODE PROCEDURES <SRS-ECU>

DTC B1400: Driver's air bag module (1st squib) system (short circuit between squib circuit terminals)
DTC B1480: Driver's air bag module (2nd squib) system (short circuit between squib circuit terminals)

⚠ CAUTION

- If diagnostic trouble code No. B1400 (1st squib) or B1480 (2nd squib) is stored in the SRS-ECU, be sure to diagnose the CAN bus line.
- When DTC B1400 is stored in the following diagnosis, check the 1st squib circuit. When DTC B1480 is stored, check the 2nd squib circuit.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

- This DTC is stored if there is abnormal resistance between the input terminals of the driver's air bag module (squib). The most likely causes for this code to be stored are the followings:
 - Short circuit in driver's air bag module (squib) or harness
 - Short circuit in the clock spring

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short spring*

- Short circuit in the clock spring
- Short circuit between the driver's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

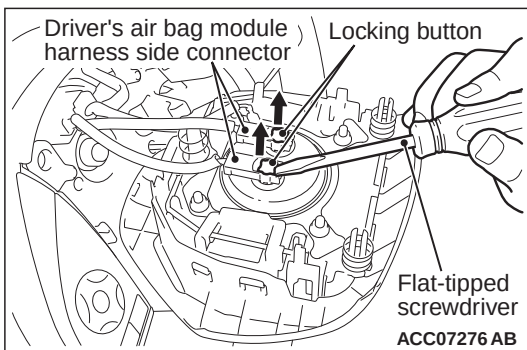
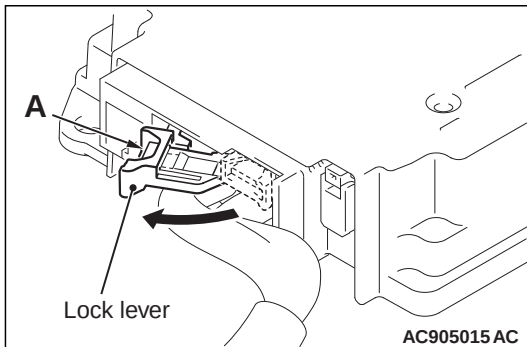
Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Connector check: SRS-ECU, clock spring, driver's air bag module.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.
- (3) After disconnecting clock spring, connect it again.

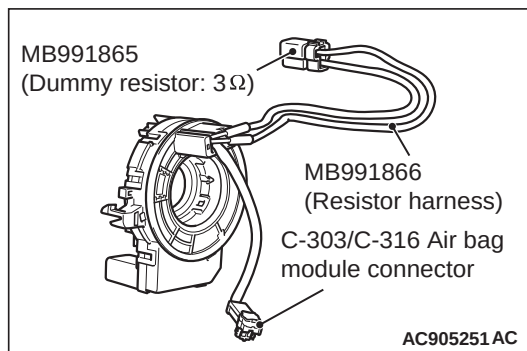
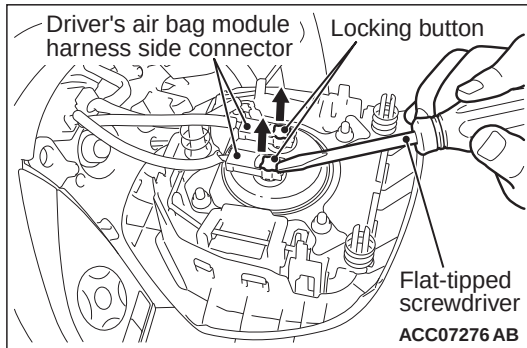


- (4) Disconnect the driver's air bag module connector using the slotted (-) screwdriver to pull out the locking button to the direction of the arrow, and connect it again.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1400 <1st squib> or B1480 <2nd squib> stored?

YES : Go to Step 4.

NO : Replace the connector concerned.

**STEP 4. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe (special tool) as shown.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

CAUTION

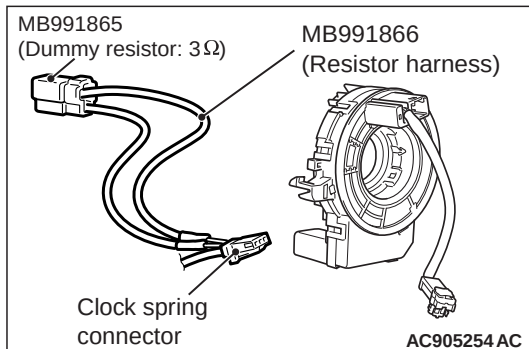
Always DTC B1480 is stored when checking DTC B1400. This is because the second side terminal is isolated when checking it. DTC B1480 is stored but this is not a fault. In addition, always DTC B1400 is stored when checking DTC B1480 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1400 <1st squib> or B1480 <2nd squib> stored?

YES : Go to Step 5.

NO : Replace the driver's air bag module (Refer to [P.52B-232](#))



STEP 5. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the clock spring connector.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of harness side connector DQ1-, DQ1+ line <B1400>. Insert the resistor harness probe from the back of harness side connector DQ2-, DQ2+ line <B1480>.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

⚠ CAUTION

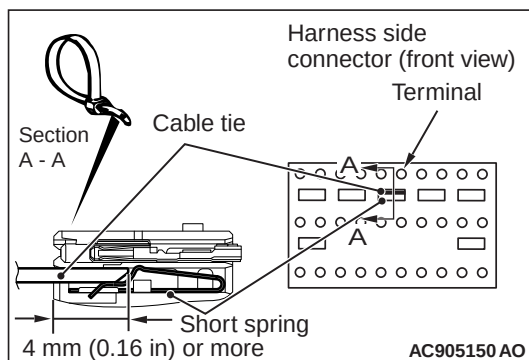
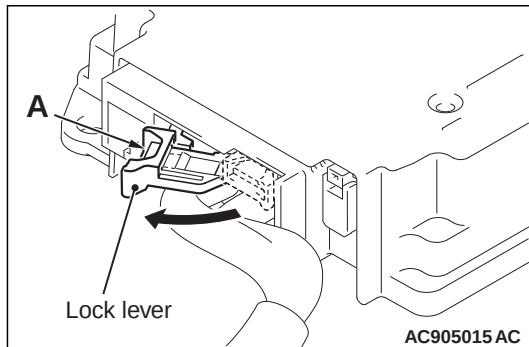
Always DTC B1480 is stored when checking DTC B1400. This is because the second side terminal is isolated when checking it. DTC B1480 is stored but this is not a fault. In addition, always DTC B1400 is stored when checking DTC B1480 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1400 <1st squib> or B1480 <2nd squib> stored?

YES : Go to Step 6.

NO : Replace the clock spring (Refer to [P.52B-232](#)).

**STEP 6. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ CAUTION

To release SRS-ECU connector short spring in the following operations, disconnect this clock spring connector, and keep the squib circuit shorted.

- (3) Disconnect the clock spring connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert the insulator [width: 3 mm (0.12 inch), thickness: 0.5 mm (0.02 inch)] such as cable tie between the DQ1-, DQ1+ line, and then release the short spring <B1400>. Insert the insulator [width: 3 mm (0.12 inch), thickness: 0.5 mm (0.02 inch)] such as cable tie between the DQ2-, DQ2+ line, and then release the short spring <B1480>.
- (5) Take the measurements below at the harness side connector.
 - Continuity between DQ1-, DQ1+ line <B1400>
OK: No continuity
 - Continuity between DQ2-, DQ2+ line <B1480>
OK: No continuity

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the wiring harnesses DQ1-, DQ1+ line <B1400> or DQ1-, DQ1+ line <B1480> between the clock spring connector and the SRS-ECU connector.

STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the electric motor switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the electric motor switch to the "LOCK" (OFF) position.

Q: Is DTC B1400 <1st squib> or B1480 <2nd squib> stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1401: Driver's air bag module (1st squib) system (open circuit of squib circuit)

DTC B1481: Driver's air bag module (2nd squib) system (open circuit of squib circuit)

 CAUTION

- If diagnostic trouble code B1401 (1st squib) or B1481 (2nd squib) is stored in the SRS-ECU, be sure to diagnose the CAN bus line.
- When diagnostic trouble code B1401 is stored in the following diagnosis, check the 1st squib circuit. When diagnostic trouble code B1481 is stored, check the 2nd squib circuit.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

- This DTC is stored if there is abnormal resistance between the input terminals of the driver's air bag module (squib). The most likely causes for this code to be stored are the followings:
 - Open circuit in the driver's air bag module (squib) or harness
 - Open circuit in the clock spring
 - Malfunction of connector contact

TROUBLESHOOTING HINTS

- Open circuit in the clock spring
- Open circuit due to improper neutral position of the clock spring
- Open circuit in the driver's air bag module (squib) circuit
- Disengaged driver's air bag module (squib) connector
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

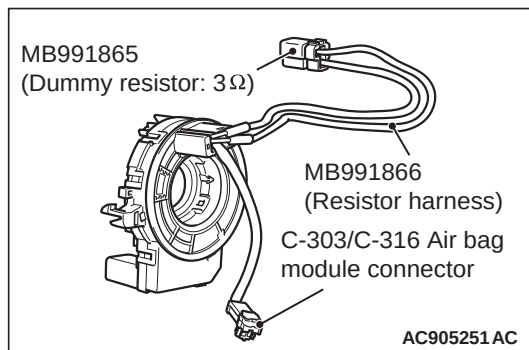
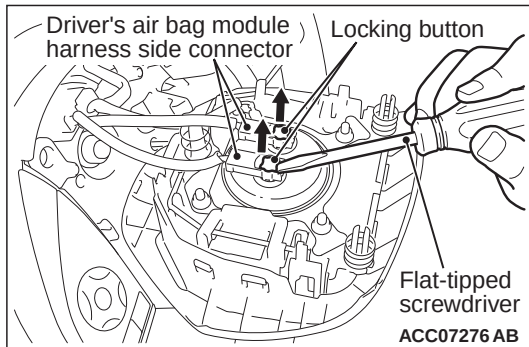
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Check the diagnostic trouble code by connecting a dummy resistor.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe (special tool) as shown.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

⚠ CAUTION

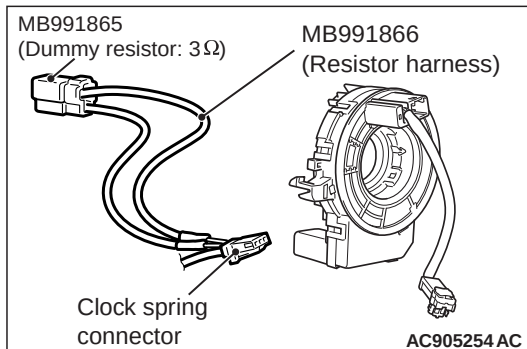
Always DTC B1481 is stored when checking DTC B1401. This is because the second side terminal is isolated when checking it. DTC B1481 is stored but this is not a fault. In addition, always DTC B1401 is stored when checking DTC B1481 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC stored?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to [P.52B-232](#)).

**STEP 4. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the clock spring connector.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of harness side connector DQ1-, DQ1+ line <B1401>.
Insert the resistor harness probe from the back of harness side connector DQ2-, DQ2+ line <B1481>.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

⚠ CAUTION

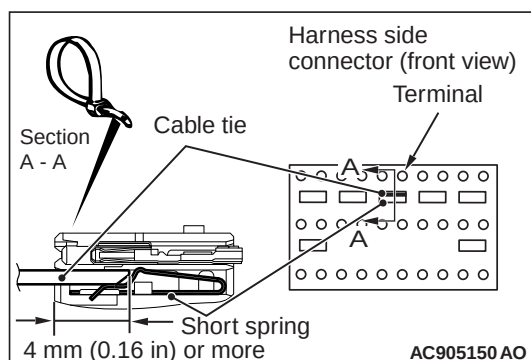
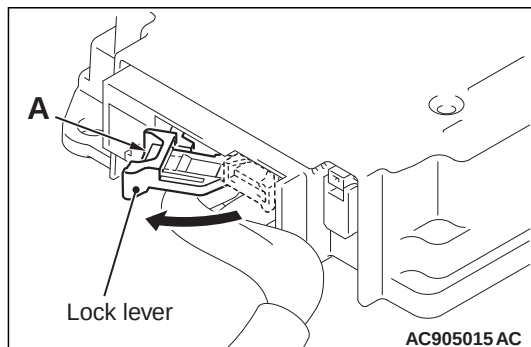
Always DTC B1481 is stored when checking DTC B1401. This is because the second side terminal is isolated when checking it. DTC B1481 is stored but this is not a fault. In addition, always DTC B1401 is stored when checking DTC B1481 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC stored?

YES : Go to Step 5.

NO : Replace the clock spring (Refer to [P.52B-232](#)).



STEP 5. Resistance measurement at the SRS-ECU and the C-313 clock spring connectors

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ CAUTION

To release SRS-ECU connector short spring in the following operations, disconnect this clock spring connector, and keep the squib circuit shorted.

- (3) Disconnect the clock spring connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert the insulator [width: 3 mm (0.12 inch), thickness: 0.5 mm (0.02 inch)] such as cable tie between the DQ1-, DQ1+ line, and then release the short spring <B1401>. Insert the insulator [width: 3 mm (0.12 inch), thickness: 0.5 mm (0.02 inch)] such as cable tie between the DQ2-, DQ2+ line, and then release the short spring <B1481>.

⚠ CAUTION

Do not insert a probe directly into the terminal of clock spring connector harness side connector from the connector front side as the connector contact pressure may be weakened.

- (5) Take the measurements below at the SRS-ECU connector and clock spring connector harness side connectors.

- Continuity DQ1- line between SRS-ECU connector and clock spring connector <B1401>
- Continuity DQ1+ line between SRS-ECU connector and clock spring connector <B1401>

OK: Continuity (less than 2 Ω)

- Continuity DQ2- line between SRS-ECU connector and clock spring connector <B1481>
- Continuity DQ2+ line between SRS-ECU connector and clock spring connector <B1481>

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harnesses DQ1-, DQ1+ line <B1401> or DQ1-, DQ1+ line <B1481> between the clock spring connector and the SRS-ECU connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1401 <1st squib> or B1481 <2nd squib> stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1402: Driver's air bag module (1st squib) system (shorted to squib circuit ground)

DTC B1482: Driver's air bag module (2nd squib) system (shorted to squib circuit ground)

** CAUTION**

- If DTC B1402 (1st squib) or B1482 (2nd squib) is stored in the SRS-ECU, always diagnose the CAN main bus line.
- When DTC B1402 is stored in the following diagnosis, check the 1st squib circuit. When DTC B1482 is stored, check the 2nd squib circuit.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is sent to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

TROUBLESHOOTING HINTS

- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the ground in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the electric motor switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the electric motor switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the electric motor switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

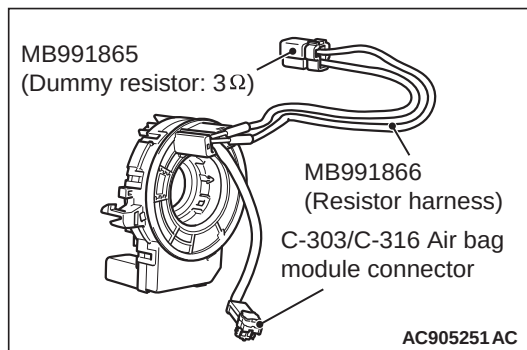
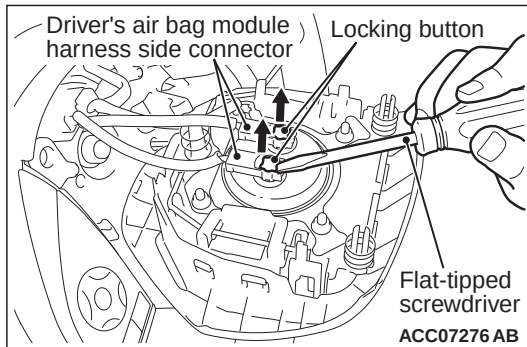
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the electric motor switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the electric motor switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Check the diagnostic trouble code by connecting a dummy resistor.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe (special tool) as shown.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

CAUTION

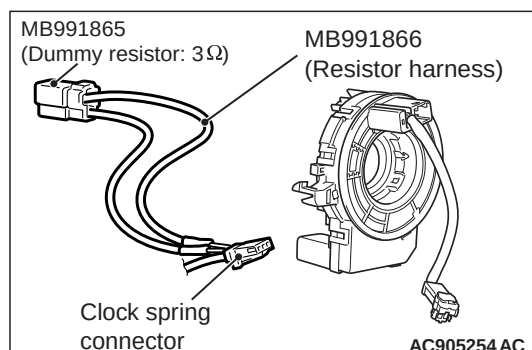
Always DTC B1482 is stored when checking DTC B1402. This is because the second side terminal is isolated when checking it, DTC B1482 is stored but this is not a fault. In addition, always DTC B1402 is stored when checking DTC B1482 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC stored?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to [P.52B-232](#)).



STEP 4. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the clock spring connector.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

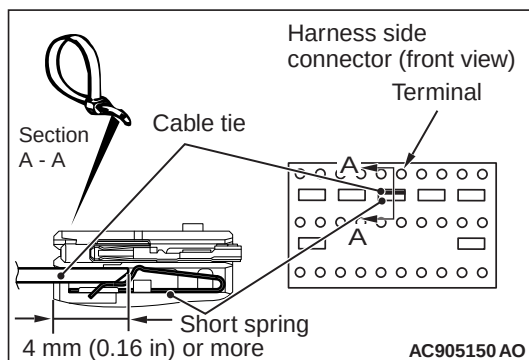
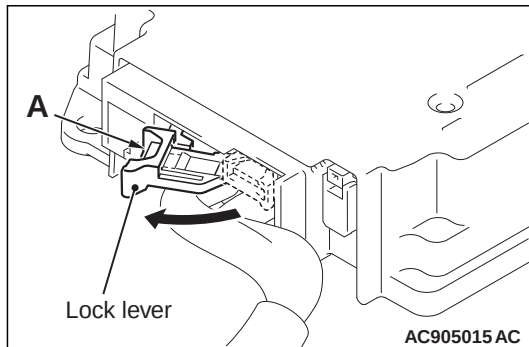
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of harness side connector DQ1-, DQ1+ line <B1402>. Insert the resistor harness probe from the back of harness side connector DQ2-, DQ2+ line <B1482>.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q: Is the checked DTC stored?

YES : Go to Step 5.

NO : Replace the clock spring (Refer to [P.52B-232](#)).



STEP 5. Resistance measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ CAUTION

To release SRS-ECU connector short spring in the following operations, disconnect this clock spring connector, and keep the squib circuit shorted.

- (3) Disconnect the clock spring connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 in) or more.

- (4) Insert the insulator [width: 3 mm (0.12 inch), thickness: 0.5 mm (0.02 inch)] such as cable tie between the DQ1-, DQ1+ line, and then release the short spring <B1402>. Insert the insulator [width: 3 mm (0.12 inch), thickness: 0.5 mm (0.02 inch)] such as cable tie between the DQ2-, DQ2+ line, and then release the short spring <B1482>.

- (5) Take the measurements below at the harness side connector.

- Continuity between DQ1-, DQ1+ line and body ground <B1402>

OK: No continuity

- Continuity between DQ2-, DQ2+ line and body ground <B1482>

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harnesses DQ1-, DQ1+ line <B1402> or DQ2-, DQ2+ line <B1482> between the clock spring connector and the SRS-ECU connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1402 <1st squib> or B1482 <2nd squib> stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1403: Driver's air bag module (1st squib) system (shorted to squib circuit power supply)

DTC B1483: Driver's air bag module (2nd squib) system (shorted to squib circuit power supply)

 CAUTION

- If DTC B1403 (1st squib) or B1483 (2nd squib) is stored in the SRS-ECU, always diagnose the CAN main bus line.
- When DTC B1403 is stored in the following diagnosis, check the 1st squib circuit. When DTC B1483 is stored, check the 2nd squib circuit.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

TROUBLESHOOTING HINTS

- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the power supply in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

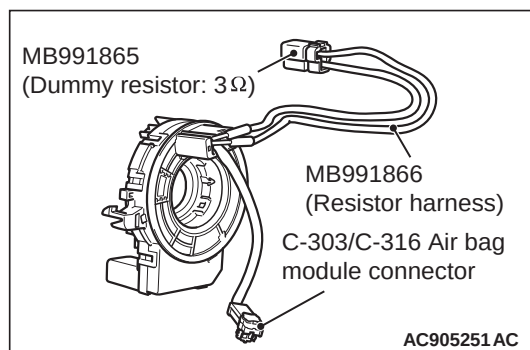
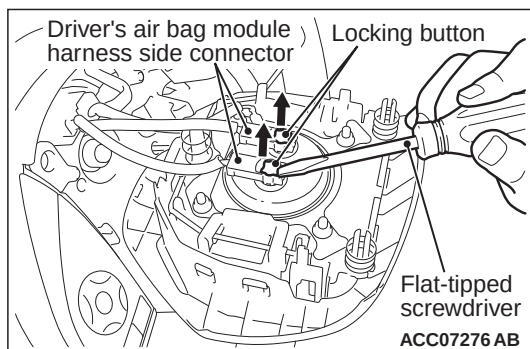
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Check the diagnostic trouble code by connecting a dummy resistor.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe (special tool) as shown.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

CAUTION

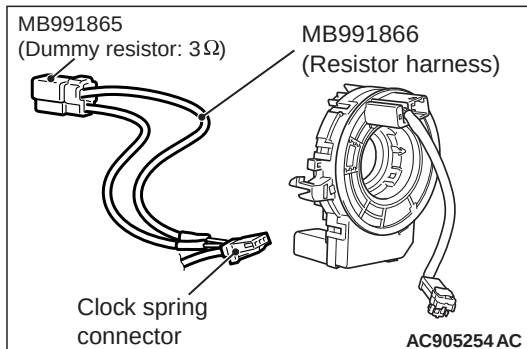
Always DTC B1483 is stored when checking DTC B1403. This is because the second side terminal is isolated when checking it. DTC B1483 is stored but this is not a fault. In addition, always DTC B1403 is stored when checking DTC B1483 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC stored?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to [P.52B-232](#)).

**STEP 4. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the clock spring connector.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of harness side connector DQ1-, DQ1+ line <B1403>.
Insert the resistor harness probe from the back of harness side connector DQ2-, DQ2+ line <B1483>.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

⚠ CAUTION

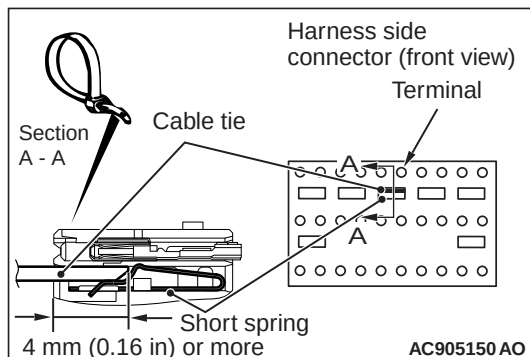
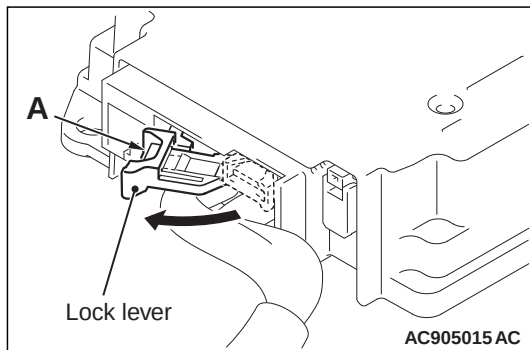
Always DTC B1483 is stored when checking DTC B1403. This is because the second side terminal is isolated when checking it. DTC B1483 is stored but this is not a fault. In addition, always DTC B1403 is stored when checking DTC B1483 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC stored?

YES : Go to Step 5.

NO : Replace the clock spring (Refer to [P.52B-232](#)).



STEP 5. Voltage measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ CAUTION

To release SRS-ECU connector short spring in the following operations, disconnect this clock spring connector, and keep the squib circuit shorted.

- (3) Disconnect the clock spring connector.

⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

- (4) Insert the insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the DQ1-, DQ1+ line, and then release the short spring <B1403>. Insert the insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the DQ2-, DQ2+ line, and then release the short spring <B1483>.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Take the measurements below at the harness side connector.
 - Voltage between DQ1-, DQ1+ line and body ground <B1403>
OK: 1 V or less
 - Voltage between DQ2-, DQ2+ line and body ground <B1483>
OK: 1 V or less
- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harnesses DQ1-, DQ1+ line <B1403> or DQ2-, DQ2+ line <B1483> between the clock spring connector and the SRS-ECU connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1403 (1st squib) or B1483 (2nd squib) stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1404: Driver's air bag module (1st squib) activating circuit short-circuited
 DTC B1405: Driver's air bag module (1st squib) activating circuit open-circuited
 DTC B1414: Passenger's (front) air bag module (1st squib) activating circuit short-circuited
 DTC B1415: Passenger's (front) air bag module (1st squib) activating circuit open-circuited
 DTC B1424: Side-airbag module (RH) (squib) activating circuit short-circuited
 DTC B1425: Side-airbag module (RH) (squib) activating circuit open-circuited
 DTC B1434: Side-airbag module (LH) (squib) activating circuit short-circuited
 DTC B1435: Side-airbag module (LH) (squib) activating circuit open-circuited
 DTC B1444: Curtain air bag module (RH) (squib) activating circuit short-circuited
 DTC B1445: Curtain air bag module (RH) (squib) activating circuit open-circuited
 DTC B1454: Curtain air bag module (LH) (squib) activating circuit short-circuited
 DTC B1455: Curtain air bag module (LH) (squib) activating circuit open-circuited
 DTC B1466: Analogue G-sensor malfunction
 DTC B1478: SRS-ECU backup capacitor circuit voltage too High
 DTC B1479: SRS-ECU backup capacitor circuit voltage too Low
 DTC B1484: Driver's air bag module (2nd squib ignition drive circuit) system detected short circuit
 DTC B1485: Driver's air bag module (2nd squib ignition drive circuit) system detected open circuit
 DTC B1494: Passenger's (front) air bag module (2nd squib ignition drive circuit) system detected short circuit
 DTC B1495: Passenger's (front) air bag module (2nd squib ignition drive circuit) system detected open circuit
 DTC B1496: SRS-ECU non-volatile memory (EEPROM)
 DTC B1498: SRS-ECU abnormal condition in ROM or RAM
 DTC B1557: SRS-ECU application specific integrated circuit
 DTC B1607: Seat belt pre-tensioner (driver's side) activating circuit short-circuited
 DTC B1608: Seat belt pre-tensioner (driver's side) activating circuit open-circuited
 DTC B1613: Seat belt pre-tensioner (passenger's side) (squib) activating circuit short-circuited
 DTC B1614: Seat belt pre-tensioner (passenger's side) (squib) activating circuit open-circuited
 DTC B1635: Driver's knee air bag module (squib) activating circuit short-circuited
 DTC B1636: Driver's knee air bag module (squib) activating circuit short-circuited

CAUTION

If diagnostic trouble code is stored in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTC are stored when a fault is detected in the SRS-ECU. The most likely causes for this code to be stored are shown in the table below:

TROUBLESHOOTING HINTS

Malfunction of the SRS-ECU

Code No.	Part/Circuit integral to SRS-ECU	Trouble causes
B1404	Driver's air bag module (1st squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1405		• Open circuit in the squib ignition drive circuit
B1414	Passenger's (front) air bag module (1st squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1415		• Open circuit in the squib ignition drive circuit
B1424	Side-airbag module (RH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1425		• Open circuit in the squib ignition drive circuit

Code No.	Part/Circuit integral to SRS-ECU	Trouble causes
B1434	Side-airbag module (LH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1435		• Open circuit in the squib ignition drive circuit
B1444	Curtain air bag module (RH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1445		• Open circuit in the squib ignition drive circuit
B1454	Curtain air bag module (LH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1455		• Open circuit in the squib ignition drive circuit
B1466	Analogue G-sensor (front air bag)	• When the analogue G-sensor is not operating • When the characteristics of the analogue G-sensor are abnormal • When the output from the analogue G-sensor is abnormal
B1478	Capacitor	• Voltage at the capacitor terminal is higher than the specified value for five seconds or more
B1479		• Voltage at the capacitor terminal is lower than the specified value for five seconds or more (This is not detected if diagnostic trouble code B1476 or B1477 indicating battery positive voltage drop has been stored).
B1484	Driver's air bag module (2nd squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1485		• Open circuit in the squib ignition drive circuit
B1494	Passenger's (front) air bag module (2nd squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1495		• Open circuit in the squib ignition drive circuit
B1496	Non-volatile memory (EEPROM)	• When EEPROM communication error occurs
B1498	ROM or RAM	• When the ROM or RAM are abnormal
B1557	Application specific integrated circuit	• When the application specific integrated circuit are abnormal
B1607	Seat belt pre-tensioner (driver side) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1608		• Open circuit in the squib ignition drive circuit
B1613	Seat belt pre-tensioner (passenger side) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1614		• Open circuit in the squib ignition drive circuit
B1635	Driver's knee air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
B1636		• Open circuit in the squib ignition drive circuit

DIAGNOSIS

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)). Then go to Step 2.

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Are the DTCs stored?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#)).

DTC B1406: Malfunction of front impact sensor (RH)

** CAUTION**

If DTC B1406 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTC is set if the following condition is detected from the front impact sensor (RH) output:

- Front impact sensor (RH) is not operating.

- Front impact sensor (RH) characteristic is abnormal.
- Front impact sensor (RH) output is abnormal.

TROUBLESHOOTING HINTS

- Malfunction of the front impact sensor (RH)
- Malfunction of the CAN bus

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Check the front impact sensor (RH).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Alternate the front impact sensor (RH) and the front impact sensor (LH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) After erasing the DTC memory, check the DTC again.
- (5) Disconnect the negative battery terminal.

Q: Is DTC B1406 set?

YES : Replace the front impact sensor (RH) with a new one (Refer to [P.52B-226](#)).

NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1406 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1407: Front Impact Sensor (RH) Voltage Error

 CAUTION

If diagnostic trouble code B1407 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The front impact sensor (RH) transmits acceleration data to the SRS-ECU. The SRS-ECU then determines whether to operate the front air bags, and then outputs an ignition signal when necessary. The front impact sensor also diagnoses itself, and sends a diagnostic trouble code to the SRS-ECU if a malfunction occurs.

DTC SET CONDITIONS

This DTC will be stored when the power supply voltage to the front impact sensor (RH) remains less than a predetermined value for one second.

TROUBLESHOOTING HINTS

- Damaged wiring harness or connectors
- Malfunction of the front impact sensor (RH)
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check of short to power supply, short to ground, and open circuit in FRH-, FRH+ line between SRS-ECU connector and front impact sensor (RH) connector.

Q: Is the check result normal?

YES : Go to Step 4.

NO : Repair the wiring harness.

STEP 4. Check the front impact sensor (RH).

- (1) Disconnect the negative battery terminal.
- (2) Alternate the front impact sensor (RH) and the front impact sensor (LH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q: Is DTC B1407 stored?

YES : Replace the front impact sensor (RH) with a new one (Refer to [P.52B-226](#)).

NO : Go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1407 stored?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1408: Front Impact Sensor (RH) Communication Error**DTC B1409: Front Impact Sensor (RH) Communication Impossible**

** CAUTION**

If DTC B1408 or B1409 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The front impact sensor (RH) transmits acceleration data to the SRS-ECU. The SRS-ECU then determines whether to operate the front air bags, and then outputs an ignition signal when necessary. The front impact sensor also diagnoses itself, and sends a diagnostic trouble code to the SRS-ECU if a malfunction occurs.

DTC SET CONDITIONS

The DTC is stored if the communication between the front impact sensor (RH) and SRS-ECU is abnormal (No. B1408), or impossible (No. B1409).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the front impact sensor (RH)
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)). Then go to Step 2.

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check the front impact sensor (RH).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Alternate the front impact sensor (RH) and the front impact sensor (LH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) After erasing the DTC memory, check the DTC again.
- (5) Disconnect the negative battery terminal.

Q: Is DTC B1408 or B1409 stored?

YES : Replace the front impact sensor (RH) with a new one. (Refer to [P.52B-255](#)).

NO : Go to Step 4.

STEP 4. Check of short to power supply, short to ground, and open circuit in FRH-, FRH+ line between SRS-ECU connector and front impact sensor (RH) connector.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1408 or B1409 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1410: Passenger's (front) air bag module (1st squib) system (short circuit between squib circuit terminals)

DTC B1490: Passenger's (front) air bag module (2nd squib) system (short circuit between squib circuit terminals)

⚠ CAUTION

- If DTC B1410 <1st squib> or B1490 <2nd squib> is stored in the SRS-ECU, always diagnose the CAN main bus line.
- When DTC B1410 is stored in the following diagnosis, check the 1st squib circuit. When DTC B1490 is stored, check the 2nd squib circuit.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the passenger's side air bag module (squib).

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short spring*
- Short circuit between the passenger's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

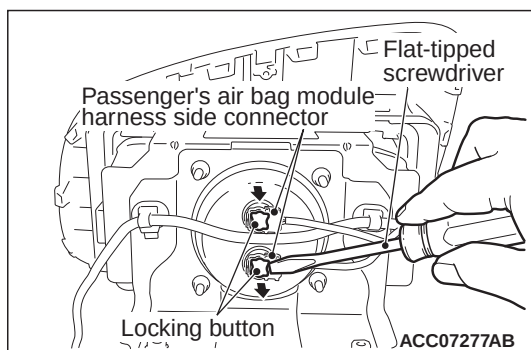
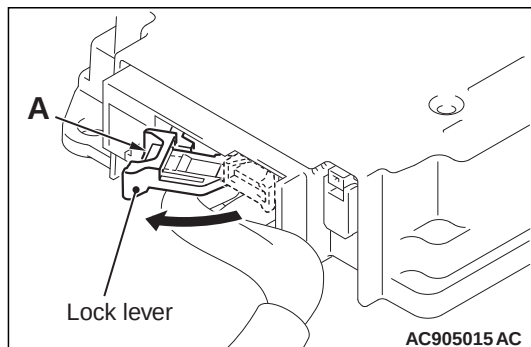
Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Connector check: passenger's (front) air bag module, SRS-ECU.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.

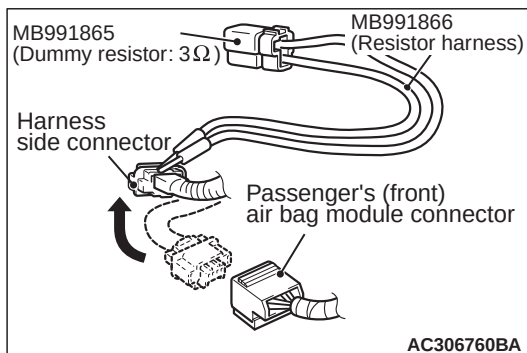
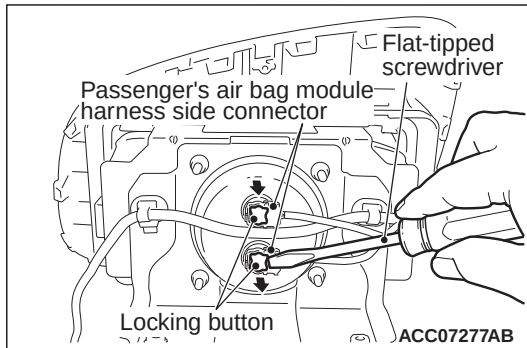


- (3) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock, connect the connector again.
- (4) Connect the negative battery terminal.
- (5) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (6) Disconnect the negative battery terminal.
- (7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1410 (1st squib) or B1490 (2nd squib) stored?

YES : Go to Step 4.

NO : The procedure is complete. It is assumed that DTC B1410 (1st squib) or B1490 (2nd squib) is stored as connector was engaged improperly.

**STEP 4. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of harness side connector ASQ+, ASQ- line <B1410>. Insert the resistor harness probe from the back of harness side connector AQ2+, AQ2- line <B1490>.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

CAUTION

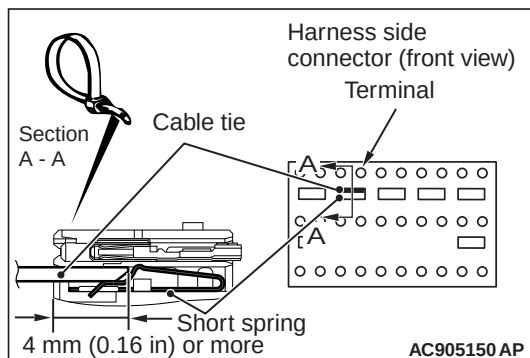
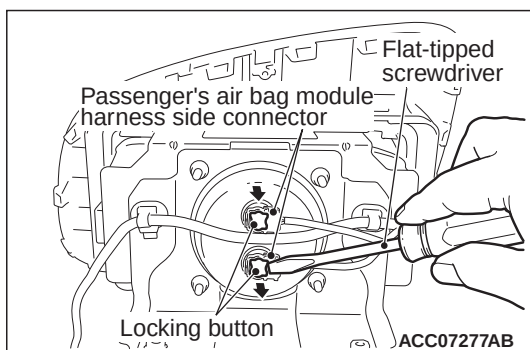
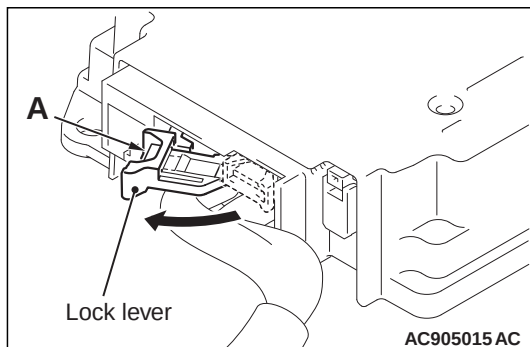
Always DTC B1490 is stored when checking DTC B1410. This is because the second side terminal is isolated when checking it. DTC B1490 is stored but this is not a fault. In addition, always DTC B410 is stored when checking DTC B1490 because the first side terminal is isolated.

- (8) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC stored?

YES : Go to Step 5.

NO : Replace the passenger's (front) air bag module (Refer to P.52B-240).



STEP 5. Resistance measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the ASQ+, ASQ- line, and then release the short spring <B1410>. Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the AQ2+, AQ2- line, and then release the short spring <B1490>.

- (5) Take the measurements below at the harness side connector.
 - Continuity between the ASQ+, ASQ- line <B1410>
OK: No continuity
 - Continuity between the AQ2+, AQ2- line <B1490>
OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harnesses ASQ+, ASQ- line <B1410> or AQ2+, AQ2- line <B1490> between the passenger's (front) air bag module connector and the SRS-ECU connector.

STEP 6. Check for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1410 (1st squib) or B1490 (2nd squib) stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1411: Passenger's (front) air bag module (1st squib) system (open circuit of squib circuit)

DTC B1491: Passenger's (front) air bag module (2nd squib) system (squib circuit open)

⚠ CAUTION

- If DTC B1411 (1st squib) or B1491 (2nd squib) is set in the SRS-ECU, always diagnose the CAN main bus line.
- When DTC B1411 is set in the following diagnosis, check the 1st squib circuit. When DTC B1491 is set, check the 2nd squib circuit.

- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

TROUBLESHOOTING HINTS

- Open circuit in the passenger's (front) air bag module (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

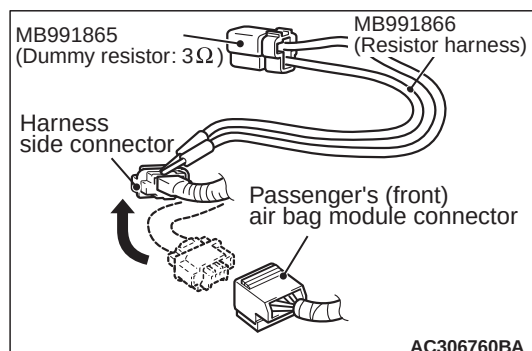
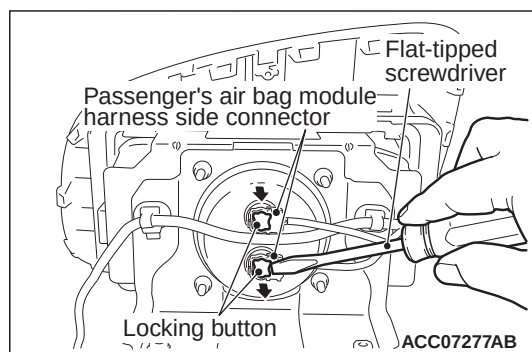
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.



- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of harness side connector ASQ+, ASQ- line <B1411>.
Insert the resistor harness probe from the back of harness side connector ASQ+, ASQ- line <B1491>.
- (5) Connect the negative battery terminal.

⚠ CAUTION

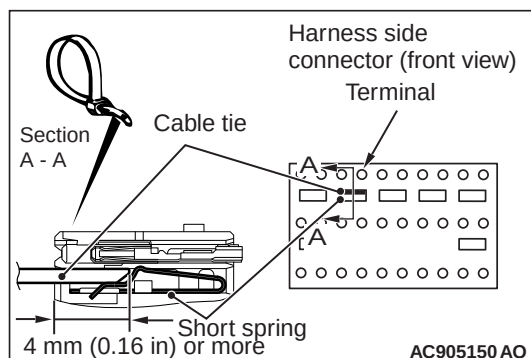
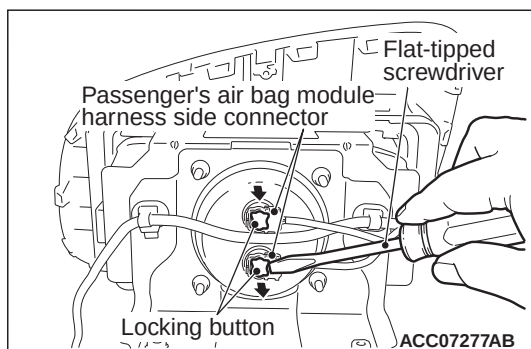
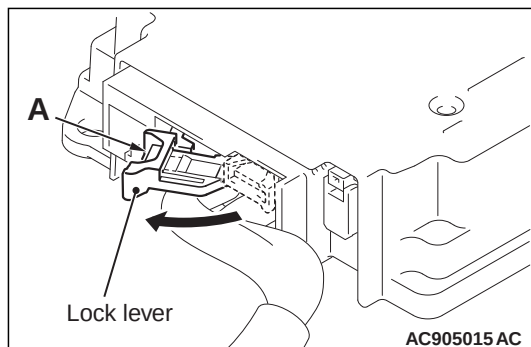
Always DTC B1491 is set when checking DTC B1411. This is because the second side terminal is isolated when checking it. DTC B1491 is set but this is not a fault. In addition, always DTC B1411 is set when checking DTC B1491 because the first side terminal is isolated.

- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.
- (7) Disconnect the negative battery terminal.

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the passenger's (front) air bag module (Refer to [P.52B-240](#)).



STEP 4. Resistance measurement at the SRS-ECU connector and the passenger's (front) air bag module connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the ASQ+, ASQ- line, and then release the short spring.

⚠ CAUTION

Do not insert a probe directly into the terminal of harness side connector from the connector front side as the connector contact pressure may be weakened.

- (5) Take the measurements below at the SRS-ECU connector and passenger's (front) air bag module connector harness side connectors.

- Continuity ASQ- line between the SRS-ECU connector and the passenger's (front) air bag module connector <B1411>.
- Continuity ASQ+ line between the SRS-ECU connector and the passenger's (front) air bag module connector <B1411>.

OK: Continuity (less than 2 Ω)

- Continuity AQ2- line between the SRS-ECU connector and the passenger's (front) air bag module connector <B1491>.
- Continuity AQ2+ line between the SRS-ECU connector and the passenger's (front) air bag module connector <B1491>.

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harnesses ASQ+, ASQ- line <B1411> or AQ2+, AQ2- line <B1491> between the passenger's (front) air bag module connector and the SRS-ECU connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the checked DTC set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1412: Passenger's (front) air bag module (1st squib) system (shorted to squib circuit ground)
DTC B1492: Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit ground)

⚠ CAUTION

- If DTC B1412 <1st squib> or B1492 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.
- When DTC B1412 is set in the following diagnosis, check the 1st squib circuit. When DTC B1492 is set, check the 2nd squib circuit.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

- Damaged harness wires and connectors
- Short to the ground in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

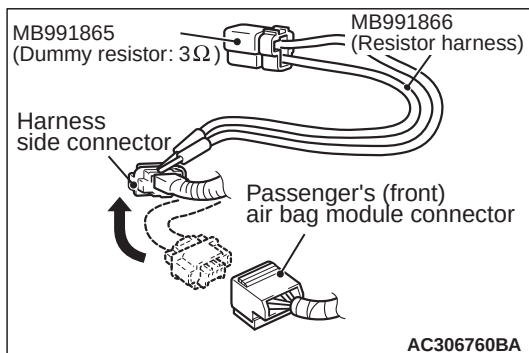
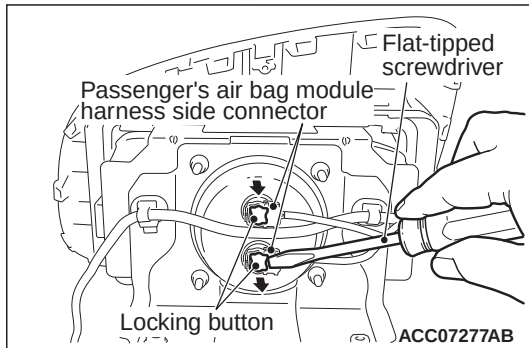
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of harness side connector ASQ+, ASQ- line <B1412>.
Insert the resistor harness probe from the back of harness side connector AQ2+, AQ2- line <B1492>.
- (5) Connect the negative battery terminal.

⚠ CAUTION

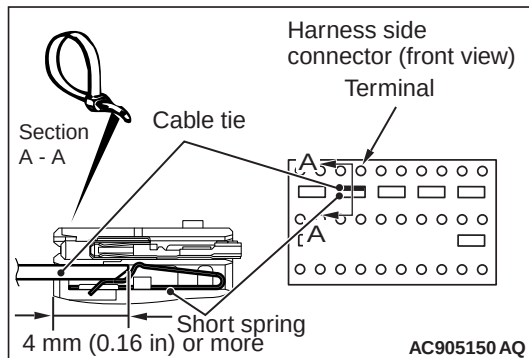
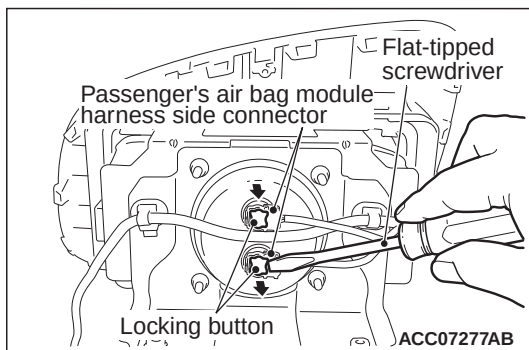
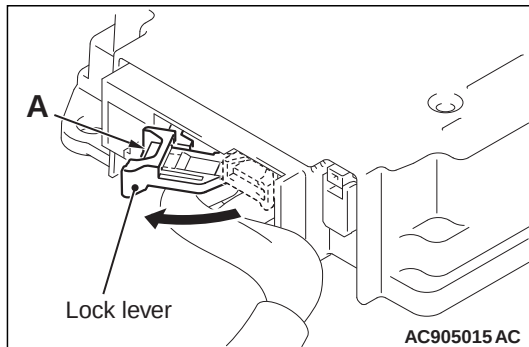
Always DTC B1492 is set when checking DTC B1412. This is because the second side terminal is isolated when checking it. DTC B1492 is set but this is not a fault. In addition, always DTC B1412 is set when checking DTC B1492 because the first side terminal is isolated.

- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.
- (7) Disconnect the negative battery terminal.

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the passenger's (front) air bag module (Refer to [P.52B-240](#)).

**STEP 4. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the ASQ+, ASQ- line, and then release the short spring.
- (5) Take the measurements below at the harness side connector.

- Continuity between ASQ+, ASQ- line and body ground <B1412>

OK: No continuity

- Continuity between AQ2+, AQ2- line and body ground <B1492>

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair ASQ+, ASQ- line <B1412> or AQ2+, AQ2- line <B1492> between the SRS-ECU connector and the passenger's (front) air bag module connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1412 (1st squib) or B1492 (2nd squib) set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1413: Passenger's (front) air bag module (1st squib) system (shorted to squib circuit power supply)

DTC B1493: Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit power supply)

⚠ CAUTION

- If DTC B1413 (1st squib) or B1493 (2nd squib) is set in the SRS-ECU, always diagnose the CAN main bus line.
- When DTC B1413 is set in the following diagnosis, check the 1st squib circuit. When DTC B1493 is set, check the 2nd squib circuit.

- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

TROUBLESHOOTING HINTS

- Damaged harness wires and connectors
- Short to the power supply in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

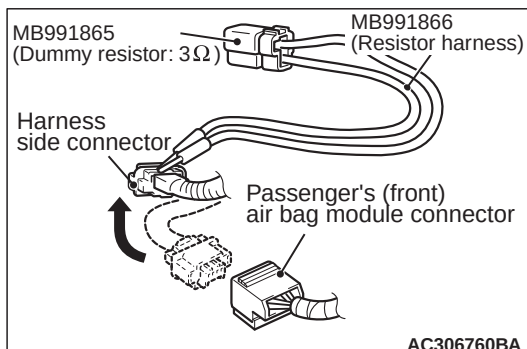
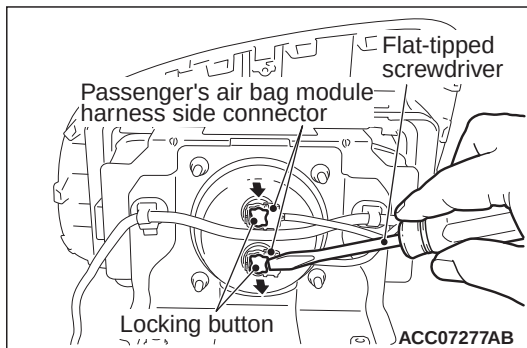
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.



- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe (special tool) from the back of harness side connector ASQ+, ASQ- line <B1412>. Insert the resistor harness probe (special tool) from the back of harness side connector AQ2+, AQ2- line <B1492>.
- (5) Connect the negative battery terminal.

⚠ CAUTION

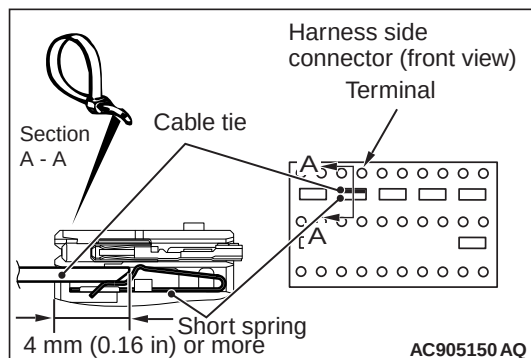
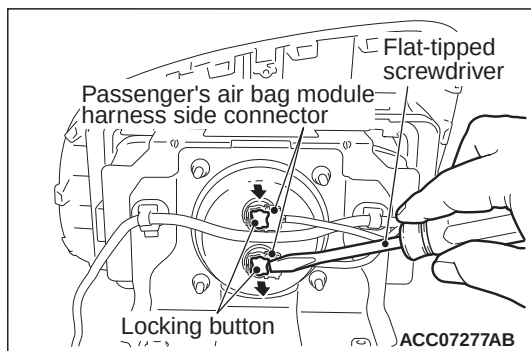
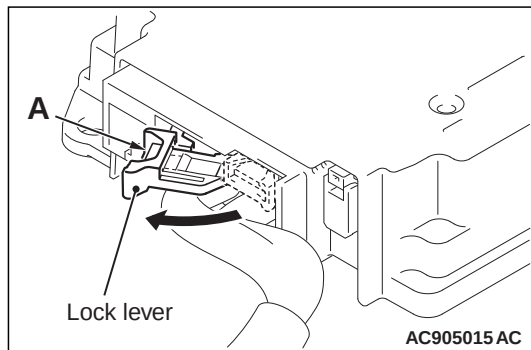
Always DTC B1493 is set when checking DTC B1413. This is because the second side terminal is isolated when checking it. DTC B1493 is set but this is not a fault. In addition, always DTC B1413 is set when checking DTC B1493 because the first side terminal is isolated.

- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.
- (7) Disconnect the negative battery terminal.

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the passenger's (front) air bag module (Refer to [P.52B-240](#)).



STEP 4. Voltage measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.

- (3) Slide the outer housing of harness side connector in the arrow direction shown, and disconnect the harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the ASQ+, ASQ- line, and then release the short spring <B1412>.
- Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the AQ2+, AQ2- line, and then release the short spring <B1492>.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Take the measurements below at the harness side connector.

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harnesses ASQ+, ASQ- line <B1412> or AQ2+, AQ2- line <B1492> between the SRS-ECU connector and the passenger's (front) air bag module connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1413 (1st squib) or B1493 (2nd squib) set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1416: Malfunction of front impact sensor (LH)

** CAUTION**

If DTC B1416 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTC is set if the following condition is detected from the front impact sensor (LH) output:

- Front impact sensor (LH) is not operating.

- Front impact sensor (LH) characteristic is abnormal.
- Front impact sensor (LH) output is abnormal.

TROUBLESHOOTING HINTS

- Malfunction of the front impact sensor (LH)
- Malfunction of the CAN bus

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Check the front impact sensor (LH).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Alternate the front impact sensor (LH) and the front impact sensor (RH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) After erasing the DTC memory, check the DTC again.
- (5) Disconnect the negative battery terminal.

Q: Is DTC B1416 set?

YES : Replace the front impact sensor (LH) with a new one (Refer to [P.52B-226](#)).

NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1416 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1417: Front impact sensor (LH) voltage error

** CAUTION**

If diagnostic trouble code B1417 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The front impact sensor (LH) transmits acceleration data to the SRS-ECU. The SRS-ECU then determines whether to operate the front air bags, and then outputs an ignition signal when necessary. The front impact sensor also diagnoses itself, and sends a diagnostic trouble code to the SRS-ECU if a malfunction occurs.

DTC SET CONDITIONS

This DTC will be stored when the power supply voltage to the front impact sensor (LH) remains less than a predetermined value for one second.

TROUBLESHOOTING HINTS

- Damaged wiring harness or connectors
- Malfunction of the front impact sensor (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?**YES :** Go to Step 2.**NO :** Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?**YES :** Go to Step 3.**NO :** There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check of short to power supply, short to ground, and open circuit in FLH-, FLH+ line between SRS-ECU connector and front impact sensor (LH) connector.**Q: Is the check result normal?****YES :** Go to Step 4.**NO :** Repair the wiring harness.

STEP 4. Check the front impact sensor (LH).

- (1) Disconnect the negative battery terminal.
- (2) Alternate the front impact sensor (LH) and the front impact sensor (RH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) Erase the diagnostic trouble code from memory, and check the diagnostic trouble code.

Q: Is DTC B1417 stored?**YES :** Replace the front impact sensor (LH) with a new one (Refer to [P.52B-226](#)).**NO :** Go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1417 stored?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1418: Front impact sensor (LH) communication error**DTC B1419: Front impact sensor (LH) communication impossible**

 CAUTION

If DTC B1418 or B1419 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The front impact sensor (LH) transmits acceleration data to the SRS-ECU. The SRS-ECU then determines whether to operate the front air bags, and then outputs an ignition signal when necessary. The front impact sensor also diagnoses itself, and sends a diagnostic trouble code to the SRS-ECU if a malfunction occurs.

DTC SET CONDITIONS

The DTC is stored if the communication between the front impact sensor (LH) and SRS-ECU is abnormal (No. B1418), or impossible (No. B1419).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the front impact sensor (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line. **CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)). Then go to Step 2.

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check the front impact sensor (LH).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Alternate the front impact sensor (LH) and the front impact sensor (RH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) After erasing the DTC memory, check the DTC again.
- (5) Disconnect the negative battery terminal.

Q: Is DTC No. B1418 or B1419 stored?

YES : Replace the front impact sensor (LH) with a new one (Refer to [P.52B-226](#)).

NO : Go to Step 4.

STEP 4. Check of short to power supply, short to ground, and open circuit in FLH-, FLH+ line between SRS-ECU connector and front impact sensor (LH) connector.**Q: Is the check result normal?**

YES : Go to Step 5.

NO : Repair the wiring harness.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1418 or B1419 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1420: Side-airbag module (RH) (squib) system (short circuit between squib terminals)

⚠ CAUTION

If DTC B1420 is stored in the SRS-ECU, always diagnose the CAN bus lines.

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short spring*
- Short between the side-airbag module (RH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

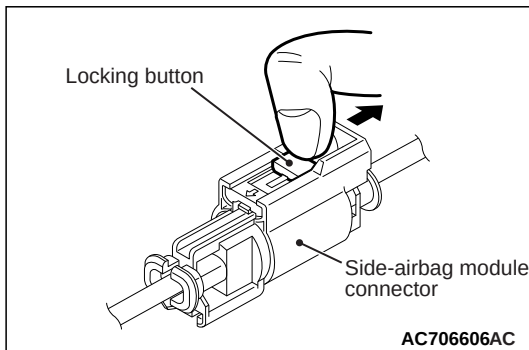
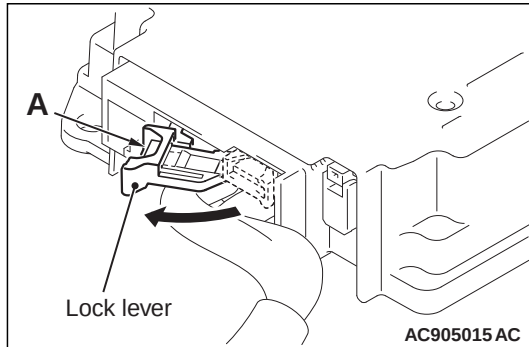
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Connector check: SRS-ECU, side-airbag module (RH).**

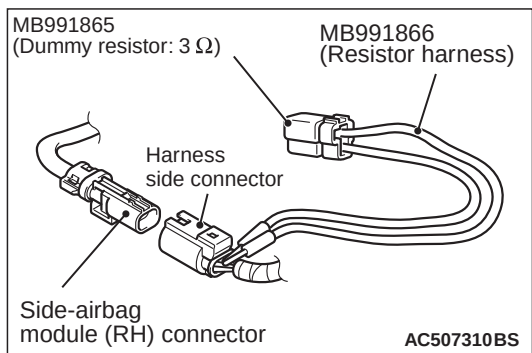
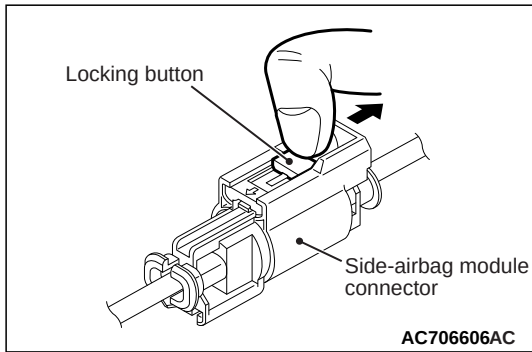
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.

- (3) After disconnecting the side-airbag module (RH) connector, connect the connector again. For the side-airbag module (RH) connector disconnection, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.
- (4) Connect the negative battery terminal.
- (5) After erasing the diagnostic trouble code memory, check the DTC again.
- (6) Disconnect the negative battery terminal.

Q: Is DTC B1420 stored?

YES : Go to Step 4.

NO : Replace the connector concerned.



STEP 4. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

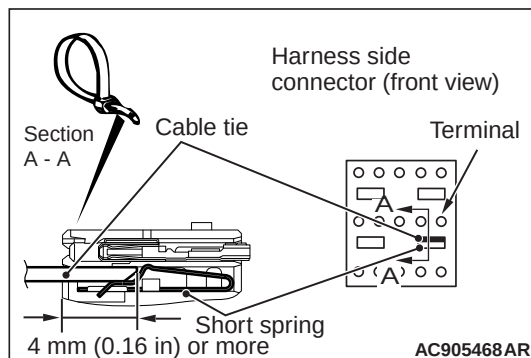
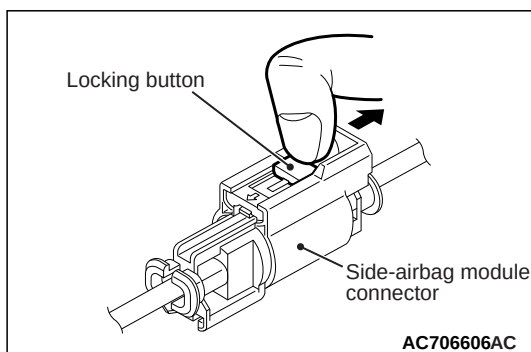
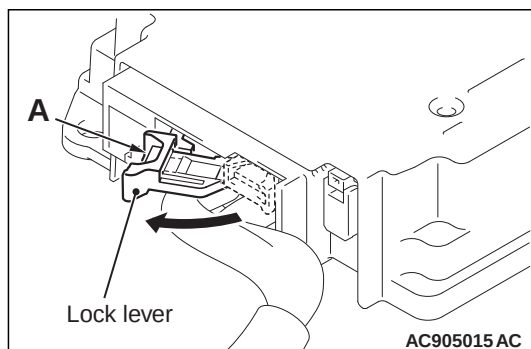
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of side-airbag module (RH) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the diagnosis trouble code memory, check the diagnostic trouble code again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1420 stored?

YES : Go to Step 5.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).

**STEP 5. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (3) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion, thus insert for 4 mm (0.16 inch) or more.

- (4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between the SRS+, SRS- line and the short spring, and then release the short spring.
- (5) Take the measurements below at the side-airbag module (RH) harness side connector.
 - Continuity between SRS+, SRS- line

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness SRS+, SRS- line between the side-airbag module (RH) connector and the SRS-ECU connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1420 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1421: Side-airbag module (RH) (squib) system (open circuit of squib circuit)

 CAUTION

If diagnostic trouble code B1421 is stored in the SRS-ECU, be sure to diagnose the CAN bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

- Open circuit in the side-airbag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

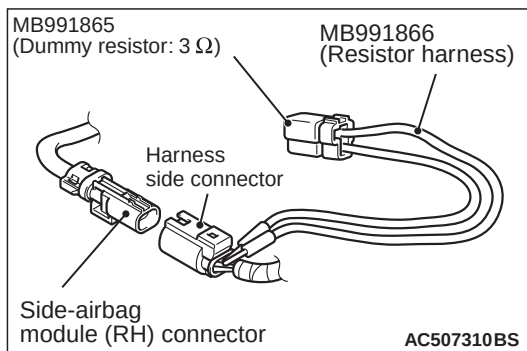
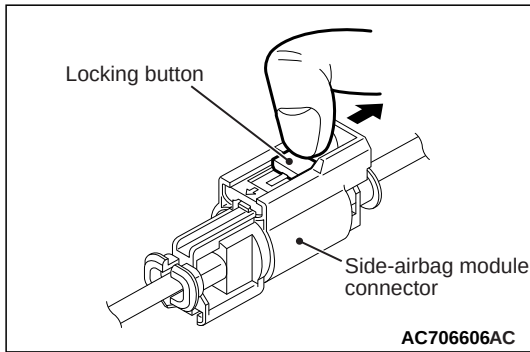
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Check the side-airbag module (RH).**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

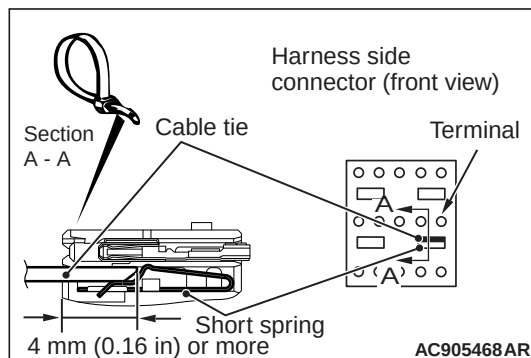
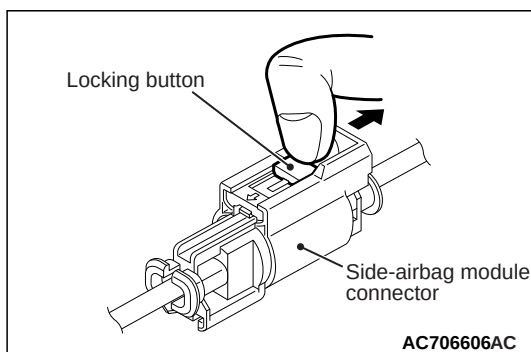
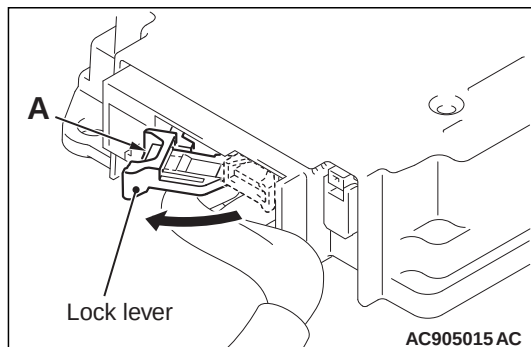
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of side-airbag module (RH) harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1421 stored?

YES : Go to Step 4.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).



STEP 4. Resistance measurement at the SRS-ECU connector and the side-airbag module (RH) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (3) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion, thus insert for 4 mm (0.16 inch) or more.

- (4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between the SRS+, SRS- line and the short spring, and then release the short spring.

⚠ CAUTION

Do not insert a test probe directly into the terminal of side-airbag module (RH) harness side connector from the connector front side as the connector contact pressure may be weakened.

- (5) Take the measurements below at the SRS-ECU and side-airbag module (RH) harness side connectors.
 - Continuity SRS+ line between SRS-ECU connector and side-airbag module (RH) connector
 - Continuity SRS- line between SRS-ECU connector and side-airbag module (RH) connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness SRS+, SRS- line between the side-airbag module (RH) connector and the SRS-ECU connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1421 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1422: Side-airbag module (RH) (squib) system (shorted to squib circuit ground)

** CAUTION**

If the DTC B1422 is set to SRS-ECU, be sure to diagnose the CAN bus line.

OPERATION

In case of side collision, when the impact exceeding the threshold is applied to the vehicle, and when the impact is simultaneously detected (turned ON) by the side impact sensor as well as by the analogue G-sensor in SRS-ECU, the electric current is supplied from SRS-ECU to the side-airbag module (squib) of impacted side.

TROUBLE JUDGMENT

The code is set when the input terminal of SRS-ECU side-airbag module (squib) is shorted to ground.

PROBABLE CAUSES

- Damaged wiring harness and connectors
- side-airbag module (squib) harness shorted to ground
- Malfunction of SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

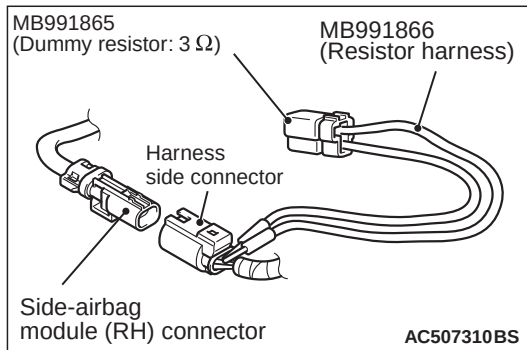
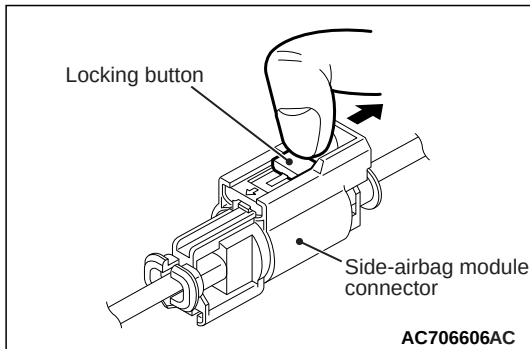
Q: Is the DTC set?

YES : Go to Step 3.

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check the side-airbag module (RH).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

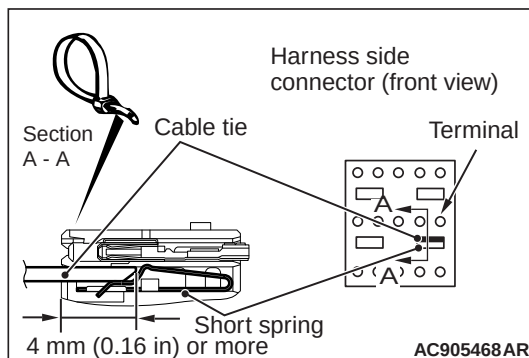
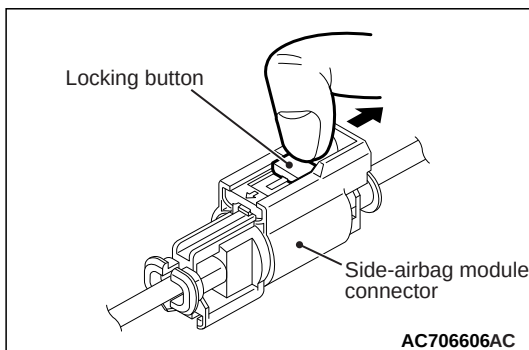
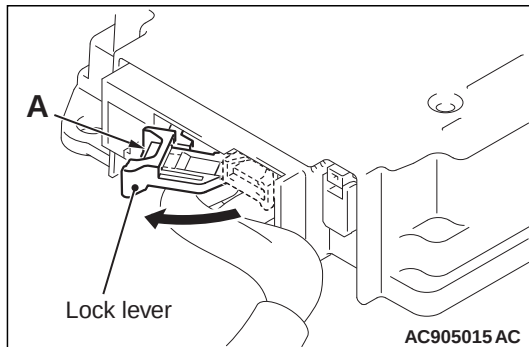
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of right harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1422 set?

YES : Go to Step 4.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).

**STEP 4. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (3) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion, thus insert for 4 mm (0.16 inch) or more.

- (4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between the SRS+, SRS- line and the short spring, and then release the short spring.
- (5) Take the measurements below at the SRS-ECU harness side connector.
 - Continuity between SRS+, SRS- line and body ground

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness SRS+, SRS- line between the SRS-ECU connector and the right side-airboat module connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1422 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1423: Side-airbag module (RH) (squib) system (shorted to squib circuit power supply)

 CAUTION

If the DTC B1423 is set to SRS-ECU, be sure to diagnose the CAN bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

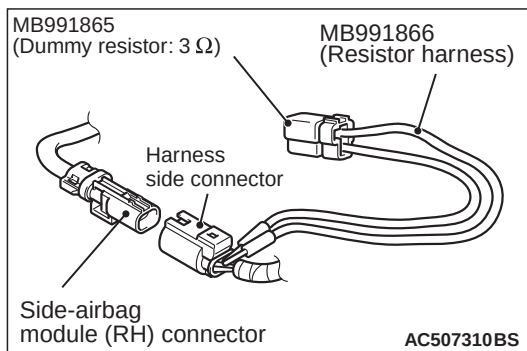
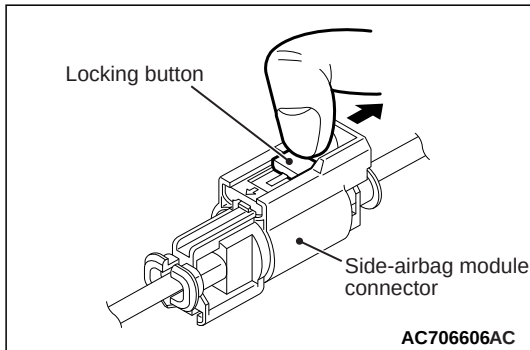
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Check the side-airbag module (RH).**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

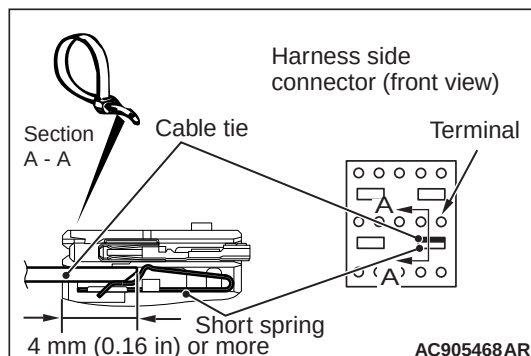
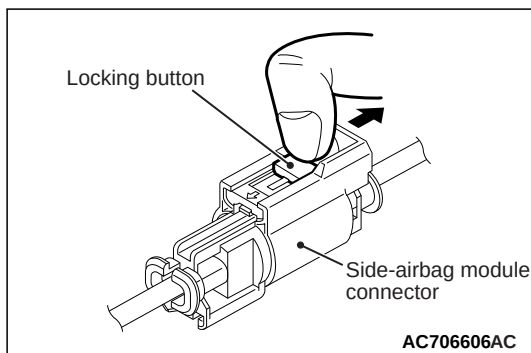
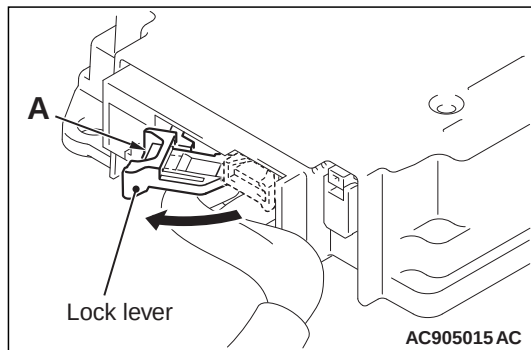
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of side-airbag module (RH) harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1423 set?

YES : Go to Step 4.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).



STEP 4. Voltage measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (3) Disconnect the side-airbag module (RH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion, thus insert for 4 mm (0.16 inch) or more.

- (4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between the SRS+, SRS- line and the short spring, and then release the short spring.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Take the measurements below at the SRS-ECU harness side connector.
 - Voltage between SRS+, SRS- line and body ground

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness SRS+, SRS- line between the SRS-ECU connector and the side-airbag module (RH) connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1423 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1426: Malfunction of Side Impact Sensor (RH)**DTC B1436: Malfunction of Side Impact Sensor (LH)**

** CAUTION**

If DTC B1426 or B1436 is stored in the SRS-ECU, always diagnose the CAN main bus line.

- Side impact sensor characteristics are abnormal.
- Side impact sensor output is abnormal.

DTC SET CONDITIONS

These DTCs are stored if the following conditions are detected from the side impact sensor

- Side impact sensor is not operating.

TROUBLESHOOTING HINTS

Malfunction of side impact sensor (RH) (for DTC B1426) and side impact sensor (LH) (for DTC B1436)

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Side impact sensor check.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) A side impact sensor is checked in the following way.
 - Replace the right side impact sensor {In case of DTC B1426 (Regardless of "Active" or "Stored" faults)} with the new part.
 - Replace the left side impact sensor {In case of DTC B1436 (Regardless of "Active" or "Stored" faults)} with the new part.
- (3) Connect the negative battery terminal.
- (4) After erasing the DTC memory, check the diagnostic trouble code again.
- (5) Disconnect the negative battery terminal.

Q: Is DTC B1426 or B1436 stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1427: Side impact sensor (RH) voltage error

** CAUTION**

If diagnostic trouble code B1427 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The side impact sensor transmits acceleration data to the SRS-ECU. The SRS-ECU then determines if the side and/or curtain air bags should be inflated, and then sends an ignition signal. The side impact sensor also diagnoses itself, and sends a diagnostic trouble code to the SRS-ECU if a problem occurs.

DTC SET CONDITIONS

This diagnostic trouble code will set when the power supply voltage to the side impact sensor (RH) remains less than a predetermined value for one second.

TROUBLESHOOTING HINTS

- Damaged wiring harness or connectors
- Malfunction of the side impact sensor (RH)
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?**YES :** Go to Step 2.**NO :** Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?**YES :** Go to Step 3.**NO :** There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check of short to power supply, short to ground, and open circuit in SSR-, SSR+ line in between SRS-ECU connector and side impact sensor (RH) connector.**Q: Is the check result normal?****YES :** Go to Step 4.**NO :** Repair the connectors or harness wires.

STEP 4. Check the side impact sensor (RH).

- (1) Disconnect the negative battery terminal.
- (2) Alternate the side impact sensor (RH) and the side impact sensor (LH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) Erase the DTC from memory, and check the DTC.

Q: Is DTC B1427 set?**YES :** Replace the side impact sensor (RH) with a new one (Refer to [P.52B-255](#)).**NO :** Go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1427 set?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1428: Side impact sensor (RH) communication error**DTC B1429: Side impact sensor (RH) communication impossible**

 CAUTION

If DTC B1428 or B1429 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the side impact sensor (RH) sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of side-airbag and curtain air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

The diagnostic trouble code is stored if the communication between the side impact sensor (RH) and SRS-ECU is abnormal (No. B1428), or impossible (No. B1429).

TROUBLESHOOTING HINTS

- Malfunction of the side impact sensor (RH)
- Damaged wiring harness and connectors
- Malfunction of SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line. **CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Right side impact sensor check.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Alternate the right side impact sensor and left side impact sensor, and then install the alternated sensors.
- (3) Connect the negative battery terminal.
- (4) After erasing the DTC memory, check the DTC again.
- (5) Disconnect the negative battery terminal.

Q: Is DTC B1428 or B1429 stored?

YES : Replace the side impact sensor (RH) with a new one (Refer to [P.52B-255](#)).

NO : Go to Step 4.

STEP 4. Check of short to power supply, short to ground, and open circuit in SSR-, SSR+ line in between SRS-ECU connector and side impact sensor (RH) connector.**Q: Is the check result normal?**

YES : Go to Step 5.

NO : Repair the connectors or harness wires.

STEP 5. Check whether the DTC is stored again.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1428 or B1429 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1430: Side-airbag module (LH) (squib) system (short circuit between squib terminals)

⚠ CAUTION

If DTC B1430 is stored in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short spring*
- Short circuit between the side-airbag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool P.52B-11."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-12).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

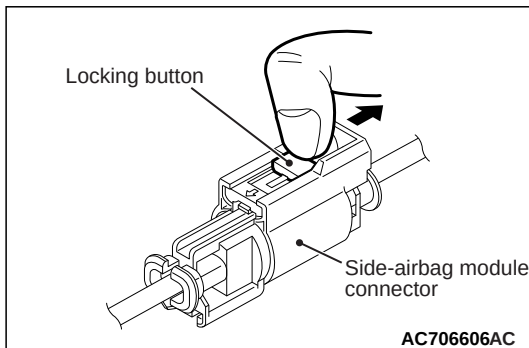
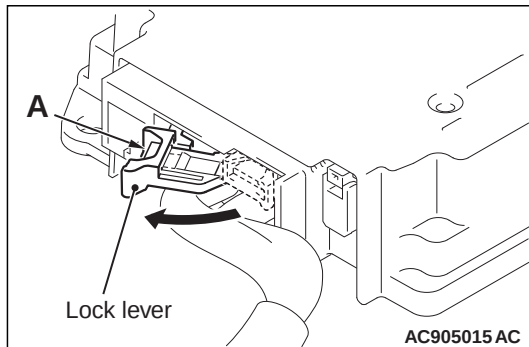
Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Connector check: SRS-ECU, side-airbag module (LH).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.

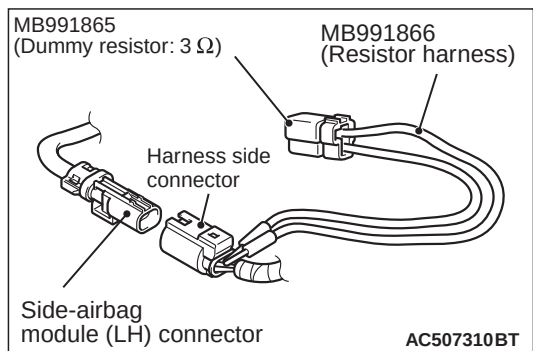
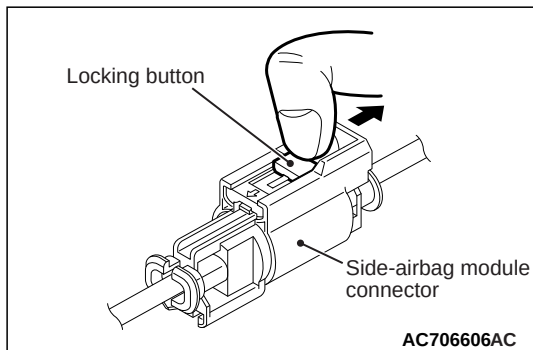


- (3) After disconnecting the side-airbag module (LH) connector, connect the connector again. For the side-airbag module (LH) connector disconnection, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.
- (4) Connect the negative battery terminal.
- (5) After erasing the diagnosis trouble code memory, check the diagnostic trouble code again.
- (6) Disconnect the negative battery terminal.

Q: Is DTC B1430 stored?

YES : Go to Step 4.

NO : Replace the connector concerned.



STEP 4. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

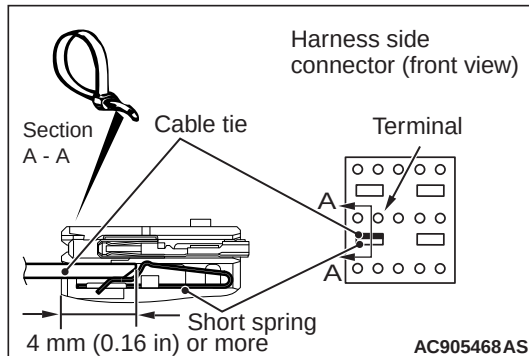
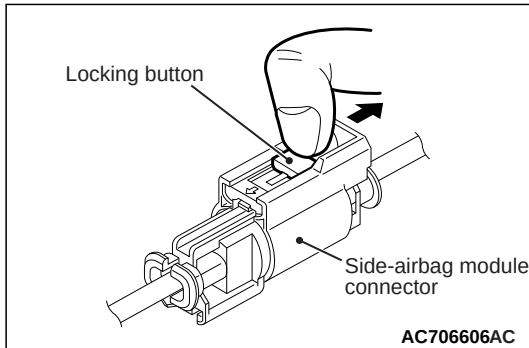
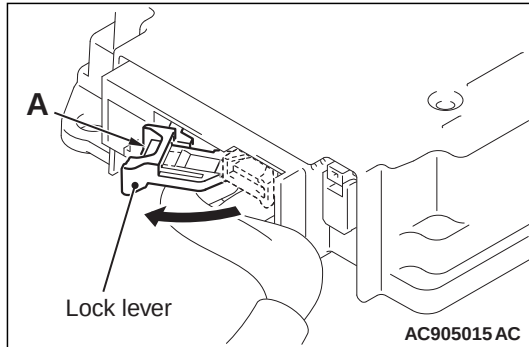
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of side-airbag module (LH) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1430 stored?

YES : Go to Step 5.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).



STEP 5. Resistance measurement at the SRS-ECU connector.

- (1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (2) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (3) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the SLS-, SLS+ line and the short spring, and then release the short spring.
- (4) Take the measurements below at the SRS-ECU harness side connector.
 - Continuity between SLS-, SLS+ line

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness SLS-, SLS+ line between the side-airbag module (LH) connector and the SRS-ECU connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1430 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1431: Side-airbag module (LH) (squib) system (open circuit of squib circuit)

 CAUTION

If DTC B1431 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

- Open circuit in the side-airbag module (squib) (LH) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

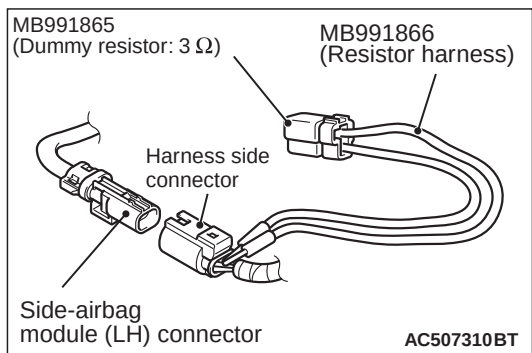
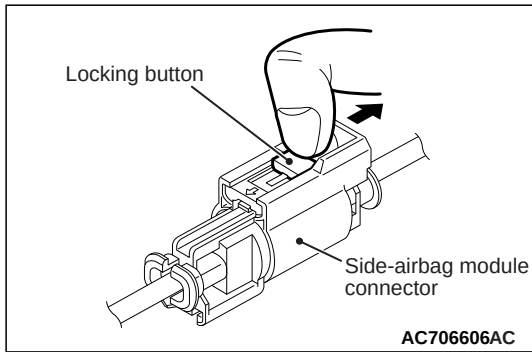
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

CAUTION

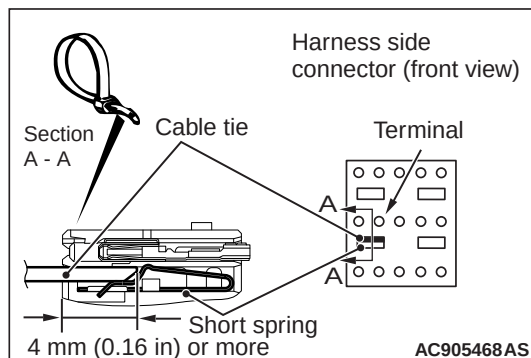
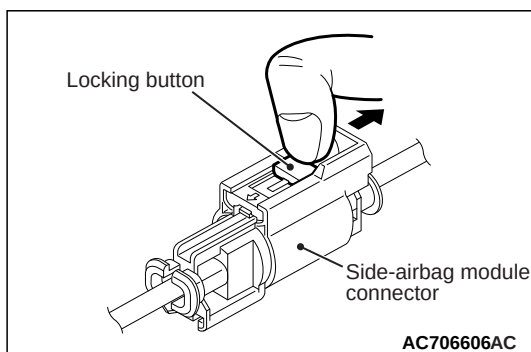
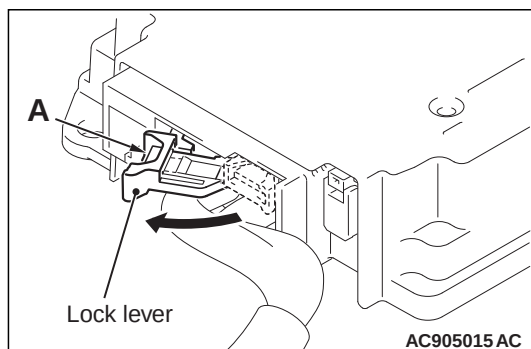
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of side-airbag module (LH) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1431 set?

YES : Go to Step 4.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).



STEP 4. Resistance measurement at the SRS-ECU connector and the side-airbag module (LH) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (3) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the SLS-, SLS+ line and the short spring, and then release the short spring.

⚠ CAUTION

Do not insert a test probe directly into the terminal of side-airbag module (LH) harness side connector from the connector front side as the connector contact pressure may be weakened.

- (5) Take the measurements below at the SRS-ECU and left impact sensor harness side connectors.
 - Continuity SLS- line between SRS-ECU connector and side-airbag module (LH) connector
 - Continuity SLS+ line between SRS-ECU connector and side-airbag module (LH) connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness SLS-, SLS+ line between the side-airbag module (LH) connector and the SRS-ECU connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1431 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1432: Side-airbag module (LH) (squib) system (shorted to squib circuit earth)

 CAUTION

If DTC B1432 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar and the analog sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to ground in the left hand side-airbag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line. **CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

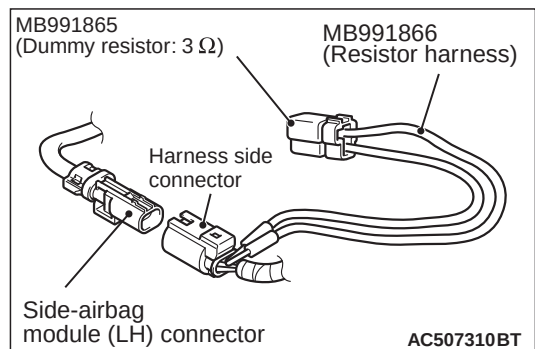
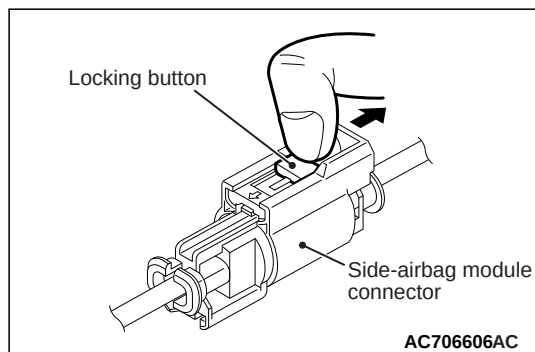
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

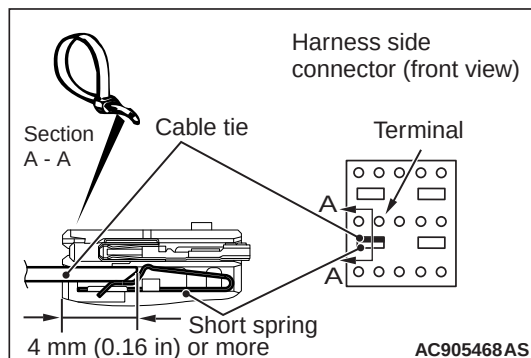
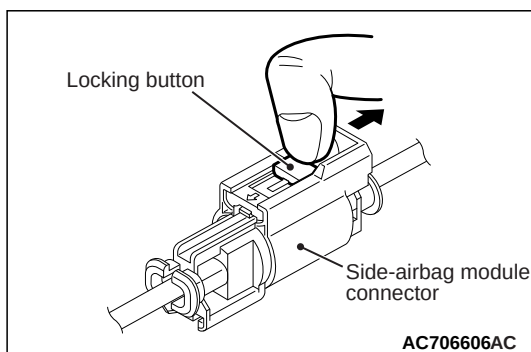
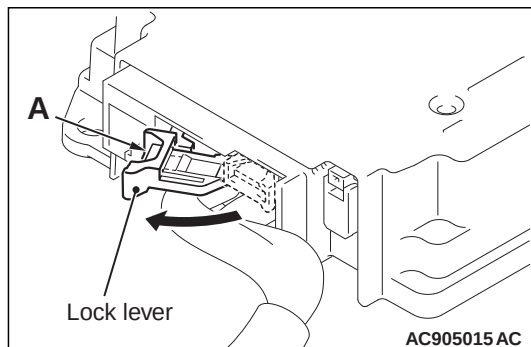
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of side-airbag module (LH) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1432 set?

YES : Go to Step 4.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).

**STEP 4. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (3) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the SLS-, SLS+ line and the short spring, and then release the short spring.
- (5) Take the measurements below at the SRS-ECU harness side connector.
 - Continuity between SLS-, SLS+ line and body ground

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness SLS-, SLS+ line between the SRS-ECU connector and the side-airbag module (LH) connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1432 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1433: Side-airbag module (LH) (squib) system (shorted to squib circuit power supply)

 CAUTION

If DTC B1433 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line. **CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

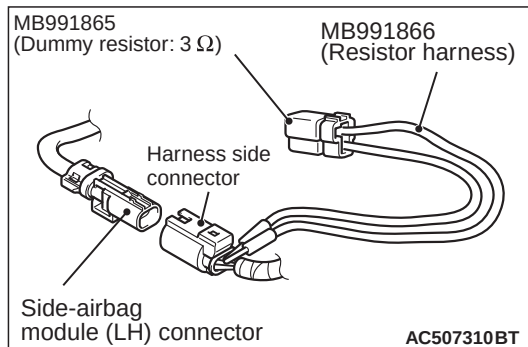
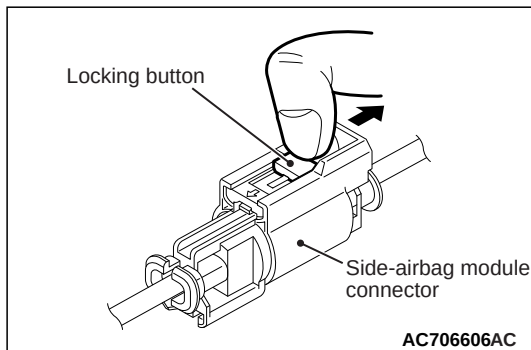
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

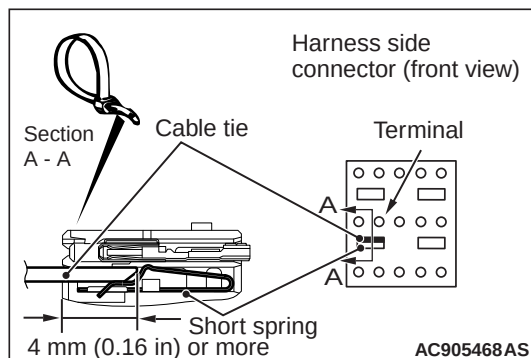
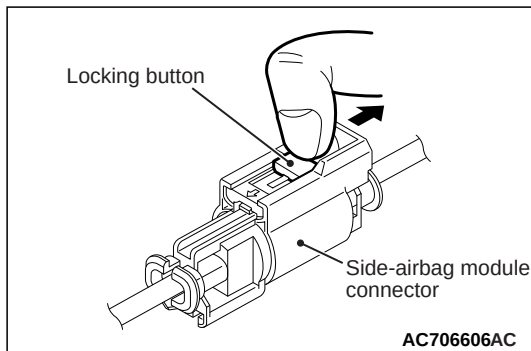
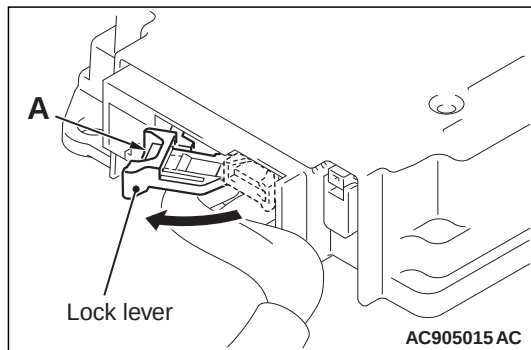
Do not insert a probe directly into the terminal from the connector front side as the connector contact pressure may be weakened.

- (4) Insert the resistor harness probe from the back of side-airbag module (LH) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1433 set?

YES : Go to Step 4.

NO : Replace the front seatback pad and frame assembly (Refer to [P.52B-243](#)).



STEP 4. Voltage measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the connector short spring in the following operations, disconnect this side-airbag module connector, and keep the squib circuit shorted.

- (3) Disconnect the side-airbag module (LH) connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the SLS-, SLS+ line and the short spring, and then release the short spring.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Take the measurements below at the SRS-ECU harness side connector.

- Voltage between SLS-, SLS+ line and body ground

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness SLS-, SLS+ line between the SRS-ECU connector and the side-airbag module (LH) connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1433 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1437: Side impact sensor (LH) voltage error

 CAUTION

If diagnostic trouble code B1437 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The side impact sensor transmits acceleration data to the SRS-ECU. The SRS-ECU then determines if the side and/or curtain air bags should be inflated, and then sends an ignition signal. The side impact sensor also diagnoses itself, and sends a diagnostic trouble code to the SRS-ECU if a problem occurs.

DTC SET CONDITIONS

This diagnostic trouble code will set when the power supply voltage to the side impact sensor (LH) remains less than a predetermined value for one second.

TROUBLESHOOTING HINTS

- Damaged wiring harness or connectors
- Malfunction of the side impact sensor (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line. **CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check of short to power supply, short to ground, and open circuit in SSL+, SSL- line in between SRS-ECU connector and side impact sensor (LH) connector.

Q: Is the check result normal?

YES : Go to Step 4.

NO : Repair the connectors or harness wires.

STEP 4. Check the side impact sensor (LH).

- (1) Disconnect the negative battery terminal.
- (2) Alternate the side impact sensor (LH) and the side impact sensor (RH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) Erase the DTC from memory, and check the DTC.

Q: Is DTC B1427 set?

YES : Replace the side impact sensor (LH) with a new one (Refer to [P.52B-255](#)).

NO : Go to Step 5.

STEP 5. Check whether the DTC is reset.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1437 set?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1438: Side impact sensor (LH) communication error**DTC B1439: Side impact sensor (LH) communication impossible**

⚠ CAUTION

If the diagnostic trouble code B1438 or B1439 is set to SRS-ECU, be sure to diagnose the CAN bus line.

CIRCUIT OPERATION

The side impact sensor transmits acceleration data to the SRS-ECU. The SRS-ECU then determines if the side and/or curtain air bags should be inflated, and then sends an ignition signal. The side impact sensor also diagnoses itself, and sends a diagnostic trouble code to the SRS-ECU if a problem occurs.

DTC SET CONDITIONS

The diagnostic trouble code is set if the communication between the side impact sensor (LH) and SRS-ECU is abnormal (No. B1438), or impossible (No. B1439).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?**YES :** Go to Step 2.**NO :** Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?**YES :** Go to Step 3.**NO :** There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Check the side impact sensor (LH).

- (1) Disconnect the negative battery terminal.
- (2) Alternate the side impact sensor (LH) and the side impact sensor (RH), and then install the alternated sensor.
- (3) Connect the negative battery terminal.
- (4) Erase DTC from memory, and check the DTC.

Q: Is DTC B1438 or B1439 set?

YES : Replace the side impact sensor (LH) with a new one (Refer to [P.52B-255](#)). Go to Step 5.

NO : Go to Step 4.

STEP 4. Check of short to power supply, short to ground, and open circuit in SSL+, SSL- line in between SRS-ECU connector and side impact sensor (LH) connector.**Q: Is the check result normal?**

YES : Go to Step 5.

NO : Repair the connectors or harness wires.

STEP 5. Check whether the DTC is reset.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1438 or B1439 set?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1440: Curtain air bag module (RH) (squib) system (short circuit between squib circuit terminals)

** CAUTION**

If DTC B1440 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (RH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to [P.52B-3](#)). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the electric motor switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

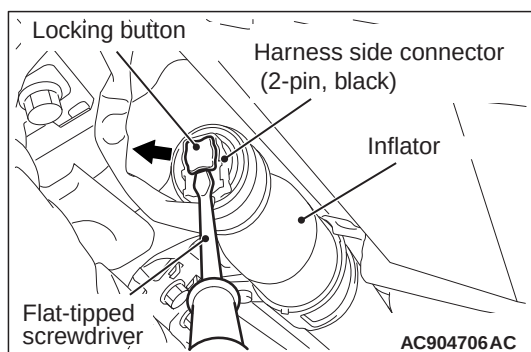
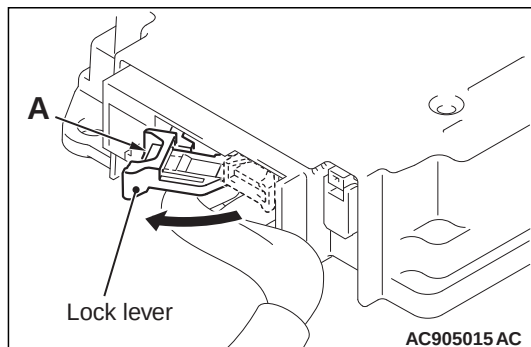
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#)).



STEP 3. Connector check: SRS-ECU, curtain air bag module (RH).

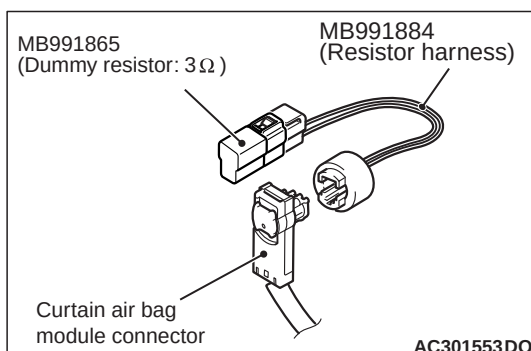
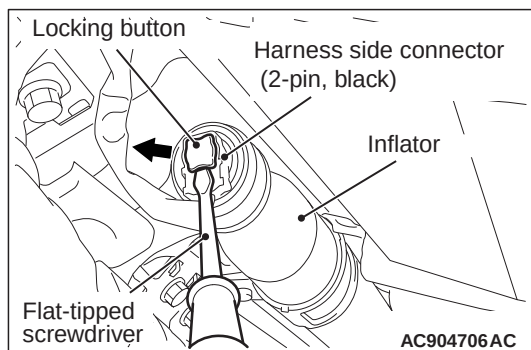
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.

- (3) After disconnecting the curtain air bag module (RH) harness side connector, connect the connector again. For the curtain air bag module (RH) connector disconnection, use the flat-tipped screwdriver to pull out the harness side connector locking button. After releasing the lock, disconnect the connector.
- (4) Connect the negative battery terminal.
- (5) After erasing the DTC memory, check the DTC again.
- (6) Disconnect the negative battery terminal.

Q: Is DTC B1440 stored?

YES : Go to Step 4.

NO : Replace the connector concerned.



STEP 4. Diagnosis check by dummy resistor connection.

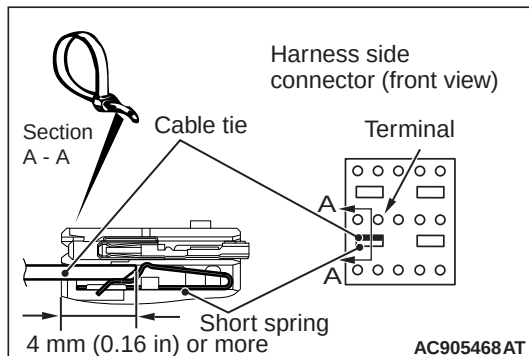
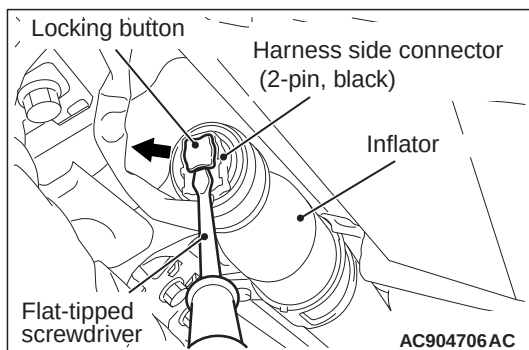
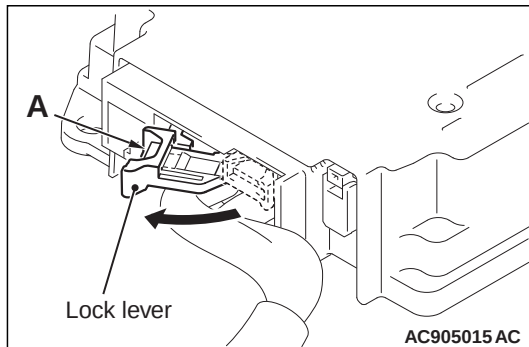
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the curtain air bag module (RH) harness side connector.

- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (RH) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.

Q: Is DTC B1440 stored?

YES : Go to Step 5.

NO : Replace the curtain air bag module (RH) (Refer to [P.52B-247.](#))

**STEP 5. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the curtain air bag module (RH) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CRS-, CRS+ line and the short spring, and release the short spring.
- (5) Check the continuity between the SRS-ECU wiring harness side connector CRS-, CRS+ line.

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1440 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1441: Curtain air bag module (RH) (squib) system (open circuit of squib circuit)

 CAUTION

If DTC B1441 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

- Open circuit in the curtain air bag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

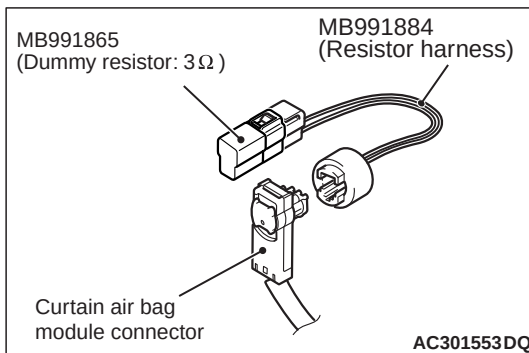
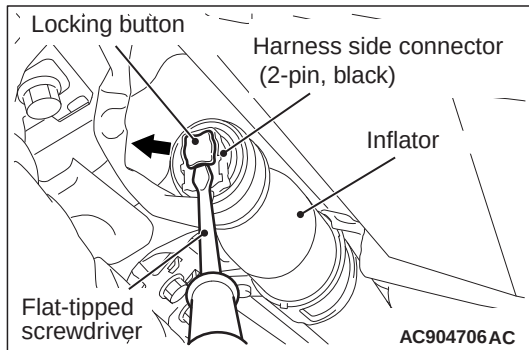
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

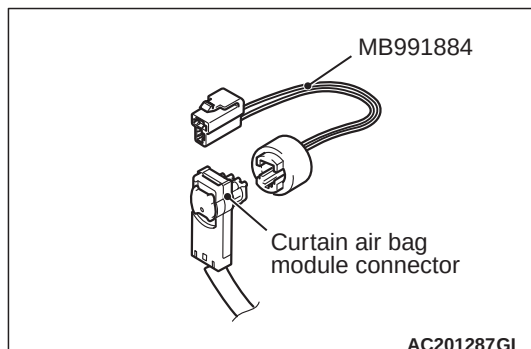
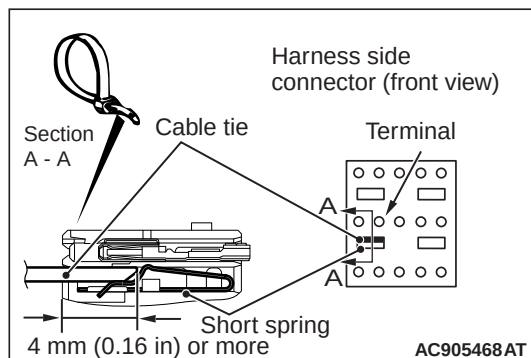
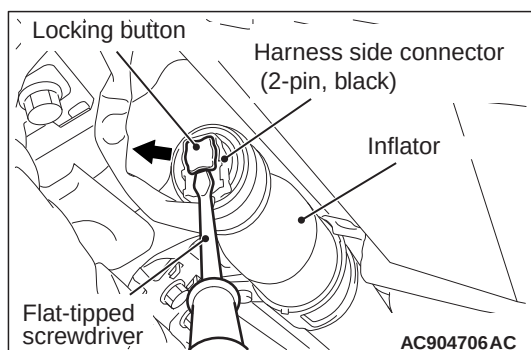
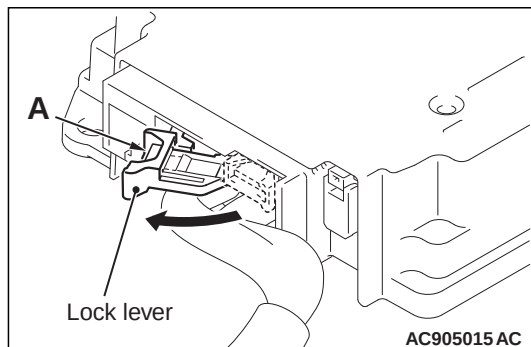
**STEP 3. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (RH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.
- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (RH) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1441 set?

YES : Go to Step 4.

NO : Replace the curtain air bag module (RH).(Refer to [P.52B-247.](#))



STEP 4. Resistance measurement at the SRS-ECU connector and the curtain air bag module (RH) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (RH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

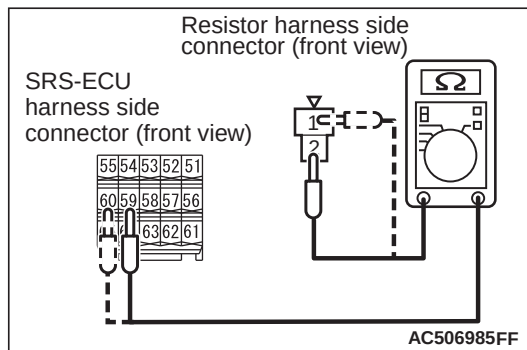
⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CRS-, CRS+ line and the short spring, and release the short spring.

- (5) Connect the resistor harness (Special tool: MB991884) to the removed curtain air bag module (RH) connector.

NOTE: When the resistor harness is connected, the terminal No. of connected side and the CRS-, CRS+ line of resistor harness connector will become inverted.



(6) Take the following measurements.

- Continuity CRS- line between SRS-ECU wiring harness side connector and the resistor harness connector
- Continuity CRS+ line between SRS-ECU wiring harness side connector and the resistor harness connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness CRS-, CRS+ line between the SRS-ECU harness side connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1441 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1442: Curtain air bag module (RH) (squib) system (shorted to squib circuit ground)

CAUTION

If DTC B1442 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

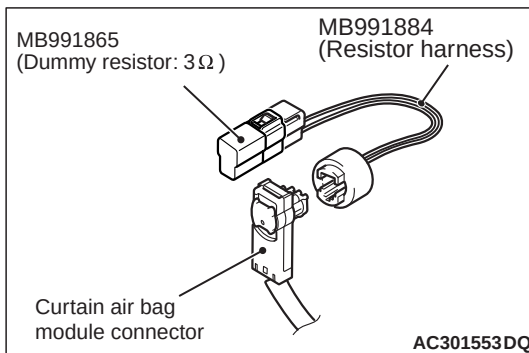
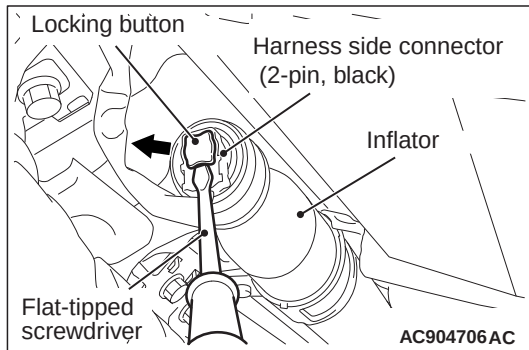
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

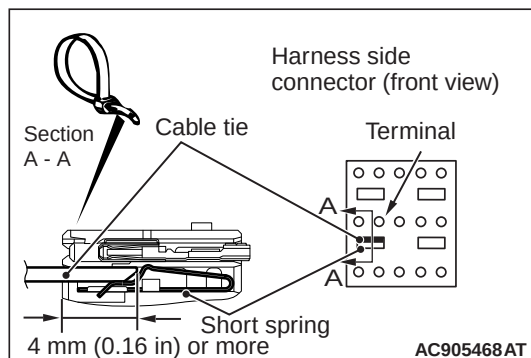
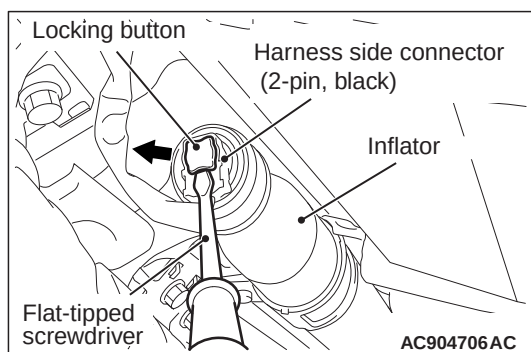
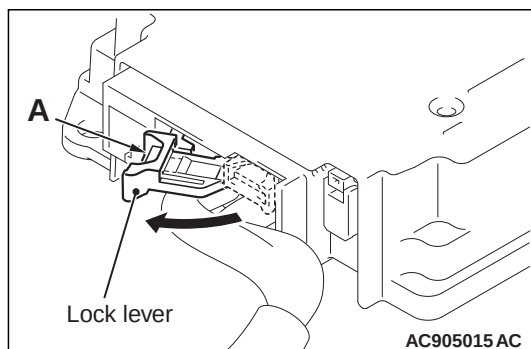
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Diagnosis check by dummy resistor connection**

- (1) Check that the negative battery terminal is disconnected. If connected, disconnect the negative battery terminal.
- (2) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (RH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.
- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (RH) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1442 set?**YES :** Go to Step 4.**NO :** Replace the curtain air bag module (RH) (Refer to [P.52B-247.](#))



STEP 4. Resistance measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (RH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CRS-, CRS+ line and the short spring, and release the short spring.
- (5) Check the continuity between SRS-ECU wiring harness side connector CRS-, CRS+ line and body ground.

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1442 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1443: Curtain air bag module (RH) (squib) system (shorted to squib circuit power supply)

⚠ CAUTION

If DTC B1443 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the curtain air bag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

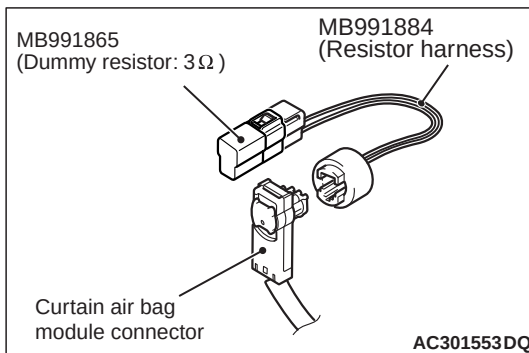
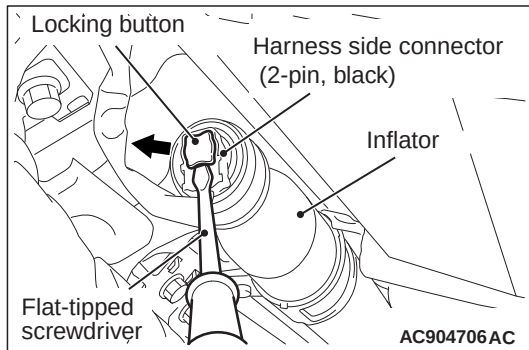
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Diagnosis check by dummy resistor connection

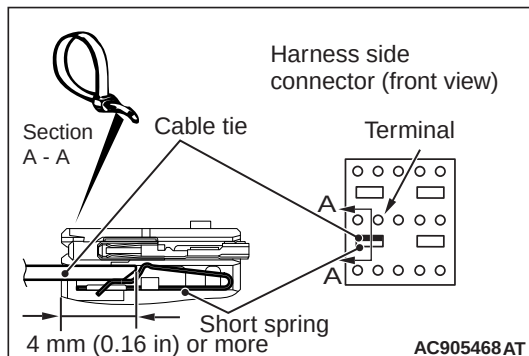
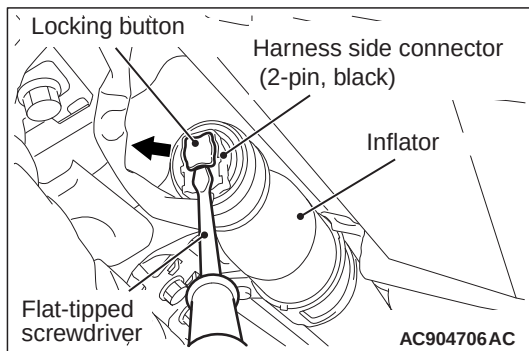
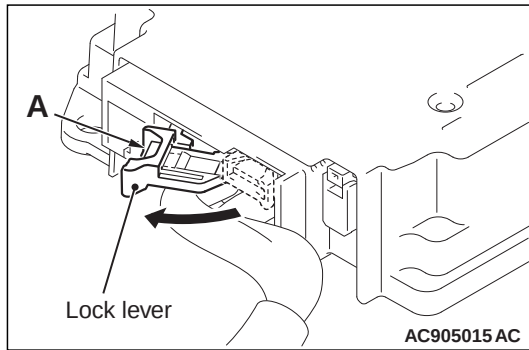
- (1) Check that the negative battery terminal is disconnected. If connected, disconnect the negative battery terminal.
- (2) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (RH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (RH) (front) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC No. B1443 set?

YES : Go to step 4.

NO : Replace the curtain air bag module (RH) (Refer to [P.52B-247.](#))

**STEP 4. Voltage measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (RH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CRS-, CRS+ line and the short spring, and release the short spring.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Measure the voltage between the SRS-ECU wiring harness side connector CRS-, CRS+ line and the body ground.

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1443 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1450: Curtain air bag module (LH) (squib) system (short circuit between squib circuit terminals)

⚠ CAUTION

If DTC B1450 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool P.52B-11."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-12).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

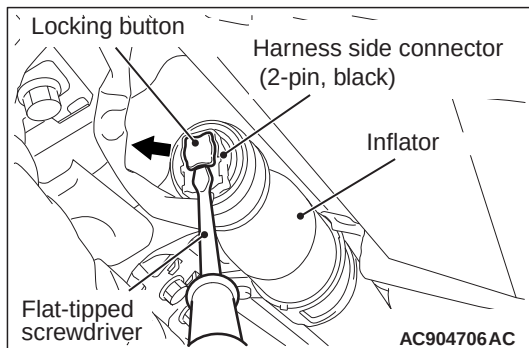
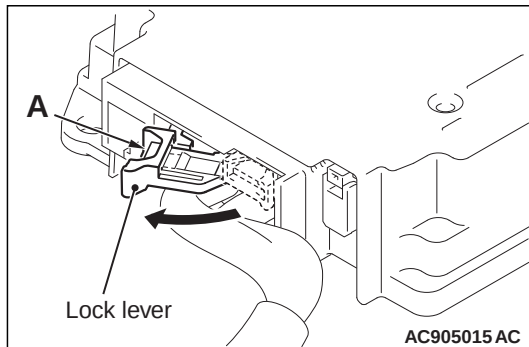
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Connector check: SRS-ECU, curtain air bag module (LH) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.

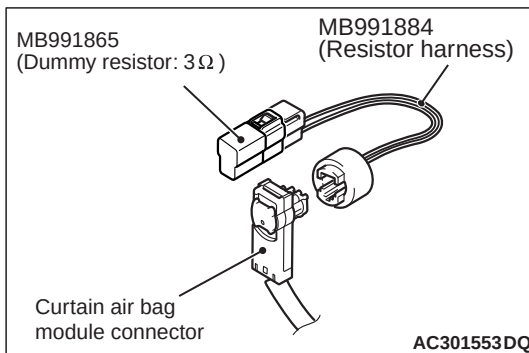
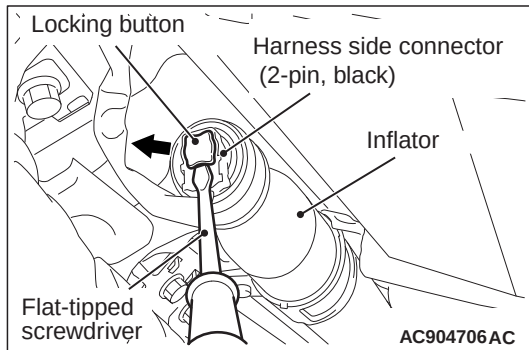


- (3) After disconnecting the curtain air bag module (LH) harness side connector, connect the connector again. For the curtain air bag module (LH) connector disconnection, use the flat-tipped screwdriver to pull out the harness side connector locking button. After releasing the lock, disconnect the connector.
- (4) Connect the negative battery terminal.
- (5) After erasing the DTC memory, check the DTC again.
- (6) Disconnect the negative battery terminal.

Q: Is the DTC B1450 set?

YES : Go to Step 4.

NO : Replace the connector concerned.



STEP 4. Diagnosis check by dummy resistor connection.

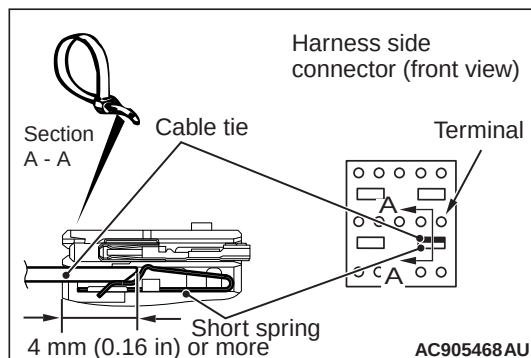
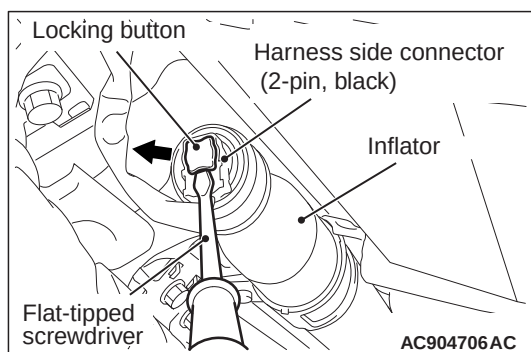
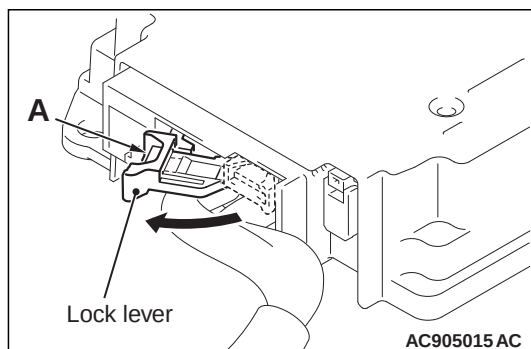
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the curtain air bag module (LH) harness side connector.

- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (LH) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.

Q: Is the DTC B1450 set?

YES : Go to Step 5.

NO : Replace the curtain air bag module (LH) (Refer to [P.52B-247.](#))

**STEP 5. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the curtain air bag module (LH) harness side connector

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CLS+, CLS- line and the short spring, and release the short spring.
- (5) Check the continuity between the SRS-ECU wiring harness side connector CLS+, CLS- line.

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1450 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1451: Curtain air bag module (LH) (squib) system (open circuit of squib circuit)

⚠ CAUTION

If DTC B1451 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

- Open circuit in the curtain air bag module (LH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

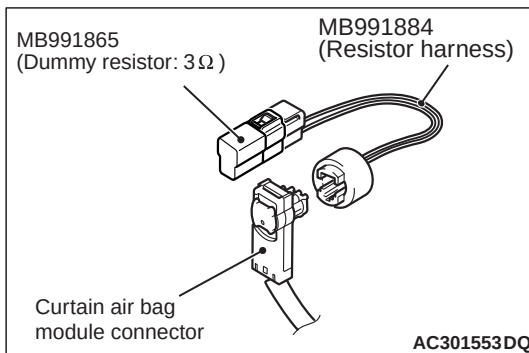
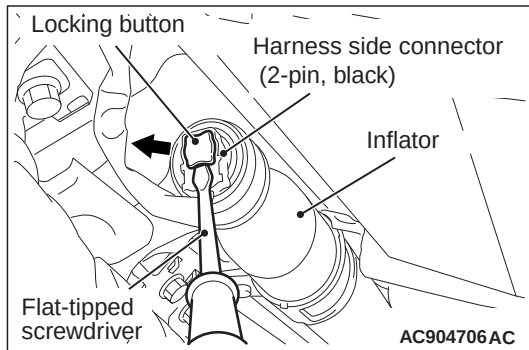
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Diagnosis check by dummy resistor connection.**

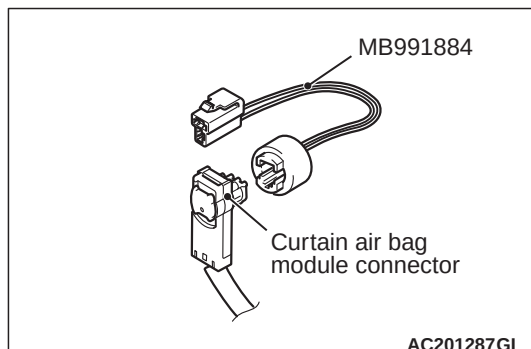
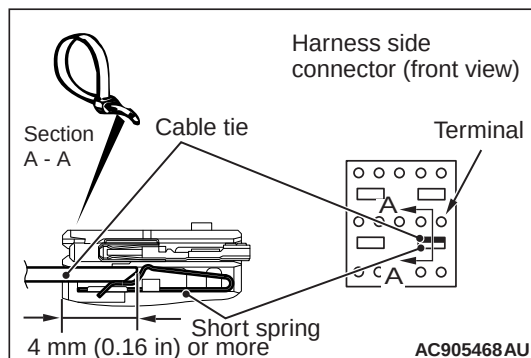
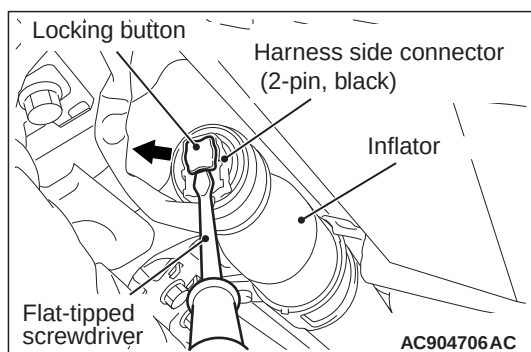
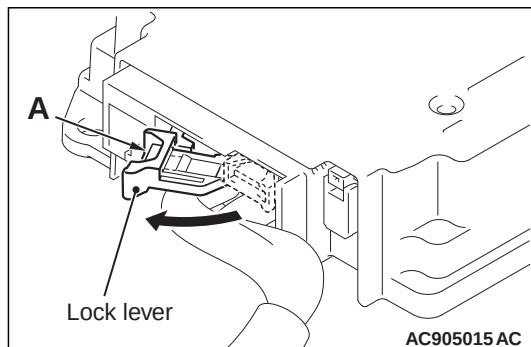
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module connector to the direction of the arrow. After releasing the lock, disconnect the connector.

- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (LH) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1451 set?

YES : Go to Step 4.

NO : Replace the curtain air bag module (LH) (Refer to [P.52B-247](#)).



STEP 4. Resistance measurement at the SRS-ECU connector and the curtain air bag module (LH) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (LH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

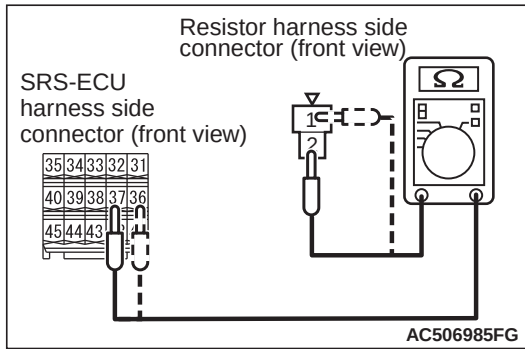
⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CLS+, CLS- line and the short spring, and release the short spring.

- (5) Connect the resistor harness (Special tool: MB991884) to the removed curtain air bag module (LH) connector.

NOTE: When the resistor harness is connected, the terminal No. of connected side and the CLS+, CLS- line of resistor harness connector will become inverted.



(6) Take the following measurements.

- Continuity CLS+ line between SRS-ECU wiring harness side connector and the resistor harness connector
- Continuity CLS- line between SRS-ECU wiring harness side connector and the resistor harness connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1451 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1452: Curtain air bag module (LH) (squib) system (shorted to squib circuit ground)

CAUTION

If DTC B1452 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

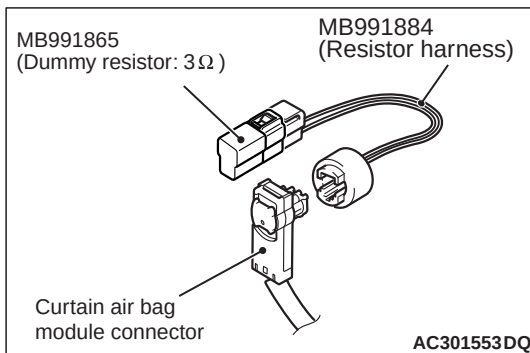
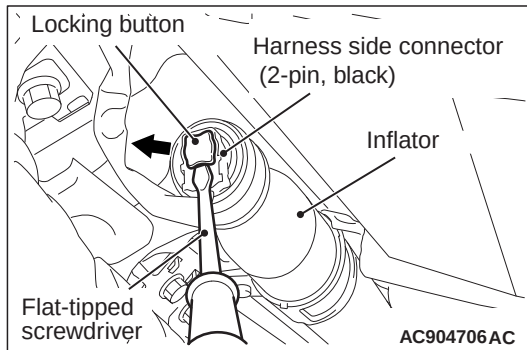
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

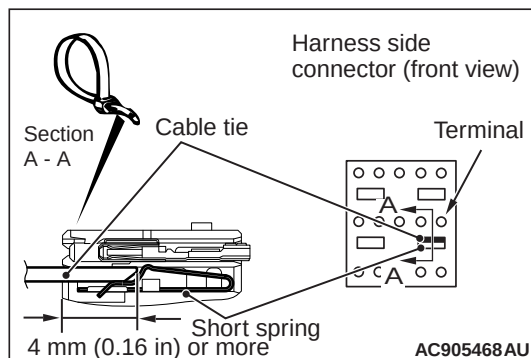
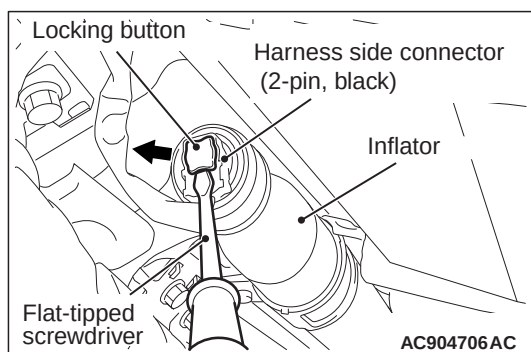
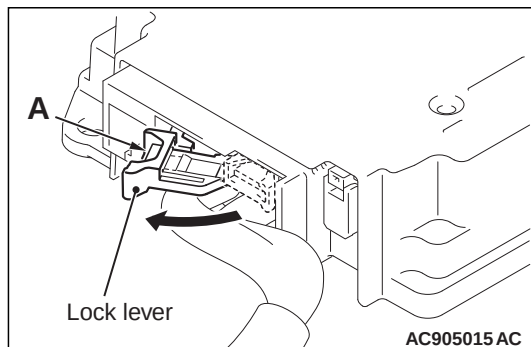
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Diagnosis check by dummy resistor connection**

- (1) Check that the negative battery terminal is disconnected. If connected, disconnect the negative battery terminal.
- (2) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (LH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.
- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (LH) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1452 set?**YES :** Go to Step 4.**NO :** Replace the curtain air bag module (LH) (Refer to [P.52B-247.](#))



STEP 4. Resistance measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (LH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CLS+, CLS- line and the short spring, and release the short spring.
- (5) Check the continuity between the SRS-ECU harness side connector CLS+, CLS- line and the body ground.

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1452 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1453: Curtain air bag module (LH) (squib) system (shorted to squib circuit power supply)**⚠ CAUTION**

If DTC B1453 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.

- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the curtain air bag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

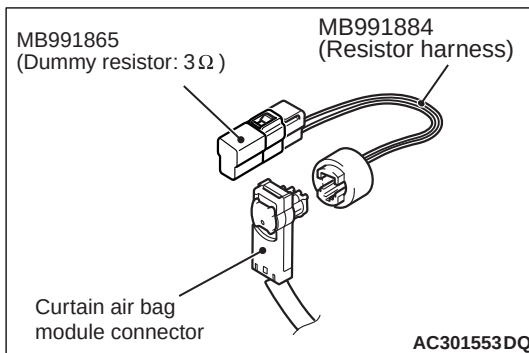
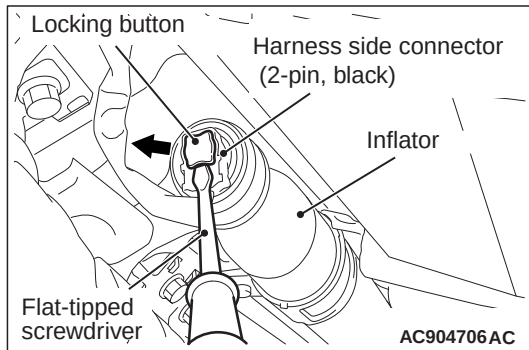
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Diagnosis check by dummy resistor connection

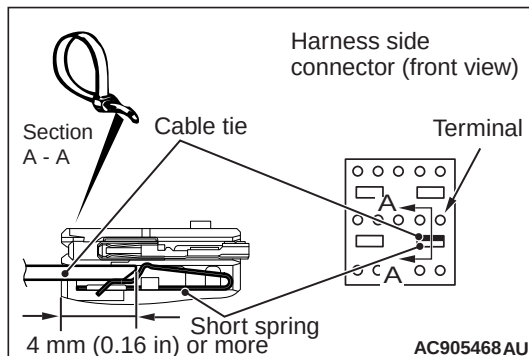
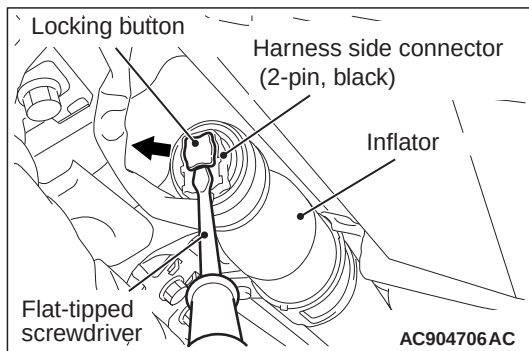
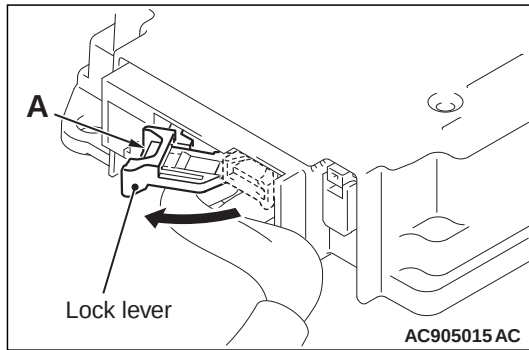
- (1) Check that the negative battery terminal is disconnected. If connected, disconnect the negative battery terminal.
- (2) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (LH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

- (3) Connect the dummy resistor (Special tool: MB991865) to the resistor harness (Special tool: MB991884).
- (4) Connect the resistor harness (special tool) to curtain air bag module (LH) (front) connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is diagnostic trouble code No. B1453 stored?

YES : Go to Step 4.

NO : Replace the curtain air bag module (LH) (Refer to [P.52B-247.](#))

**STEP 4. Voltage measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release SRS-ECU wiring harness side connector short spring in the following operations, disconnect curtain air bag module connector in advance, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of curtain air bag module (LH) connector to the direction of the arrow. After releasing the lock, disconnect the connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the CLS+, CLS- line and the short spring, and release the short spring.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Measure the voltage between the SRS-ECU harness side connector CLS+, CLS- line and the body ground.

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1453 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent Malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1476: IG1 power supply open circuit (Fuse No. 15 circuit)

DTC B1477: IG1 power supply open circuit (Fuse No. 21 circuit)

 CAUTION

If DTC B1476 (fuse No. 15) or B1477 (fuse No. 21) is stored in the SRS-ECU, be sure to diagnose the CAN bus line.

CIRCUIT OPERATION

SRS-ECU has two independent battery power supplies circuit (fuse Nos. 15 and 21) having fuses.

DTC SET CONDITIONS

The code is stored when the voltage between the IG1 terminal (SRS-ECU terminal IG1A or No. IG1B) and the ground drops below the specified value for 5 seconds continuously. Also, if code No. B1476 and B1477 are stored at the same time, the battery voltage may have dropped. Therefore, check the battery first.

TROUBLESHOOTING HINTS

- Open circuit to power supply circuit
- Damaged wiring harness and connectors
- Malfunction of SRS-ECU
- Malfunction of ETACS-ECU

DIAGNOSIS

STEP 1. Power supply fuse check.

Q: Is the fuse in good condition?

YES : Go to Step 3.

NO : Go to Step 2.

STEP 2. Fuse open circuit check

(1) Replace the fuse.

(2) Turn the ignition switch to the "ON" position, wait for at least one minute, and then turn the switch OFF.

(3) Check the fuse.

Q: Is the fuse in good condition?

YES : Go to Step 3.

NO : Repair the wiring harness IG1A line between the junction block connector and the SRS-ECU connector <fuse No. 15>, IG1B line between the junction block connector and the SRS-ECU connector <fuse No. 21> and replace the power supply fuse.

STEP 3. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 4.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 4. Using scan tool (M.U.T.-III), check data list.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to How to connect the Scan Tool (M.U.T.-III) [P.52B-11](#).
- (2) Turn the ignition switch to the "LOCK" (OFF) position.
- (3) Check the ETACS data list.
 - Turn the ignition switch to the "ON" position.

Item No.	Item name	Normal condition
30	Ignition switch(IG1)	ON

OK: Normal condition is displayed.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Refer to GROUP 54A, Inspection Procedure 2 "The ignition switch (IG1) signal is not received."
[P.54A-241](#)."

STEP 5. Recheck for diagnostic trouble code.

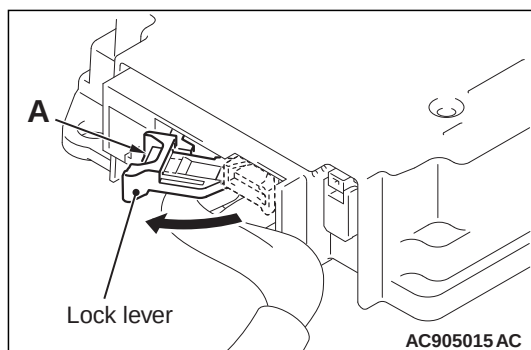
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 6.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 6. Resistance measurement at the SRS-ECU connector.

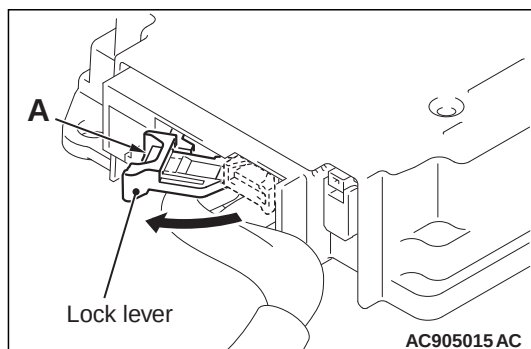
- (1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connectors.
- (2) Take the measurements below at the wiring harness side connectors.
 - Continuity GND1 line between wiring harness side connector and body ground

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the wiring harness GND1 line between the SRS-ECU connector and the body ground.



STEP 7. Voltage measurement at the SRS-ECU connector (IG1A, IG1B line).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.
- (3) Connect the negative battery terminal.
- (4) Ignition switch: ON
- (5) Take the measurements below at the harness side connector.
 - Voltage IG1A, IG1B line between SRS-ECU connector and body ground

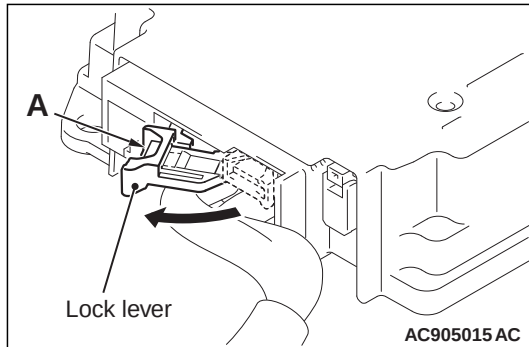
OK: 9 V or more

- (6) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 9.

NO : Go to Step 8.

**STEP 8. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Disconnect the junction block connector.
- (3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.
 - Continuity IG1A line between junction block connector and SRS-ECU connector
 - Continuity IG1B line between junction block connector and SRS-ECU connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Replace the ETACS-ECU (Refer to GROUP 54A – ETACS-ECU [P.54A-260](#)).

NO : Repair the wiring harness IG1A line between the junction block connector and the SRS-ECU connector, IG1B line between the junction block connector and the SRS-ECU connector.

STEP 9. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1476 or B1477 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1488: Passenger's air bag OFF indicator light (short circuited)**⚠ CAUTION**

If DTC B1488 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch "ON" position.

DTC SET CONDITIONS

This DTC will be stored if the passenger's air bag OFF indicator light driving circuit is short to ground. If the vehicle condition returns to normal, DTC B1488 will be automatically erased, and the warning light

- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system. In the following situations, the indicator will stay on to show that the passenger's (front) air bag is not operational.
 - The front passenger's seat is not occupied.

will go out.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

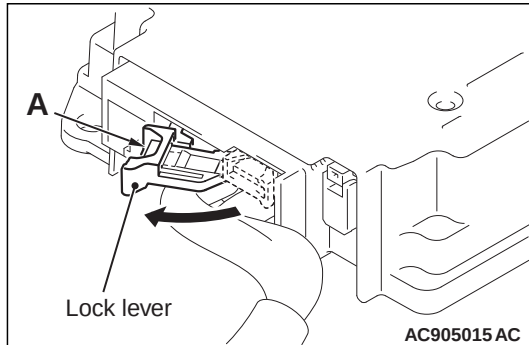
STEP 3. Check the passenger's air bag OFF indicator light.

It is checked whether the passenger's air bag OFF indicator light is normal (Refer to [P.52B-14](#)).

Q: Is the check result normal?

YES : Go to Step 4.

NO : Replace passenger's air bag OFF indicator light (Refer to [P.52B-266](#)).

**STEP 4. Resistance measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.
- (3) Disconnect the passenger's air bag OFF indicator light connector.
- (4) Take the measurements below at the SRS-ECU connector.
 - Continuity between OFLP line and body ground

OK: No continuity**Q: Is the check result normal?****YES :** Go to Step 5.**NO :** Repair the wiring harnesses OFLP line between the SRS-ECU connector and the passenger's air bag OFF indicator light connector.**STEP 5. Recheck for diagnostic trouble code.**

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1488 set?**YES :** Replace SRS-ECU (Refer to [P.52B-229](#)).**NO :** Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).**DTC B1489: Passenger's air bag OFF indicator light (open circuit)****CAUTION**

If DTC B1489 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch "ON" position.
- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system. In the following situations, the indicator will stay on to show that the passenger's (front) air bag is not operational.

- The front passenger's seat is not occupied.

DTC SET CONDITIONS

This DTC will be stored if an open circuit has occurred in the wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

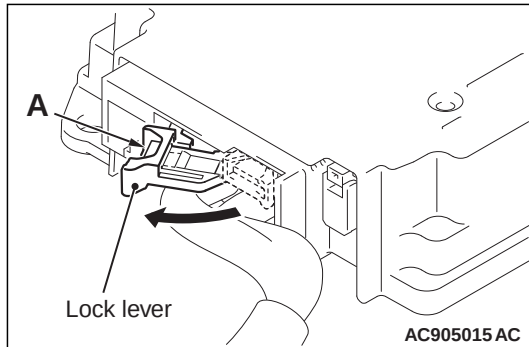
STEP 3. Check the passenger's air bag OFF indicator light.

It is checked whether the passenger's air bag OFF indicator light is normal (Refer to [P.52B-14](#)).

Q: Is the check result normal?

YES : Go to Step 4.

NO : Replace passenger's air bag OFF indicator light (Refer to [P.52B-266](#)).



STEP 4. Resistance measurement at the SRS-ECU connector and the passenger's air bag OFF indicator light connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.
- (3) Disconnect the passenger's air bag OFF indicator light connector.
- (4) Take the measurements below at the SRS-ECU and passenger's air bag OFF indicator light wiring harness side connectors.
 - Continuity 0FLP line between SRS-ECU connector and passenger's air bag OFF indicator light connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harnesses 0FLP line between the SRS-ECU connector and the passenger's air bag OFF indicator light connector.

STEP 5. Measure the voltage at the passenger's air bag OFF indicator light connector.

- (1) Disconnect the passenger's air bag OFF indicator light connector.
- (2) Connect the negative battery terminal.
- (3) Ignition switch: ON
- (4) Measure the voltage between the passenger's air bag OFF indicator light harness side connector and the body ground.

OK: System voltage

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness power supply line between the Ignition switch (IG1) and the passenger's air bag OFF indicator light connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1489 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1499: Air bag deployment determined by SRS-ECU

⚠ CAUTION

If DTC B1499 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This diagnostic trouble code is set after the air bag has deployed. If this diagnostic trouble code is set before the air bag has deployed, the cause is probably a malfunction inside the SRS-ECU.

TROUBLESHOOTING HINTS

Malfunction of the SRS-ECU

DIAGNOSIS

Replace the SRS-ECU (Refer to [P.52B-229](#)).

DTC B1509: Incorrect installation of SRS-ECU

⚠ CAUTION

If DTC B1509 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

If SRS-ECU different from the unit compatible to vehicle is accidentally installed, this code will be set.

TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU
- Mismatch between vehicle and SRS-ECU specifications

DIAGNOSIS

Replace the SRS-ECU (Refer to [P.52B-229](#)).

DTC B1530: Seat Belt Switch (Passenger's side) Malfunction

DTC B1537: Seat Belt Switch (Passenger's side) Circuit Open

DTC B1538: Seat Belt Switch (Passenger's side) Circuit (Ground Side) Shorted

⚠ CAUTION

If DTC B1530, B1537 or B1538 are set in the SRS-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

DTC SET CONDITIONS

The DTC is set when the seat belt switch output current is not within the specified range.
Cause of trouble for each DTC is as follows.

DTC	SYMPTOM
B1530	Malfunction of seat belt switch
B1537	Malfunction of the common terminal or short circuit in its harness
B1538	Short to body ground in the common terminal harness

TROUBLESHOOTING HINTS

- Malfunction of the seat belt switch (passenger's side)
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Seat belt switch (passenger's side) check.

Refer to GROUP 52A, Front Seat Belt [P.52A-28](#)

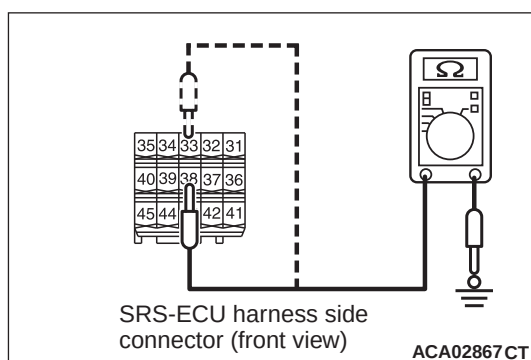
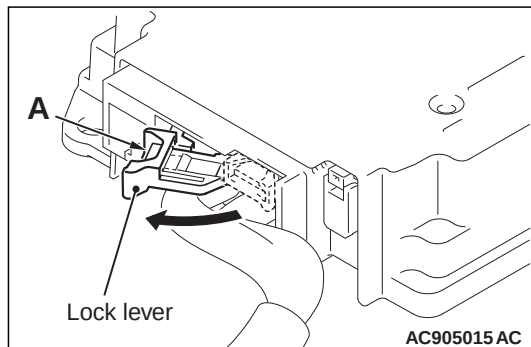
Q: Is the check result normal?

YES : Go to Step 4.

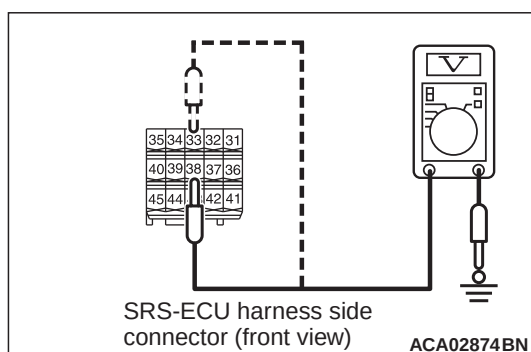
NO : Replace the seat belt switch (passenger's side) (Refer to GROUP 52A, Front Seat Belt [P.52A-27](#)).

STEP 4. Check the harness short circuit between seat belt switch (passenger's side) connector and the SRS-ECU connector.

- (1) Disconnect the negative battery terminal.
- (2) Disconnect the seat belt switch (passenger's side) connector.
- (3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.



- (4) Measure the resistance between PBS-, PBSO line and body ground (No. B1537 only). It should be an open circuit.

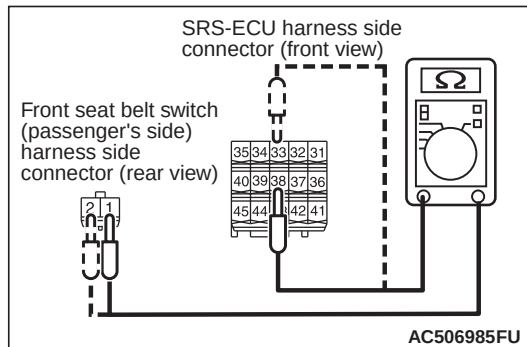
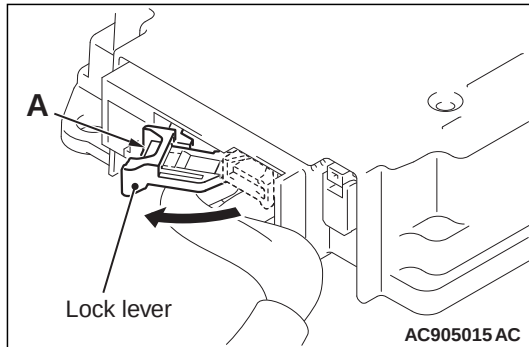


- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON.
- (7) Measure the voltage between PBS-, PBSO line and body ground (No. B1538 only). Voltage should measure 1 V or less.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the harness wires PBS-, PBSO line between SRS-ECU connector and the seat belt switch (passenger's side) connector. Then go to Step 6.



STEP 5. Resistance measurement at the SRS-ECU connector and the seat belt switch (passenger's side) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.
- (3) Disconnect the seat belt switch (passenger's side) connector.

CAUTION

Do not insert a probe into the terminal from seat belt switch (passenger's side) connector harness side connector front side directly, as the connector contact pressure may be weakened.

- (4) Take the following measurements.

- Continuity PBS- line between SRS-ECU wiring harness side connector and the seat belt switch (passenger's side) connector
- Continuity PBSO line between SRS-ECU wiring harness side connector and the seat belt switch (passenger's side) connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : go to Step 6.

NO : Repair harness wires PBS-, PBSO line between SRS-ECU connector and the seat belt switch (passenger's side) connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1530, B1537 or B1538 set?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : The procedure is complete.

DTC B1558: OCM (Occupant Classification-ECU) DTC Present

 CAUTION

If DTC B1558 is stored in the SRS-ECU, always diagnose the CAN main bus line.

TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU
- Malfunction of the occupant classification-ECU

DTC SET CONDITION

It is stored if a DTC occurs in the occupant classification-ECU.

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check that the DTC is stored in the occupant classification-ECU.

Q: Is the DTC stored?

YES : Diagnose the occupant classification-ECU (Refer to [P.52B-229](#)). Then go to Step 3.

NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the occupant classification-ECU (Refer to [P.52B-262](#)). Then go to Step 4.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points [P.00-13](#)).

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points [P.00-13](#)).

DTC B1603: Seat belt pre-tensioner (driver's side) (squib) system (short circuit between squib circuit terminals)

⚠ CAUTION

If DTC B1603 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the driver's side seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the driver's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to [P.52B-3](#)). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

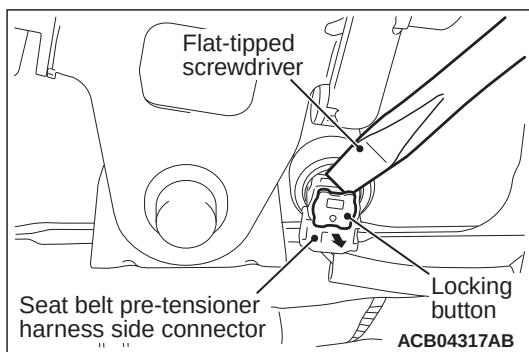
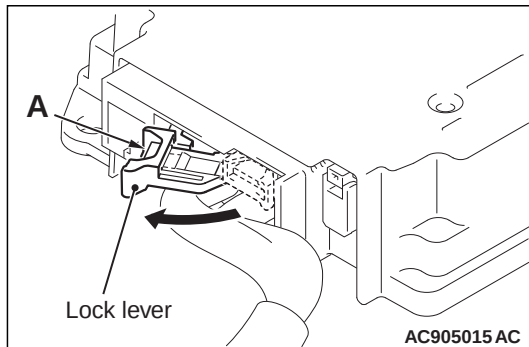
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Connector check: SRS-ECU connector, seat belt pre-tensioner (driver's side) connector.

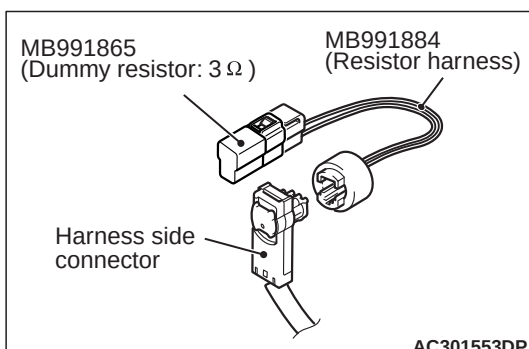
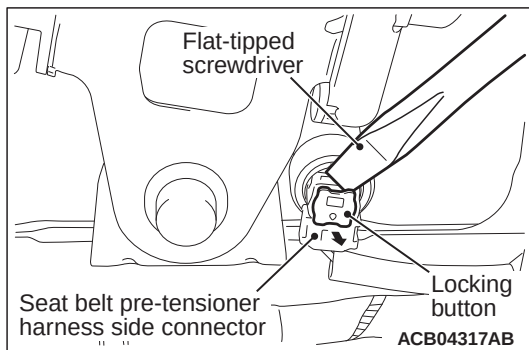
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.

- (3) After disconnecting the SRS-ECU harness side connector, connect the connector again. For the seat belt pre-tensioner (driver's side) harness side connector disconnection, use the flat-tipped screwdriver to pull out the harness side connector locking button. After releasing the lock, disconnect the harness side connector.
- (4) Connect the negative battery terminal.
- (5) After erasing the DTC memory, check the DTC again.
- (6) Disconnect the negative battery terminal.

Q: Is DTC B1603 stored?

YES : Go to Step 4.

NO : Replace the connector concerned.



STEP 4. Diagnosis check by dummy resistor connection.

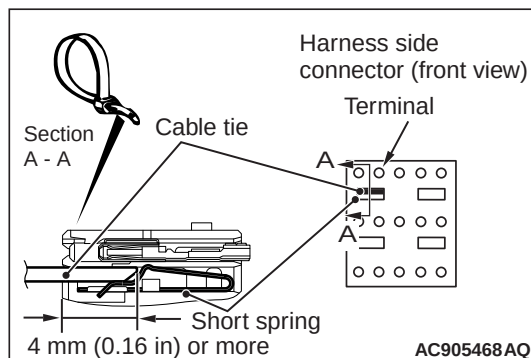
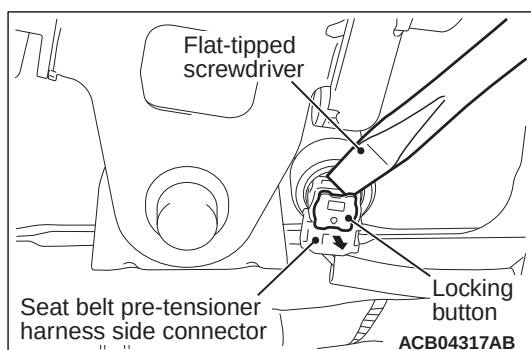
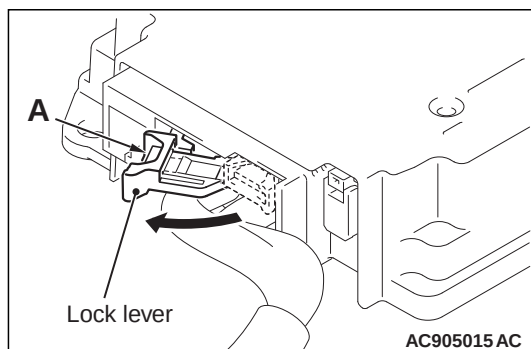
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (driver's side) harness side connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect special tool resistor harness to the seat belt pre-tensioner (driver's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1603 stored?

YES : Go to Step 5.

NO : Replace the seat belt with pre-tensioner (driver's side) (Refer to [P.52B-258](#)).



STEP 5. Resistance check at the SRS-ECU connector (PTD+, PTD- line).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (RH) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie PTD+, PTD- line between the SRS-ECU connector and the seat belt pre-tensioner (RH) connector.
- (5) Take the measurements below at the SRS-ECU harness side connector.
 - Continuity PTD+, PTD- line between the SRS-ECU connector and the seat belt pre-tensioner (RH) connector.

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness PTD+, PTD- line between the SRS-ECU connector and the seat belt pre-tensioner (RH) connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1603 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1604: Seat belt pre-tensioner (driver's side) (squib) system (open circuit of squib circuit)

** CAUTION**

If DTC B1604 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the driver's seat belt pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

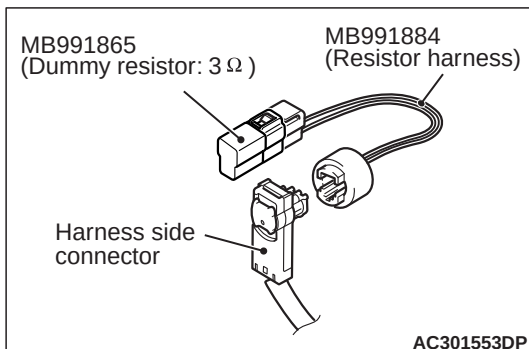
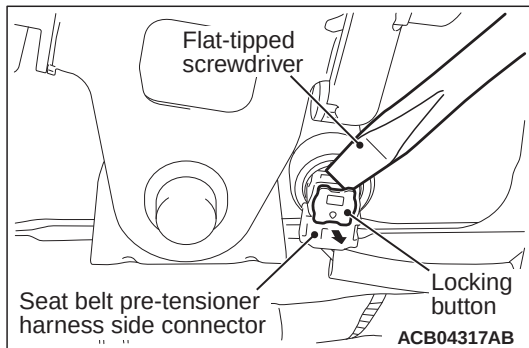
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (driver's side) harness side connector.

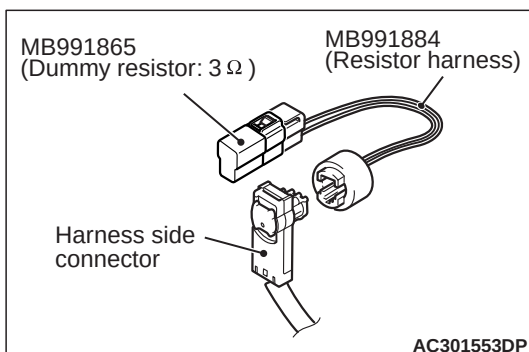
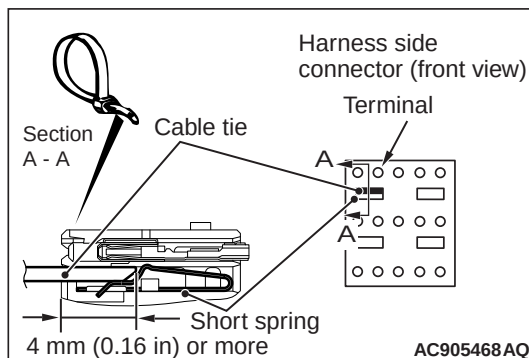
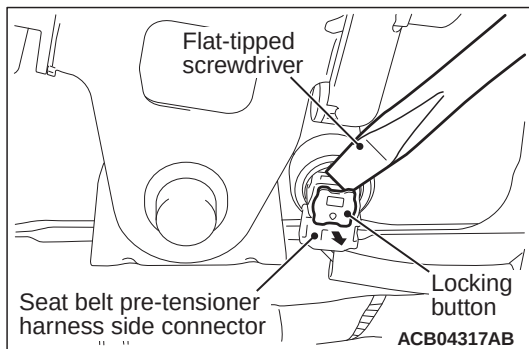
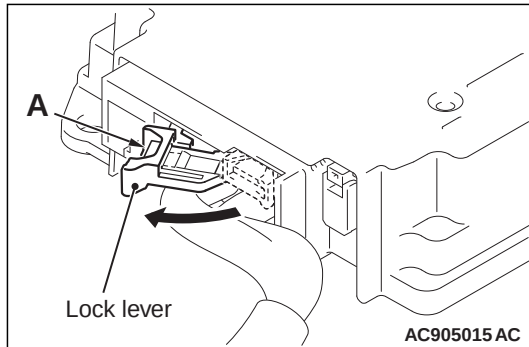


- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect the special tool resistor harness to the seat belt pre-tensioner (driver's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1604 set?

YES : Go to Step 4.

NO : Replace the seat belt with pre-tensioner (driver's side) (Refer to [P.52B-258](#)).



STEP 4. Resistance measurement at the SRS-ECU connector and the seat belt pre-tensioner (driver's side) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (driver's side) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie PTD+, PTD- line between the SRS-ECU connector the short spring, and release the short spring.

- (5) Connect special tool resistor harness (MB991884) to the removed seat belt pre-tensioner (driver's side) harness side connector.

- (6) Take the measurements below at the resistor harness and SRS-ECU harness side connector.

- Continuity PTD+ line between SRS-ECU connector and resistor harness connector
- Continuity PTD- line between SRS-ECU connector and resistor harness connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness PTD+, PTD- line between the SRS-ECU connector and the seat belt pre-tensioner connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1604 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1605: Seat belt pre-tensioner (driver's side) (squib) system (shorted to squib circuit ground)

 CAUTION

If DTC B1605 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line. **CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

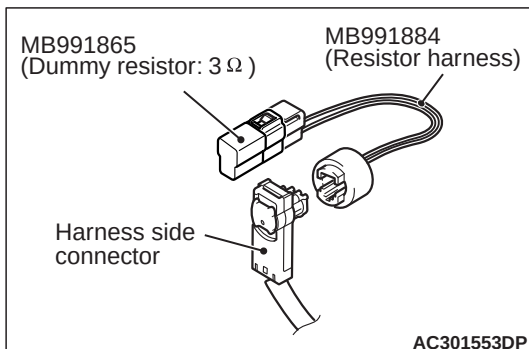
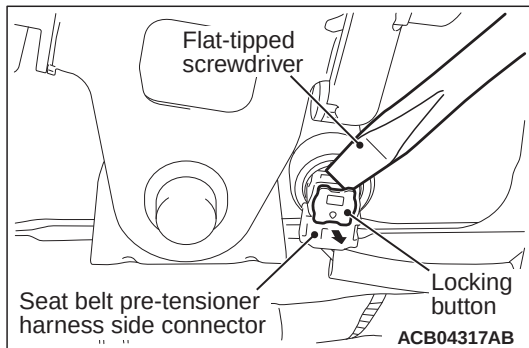
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (driver's side) harness side connector.

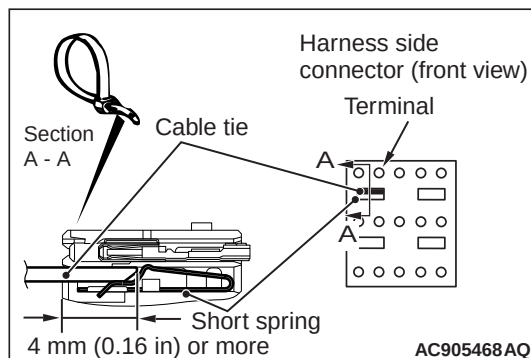
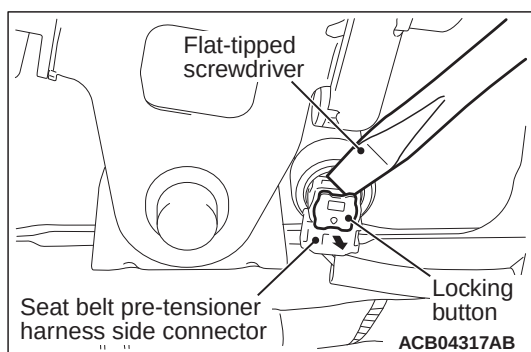
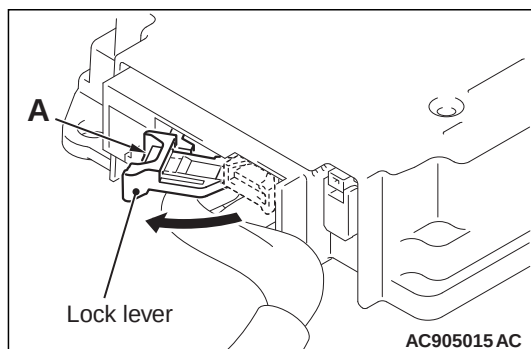


- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect special tool resistor harness to the seat belt pre-tensioner (driver's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1605 set?

YES : Go to Step 4.

NO : Replace the seat belt with pre-tensioner (driver's side) (Refer to [P.52B-258](#)).



STEP 4. Resistance measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (driver's side) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie PTD+, PTD- line between the SRS-ECU connector the short spring, and release the short spring.
- (5) Take the measurements below at the SRS-ECU harness side connector.

- Continuity PTD+, PTD- line between SRS-ECU connector and body ground

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness PTD+, PTD- line between the SRS-ECU connector and the seat belt pre-tensioner connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1605 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1606: Seat belt pre-tensioner (driver's side) (squib) system (shorted to squib circuit power supply)

** CAUTION**

If DTC B1606 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.** CAUTION**

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

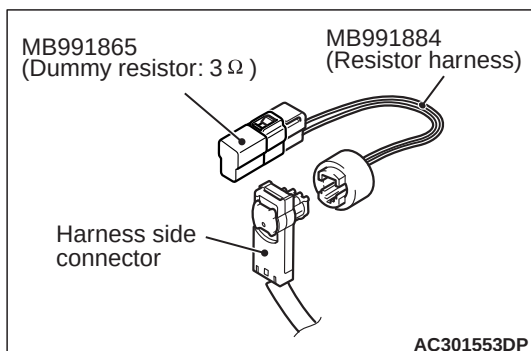
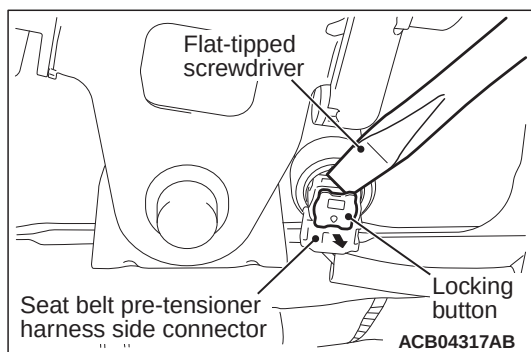
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (driver's side) harness side connector.

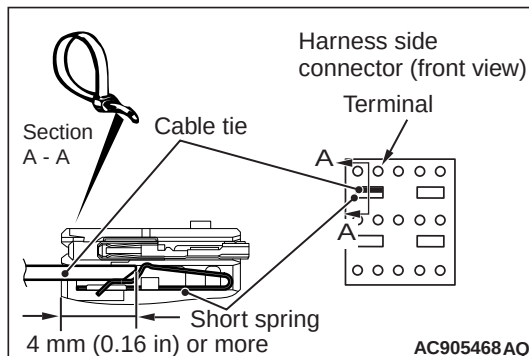
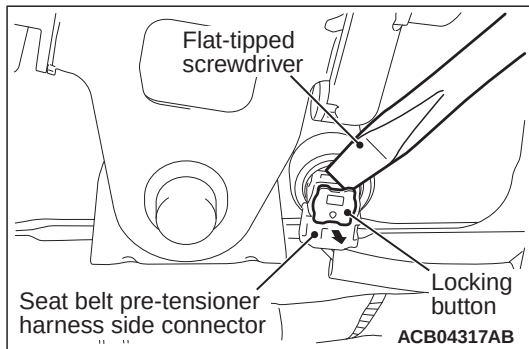
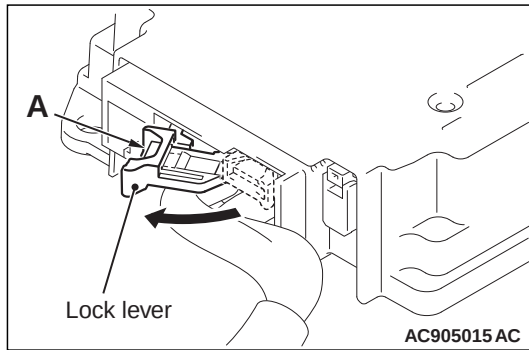


- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect special tool resistor harness to the seat belt pre-tensioner (driver's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC No. B1606 set?

YES : Go to Step 4.

NO : Replace the seat belt with pre-tensioner (driver's side) (Refer to [P.52B-258](#)).

**STEP 4. Voltage measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (driver's side) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie PTD+, PTD- line between the seat belt pre-tensioner (driver's side) connector the short spring, and release the short spring.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Take the measurements below at the SRS-ECU harness side connector.

- Voltage PTD+, PTD- line between the SRS-ECU connector and the body ground

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness PTD+, PTD- line between the SRS-ECU connector and the seat belt pre-tensioner connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1606 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1609: Seat belt pre-tensioner (passenger's side) (squib) system (short circuit between squib circuit terminals)

** CAUTION**

If DTC B1609 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the seat belt pre-tensioner (RH) (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the passenger's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to [P.52B-3](#)). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.** CAUTION**

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

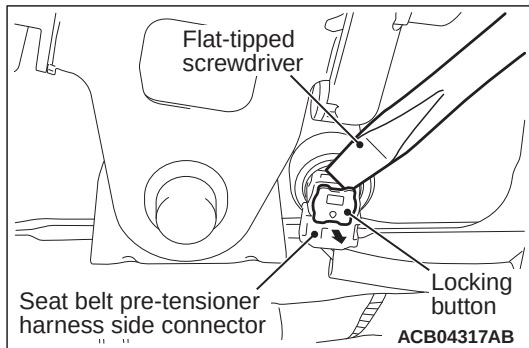
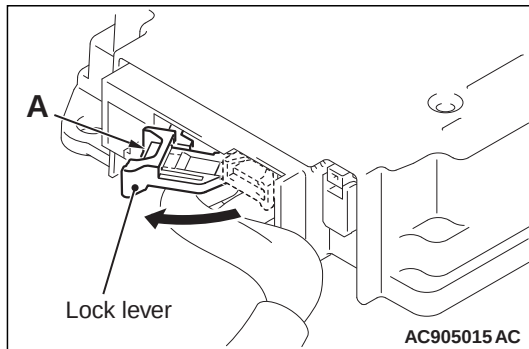
Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 3. Connector check: SRS-ECU, seat belt pre-tensioner (passenger's side).

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.

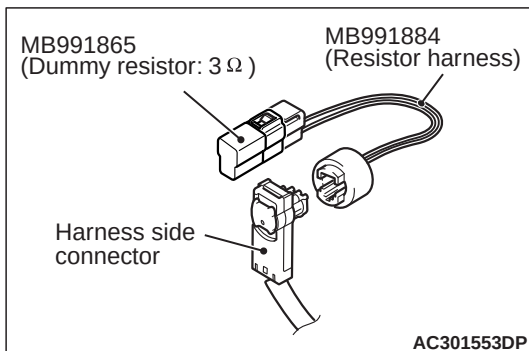
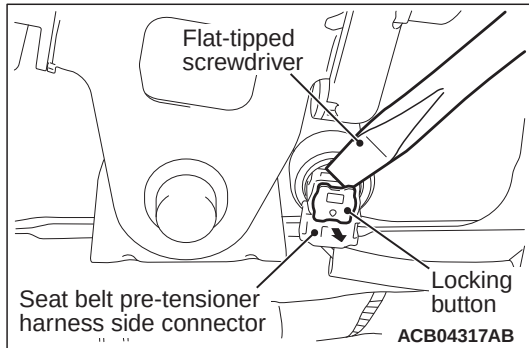


- (3) After disconnecting the seat belt pre-tensioner (passenger's side) harness side connector, connect the connector again. For the seat belt pre-tensioner (passenger's side) harness side connector disconnection, use the flat-tipped screwdriver to pull out the harness side connector locking button. After releasing the lock, disconnect the harness side connector.
- (4) Connect the negative battery terminal.
- (5) After erasing the DTC memory, check the DTC again.
- (6) Disconnect the negative battery terminal.

Q: Is DTC B1609 stored?

YES : Go to Step 4.

NO : Replace the connector concerned.



STEP 4. Diagnosis check by dummy resistor connection.

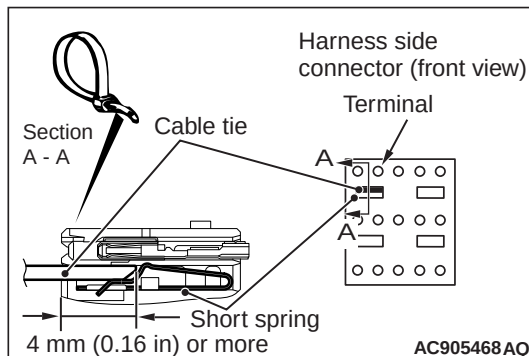
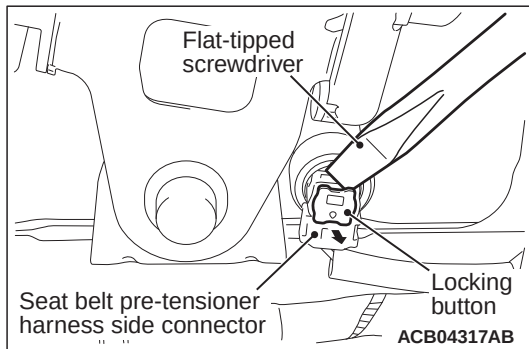
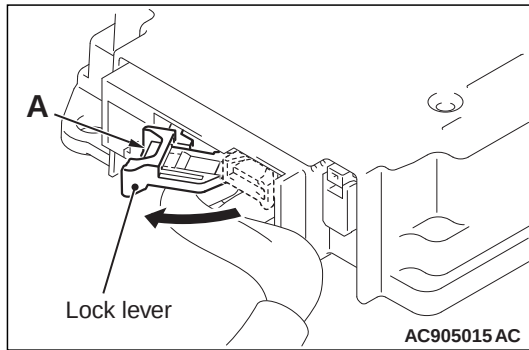
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect special tool resistor harness to the seat belt pre-tensioner (passenger's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1609 stored?

YES : Go to Step 5.

NO : Replace the seat belt with pre-tensioner (passenger's side) (Refer to [P.52B-258](#)).

**STEP 5. Resistance check at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the PTA+, PTA- line, and the short spring, and release the short spring.
- (5) Take the measurements below at the SRS-ECU harness side connector.

- Continuity between PTA+, PTA- line

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness PTA+, PTA- line between the SRS-ECU connector and the seat belt pre-tensioner (passenger's side) connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1609 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1610: Seat belt pre-tensioner (passenger's side) (squib) system (open circuit of squib circuit)

 CAUTION

If DTC B1604 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the passenger's seat belt pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

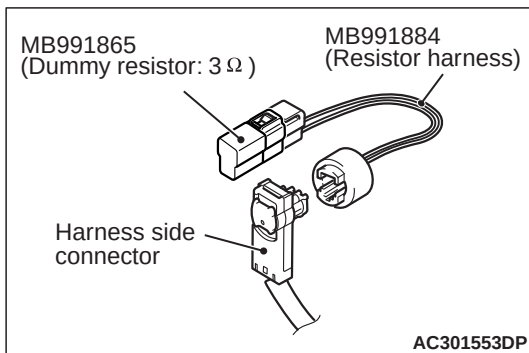
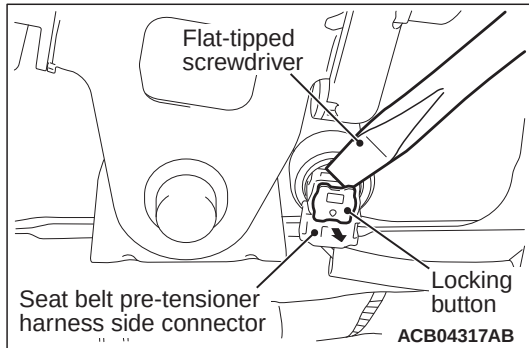
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

**STEP 3. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect special tool resistor harness to the seat belt pre-tensioner (passenger's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1610 stored?

YES : Go to Step 4.

NO : Replace the seat belt with pre-tensioner (passenger's side) (Refer to [P.52B-258](#)).

STEP 4. Resistance measurement at the SRS-ECU connector and the seat belt pre-tensioner (passenger's side) connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

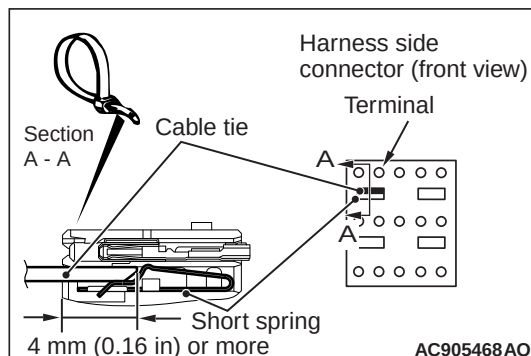
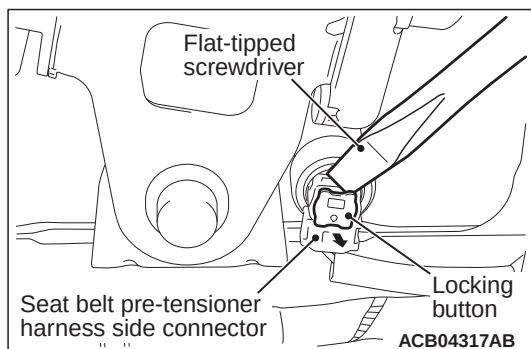
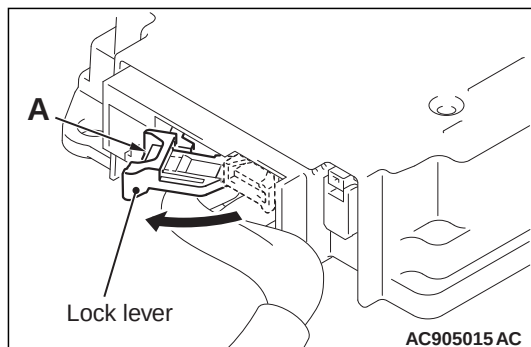
To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

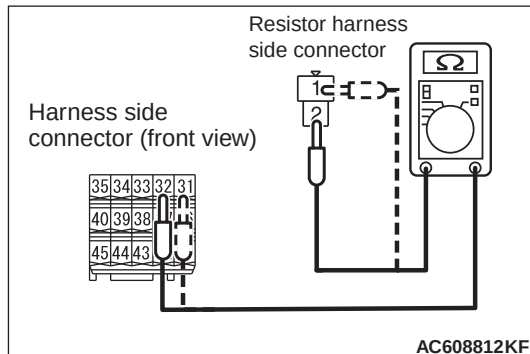
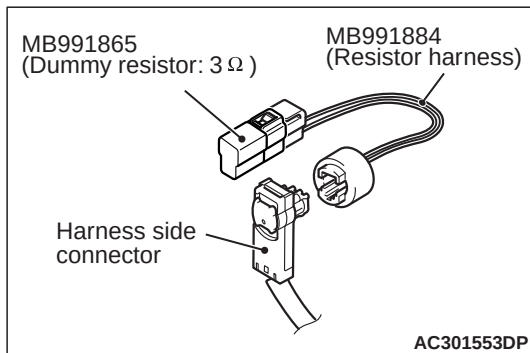
- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the PTA+, PTA- line, and the short spring, and release the short spring.





(5) Connect special tool resistor harness (MB991884) to the removed seat belt pre-tensioner (passenger's side) harness side connector.

(6) Take the measurements below at the resistor harness and SRS-ECU harness side connector.

- Continuity PTA+ line between SRS-ECU connector and resistor harness connector
- Continuity PTA- line between SRS-ECU connector to resistor harness connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness PTA+, PTA- line between the SRS-ECU connector and the seat belt pre-tensioner (passenger's side) connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1610 set?

YES : Replace SRS-ECU (Refer to SRS-ECU [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1611: Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit ground)

CAUTION

If DTC B1611 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

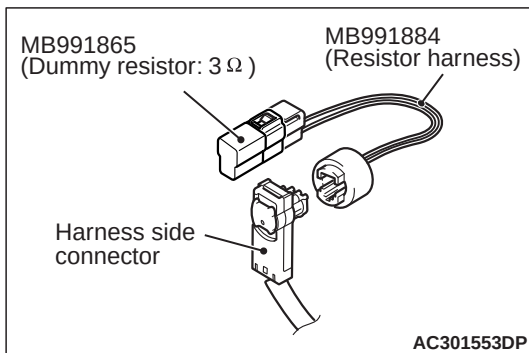
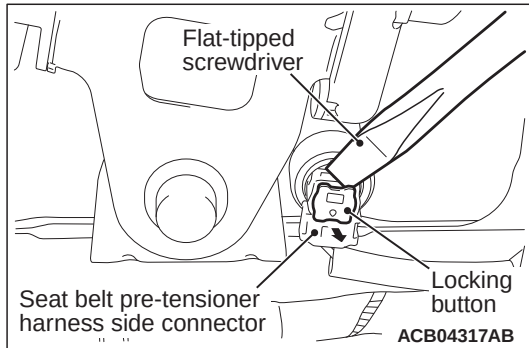
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

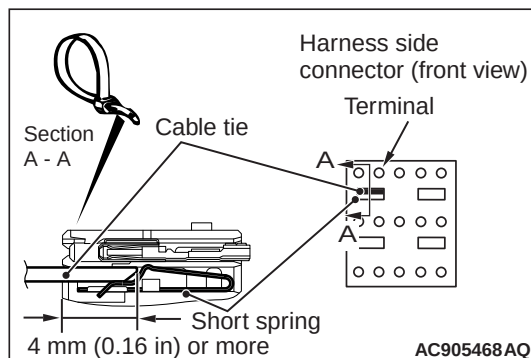
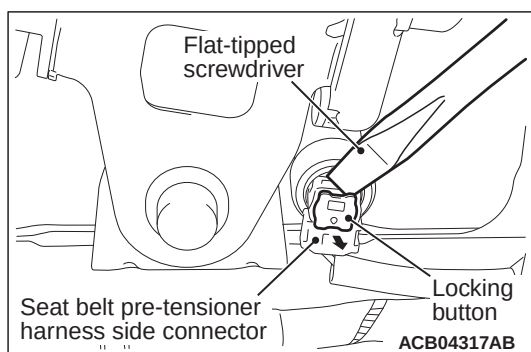
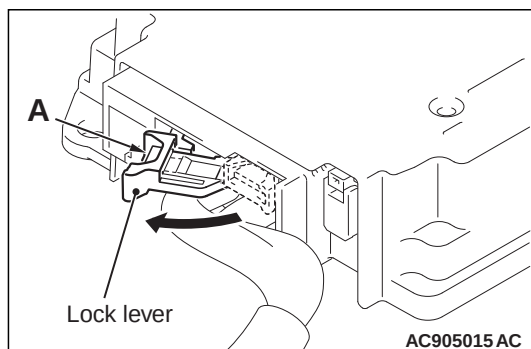
**STEP 3. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect special tool resistor harness to the seat belt pre-tensioner (passenger's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1611 set?

YES : Go to Step 4.

NO : Replace the seat belt with pre-tensioner (passenger's side) (Refer to [P.52B-258](#)).



STEP 4. Resistance measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the PTA+, PTA- line, and the short spring, and release the short spring.
- (5) Take the measurements below at the SRS-ECU harness side connector.
 - Continuity between PTA+, PTA- line and body ground

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness PTA+, PTA- line between the SRS-ECU connector and the seat belt pre-tensioner (passenger's side) connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1611 set?

YES : Replace SRS-ECU (Refer to SRS-ECU [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1612: Seat belt pre-tensioner (passenger's side) (squib) system (shorted to squib circuit power supply)

⚠ CAUTION

If DTC B1612 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

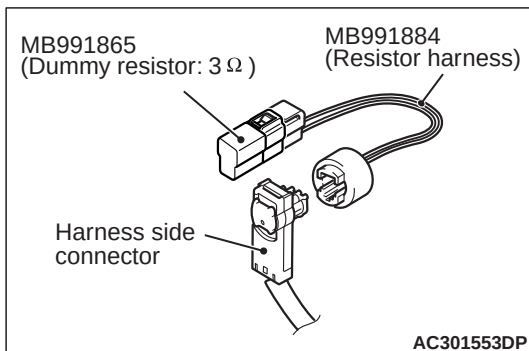
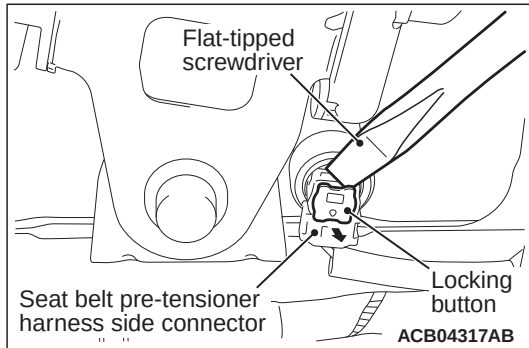
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



STEP 3. Diagnosis check by dummy resistor connection.

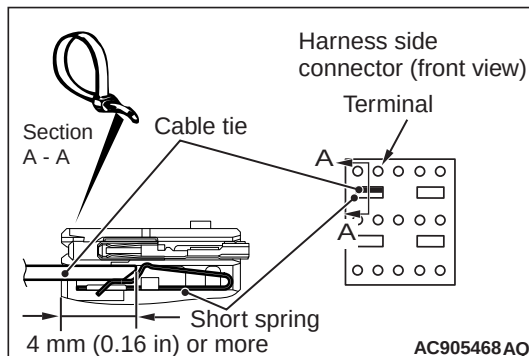
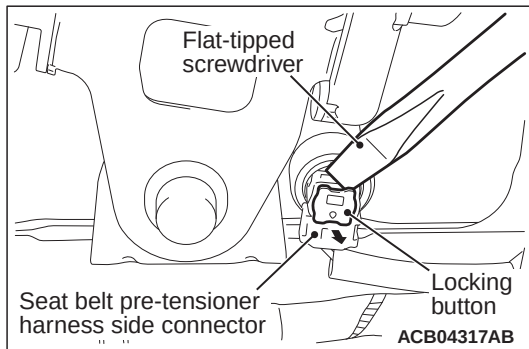
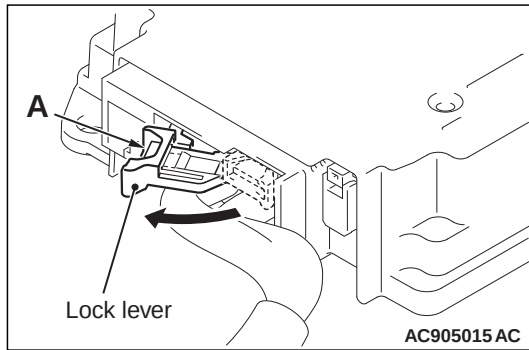
- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.

- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect special tool resistor harness to the seat belt pre-tensioner (passenger's side) harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1612 set?

YES : Go to Step 4.

NO : Replace the seat belt with pre-tensioner (passenger's side) (Refer to [P.52B-258](#)).

**STEP 4. Voltage measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this seat belt pre-tensioner connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the seat belt pre-tensioner (passenger's side) harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the PTA+, PTA- line, and the short spring, and release the short spring.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Take the measurements below at the SRS-ECU harness side connector.

- Voltage between PTA+, PTA- line and body ground

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness PTA+, PTA- line between the SRS-ECU connector and the seat belt pre-tensioner (passenger's side) connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1612 set?

YES : Replace SRS-ECU (Refer to SRS-ECU [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1631: Driver's knee air bag module (squib) system (short circuit between squib circuit terminals)

 CAUTION

If DTC B1631 is stored in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is stored if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short spring*
- Short circuit between the knee air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). Therefore, if connector is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

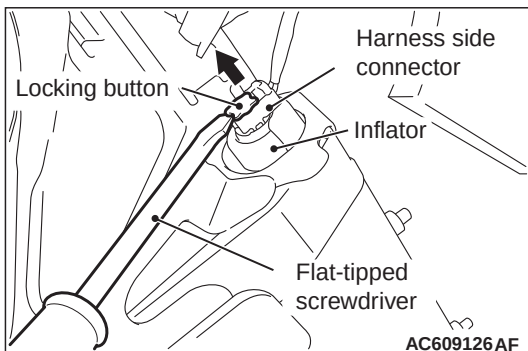
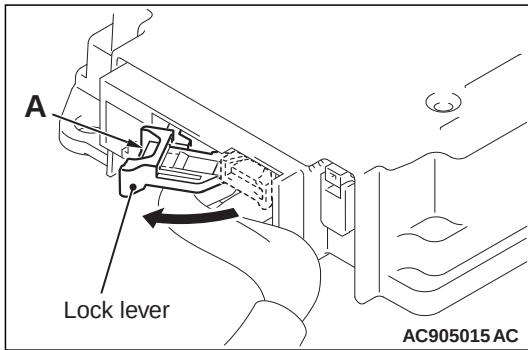
Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



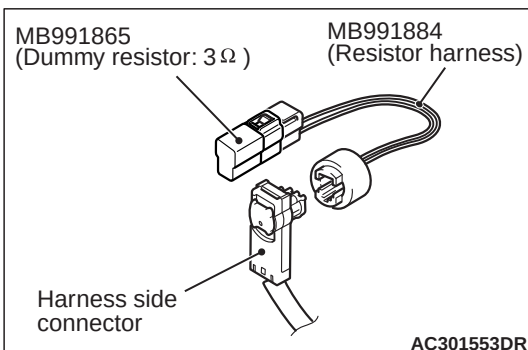
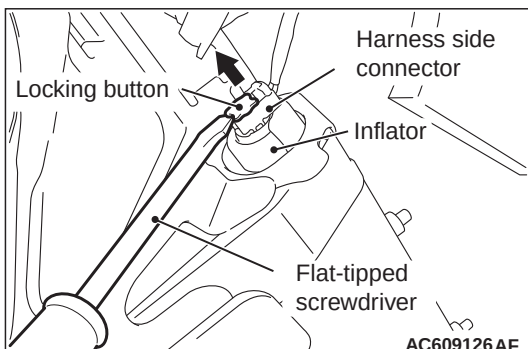
STEP 3. Connector check: SRS-ECU, knee air bag module.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever. After disconnecting the SRS-ECU connector, connect it again.
- (3) After disconnecting the knee air bag module harness side connector, connect the connector again. For the knee air bag module harness side connector disconnection, use the flat-tipped screwdriver to pull out the harness side connector locking button. After releasing the lock, disconnect the harness side connector.
- (4) Connect the negative battery terminal.
- (5) After erasing the DTC memory, check the DTC again.
- (6) Disconnect the negative battery terminal.

Q: Is DTC B1631 stored?

YES : Go to Step 4.

NO : Replace the connector concerned.



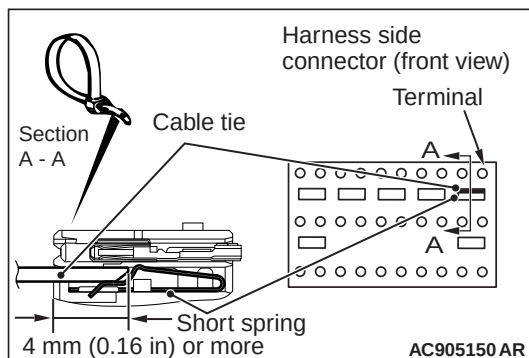
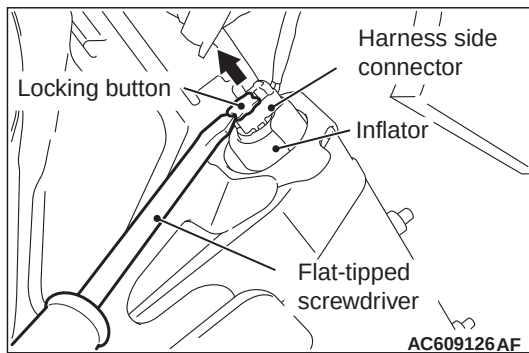
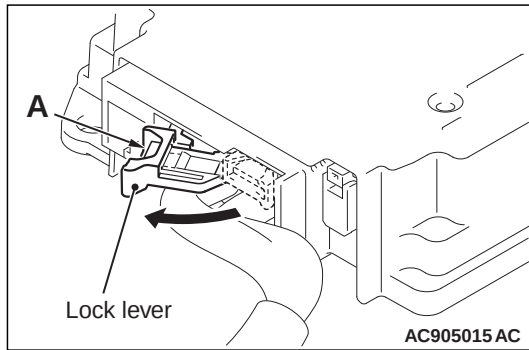
STEP 4. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.
- (3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect the resistor harness to the knee air bag module harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is DTC B1631 stored?

YES : Go to Step 5.

NO : Replace the driver's knee air bag module (Refer to [P.52B-251](#)).

**STEP 5. Resistance check at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the KDS-, KDS+ line and the short spring, and release the short spring.
- (5) Take the measurements below at the SRS-ECU harness side connector.

- Continuity between KDS-, KDS+ line

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the wiring harness KDS-, KDS+ line between the SRS-ECU connector and the knee air bag module connector.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1631 stored?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1632: Driver's knee air bag module (squib) system (open circuit of squib circuit)

⚠ CAUTION

If DTC B1632 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HINTS

- Open circuit in the knee air bag module (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

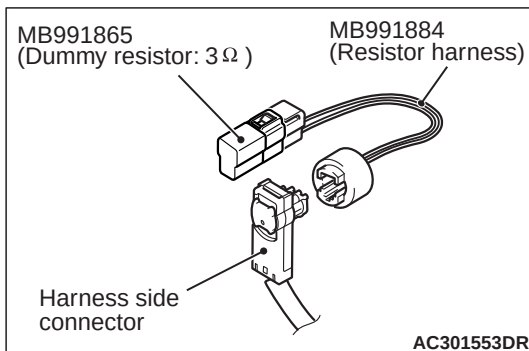
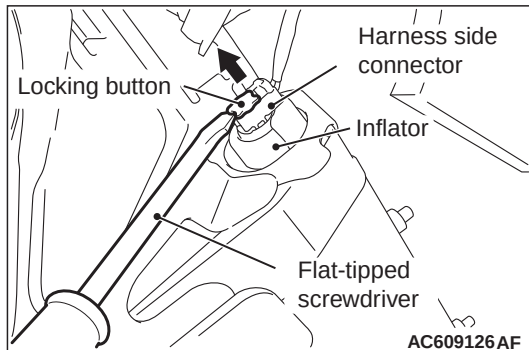
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

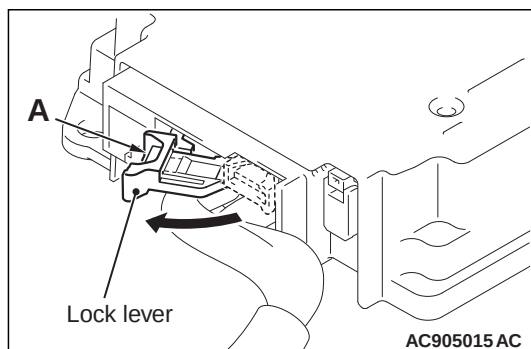
**STEP 3. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.
- (3) Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- (4) Connect the special tool resistor harness to the knee air bag module harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1632 set?

YES : Go to Step 4.

NO : Replace the driver's knee air bag module (Refer to [P.52B-251](#)).

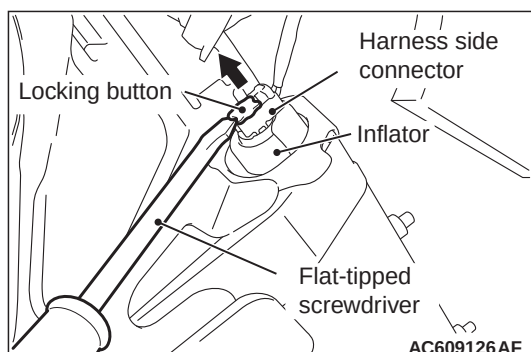


STEP 4. Resistance measurement at the SRS-ECU connector and the knee air bag module connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

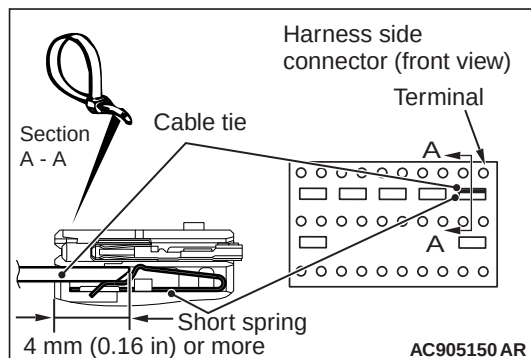
To release the SRS-ECU connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.



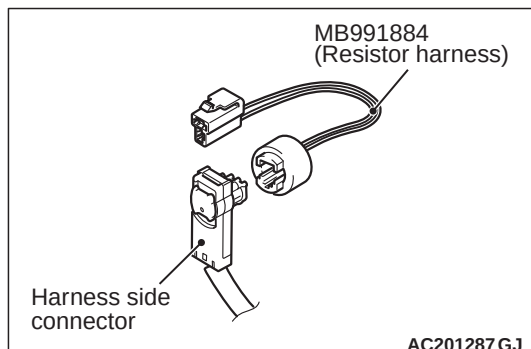
- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.

⚠ CAUTION

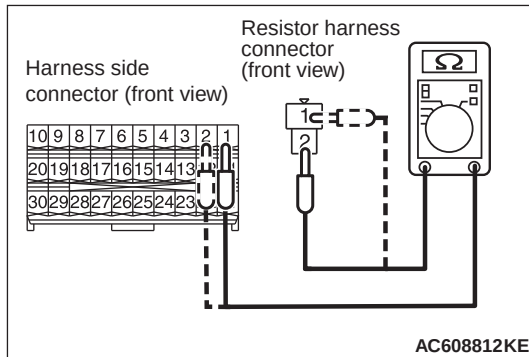
The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.



- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the KDS-, KDS+ line and the short spring, and release the short spring.



- (5) Connect special tool resistor (MB991884) to the removed knee air bag module harness side connector.



- (6) Take the measurements below at the resistor harness and knee air bag module connector harness side connector.
- Continuity KDS- line between SRS-ECU connector and resistor harness connector
 - Continuity KDS+ line between SRS-ECU connector and resistor harness connector

OK: Continuity (less than 2 Ω)

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness KDS-, KDS+ line between the SRS-ECU connector and the knee air bag module connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1632 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1633: Driver's knee air bag module (squib) system (shorted to squib circuit ground)

CAUTION

If DTC B1633 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HINTS

- Damaged harness wires and connectors
- Short to the ground in the knee air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

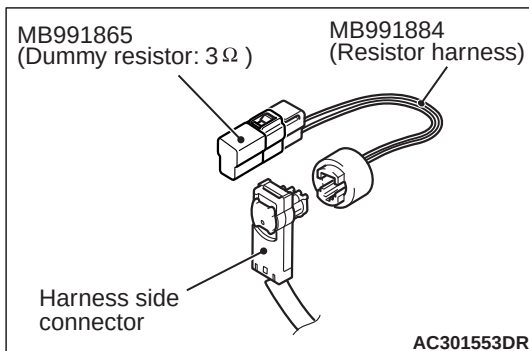
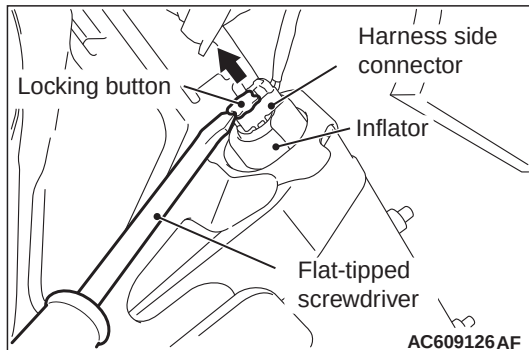
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

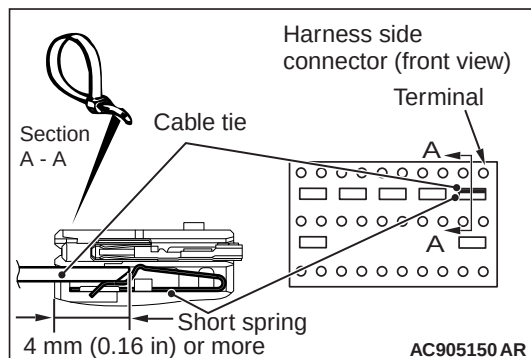
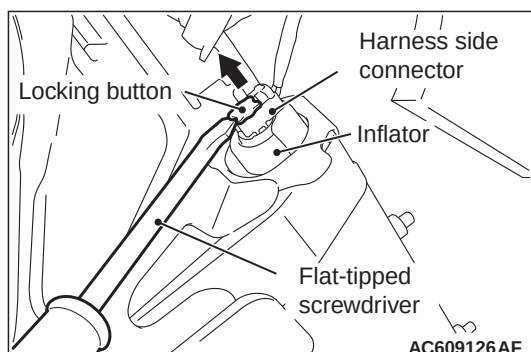
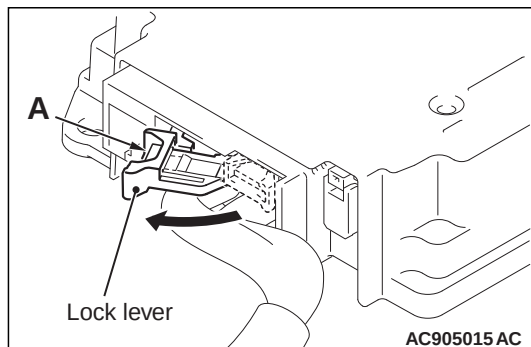
**STEP 3. Diagnosis check by dummy resistor connection.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.
- (3) Connect dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect the special tool resistor harness to the knee air bag module harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1633 set?

YES : Go to Step 4.

NO : Replace the driver's knee air bag module (Refer to [P.52B-251](#)). Then go to Step 5.



STEP 4. Resistance measurement at the SRS-ECU connector.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the KDS-, KDS+ line and the short spring, and release the short spring.
- (5) Take the measurements below at the SRS-ECU harness side connector.
 - Continuity between KDS-, KDS+ line and body ground

OK: No continuity

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness KDS-, KDS+ line between the SRS-ECU connector and the knee air bag module connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1633 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1634: Driver's knee air bag module (squib) system (shorted to squib circuit power supply)

⚠ CAUTION

If DTC B1434 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor in the SRS-ECU. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HINTS

- Damaged harness wires and connectors
- Short to the power supply in the knee air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

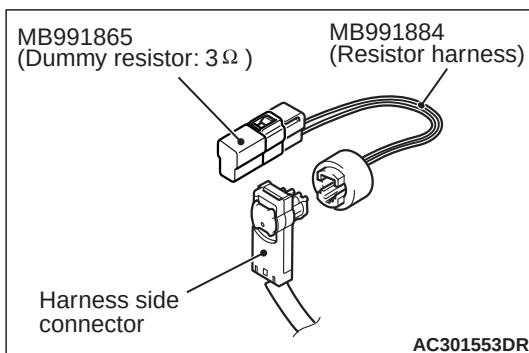
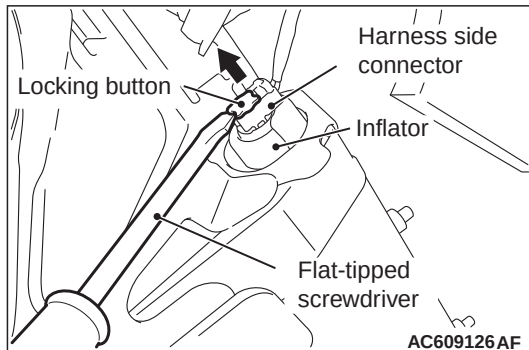
Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).



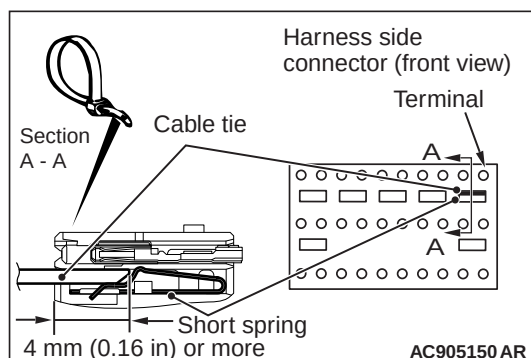
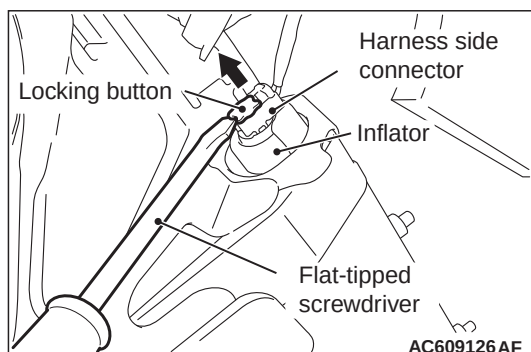
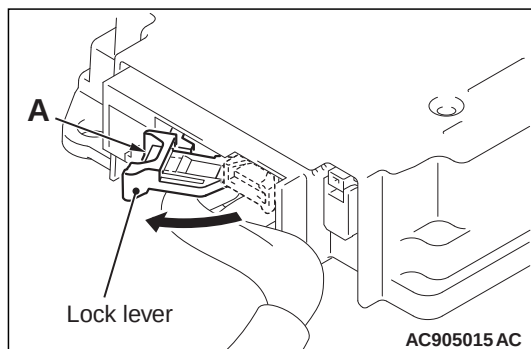
STEP 3. Diagnosis check by dummy resistor connection.

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.
- (3) Connect dummy resistor (MB991865) to special tool resistor harness (MB991884).
- (4) Connect the special tool resistor harness to the knee air bag module harness side connector.
- (5) Connect the negative battery terminal.
- (6) After erasing the DTC memory, check the DTC again.
- (7) Disconnect the negative battery terminal.

Q: Is the DTC B1634 set?

YES : Go to Step 4.

NO : Replace the driver's knee air bag module (Refer to [P.52B-251](#)).

**STEP 4. Voltage measurement at the SRS-ECU connector.**

- (1) Check that the negative battery terminal is disconnected. If the negative battery terminal is connected, disconnect it.
- (2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the SRS-ECU connector.

⚠ DANGER

To release the SRS-ECU connector short spring in the following operations, disconnect this harness side connector, and keep the squib circuit shorted.

- (3) Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the knee air bag module harness side connector.

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.16 inch) or more.

- (4) Insert an insulator [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] such as cable tie between the KDS-, KDS+ line and the short spring, and release the short spring.
- (5) Connect the negative battery terminal.
- (6) Ignition switch: ON
- (7) Take the measurements below at the SRS-ECU harness side connector.
 - Voltage between KDS-, KDS+ line and body ground

OK: 1 V or less

- (8) Disconnect the negative battery terminal.

Q: Is the check result normal?

YES : Go to Step 5.

NO : Repair the wiring harness KDS-, KDS+ line between the SRS-ECU connector and the knee air bag module connector.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1634 set?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1646: Coding data mismatch

⚠ CAUTION

- If DTC B1646 is stored, diagnose the CAN bus lines.
- When replacing the ECU, always check that the communication circuit is normal.

DIAGNOSTIC FUNCTION

If the vehicle information data is not registered to the combination meter, the SRS-ECU stores DTC B1646.

JUDGMENT CRITERIA

With the global coding counter value "0," if all the global coding data (vehicle information) are not stored, the SRS-ECU determines that a problem has occurred.

TROUBLESHOOTING HINTS

- Malfunction of SRS-ECU

DTC B1699: SRS-ECU collective deployment

⚠ CAUTION

If DTC B1699 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This DTC is set when the air bags have deployed simultaneously. If this DTC is set before the air bags have deployed, an internal failure may have occurred in the SRS-ECU.

TROUBLESHOOTING HINTS

- Malfunction of the CAN bus line
- Malfunction of the SRS-ECU

DTC U0154: Occupant Classification-ECU CAN timeout

⚠ CAUTION

- If DTC U0154 is stored, be sure to diagnose the CAN main bus line.
- When replacing the ECU, always check that the communication circuit is normal.

JUDGMENT CRITERIA

Because of the CAN-C bus circuit malfunction, if

DTC SET CONDITION

When the signals from occupant classification-ECU cannot be received, the SRS-ECU stores DTC U0154.

SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The occupant classification-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line. (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the occupant classification-ECU diagnostic trouble code.

Check if the DTC is stored in the occupant classification-ECU.

Q: Is the DTC stored?

YES : Carry out troubleshooting of the occupant classification-ECU or the occupant classification sensor system (Refer to [P.52B-197](#)). Then go to Step 4.

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read diagnostic trouble code No. U0154 for other system.

Check if DTC U0154 is stored in ETACS-ECU, combination meter, A/C-ECU.

Q: Is the DTC stored?

YES : Replace the passenger seat cushion frame assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

NO : Go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the SRS-ECU.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points [P.00-13](#)).

DTC U1100: Engine CAN timeout

** CAUTION**

- If DTC U1100 is stored in the SRS-ECU, diagnose the CAN main bus line.
- Whenever the ECU is replaced, ensure that the communication circuit is normal.

DTC SET CONDITION

When the SRS-ECU cannot receive any signal (motor driving and selector lever position) from the engine control module for 500 milliseconds or more, it stores diagnostic trouble code No. U1100 (motor driving).

TROUBLESHOOTING HINTS

- Malfunction of the engine control module
- Malfunction of the SRS-ECU
- Malfunction of the CAN bus

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line. (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the other systems diagnostic trouble code.

Check if the DTC is stored in the engine control module.

Q: Is the DTC stored?

YES : Carry out troubleshooting of the engine control module (Refer to GROUP 13A, Troubleshooting [P.13A-47](#)).

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read the other systems diagnostic trouble code.

Check if DTC U1100 is stored in the ETACS-ECU.

Q: Is the DTC stored?

YES : Go to Step 4.

NO : Go to Step 5.

STEP 4. Check whether the diagnostic trouble code is stored again.

Check again if the DTC is stored in the SRS-ECU.

(1) Erase the DTC.

(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.

(3) On completion, check that the DTC is stored again.

Q: Is the DTC stored?

YES : Replace the engine control module. After replacing the ECU, carry out the CAN bus diagnostics. Then go to Step 6.

NO : A poor connection, open circuit or other intermittent malfunction is present in the CAN bus lines between the engine control module and the SRS-ECU (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#)).

STEP 5. Check whether the diagnostic trouble code is stored again.

Check again if the DTC is stored in the SRS-ECU.

(1) Erase the diagnostic trouble code.

(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.

(3) On completion, check that the DTC is not stored again.

Q: Is the DTC stored?

YES : Replace the SRS-ECU. After replacing the ECU, carry out the CAN bus diagnostics. Then go to Step 6.

NO : A poor connection, open circuit or other intermittent malfunction is present in the CAN bus lines between the engine control module and the SRS-ECU (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#)).

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Return to Step 1.

NO : The procedure is complete.

DTC U1102: ASC/TCL/ABS timeout/Not equipped

⚠ CAUTION

- If DTC U1102 is stored in the SRS-ECU, always diagnose the CAN bus line.
- Before replacing the ECU, ensure that the communication circuit is normal.

- No abnormality is present to the network.
- Ignition switch is in the ON position.
- No abnormality is present to the power supply fuse(IOD fuse), or the odometer value is at 80.5 km (50.0 miles) or more.
- SRS-ECU system voltage is at 10–16 volts.

TROUBLE JUDGMENT

If the signal from ASC-ECU cannot be received, the SRS-ECU stores DTC U1102.

JUDGMENT CRITERIA

After the following statuses continue to be true for 5 seconds, if the communication with the ASC-ECU cannot be established for 0.6 second or more, the SRS-ECU determines that a problem has occurred.

TROUBLESHOOTING HINTS

- The ASC-ECU may be defective.
- The SRS-ECU may be defective.
- The CAN bus may be defective.

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the Scan Tool (M.U.T.-III) [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)). On completion, go to Step 6.

STEP 2. Using scan tool (M.U.T.-III), read the ASC-ECU diagnostic trouble code.

Check if DTC is stored in the ASC-ECU.

Q: Is the DTC stored?

YES : Troubleshoot the ASC-ECU (Refer to GROUP 35C, Diagnosis [P.35C-16](#)). On completion, go to Step 6.

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read the ETACS diagnostic trouble code.

Check if DTC U1102 is stored in the ETACS-ECU.

Q: Is the DTC stored?

YES : Go to Step 4.

NO : Go to Step 5.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

(1) Erase the DTC.

(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.

(3) Check if DTC is stored.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the ASC-ECU. Then, carry out the CAN bus diagnostics. Then go to Step 6.

NO : The trouble can be an intermittent malfunction such as a poor connection or open circuit in the CAN bus lines between the ASC-ECU and the SRS-ECU (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

(1) Erase the DTC.

(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.

(3) Check if DTC is stored.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the SRS-ECU. Then, carry out the CAN bus diagnostics. Then go to Step 6.

NO : The trouble can be an intermittent malfunction such as a poor connection or open circuit in the CAN bus lines between the ASC-ECU and the SRS-ECU (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Return to Step 1.

NO : The procedure is complete.

DTC U1104: SAS CAN timeout/Not equipped

⚠ CAUTION

- If DTC U1104 is stored in the SRS-ECU, always diagnose the CAN main bus lines.
- When replacing the ECU, always check that the communication circuit is normal.

TROUBLE JUDGMENT

If the signal from EPS-ECU cannot be received, the SRS-ECU stores DTC U1104.

JUDGMENT CRITERIA

Because of the CAN-C bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The EPS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the EPS-ECU diagnostic trouble code

Check if DTC is stored in the EPS-ECU.

Q: Is the DTC stored?

YES : Diagnose the EPS-ECU. Then go to Step 4.

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read diagnostic trouble code No. U1104 for other system.

Check if DTC U1104 is stored in ASC-ECU.

Q: Is the DTC stored?

YES : Replace the EPS-ECU (Refer to GROUP 37, EPS-ECU [P.37-75](#)).

NO : Go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

(1) Erase the DTC.

(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.

(3) Check if DTC is stored.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the SRS-ECU.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U1108: Combination Meter CAN timeout

** CAUTION**

- If the DTC U1108 is set in the SRS-ECU, always diagnose the CAN main bus lines.
- When replacing the ECU, always check that the communication circuit is normal.

TROUBLE JUDGMENT

If the signal from combination meter cannot be received, the SRS-ECU sets the DTC U1108.

JUDGMENT CRITERIA

Because of the CAN-C bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The combination meter may be defective
- The SRS-ECU may be defective

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the combination meter diagnostic trouble code

Check if DTC is set to the combination meter.

Q: Is the DTC set?

YES : Diagnose the combination meter. Then go to Step 4.

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read diagnostic trouble code No. U1108 for other system.

Check if the DTC U1108 is set in ETACS-ECU, occupant classification-ECU, A/C-ECU.

Q: Is the DTC set?

YES : Replace the combination meter (Refer to GROUP 54A, Combination Meter [P.54A-61](#)).

NO : Go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U1109: ETACS CAN timeout

⚠ CAUTION

- If the DTC U1109 is set in the SRS-ECU, always diagnose the CAN main bus lines.
- When replacing the ECU, always check that the communication circuit is normal.

DIAGNOSTIC FUNCTION

If the signal from ETACS-ECU cannot be received, the SRS-ECU sets the DTC U1109.

JUDGMENT CRITERIA

Because of the CAN-C bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the ETACS-ECU diagnostic trouble code

Check again if the DTC is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Diagnose the ETACS-ECU. Then go to Step 4.

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read diagnostic trouble code No. U1109 for other system.

Check if the DTC U1109 is set in occupant classification-ECU, combination meter, A/C-ECU.

Q: Is the DTC set?

YES : Replace the ETACS-ECU (Refer to GROUP 54A, ETACS – ETACS-ECU [P.54A-260](#)).

NO : Go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U1190: No receive fault detect signal

** CAUTION**

- If diagnostic trouble code No.U1190 is stored in the SRS-ECU, diagnose the CAN main bus line.
- Whenever the ECU is replaced, ensure that the communication circuit is normal.

DIAGNOSTIC FUNCTION

The SRS-ECU stores diagnostic trouble code No.U1190 when it cannot receive any signal for enabling/disabling diagnostic trouble code (U code) detection from the ETACS-ECU.

- When the ignition switch is at "ON" position.
- When the timer charging is in progress
- When the pre-activated air conditioning is operating.

TROUBLESHOOTING HINTS

- Malfunction of the CAN bus
- Malfunction of the ETACS-ECU
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the Scan Tool (M.U.T.-III) [P.52B-11](#)."
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch from "ON" position to "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line. (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Recheck if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if the DTC is stored.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : It can be assumed that this malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#).

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Connect scan tool (M.U.T.-III) to the data link connector
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch from "ON" position to "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the ETACS-ECU, and then go to Step 4.

NO : The diagnosis is complete.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the SRS-ECU.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U1195: Coding not completed

** CAUTION**

If DTC U1195 is set, diagnose the CAN bus lines.

DTC SET CONDITION

If the SRS-ECU is in the initial state or the local coding is incomplete, the SRS-ECU sets DTC U1195.

TROUBLESHOOTING HINTS

- Malfunction of SRS-ECU

DIAGNOSIS

Replace the SRS-ECU.

DTC U1199: VIN code not programmed

 CAUTION

- When DTC No. U1199 is set, be sure to diagnose the CAN bus line.
- When replacing the ECU, always check that the communication circuit is normal.

DTC SET CONDITION

SRS-ECU sets DTC U1199 when no VIN is recorded in it.

TECHNICAL DESCRIPTION (COMMENT)

SRS-ECU determines that the abnormality is present when no VIN is recorded in it.

TROUBLESHOOTING HINTS

- VIN not programmed
- Malfunction of the SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the electric motor switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the Scan Tool (M.U.T.-III)" [P.52B-11](#).
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Register the VIN and recheck the diagnostic trouble code.

Register VIN in SRS-ECU (Refer to GROUP 00 – How to Perform Vehicle Identification Number (VIN) Writing [P.00-26](#)) and recheck if the DTC is set.

- (1) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (2) Check if DTC is set.
- (3) Turn the ignition switch from "ON" position to "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU.

NO : The procedure is complete.

DTC U119A: VIN code mismatch

⚠ CAUTION

- If diagnostic trouble code No. U119A is stored, diagnose the CAN bus lines.
- When replacing the ECU, always check that the SRS circuit is normal.

DTC SET CONDITION

SRS-ECU stores DTC U119A when chassis number registered in it and VIN that has been transmitted on the CAN bus do not match.

TECHNICAL DESCRIPTION (COMMENT)

SRS-ECU determines that the abnormality is present when VIN registered in it and the one that has been transmitted on the CAN bus do not match.

TROUBLESHOOTING HINTS

- Malfunction of SRS-ECU (SRS-ECU being registered to another vehicle)
- Malfunction of engine control module (VIN registered in engine control module unmatched)

DIAGNOSIS

STEP 1. Check the VIN registered in the engine control module and the VIN of the vehicle.

Check if the VIN registered in the engine control module with the VIN of the vehicle.

- (1) On the system selection screen of the scan tool (M.U.T.-III), select "MFI/GDI/Diesel".
- (2) Select "Coding."
- (3) Select "VIN Information."
- (4) Compare with the VIN of the vehicle.

Q: Does the VIN of the engine control module match with the VIN of the vehicle?

YES : Go to Step 2.

NO : Write the VIN to the engine control module. [Refer to GROUP 00 – How to Perform Vehicle Identification Number (VIN) Writing [P.00-26](#)]. Record VIN and go to Step 2.

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

- (1) Turn the ignition switch to the "ON" position.
- (2) Check if the DTC is stored.

Q: Is the DTC stored?

YES : Replace SRS-ECU, go to Step 3.

NO : The procedure is complete.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the SRS-ECU.

- (1) Turn the ignition switch to the "ON" position.
- (2) Check if the DTC is stored.

Q: Is the DTC stored?

YES : Replace the engine control module and record the VIN [Refer to GROUP 00 – How To Perform Vehicle Identification Number (VIN) Writing [P.00-26](#)].

NO : The procedure is complete.

DIAGNOSTIC TROUBLE CODE CHART <Occupant classification-ECU>

M1524003302687

CAUTION

During diagnosis, a diagnostic trouble code associated with another system may be stored when the electric motor switch is turned "ON" position with connector(s) disconnected. After completing the repair, confirm all systems for diagnostic trouble code(s). If diagnostic trouble code(s) are stored, erase them all.

Inspect according to the inspection chart that is appropriate for the DTC.

Diagnostic trouble Code No.	Inspection item	Reference page
B1690	Electromagnetic Interference	P.52B-197
B1691	Occupant Sensing Antenna	P.52B-199
B1693	Occupant Sensing Antenna Open	P.52B-199
B1694	Occupant Sensing ANT.SHT to GND	P.52B-199
B1695	Occupant Sensing ANT.SHT to BAT	P.52B-199
B1CB2	Occupant classification-ECU parameter table incompatible	P.52B-201
B210D	Battery voltage low	P.52B-202
B210E	Battery voltage high	P.52B-202
B2212	OCM internal error	P.52B-204
U1109	ETACS CAN timeout	P.52B-204
U1190	No receive fault detect signal	P.52B-206
U15A2	Vehicle speed information lost	P.52B-207
U15A3	Odometer information lost	P.52B-209
U15A4	VIN information lost	P.52B-211

DIAGNOSTIC TROUBLE CODE PROCEDURES <OCCUPANT CLASSIFICATION-ECU>

DTC B1690: Electromagnetic Interference

CAUTION

If DTC B1690 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

TROUBLE JUDGMENT

The above DTC is set if an abnormality is detected in the circuit inside the occupant classification-ECU.

TROUBLESHOOTING HINTS

Malfunction of the occupant classification-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?**YES :** Go to Step 2.**NO :** Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Check whether any electronic appliance has been put on the front passenger's seat.

Check whether any electronic appliance has been put on the front passenger's seat.

Q: Is the check result normal?**YES :** Go to Step 3.**NO :** Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?**YES :** Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).**NO :** There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1691: Occupant Sensing Antenna
DTC B1693: Occupant Sensing Antenna Open
DTC B1694: Occupant Sensing ANT.SHT to GND
DTC B1695: Occupant Sensing ANT.SHT to BAT

 CAUTION

If DTC B1691, B1693, B1694 or B1695 is stored in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The load data from the occupant classification sensor is classified with the occupant classification-ECU, and its classified information is sent to occupant classification-ECU. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS

This DTC is stored if the occupant classification sensor output voltage is out of the range (guideline: 1 to 3.5 V).

TROUBLESHOOTING HINTS

- The occupant classification sensor may be defective.
- Occupant classification-ECU may be defective.
- The wiring harness or connectors may have loose, corroded, or damaged terminals, or terminals pushed back in the connector

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Check whether the front passenger's seat is damped with liquid or steam.

Check whether the front passenger's seat is damped with liquid or steam.

Q: Is the check result normal?

YES : Go to Step 3.

NO : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 4.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 4. Check open circuit in GND line between occupant classification-ECU connector and body ground.**Q: Is the check result normal?**

YES : Go to Step 5.

NO : The wiring harness may be damaged or the connector(s) may have loose, corroded or damaged terminals, or terminals pushed back in the connector. Repair the wiring harness as necessary.

STEP 5. Check of short to power supply, short to ground, and open circuit in SENSE, GUARD line between occupant classification-ECU connector and occupant classification sensor connector.**Q: Is the check result normal?**

YES : Go to Step 6.

NO : The wiring harness may be damaged or the connector(s) may have loose, corroded or damaged terminals, or terminals pushed back in the connector. Repair the wiring harness as necessary.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B1CB2: Occupant Classification-ECU Parameter Table Incompatible

 CAUTION

If DTC B1CB2 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

TROUBLE JUDGMENT

The above DTC is set if an abnormality is detected in the circuit inside the occupant classification-ECU.

TROUBLESHOOTING HINTS

Malfunction of the occupant classification-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B210D: Battery Voltage Low
DTC B210E: Battery Voltage High

CAUTION

If DTC B210D, B210E is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

TROUBLE JUDGMENT

The occupant classification-ECU sets DTC B210D if the power supply fuse voltage decreases to the specified value or less, and sets DTC B210E if the power supply fuse voltage increases to the specified value or more.

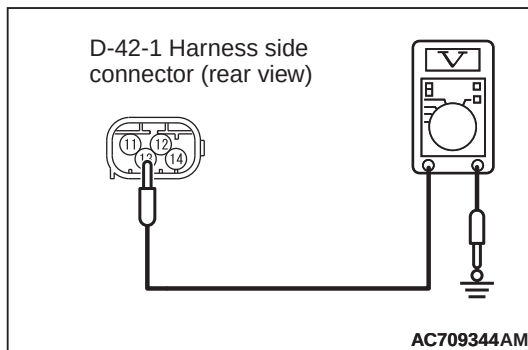
TECHNICAL DESCRIPTION (COMMENT)

The power supply fuse or the occupant classification-ECU may have a problem.

TROUBLESHOOTING HINTS

- The power supply fuse may be defective.
- The occupant classification-ECU may be defective.
- The battery may be defective.
- The wiring harness or connectors may have loose, corroded, or damaged terminals, or terminals pushed back in the connector

DIAGNOSIS



STEP 1. Measure the voltage at the occupant classification-ECU connector.

- (1) Disconnect the occupant classification-ECU connector.
- (2) Turn the ignition switch to the "ON" position.
- (3) Measure the voltage between the occupant classification-ECU connector harness side connector terminal No. 13 and the body ground.
 - The voltage should measure 12 volts (battery positive voltage).

Q: Is the measured voltage approximately 12 volts (battery positive voltage)?

YES : Go to Step 7.

NO : Go to Step 2.

STEP 2. Power supply fuse No.21 check.

Q: Is the fuse in good condition?

YES : Go to Step 4.

NO : Go to Step 3.

STEP 3. Check of short to power supply, short to ground, and open circuit in BTT line between junction block connector and the occupant classification-ECU connector.

Q: Is the check result normal?

YES : Replace the power supply fuse.

NO : Repair the wiring harness. And then replace the power supply fuse.

STEP 4. Battery check.

Refer to GROUP 54A, Battery Test [P.54A-5](#).

Q: Is the check result normal?

YES : Go to Step 5.

NO : Charge (B210D only) or replace the battery.

STEP 5. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 6.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 7.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B210D or B210E set?

YES : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-22](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC B2212 OCM internal error

DTC SET CONDITION

occupant classification-ECU sets DTC B2212 when it determines itself to be in abnormal status.

TECHNICAL DESCRIPTION (COMMENT)

occupant classification-ECU determines that the abnormality is present, if the data abnormality is found when the ignition switch is turned ON and then EEPROM is written.

TROUBLESHOOTING HINTS

Malfunction of occupant classification-ECU

DIAGNOSIS

Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III) to the data link connector.
- (2) Erase the DTC.
- (3) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (4) Check if DTC is set.
- (5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion cover and pad assembly.

NO : The trouble can be an intermittent malfunction (Refer to GROUP 00 – How to use Troubleshooting/inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U1109: ETACS CAN Timeout

** CAUTION**

- If the DTC U1109 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.
- When replacing the ECU, always check that the communication circuit is normal.

DIAGNOSTIC FUNCTION

If the signal from ETACS-ECU cannot be received, the occupant classification-ECU sets the DTC U1109.

JUDGMENT CRITERIA

Because of the CAN-C bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The occupant classification-ECU may be defective

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line

CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the ETACS-ECU diagnostic trouble code

Check again if the DTC is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Diagnose the ETACS-ECU. Then go to Step 4.

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read diagnostic trouble code No. U1109 for other system.

Check if the DTC U1109 is set in SRS-ECU, combination meter, A/C-ECU.

Q: Is the DTC set?

YES : Replace the ETACS-ECU (Refer to GROUP 54A, ETACS – ETACS-ECU [P.54A-260](#)).

NO : Go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U1190: No receive fault detect signal

⚠ CAUTION

- If diagnostic trouble code No.U1190 is stored in the occupant classification-ECU, diagnose the CAN main bus line.
- Whenever the ECU is replaced, ensure that the communication circuit is normal.

**DIAGNOSTIC TROUBLE CODE SET
CONDITIONS**

The occupant classification-ECU stores diagnostic trouble code No.U1190 when it cannot receive any signal for enabling/disabling diagnostic trouble code (U code) detection from the ETACS-ECU.

- When the ignition switch is at "ON" position.
- When the timer charging is in progress
- When the pre-activated air conditioning is operating.

PROBABLE CAUSES

- Malfunction of the CAN bus
- Malfunction of the ETACS-ECU
- Malfunction of the occupant classification-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the Scan Tool (M.U.T.-III) [P.52B-11](#)."
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch from "ON" position to "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line. (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck for diagnostic trouble code.

Recheck if the DTC is stored.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch from "ON" position to "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Go to Step 3.

NO : It can be assumed that this malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#).

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is stored.

- (1) Connect scan tool (M.U.T.-III) to the data link connector
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if the DTC is stored.
- (4) Turn the ignition switch from "ON" position to "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the ETACS-ECU, and then go to Step 4.

NO : The diagnosis is complete.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is stored in the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC stored?

YES : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U15A2 Vehicle speed information lost

⚠ CAUTION

- If DTC U15A2 is set to the occupant classification-ECU, always diagnose the CAN bus line.
- Before replacing the ECU, ensure that the communication circuit is normal.

TROUBLE JUDGMENT

If the signal from ASC-ECU cannot be received, the occupant classification-ECU sets DTC U15A2.

JUDGMENT CRITERIA

After the following statuses continue to be true for 5 seconds, if the communication with the ASC-ECU cannot be established for 0.6 second or more, the occupant classification-ECU determines that a problem has occurred.

- No abnormality is present to the network.
- Ignition switch is in the ON position.
- No abnormality is present to the power supply fuse(IG fuse), or the odometer value is at 80.5 km (50.0 miles) or more.
- occupant classification-ECU system voltage is at 10–16 volts.

TROUBLESHOOTING HINTS

- The ASC-ECU may be defective.
- The occupant classification-ECU may be defective.
- The CAN bus may be defective.

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.** CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the Scan Tool (M.U.T.-III)" [P.52B-11](#).
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?**YES :** Go to Step 2.**NO :** Repair the CAN bus line. (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), check for any ASC diagnostic trouble code.

Check if DTC is set to the ASC-ECU.

Q: Is the DTC set?**YES :** Troubleshoot the ASC. (Refer to GROUP 35C, Diagnosis [P.35C-16](#).)**NO :** Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read the KOS-ECU diagnostic trouble code.

Check if the DTC U1102 is set to the KO-ECU.

Q: Is the DTC set?**YES :** Go to Step 4.**NO :** Go to Step 5.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?**YES :** Replace the ASC-ECU.**NO :** The trouble can be an intermittent malfunction such as a poor connection or open circuit in the CAN bus lines between the ASC-ECU and the occupant classification-ECU. (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#))

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).

NO : The trouble can be an intermittent malfunction such as a poor connection or open circuit in the CAN bus lines between the ASC-ECU and the occupant classification-ECU. (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#))

DTC U15A3 Odometer information lost

** CAUTION**

- If the DTC U15A3 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.
- When replacing the ECU, always check that the communication circuit is normal.

TROUBLE JUDGMENT

If the signal from combination meter cannot be received, the occupant classification-ECU sets the DTC U15A3.

JUDGMENT CRITERIA

Because of the CAN-C bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The combination meter may be defective
- The occupant classification-ECU may be defective

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.**⚠ CAUTION**

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?**YES :** Go to Step 2.**NO :** Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the combination meter diagnostic trouble code

Check if DTC is set to the combination meter.

Q: Is the DTC set?**YES :** Diagnose the combination meter. Then go to Step 4.**NO :** Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), read diagnostic trouble code No. U1108 for other system.

Check if the DTC U1108 is set in ETACS-ECU, SRS-ECU, ASC-ECU.

Q: Is the DTC set?**YES :** Replace the combination meter (Refer to GROUP 54A, Combination Meter [P.54A-61](#)).**NO :** Go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?**YES :** Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)).**NO :** There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction [P.00-13](#)).

DTC U15A4 VIN information lost

 CAUTION

- If DTC U15A4 is stored in the occupant classification-ECU, diagnose the CAN main bus line.
- Whenever the ECU is replaced, ensure that the communication circuit is normal.

TROUBLE JUDGMENT

When the occupant classification-ECU cannot receive any signal (motor driving and selector lever position) from the engine control module for 500 milliseconds or more, it stores diagnostic trouble code No. U15A4 (motor driving).

PROBABLE CAUSES

- Malfunction of the engine control module
- Malfunction of the occupant classification-ECU
- Malfunction of the CAN bus

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), read the engine control module diagnostic trouble code

Check again if the DTC is stored in the engine control module.

Q: Is the DTC stored?

YES : Troubleshoot the engine control module (Refer to GROUP 13A – Troubleshooting [P.13A-47](#)).

NO : Go to Step 3.

STEP 3. Check whether the diagnostic trouble code is stored again.

Check again if the DTC is stored in the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) Check if DTC is stored.

Q: Is the DTC stored?

YES : Replace the engine control module and register the ID codes (Refer to GROUP 54A, Immobilizer system [P.54A-290](#)). Then, carry out the CAN bus diagnostics. Then go to Step 4.

NO : A poor connection, open circuit or other intermittent malfunction is present in the CAN bus lines between the engine control module and the occupant classification-ECU (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#)).

STEP 4. Check whether the diagnostic trouble code is stored again.

Check again if the DTC is stored in the occupant classification-ECU.

- (1) Erase the diagnostic trouble code.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) On completion, check that the diagnostic trouble code is stored again.

Q: Is the DTC stored?

YES : Replace the front seat cushion cover and pad assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-17](#)). Then, carry out the CAN bus diagnostics. Then go to Step 5.

NO : A poor connection, open circuit or other intermittent malfunction is present in the CAN bus lines between the engine control module and the occupant classification-ECU (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions [P.00-13](#)).

STEP 5. Check whether the diagnostic trouble code is stored again.

Recheck if the DTC is stored in the occupant classification-ECU.

- (1) Erase the DTC.
- (2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
- (3) On completion, check that the DTC is stored again.

Q: Is the DTC stored?

YES : Return to Step 1.

NO : The procedure is complete.

CHECK CHART FOR TROUBLE SYMPTOMS

M1524003401487

Trouble symptom	Inspection procedure No.	Reference page
Communication between scan tool and SRS-ECU cannot be established.	1	P.52B-213
Power supply circuit system	2	P.52B-213
SRS warning light does not illuminate.	3	P.52B-215
SRS warning light does not turn go out.	4	P.52B-216

SYMPTOM PROCEDURES

Inspection Procedure 1: Communication between scan tool and SRS-ECU cannot be established.

TROUBLESHOOTING HINTS

- Malfunction of SRS-ECU
- Damaged wiring harness and connectors

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.13A-47](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Check and repair the power supply circuit system (Refer to [P.52B-213](#)).

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

Inspection Procedure 2: Power supply circuit system

CIRCUIT OPERATION

To SRS-ECU, the power is supplied from two independent circuits (fuse No. 15 and 21) via ignition switch (IG1) <vehicles without keyless operation system> or IG1 relay <Vehicles with keyless operation system>.

If the power is not supplied to SRS-ECU, the communication between scan tool MB991958 and SRS-ECU cannot be established.

TROUBLESHOOTING HINTS

- Damaged wiring harness and connectors
- Battery failure
- Malfunction of the charging system
- Malfunction of SRS-ECU

DIAGNOSIS

STEP 1. Fuse Nos. 15, 21 check.**Q: Is the fuse in good condition?**

YES : Go to Step 3.

NO : Go to Step 2.

STEP 2. Fuse open circuit check

- (1) Replace the fuse.
- (2) Turn the ignition switch to the "ON" position, wait for at least one minute, and then turn the switch OFF.
- (3) Check the fuse.

Q: Is the fuse in good condition?

YES : Go to Step 3.

NO : Repair the wiring harness IG1A line between the junction block connector and SRS-ECU connector, IG1B line between the junction block connector terminal No. 8 and the SRS-ECU connector, and replace the fuse.

STEP 3. Check of open circuit in GND1 line between SRS-ECU and body ground.**Q: Is the check result normal?**

YES : Go to Step 4.

NO : The wiring harness may be damaged or the connector(s) may have loose, corroded or damaged terminals, or terminals pushed back in the connector. Repair the wiring harness as necessary.

STEP 4. Check of short to power supply, short to ground, and open circuit in IG1A, IG1B line between SRS-ECU and junction block.**Q: Is the check result normal?**

YES : Go to Step 5.

NO : The wiring harness may be damaged or the connector(s) may have loose, corroded or damaged terminals, or terminals pushed back in the connector. Repair the wiring harness as necessary.

STEP 5. Trouble symptom check.

Q: Is the communication between scan tool and SRS-ECU possible?

YES : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

NO : Replace SRS-ECU (Refer to [P.52B-229](#)).

Inspection Procedure 3: SRS warning light does not illuminate.

CIRCUIT OPERATION

- The SRS warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately 6 to 8 seconds if there is not a malfunction in the SRS system.
- SRS-ECU sends the SRS warning light signal to the combination meter via the CAN communication.

- As a cause, the failure of CAN bus line, combination meter, or SRS-ECU is suspected.

TROUBLESHOOTING HINTS

- Damaged wiring harness and connectors
- Combination meter malfunction
- Malfunction of SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

 CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Using scan tool (M.U.T.-III), actuator test

Use scan tool (M.U.T.-III) to perform the SRS-ECU actuator tests.

Item No. 01: SRS warning light

Q: Does the SRS warning light turn on and off normally?

YES : Go to Step 5.

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), actuator test

Use scan tool (M.U.T.-III) to perform the combination meter actuator tests.

Item No. 07: Indicator1

Q: Does the SRS warning light turn on and off normally?

YES : Replace SRS-ECU (Refer to [P.52B-229](#)).

NO : Go to Step 4.

STEP 4. Check of short to power supply, short to ground, and open circuit in IG1 line between junction block connector and combination meter connector**Q: Is the check result normal?**

YES : Replace the combination meter (Refer to GROUP 54A – Combination Meter [P.54A-61](#)).

NO : Repair the wiring harness.

STEP 5. Recheck of the SRS warning light

(1) Connect the negative battery terminal.

(2) Ignition switch: ON

Q: Does the light illuminate?

YES : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

NO : Return to Step 1.

Inspection Procedure 4: The SRS warning light does not go out.

CIRCUIT OPERATION

- The SRS warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately 6 to 8 seconds if there is not a malfunction in the SRS system.
- SRS-ECU sends the SRS warning light signal to the combination meter via the CAN communication.

- As a cause, the failure of CAN bus line, combination meter, or SRS-ECU is suspected.

TROUBLESHOOTING HINTS

- Damaged wiring harness and connectors
- Combination meter malfunction
- Malfunction of SRS-ECU

DIAGNOSIS

STEP 1. Using scan tool (M.U.T.-III), diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

- (1) Connect scan tool (M.U.T.-III). Refer to "How to connect the scan tool [P.52B-11](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis [P.54C-12](#)).

STEP 2. Recheck of the SRS warning light

- (1) Connect the negative battery terminal.
- (2) Ignition switch: ON

Q: Does the SRS warning light illuminate for approximately 6 to 8 seconds and then go out after the ignition switch is turned to the "ON" position?

YES : Intermittent malfunction (Refer to GROUP 00 – How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction [P.00-13](#)).

NO : Go to Step 3.

STEP 3. Using scan tool (M.U.T.-III), actuator test.

Use scan tool (M.U.T.-III) to perform the combination meter actuator tests.

Item No. 07: Indicator1

Q: Does the SRS warning light turn on and off normally?

YES : Go to Step 4.

NO : Replace the combination meter (Refer to GROUP 54A – Combination Meter [P.54A-61](#)).

STEP 4. Check for diagnostic trouble code.

After erasing the DTC memory, check the DTC.

Q: Is the DTC stored?

YES : Troubleshoot for the relevant DTC (Refer to [P.52B-197](#)).

NO : Go to Step 5.

STEP 5. Recheck of the SRS warning light

Q: Does the light stay ON?

YES : Replace the SRS-ECU (Refer to [P.52B-229](#)).

NO : This diagnosis is complete.

DATA LIST REFERENCE TABLE

M1524003500577

<SRS-ECU>

The following items can be read by the scan tool from the SRS-ECU input data.

Item No.	Data list item	Check conditions	Normal conditions
01	Elimination times	Always	Maximum time to be stored: 250 times

<Occupant classification-ECU>

The following items can be read by the scan tool from the occupant classification-ECU input data.

Item No.	Display on scan tool	Check conditions	Normal conditions
08	occupant classification status	Apply a load to the passenger seat.	Empty/RFIS*/Child/More 5th%/Less 5th%/Undermined
10	Battery voltage	Always	6.5 to 16 V

ACTUATOR TEST REFERENCE TABLE <SRS-ECU>

M1524003600400

The following actuators can be forcibly operated using scan tool .

Item No.	Item name	Test item	Driven component
01	SRS warning light	SRS warning light illumination	ON
02	Passenger's SRS OFF light	Passenger's SRS OFF light illumination	ON
		Passenger's SRS OFF light illumination	OFF
03 (Not used)	Passenger's SRS ON lamp	—	—

FAIL-SAFE FUNCTION REFERENCE TABLE

M1524003700184

If the SRS-ECU determines that the following parts are defective, the SRS-ECU operates the SRS warning light and controls as follows.

- If the occupant classification sensor or the occupant classification-ECU is defective, the SRS-ECU determines that controls the air bag and the passenger's air bag OFF indicator light.

POST-COLLISION DIAGNOSIS

M1524001102449

Perform the inspection and service on post-collision vehicles according to the procedures below regardless of the deployment or activation statuses of air bags and seat belt pretensioner.

SRS-ECU MEMORY CHECK

Required Special Tool:

- MB992744: Vehicle communication interface-Lite (V.C.I.-Lite)
- MB992745: V.C.I.-Lite main harness A (for vehicles with CAN communication)
- MB992747: V.C.I.-Lite USB cable short

- MB992748: V.C.I.-Lite USB cable long
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: M.U.T.-III USB Cable
 - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

1. Start up the personal computer.
2. Connect special tool MB992747/MB991748 or special tool MB991827 to special tool MB992744 or special tool MB991824 and the personal computer.
3. Connect special tool MB992745 or special tool MB991910 to special tool MB992744 or special tool MB991824.
4. Connect special tool MB992745 or special tool MB991910 to the data link connector.

NOTE: when the special tool MB992745 is connected to the data link connector, the special tool MB992744 indicator light will be illuminated in a green color

5. Turn the power switch of special tool MB991824 to the "ON" position <When using the special tool MB991824>.

NOTE: When special tool MB991824 is energized, special tool MB991824 indicator light will be illuminated in a green color.

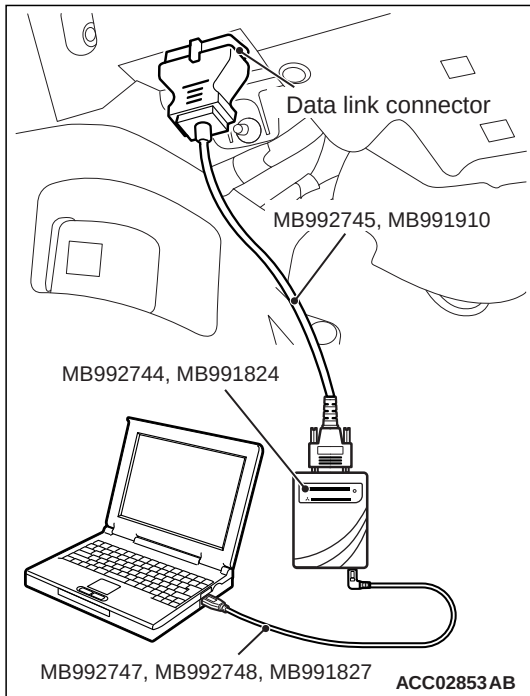
6. Start the M.U.T.-III system on the personal computer.

NOTE: Disconnecting scan tool (M.U.T.-III) is the reverse of the connecting sequence, making sure that the ignition switch is at the "LOCK" (OFF) position.

7. Read (and write down) all displayed diagnostic trouble codes (Refer to [P.52B-14](#)).

NOTE: If the battery power supply has been disconnected or disrupted by the collision, scan tool MB991958 cannot communicate with the SRS-ECU. Check the battery, then check and, if necessary, repair the front wiring harness and the instrument panel wiring harness before proceeding.

8. Read the data list (fault duration and how many times memories are erased), using scan tool MB991958 (Refer to [P.52B-218](#)).
9. Erase the diagnostic trouble codes, and then turn the ignition switch to the "LOCK" (OFF) position.
10. Wait for at least one second, and then turn the ignition switch to the "ON" position again.
11. After waiting 15 seconds or more, note all displayed diagnostic trouble codes (Refer to [P.52B-14](#)).



REPAIR PROCEDURE**<DRIVER'S, FRONT PASSENGER'S AND KNEE AIR BAGS ARE DEPLOYED>**

1. Replace the following parts with new ones.
 - SRS-ECU (Refer to [P.52B-229](#)).
 - Driver's air bag module (Refer to [P.52B-232](#)).
 - Passenger's (front) air bag module (Refer to [P.52B-240](#)).
 - Knee air bag module (Refer to [P.52B-251](#)).
 - Seat belt with pre-tensioner (Refer to [P.52B-258](#)).
 - Front impact sensor (Refer to [P.52B-226](#)).
2. Check the following parts. If there is an abnormality, replace with new parts.
 - Clock spring (Refer to [P.52B-232](#)).
 - Steering wheel, steering column assembly
 - (1) Check that the driver's air bag module is installed to the steering wheel correctly.
 - (2) Check the steering wheel for noise, binding, operational failure, and play.
 - (3) Check the shock absorbing mechanism of steering column shaft assembly (Refer to GROUP 37 – On-vehicle Service [P.37-60](#)).
3. Instrument panel assembly (Refer to GROUP 52A – Instrument Panel Assembly [P.52A-2](#)).
4. Check the wiring harness for binding, the connector for damage, and the terminal for deformation (Refer to [P.52B-5](#)).

<SIDE AND CURTAIN AIR BAGS ARE DEPLOYED>

1. Replace the following parts with new ones.
 - SRS-ECU (Refer to [P.52B-229](#)).
 - Front seatback assembly (Refer to [P.52B-243](#)).
 - Curtain air bag module (Refer to [P.52B-247](#)).
 - Side impact sensor (Refer to [P.52B-255](#)).
 - Headlining (Refer to GROUP 52A, Headlining [P.52A-15](#)).
 - Front pillar trim, center pillar trim upper, quarter trim upper (Refer to GROUP 52A – Interior Trim [P.52A-9](#)).
 - Seat belt with pre-tensioner (Refer to [P.52B-258](#)).
2. Check the wiring harness for binding, the connector for damage, and the terminal for deformation (Refer to [P.52B-5](#)).

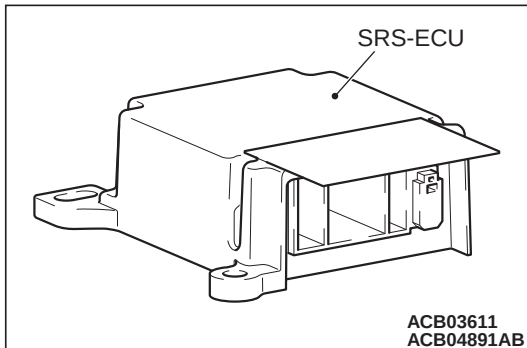
<AIR BAG NOT DEPLOYED BECAUSE OF LOW-SPEED COLLISION>

1. Check the SRS air bag components and seat belt assembly according to the following procedures.
2. Check the operation of seat belt. If the seat belt cannot be drawn out, replace the seat belt with a new one.

3. Visually check the seat belt components (such as pre-tensioner, retractor and buckle) for a dent, breaks, deformation, fraying. If found, replace them with new one.
4. For removal and installation of parts, refer to "Servicing the SRS air bag/seat belt with pre-tensioner" [P.52B-224](#).

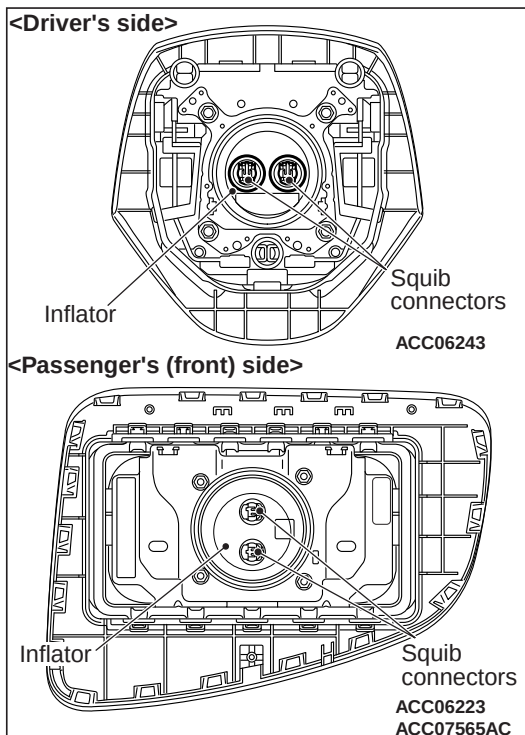
SRS-ECU

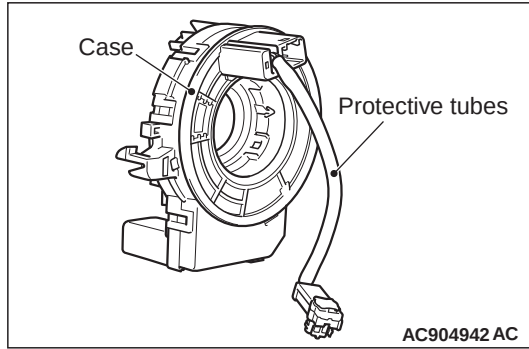
1. Check the SRS-ECU case and bracket for dent, crack, or deformation.
2. Check the connector and wiring harness for damage, and the terminal for deformation.
3. Check that SRS-ECU is installed correctly.



DRIVER'S, PASSENGER'S (FRONT) AND KNEE AIR BAG MODULE

1. Check the pad cover for dent, crack, or deformation.
2. Check the connector for damage, the terminal for deformation, and the harness for binding.
3. Check the inflator case for dent, crack, or deformation.
4. Check that the air bag module is installed correctly.





CLOCK SPRING

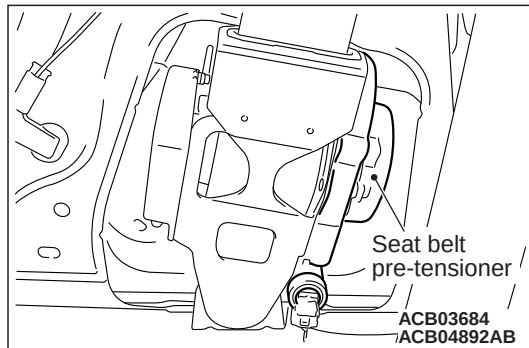
1. Check the connector and protector tube for damage, and the terminal for deformation.
2. Check the case for damage.

STEERING WHEEL, STEERING COLUMN AND SHAFT ASSEMBLY

1. Check the wiring harness (built into the steering wheel) and the connectors for damage, and the terminals for deformation.
2. Install the air bag module to check fit or alignment with the steering wheel.
3. Check the steering wheel for noise, binding or difficult operation and excessive free play.
4. Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-Vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check [P.37-60](#)).

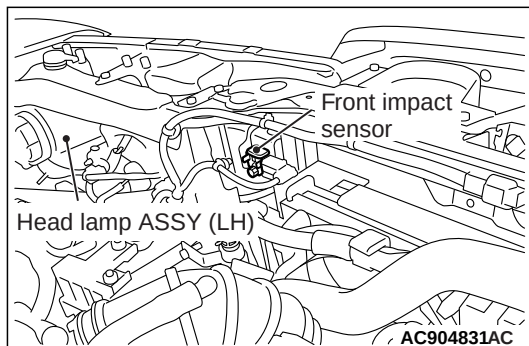
SEAT BELT PRE-TENSIONER

1. Check the seat belt pre-tensioner crack or deformation.
2. Check the connector for damage and the terminal for deformation.

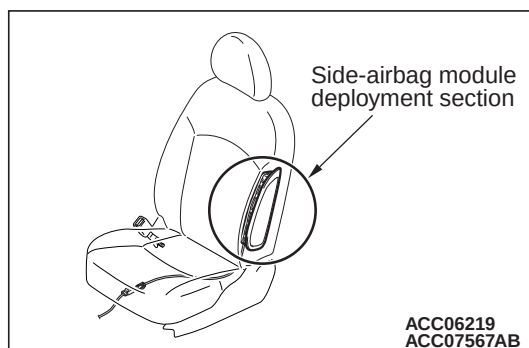


FRONT IMPACT SENSOR

1. Check the front impact sensor for dent, crack or deformation.
2. Check the connector for damage, the terminal for deformation, and the harness for binding.

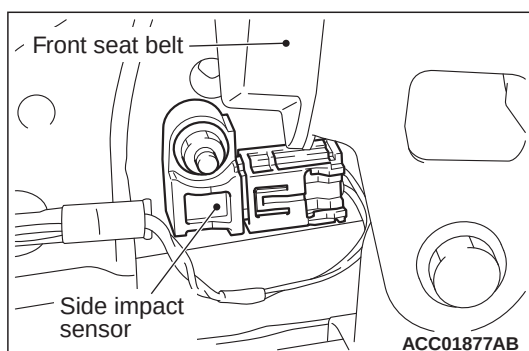


FRONT SEAT ASSEMBLY (WITH BUILT-IN SIDE AIR BAG MODULE)



1. Check that the side-airbag module deployment part of the seat is normal.
2. Check the connector for damage, the terminal for deformation, and the harness for binding.

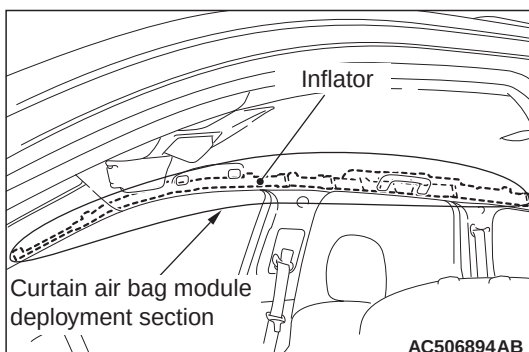
SIDE IMPACT SENSOR



1. Check the center pillar and quarter trim lower for deformation.
2. Check the side impact sensor for dent, crack, deformation, or rust.
3. Check the connector for damage, the terminal for deformation, and the harness for binding.

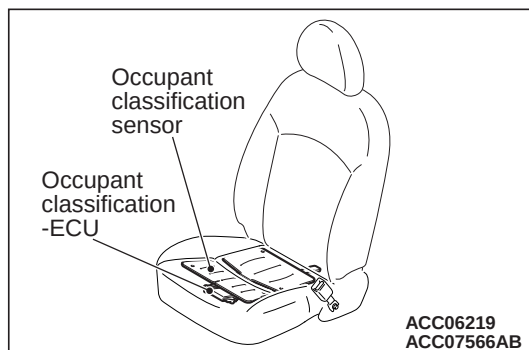
NOTE: The illustration shows the side impact sensor (LH). The position of the side impact sensor (RH) is symmetrical to this.

CURTAIN AIR BAG MODULE



1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the connector for damage, the terminal for deformation, and the harness for binding.

OCCUPANT CLASSIFICATION-ECU AND OCCUPANT CLASSIFICATION SENSOR



1. Check the occupant classification-ECU case and occupant classification sensor for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the occupant classification-ECU and occupant classification sensor.
4. Check the diagnostic trouble code of occupant classification-ECU and replace the seat cushion frame assembly <passenger's side>.

HARNESS CONNECTOR

Check the wiring harness for binding, the connector for damage, and the terminal for deformation (Refer to [P.52B-5](#)).

INDIVIDUAL COMPONENT SERVICE

M1524002901014

⚠ WARNING

- ***If heat damage occurs during paint work, remove the SRS-ECU, the air bag modules, the clock spring, front seats, impact sensor and the seat belt with pre-tensioner. Recheck the SRS system operability after reinstalling them.***
 - ***SRS-ECU, air bag module, clock spring, front seats, impact sensor: 93 °C (199 °F) or more***
 - ***Seat belt with pre-tensioner: 90 °C (194 °F) or more***
- ***If the SRS components are removed for the purpose of inspection, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.***

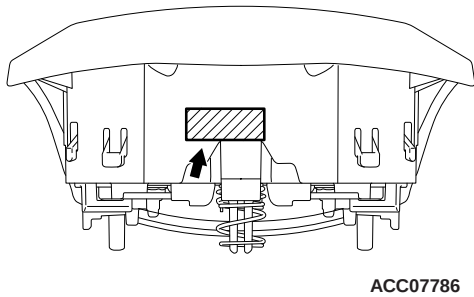
If the SRS components are to be removed or replaced as a result of maintenance, diagnosis, etc., follow the appropriate procedure in this section. (Front impact sensor: refer to [P.52B-226](#), SRS-ECU: refer to [P.52B-229](#), Driver's air bag modules and clock spring: refer to [P.52B-232](#), Passenger's (front) air bag module: refer to [P.52B-240](#), Side-airbag module: refer to [P.52B-243](#), Knee air bag module: refer to [P.52B-251](#), Side impact sensor: refer to [P.52B-255](#), Curtain air bag module: refer to [P.52B-247](#), Seat belt with pre-tensioner: refer to [P.52B-258](#), Occupant classification-ECU: refer to [P.52B-262](#), Occupant classification sensor: refer to [P.52B-264](#)).

M1524003002352

WARNING/CAUTION LABELS

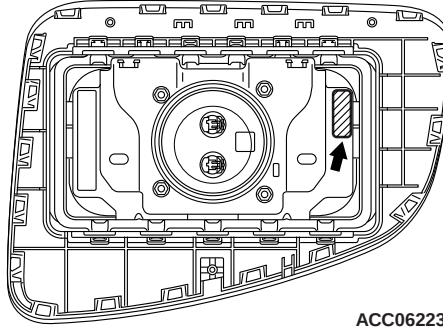
The labels indicating the precautions for handling and maintenance of SRS air bags and seat belt with pre-tensioner are attached to the locations shown in the figure. If the label is damaged or is dirty, replace with the new label.

Driver's air bag module



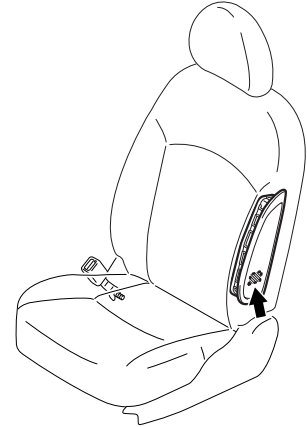
ACC07786

Passenger's (front) air bag module



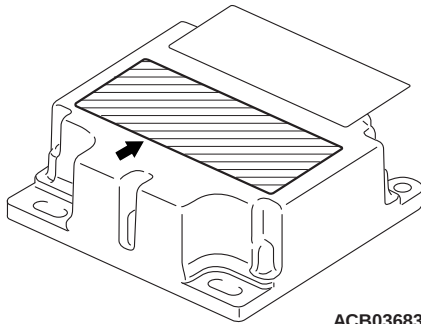
ACC06223

Side-airbag module (right and left)



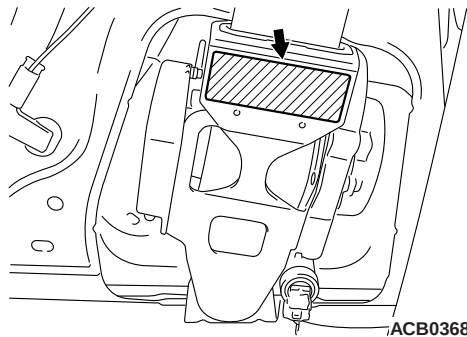
ACC06219

SRS-ECU



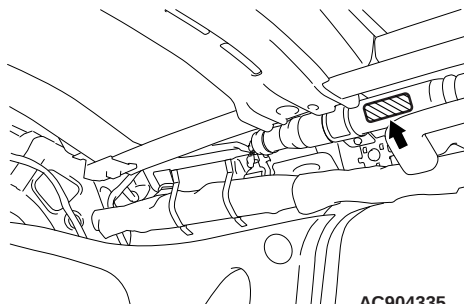
ACB03683

Seat belt pre-tensioner (right and left)



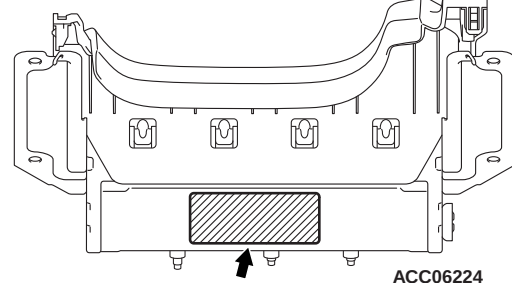
ACB03684

Curtain air bag module (right and left)



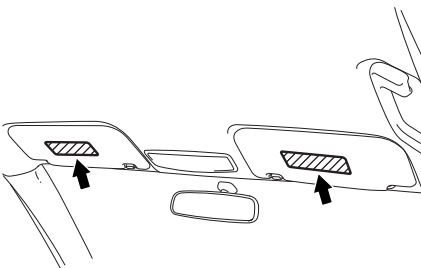
AC904335

Knee air bag module



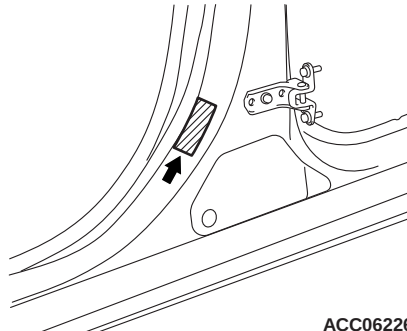
ACC06224

Sun visor



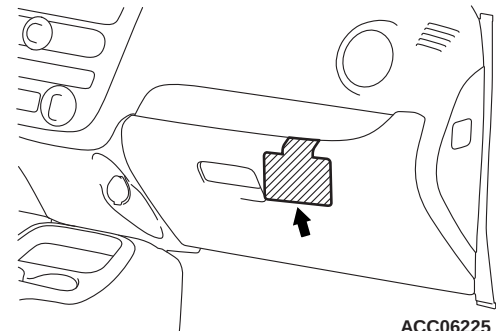
AC608592

Center pillar (right and left)



ACC06226

Glove box



ACC06225
ACC07436AC

FRONT IMPACT SENSORS

REMOVAL AND INSTALLATION

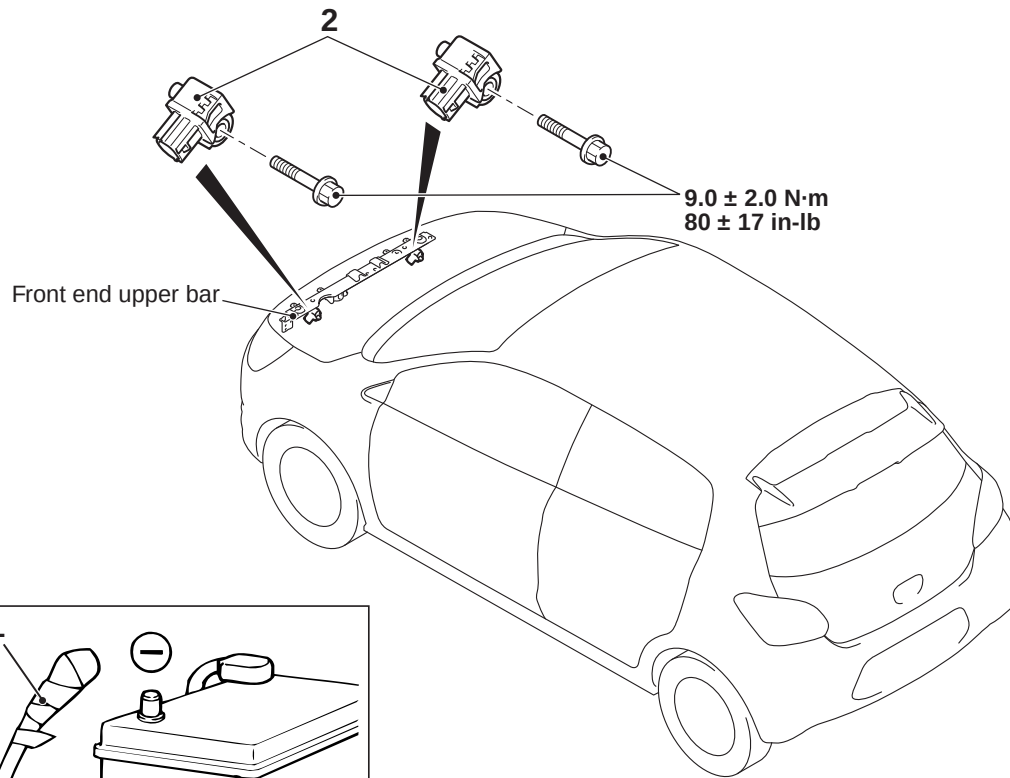
M1524001501927

⚠ WARNING

- *Never repair or disassemble the front impact sensor. If faulty, replace it.*
- *Handle the front impact sensors very carefully, taking care not to drop them. They must be replaced if they are dropped.*
- *Replace the sensors with new ones after the air bag has deployed.*

Pre-removal operation

- Turn the ignition switch to the LOCK (OFF) position.



ACC06347AB

<<A>>

Removal steps

<>

1. Negative (-) battery cable
2. Front impact sensor

Installation steps

>>A<<

>>B<<

>>C<<

- Pre-installation inspection
- 2. Front impact sensor
- 1. Negative (-) battery cable
- Post-installation inspection

REMOVAL SERVICE POINT

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

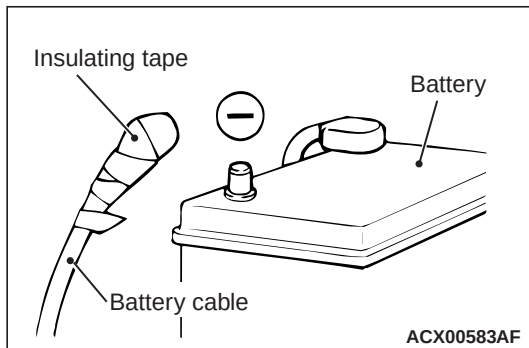
DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

WARNING

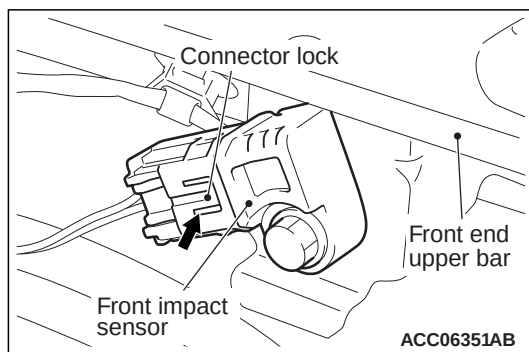
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<> FRONT IMPACT SENSOR CONNECTOR REMOVAL

Push the connector lock of front impact sensor connector to the direction of the arrow, then unlock and disconnect the connector.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Check the front impact sensor before installation (Refer to P.52B-228).

>>B<< FRONT IMPACT SENSOR INSTALLATION

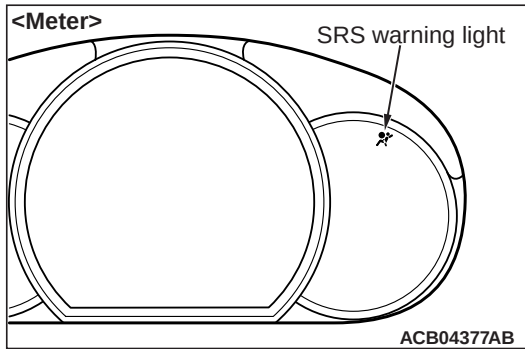
WARNING

The SRS may not activate properly if a front impact sensor is not installed properly, which could result in serious injury or death to the vehicle's driver.

1. Securely connect the connector.
2. Position the front impact sensor facing toward the front of the vehicle as indicated by the arrow on the label, and install it securely.

>>C<< POST-INSTALLATION INSPECTION

1. Connect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.



3. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
4. If the light does not extinguish, perform the troubleshooting (Refer to [P.52B-14](#)).

INSPECTION

M1524001600608

WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the front impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to [P.52B-14](#)).

1. Check the front impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the Front end cross member.

SRS CONTROL UNIT (SRS-ECU)

REMOVAL AND INSTALLATION

M1524002101933

⚠ DANGER

The SRS-ECU adopts the rollover specification that the curtain air bag and seat belt pre-tensioner operate at the occurrence of rollover. Therefore, do not tilt the vehicle to the right and left with the ignition switch "ON" or tilt the SRS-ECU to the right and left with the ignition switch "ON" and the harness installed.

⚠ WARNING

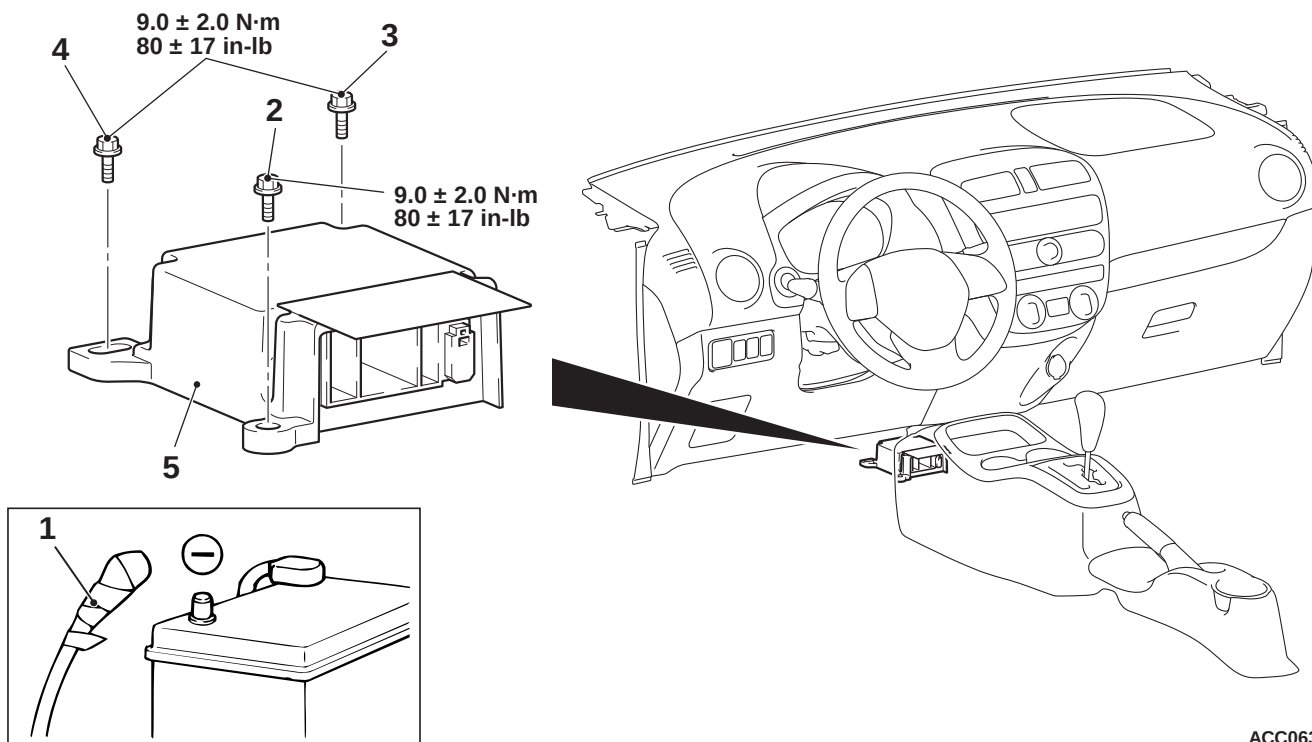
- *Never connect the negative battery terminal when the SRS-ECU is not installed securely. If you fail to follow this instruction, the air bag may deploy unintentionally, possibly causing a serious injury.*
- *Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.*
- *Do not drop or subject the SRS-ECU to impact or vibration. If denting, cracking, deformation, or rust are discovered in the SRS-ECU, replace it with a new SRS-ECU.*
- *After deployment of an air bag, replace the SRS-ECU with a new one.*
- *Never use an ohmmeter on or near the SRS-ECU, and use only the special test equipment described here [P.52B-10](#).*

⚠ CAUTION

- When the SRS-ECU is replaced, chassis number writing and coding must be performed. Perform the coding when SRS-ECU sets diagnostic trouble code No. U1195 (coding incomplete). Refer to the "Scan tool (M.U.T.-III) operation manual" and perform coding.

Pre-removal operation

- Turn the ignition switch to the LOCK (OFF) position.



ACC06346 AB

Removal steps		Installation steps	
<<A>>	1. Negative (-) battery cable	>>A<<	5. SRS-ECU
	• Floor console bracket front (Refer to GROUP 52A – Front Floor Console Assembly P.52A-7).		4. SRS-ECU mounting bolt
	2. SRS-ECU mounting bolt (ground bolt)		3. SRS-ECU mounting bolt
	3. SRS-ECU mounting bolt	>>B<<	2. SRS-ECU mounting bolt (ground bolt)
<>	4. SRS-ECU mounting bolt		• Floor console bracket front (Refer to GROUP 52A – Front Floor Console Assembly P.52A-7).
	5. SRS-ECU	>>C<<	1. Negative (-) battery cable
			• Post-installation inspection

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

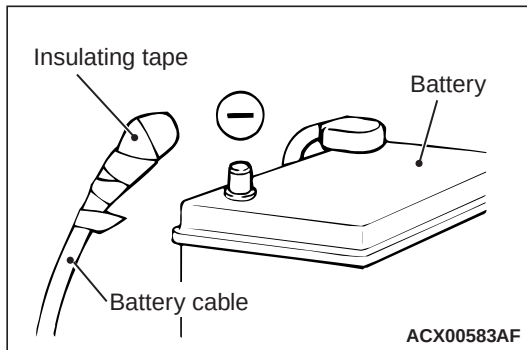
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

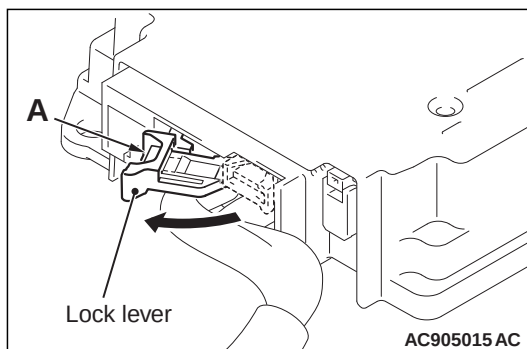
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<> SRS-ECU REMOVAL

While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever.



INSTALLATION SERVICE POINTS

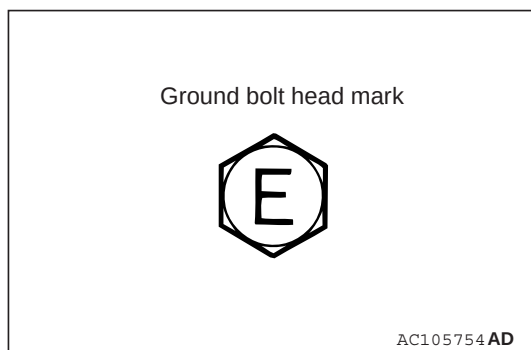
>>A<< SRS-ECU INSTALLATION

⚠ WARNING

The SRS may not activate if the SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.

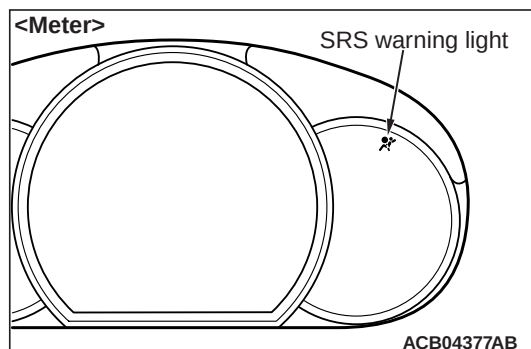
>>B<< SRS-ECU MOUNTING BOLT (GROUND BOLT) INSTALLATION

Check the head mark "E" and install the ground bolt.



>>C<< POST-INSTALLATION INSPECTION

1. Connect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
4. If the light does not extinguish, perform the troubleshooting (Refer to [P.52B-14](#)).



INSPECTION

M1524002200692

WARNING

If a dent, crack, deformation or rust is discovered, replace the SRS-ECU with a new one.

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check the SRS-ECU connector for damage, and the terminals for deformation.

NOTE: Refer to [P.52B-14](#) for inspection of SRS-ECU for other than physical damage.

DRIVER'S AIR BAG MODULE AND CLOCK SPRING**REMOVAL AND INSTALLATION**

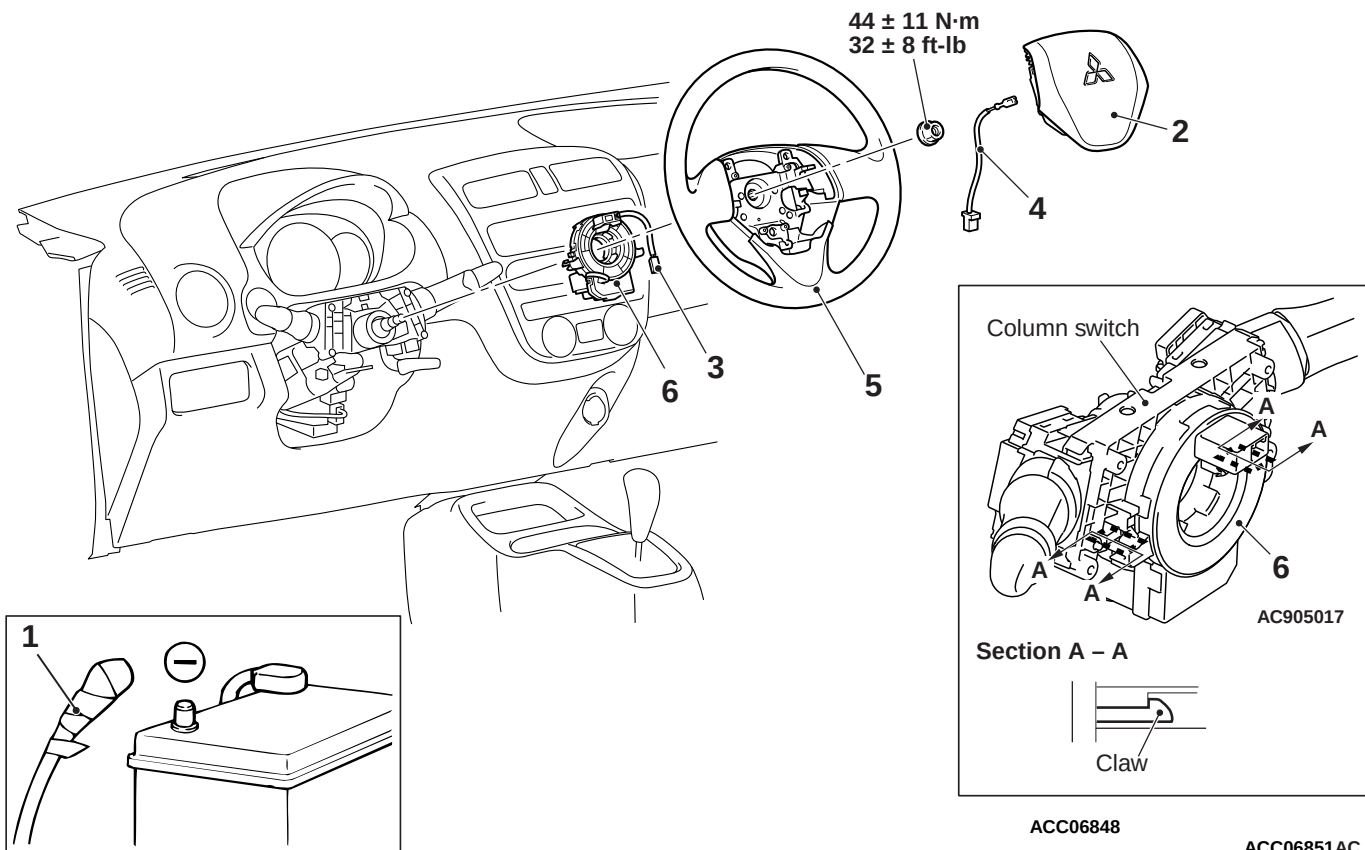
M1524047500937

⚠ WARNING

- **Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.**
- **Do not drop the air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.**
- **The air bag modules should be stored on a flat surface with the pad cover facing upward. Do not place anything on top of it.**
- **Do not expose the air bag modules to temperatures over 93 °C (199 °F).**
- **After the air bag deployment, replace the air bag module with a new one. Also, check the clock spring, and replace with a new part if there is an abnormality.**
- **Wear gloves and safety glasses when handling air bags that have already deployed.**
- **Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.**
- **An undeployed air bag module should only be disposed of in accordance with the procedures (Refer to [P.52B-268](#)).**

Pre-removal operation

- Disconnect the negative (-) battery terminal.



		Driver's air bag module removal steps			Clock spring removal steps
<<A>>	1.	Negative (–) battery cable	<<C>>	3.	Driver's air bag module connector
<>	2.	Driver's air bag module	<<D>>	5.	Steering wheel assembly
<<C>>	3.	Driver's air bag module connector		•	Steering column lower, upper cover (Refer to Group 37 –Steering Column shaft assembly P.37-64).
	4.	Horn wiring harness		6.	Clock spring
		Driver's air bag module installation steps	<<E>>		Clock spring installation steps
>>A<<	•	Pre-installation inspection	>>A<<		Pre-installation inspection
	4.	Horn wiring harness	>>B<<	6.	Clock spring
	3.	Driver's air bag module connector	•		Steering column lower, upper cover (Refer to Group 37 – Steering Column shaft assembly P.37-64 .)
	2.	Driver's air bag module			
	1.	Negative (–) battery cable	>>C<<	5.	Steering wheel assembly
>>D<<	•	Post-installation inspection		3.	Driver's air bag module connector
		Clock spring removal steps		2.	Driver's air bag module
<<A>>	1.	Negative (–) battery cable		1.	Negative (–) battery cable
<>	2.	Driver's air bag module	>>D<<	•	Post-installation inspection

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

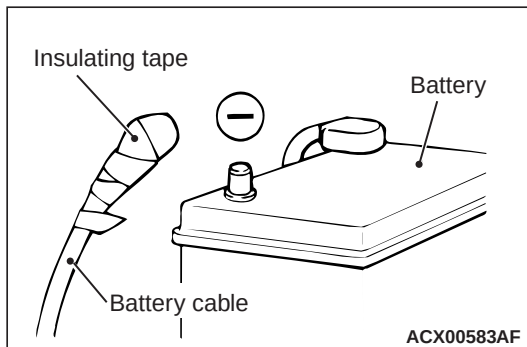
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to [P.52B-5](#)).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

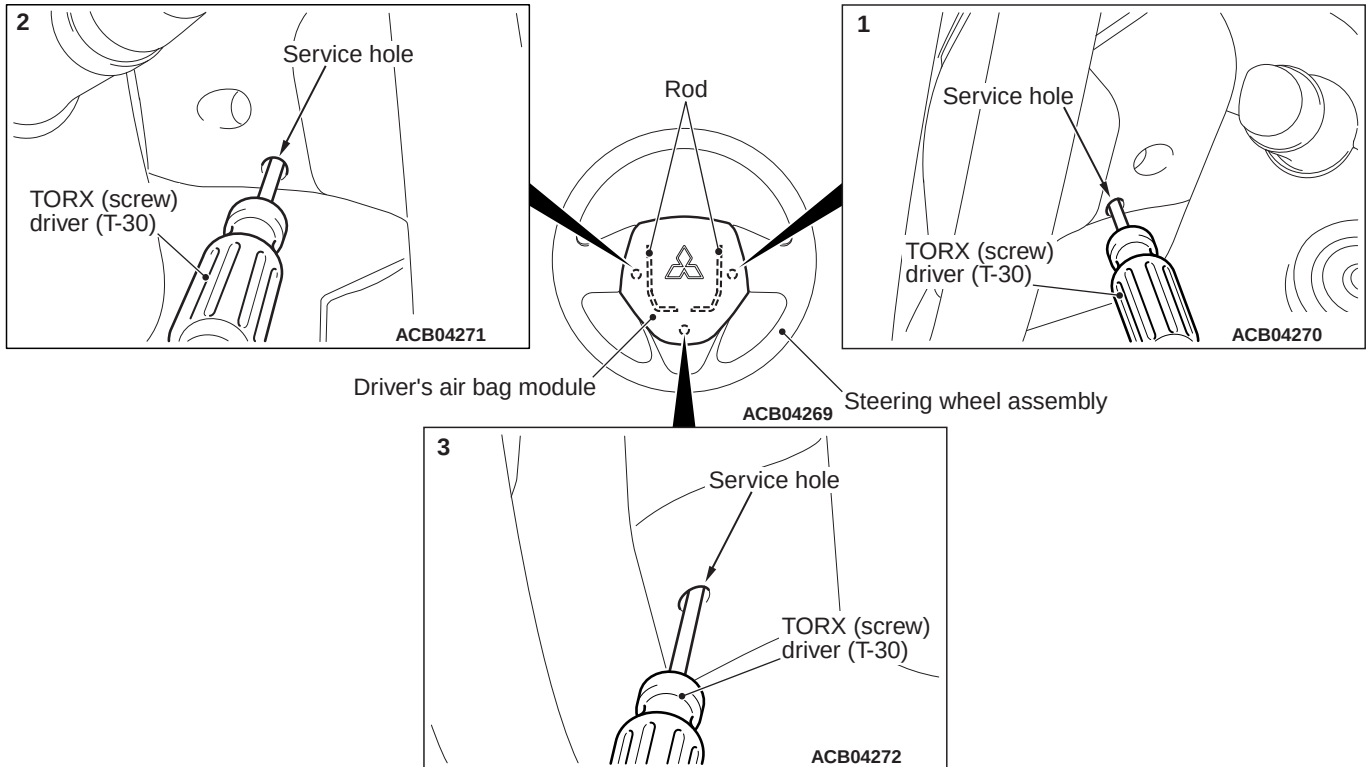
Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<> DRIVER'S AIR BAG MODULE REMOVAL

⚠ CAUTION

- Never use an electric tester to diagnose the air bag module circuit. Never attempt to disassemble the air bag module.
- Be sure to store the removed air bag module in a clean and dry place with a pad surface facing upward.
- When discarding the air bag module, discard after deploying the air bag as specified in the service procedure (Refer to [P.52B-268](#)).

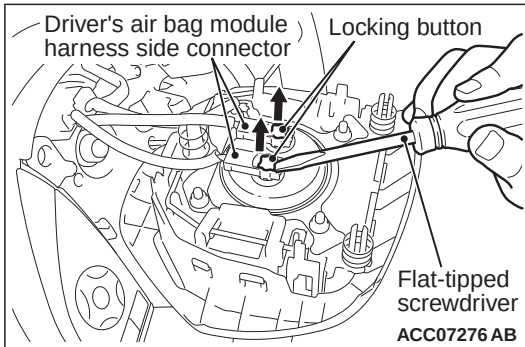


ACB04378 AB

Follow the procedure below according to the item numbers in the illustration.

1. Insert a TORX (screw)driver (T-30) into the service hole on the steering wheel assembly.
2. Use the TORX (screw)driver (T-30) to press the rod in driver's air bag module.
3. When the driver's air bag module is disengaged, the driver's air bag module will be released.
4. Repeat for the other service hole end then remove the driver's air bag module.

<<C>> DRIVER'S AIR BAG MODULE CONNECTOR REMOVAL



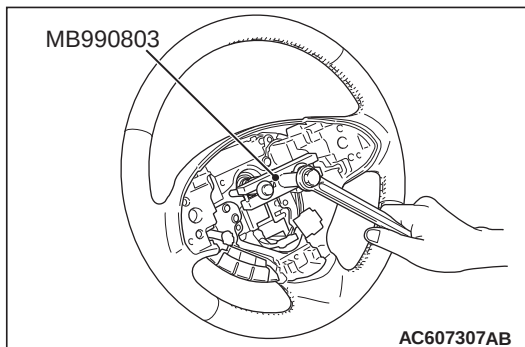
1. Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.

<<D>> STEERING WHEEL ASSEMBLY REMOVAL

CAUTION

Use the special tool to remove the steering wheel since the steering column collision absorbing mechanism may be damaged.

1. Position the steering wheel in a straight ahead direction.
2. Using special tool steering wheel puller (MB990803), remove the steering wheel assembly as shown in the figure.

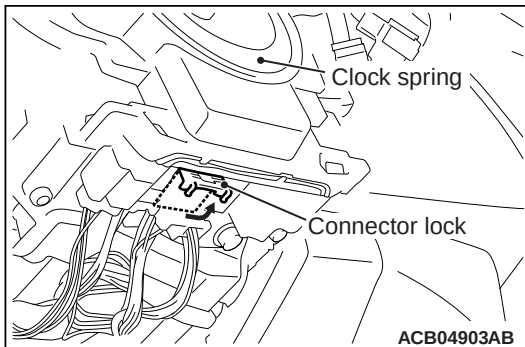


<<E>> CLOCK SPRING REMOVAL

CAUTION

The removed clock spring should be stored in a clean, dry place.

Lift the connector lock of clock spring connector to the direction of the arrow, then unlock and disconnect the connector.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of air bag modules only according to the specified procedure (Refer to P.52B-268).

1. When installing the new air bag modules and clock spring, refer to "INSPECTION" (P.52B-238).
2. Connect the negative (–) battery cable.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

3. Connect scan tool (M.U.T.-III) to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool (M.U.T.-III) to ensure entire SRS operates properly.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position.
Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and air bags deployment.

>>B<< CLOCK SPRING INSTALLATION

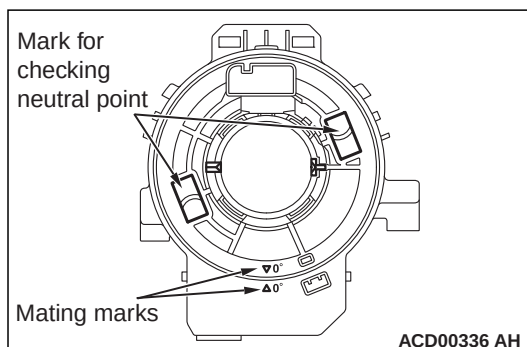
⚠ CAUTION

- If the center of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.
- When aligning the clock spring neutral position mark, perform with the clock spring independently. If performed with the steering wheel sensor installed, the steering wheel sensor may be damaged.
Align the mating marks of the clock spring.
<Alignment of mating marks>

⚠ CAUTION

Do not rotate the clock spring 2.5 turns or more clockwise from the neutral position, or a malfunction may occur.

- (1) Turn the clock spring counterclockwise fully.
- (2) Rotate the clock spring approximately 3.6 turns clockwise to align the mating marks.



- (3) Check that the white cable can be seen from the both window for checking the neutral point when the mating marks are aligned.

NOTE: If the white or black cable can be seen from either window, the neutral point is not aligned correctly.

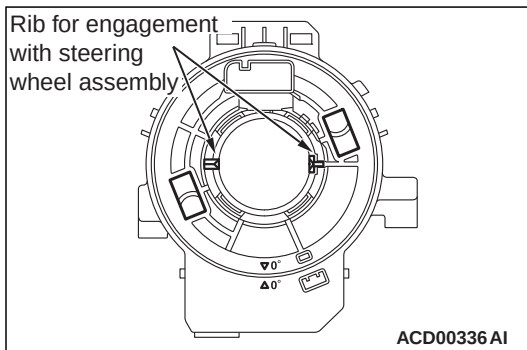
- (4) Install the clock spring to the column switch.

>>C<< STEERING WHEEL ASSEMBLY INSTALLATION

CAUTION

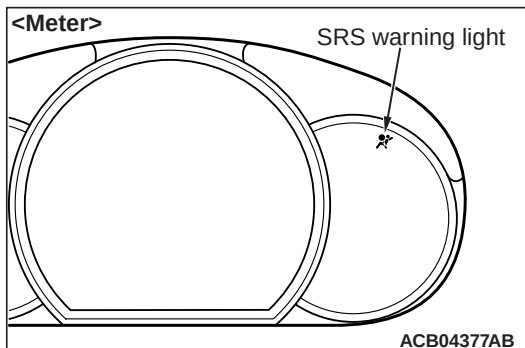
When installing the steering wheel assembly, do not trap the clock spring harness.

1. After checking that the clock spring center alignment is already performed, install the steering wheel assembly so that its boss part is aligned with the rib of the clock spring slowly.
2. After the installation, check that there is no abnormality when the steering wheel is fully turned to left and right.



>>D<< POST-INSTALLATION INSPECTION

1. Connect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
4. If the light does not extinguish, perform the troubleshooting (Refer to [P.52B-14](#)).



INSPECTION

M1524047600428

DRIVER'S AIR BAG MODULE

⚠ DANGER

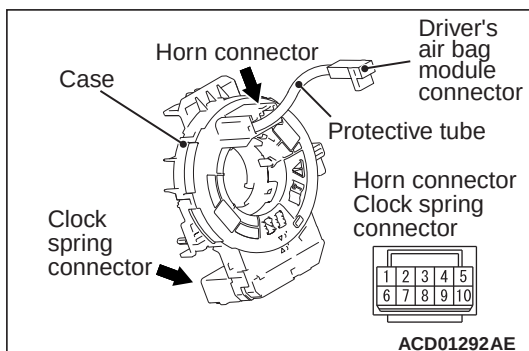
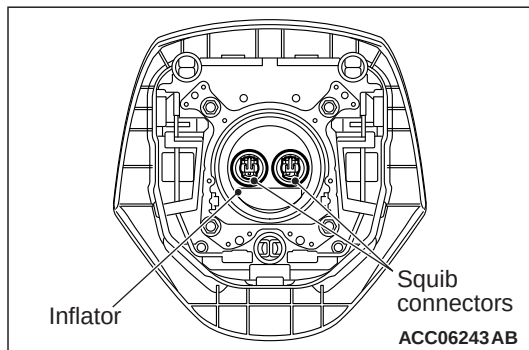
Never attempt to measure the circuit resistance of the air bag modules (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

⚠ WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to [P.52B-268](#)).

If any malfunction is found in the following inspections, replace the air bag module with a new one.

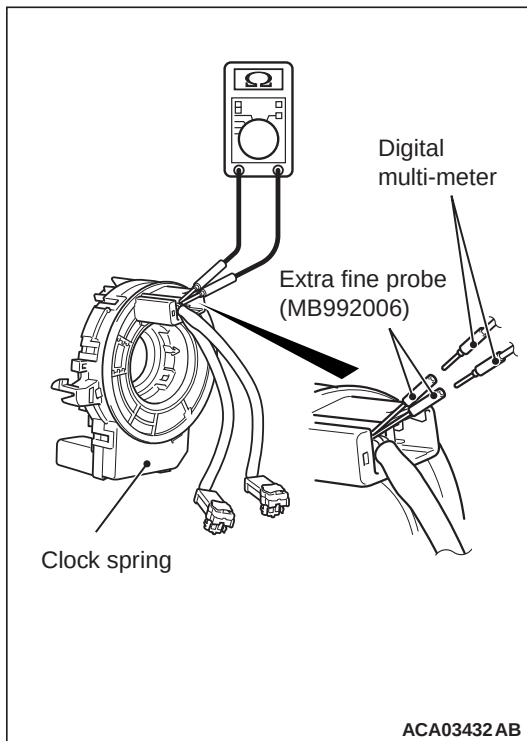
1. Pad cover dent, crack or deformation
2. Check the harness and connector for damage and the terminal for deformation.
3. Check the air bag inflator cases for dents, cracks or deformation.
4. Check the air bag module for proper installation.



CLOCK SPRING

If any malfunction is found in the following inspections, replace the clock spring with a new one.

1. Check the connectors and protective tubes for damage and the terminal for deformation.
2. Check the case for damage.
3. Check that the continuity exists between the following connector terminals.
 - Clock spring connector terminal 1 and horn connector terminal 1
 - Clock spring connector terminal 5 and horn connector terminal 5



4. As shown in the Figure, connect the circuit tester to special tool extra fine probe (MB992006) and check to see that there is a charge between the terminals.

PASSENGER'S (FRONT) AIR BAG MODULE

REMOVAL AND INSTALLATION

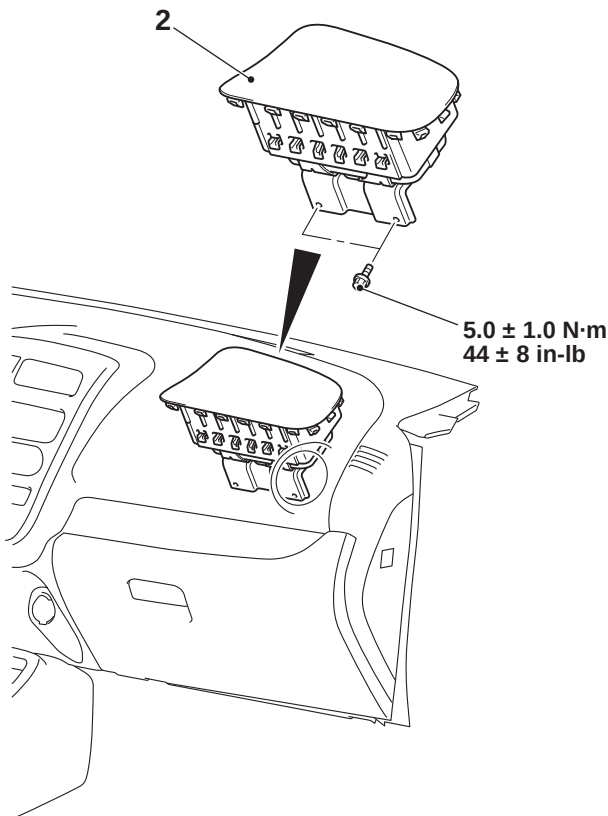
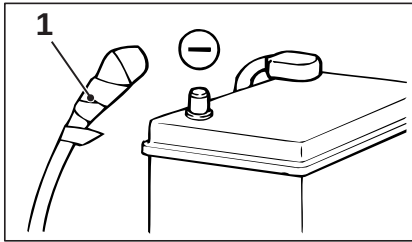
M1524047300405

⚠ WARNING

- *Never attempt to disassemble or repair the air bag modules. If faulty, replace it.*
- *Do not drop the air bag modules or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.*
- *The air bag modules should be stored on a flat surface with the pad cover facing upward. Do not place anything on top of it.*
- *Do not expose the air bag modules to temperatures over 93 °C (199 °F).*
- *After the air bag deployment, replace the air bag module with a new one.*
- *Wear gloves and safety glasses when handling air bags that have already deployed.*
- *Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.*
- *An undeployed air bag module should only be disposed of in accordance with the procedures (Refer to [P.52B-268](#)).*

Pre-removal operation

- Turn ignition switch to the LOCK (OFF) position.



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<<A>>	Removal steps	>>A<<	Installation steps
	1. Negative (-) battery cable	•	Pre-installation inspection
	• Grove box (Refer to GROUP 52A – Grove box P.52A-4).	2.	Passenger's (front) air bag module
<>	2. Passenger's (front) air bag module	•	Grove box (Refer to GROUP 52A – Grove box P.52A-4).
		1.	Negative (-) battery cable
		>>B<<	• Post-installation inspection

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

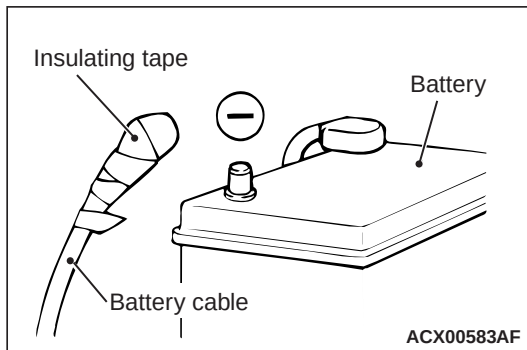
DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to [P.52B-5](#)).

WARNING

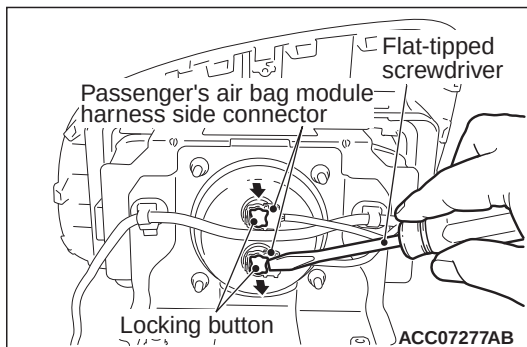
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<> PASSENGER'S (FRONT) AIR BAG MODULE REMOVAL

Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

WARNING

Dispose of air bag modules only according to the specified procedure (Refer to [P.52B-268](#)).

1. When installing the new air bag modules, refer to "INSPECTION" (Refer to [P.52B-242](#)).
2. Connect the negative (-) battery cable.

CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

3. Connect scan tool (M.U.T.-III) to the data link connector.

4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool (M.U.T.-III) to ensure entire SRS operates properly.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

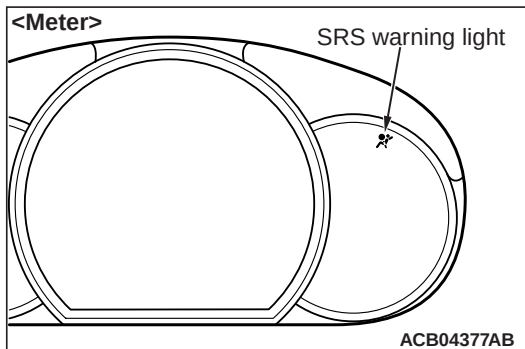
⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position.
Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and air bags deployment.

>>B<< POST-INSTALLATION INSPECTION

1. Connect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
4. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).

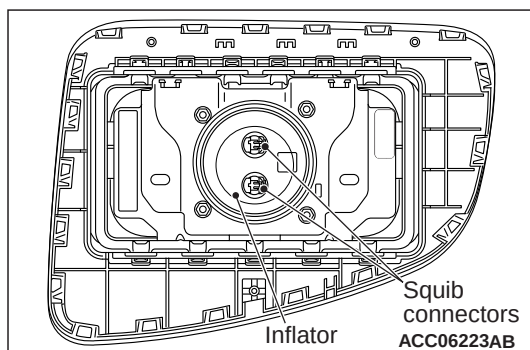
**INSPECTION**

M1524047400134

⚠ CAUTION

- **Never measure circuit resistance in the air bag modules (squib) even with the specified tester. Measuring the circuit resistance with a tester causes accidental air bag deployment due to current that flows or static, resulting in serious personal injury.**
- **When replacing the parts, discard the old parts after deploying the air bag according to the specified procedure (Refer to P.52B-268).**

If any malfunction is found in the following inspections, replace the air bag module with a new one.



1. Check the harness and connector for damage and the terminal for deformation.
2. Check the air bag inflator cases for dents, cracks or deformation.
3. Check the air bag module for proper installation.

SIDE-AIRBAG MODULE(S)

REMOVAL AND INSTALLATION

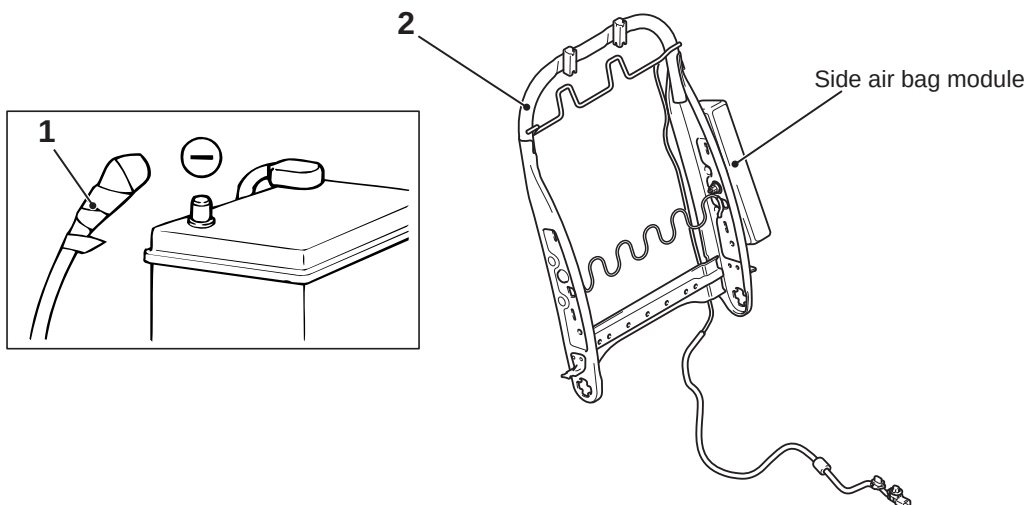
M1524036500751

⚠ WARNING

- **Never attempt to disassemble or repair the side-air bag modules. If faulty, replace it.**
- **Do not drop the side-air bag modules or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.**
- **Do not expose the side-air bag modules to temperatures over 93 °C (199 °F).**
- **After the air bag deployment, replace the air bag module with a new one.**
- **Wear gloves and safety glasses when handling air bags that have already deployed.**
- **Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.**
- **An undeployed side-air bag module should only be disposed of in accordance with the procedures (Refer to [P.52B-268](#)).**

Pre-removal operation

- Turn ignition switch to the LOCK (OFF) position.



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	Removal step		Installation step
<<A>>	1. Negative (-) battery cable	>>A<<	• Pre-installation inspection
	• Front seat assembly (Refer to GROUP 52A – Front Seat Assembly P.52A-17)	2.	Front seatback frame (with side-airbag module) (Refer to GROUP 52A – Front Seat Assembly P.52A-22)
<>	2. Front seatback frame (with side-airbag module) (Refer to GROUP 52A – Front Seat Assembly P.52A-22)	•	Front seat assembly (Refer to GROUP 52A – Front Seat Assembly P.52A-17)
		1.	Negative (-) battery cable
		>>B<<	• Post-installation inspection

REMOVAL SERVICE POINT

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

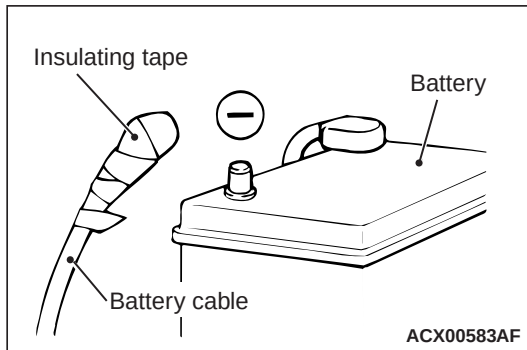
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to [P.52B-5](#)).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<> FRONT SEATBACK FRAME (WITH SIDE-AIRBAG MODULE) REMOVAL

⚠ CAUTION

- When replacing the side-airbag module, replace the front seatback frame.
- Never use an electric tester to diagnose the air bag module circuit. Never attempt to disassemble the air bag module.
- Store the removed front seatback frame in a clean and dry place.
- When discarding the air bag module, discard after deploying the air bag as specified in the service procedure (Refer to [P.52B-268](#)).

INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of side-air bag modules only according to the specified procedure (Refer to [P.52B-268](#)).

1. When installing the new side-air bag modules, refer to "INSPECTION" ([P.52B-246](#)).
2. Connect the negative (-) battery cable.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

3. Connect scan tool (M.U.T.-III) to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool (M.U.T.-III) to ensure entire SRS operates properly.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

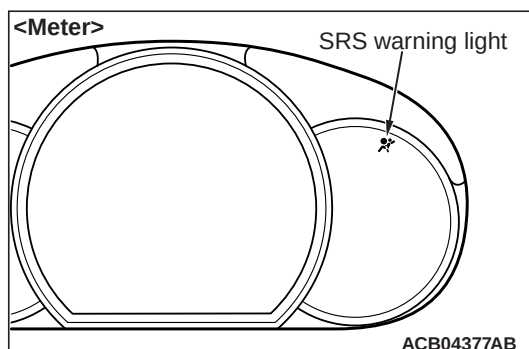
⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position.
Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and air bags deployment.

>>B<< POST-INSTALLATION INSPECTION

1. Turn the ignition switch to the "ON" position.
2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).



INSPECTION

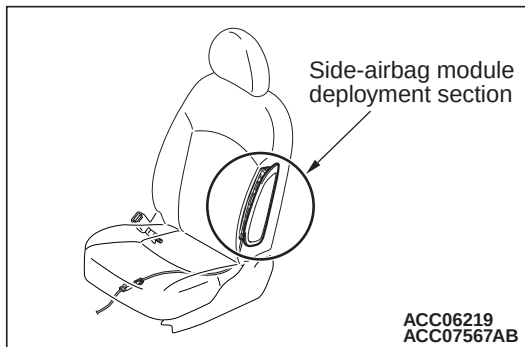
FRONT SEATBACK ASSEMBLY WITH
SIDE-AIRBAG MODULE CHECK**⚠ DANGER**

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

⚠ WARNING

If any improper part is found during the following inspection, replace the front seatback assembly with a new one. Dispose of the old one according to the specified procedure (Refer to [P.52B-268](#)).

1. Check the air bag module deployment section for dents or deformation.
2. Check the connector for damage, the terminals for deformation, and the harness for binding.



CURTAIN AIR BAG MODULE(S)

REMOVAL AND INSTALLATION

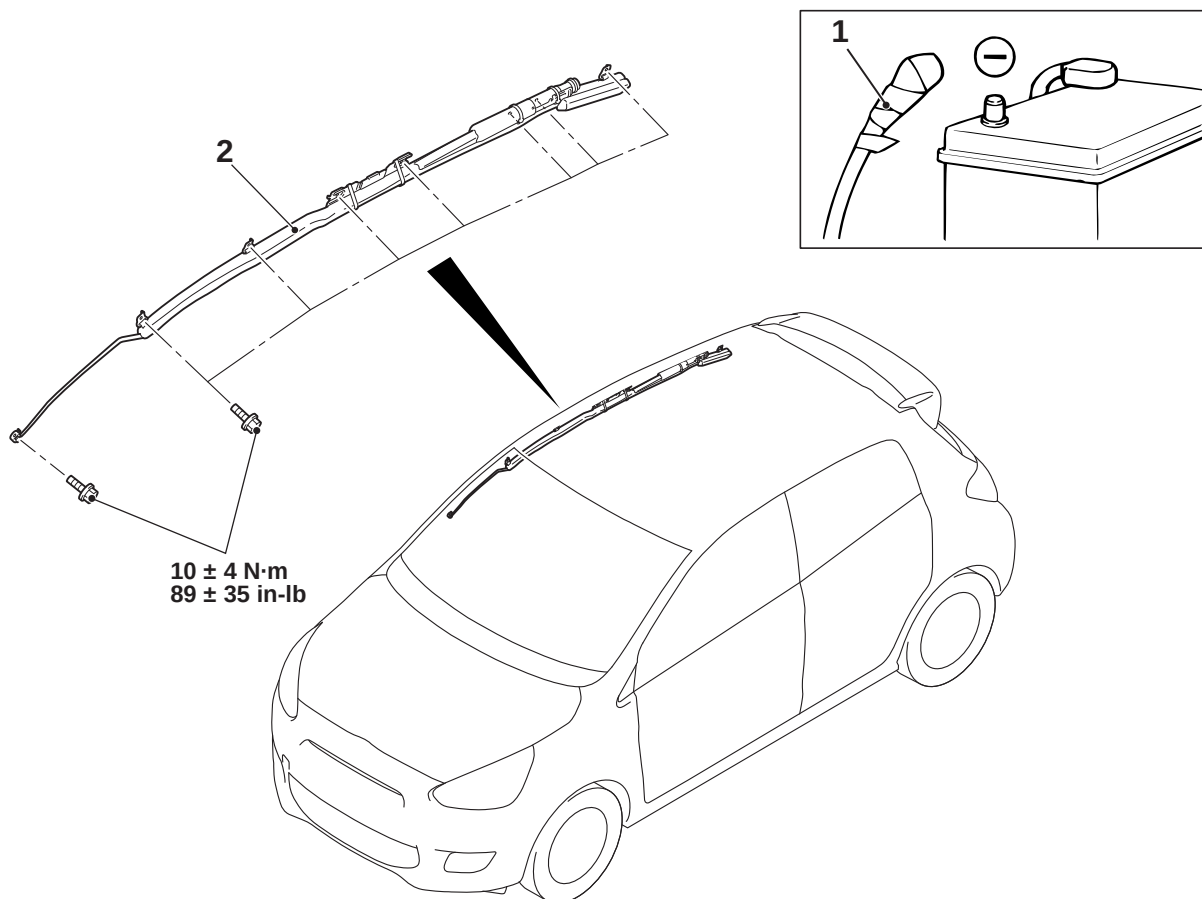
M1524013500738

⚠ WARNING

- **Never attempt to disassemble or repair the curtain air bag modules. If faulty, replace it.**
- **Do not drop the curtain air bag modules or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.**
- **Do not expose the curtain air bag modules to temperatures over 93 °C (199 °F).**
- **After the air bag deployment, replace the air bag module with a new one.**
- **Wear gloves and safety glasses when handling air bags that have already deployed.**
- **Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.**
- **An undeployed curtain air bag module should only be disposed of in accordance with the procedures (Refer to [P.52B-268](#)).**

Pre-removal operation

- Turn the ignition switch to the LOCK (OFF) position.
- Disconnect the negative (-) battery terminal.



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Removal steps		Installation steps	
<<A>>	1. Negative (-) battery cable	>>A<<	• Pre-installation inspection
	• Assist grip bracket, Headlining pad (Refer to GROUP 52A – Headlining P.52A-15)		• Assist grip bracket, Headlining pad (Refer to GROUP 52A – Headlining P.52A-15).
<>	2. Curtain air bag module	>>C<<	1. Negative (-) battery cable
			• Post-installation inspection

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

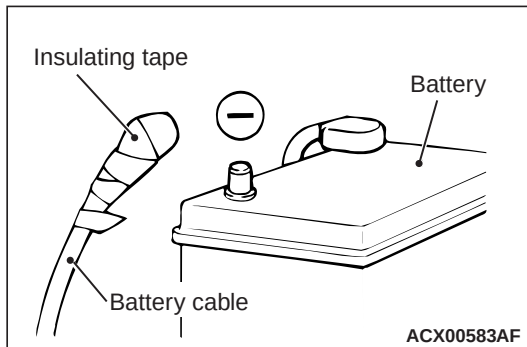
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.

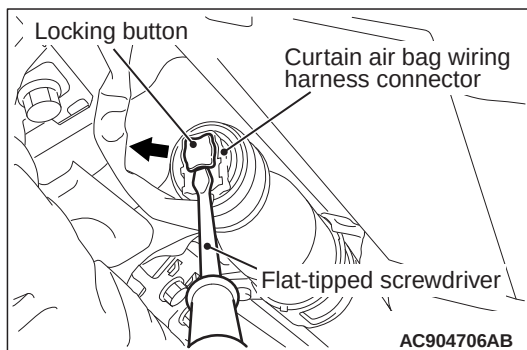


<> CURTAIN AIR BAG MODULE REMOVAL

⚠ CAUTION

- Never use an electric tester to diagnose the air bag module circuit. Never attempt to disassemble the air bag module.
- The removed air bag module should be stored in a clean, dry place.
- When discarding the air bag module, discard after deploying the air bag as specified in the service procedure (Refer to P.52B-268).

Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

WARNING

Dispose of air bag modules only according to the specified procedure (Refer to [P.52B-5](#)).

1. When installing the new air bag module, refer to "INSPECTION" (Refer to [P.52B-250](#)).
2. Connect the negative (–) battery cable.

CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

3. Connect scan tool (M.U.T.-III) to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool (M.U.T.-III) to ensure entire SRS operates properly.

DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to [P.52B-5](#)).

WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and air bag deployment.

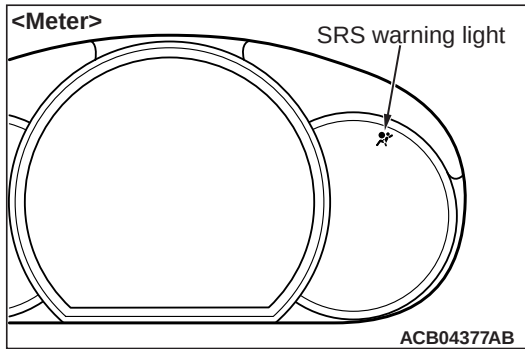
>>B<< CURTAIN AIR BAG MODULE INSTALLATION

CAUTION

- Take care not to contort the curtain air bag when installing it.
- Do not trap the air bag with the peripheral parts.
- Do not trap the strap with the front pillar trim clip or others.
- Connect the connector to the inflator thoroughly.

>>C<< POST-INSTALLATION INSPECTION

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



2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to [P.52B-14](#)).

INSPECTION

M1524013600348

CURTAIN AIR BAG MODULE CHECK

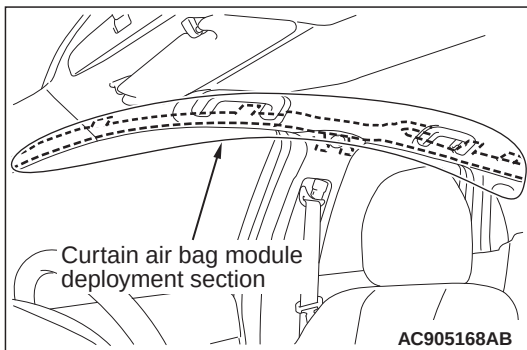
⚠ DANGER

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

⚠ WARNING

- ***If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to [P.52B-268](#)).***
- ***There must be no abnormality to the air bag deployment section of headlining.***

1. Check the inflator surface for cracks, dents or deformations.
2. Check the air bag for breakage.
3. Check the connector for damage, the terminal for deformation and the harness for binding.



KNEE AIR BAG MODULE

REMOVAL AND INSTALLATION

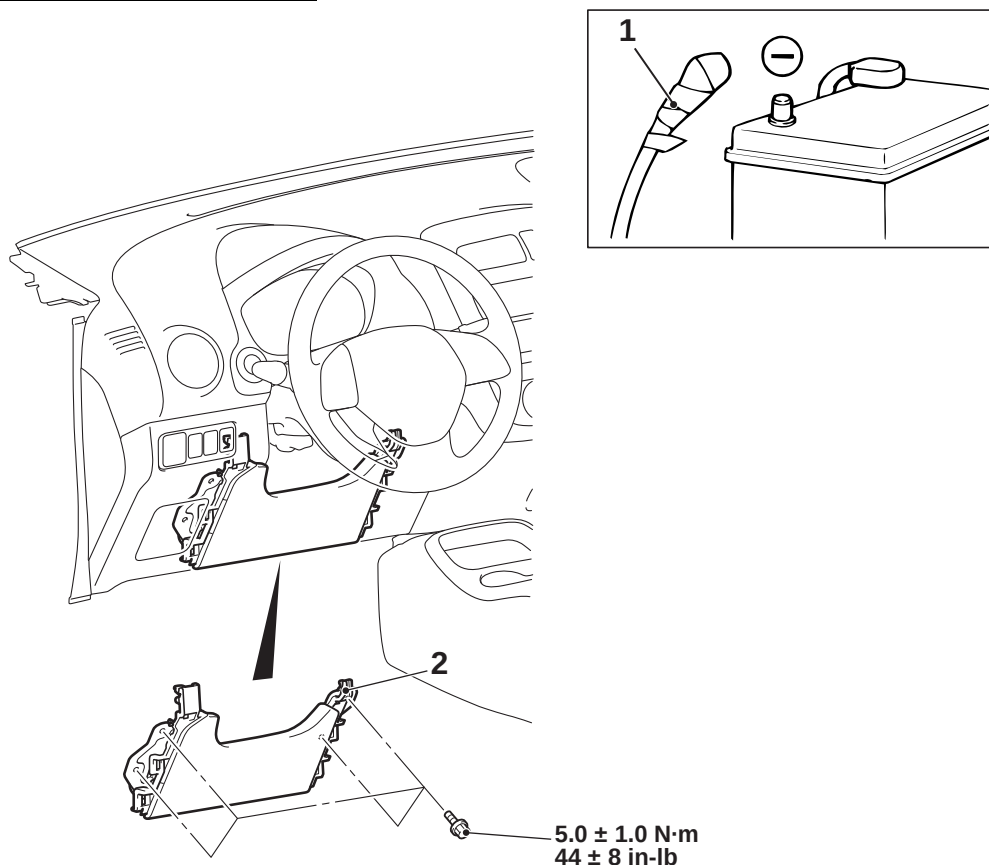
M1524044000342

⚠ WARNING

- *Never attempt to disassemble or repair the knee air bag modules. If faulty, replace it.*
- *Do not drop the knee air bag modules or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.*
- *Do not expose the knee air bag modules to temperatures over 93 °C (199 °F).*
- *After the air bag deployment, replace the air bag module with a new one.*
- *Wear gloves and safety glasses when handling air bags that have already deployed.*
- *Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.*
- *An undeployed knee air bag module should only be disposed of in accordance with the procedures (Refer to [P.52B-268](#)).*

Pre-removal operation

- Turn the ignition switch to the LOCK (OFF) position.



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<<A>>

Removal steps

1. Negative (-) battery cable

<>

Removal steps (Continued)

- Side lower panel assembly (LH), Center lower panel assembly (Refer to GROUP 52A, Instrument Lower Panel [P.52A-6](#)).
- 2. Knee air bag module

Installation steps

- >>A<< • Pre-installation inspection
- >>B<< 2. Knee air bag module
 - Side lower panel assembly (LH), Center lower panel assembly (Refer to GROUP 52A, Instrument Lower Panel P.52A-6).
- 1. Negative (-) battery cable
- >>C<< • Post-installation inspection

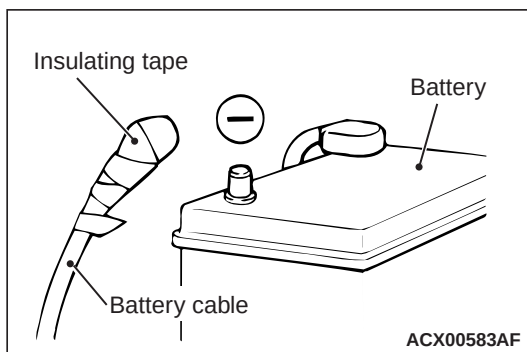
REMOVAL SERVICE POINTS**<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION**** DANGER**

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

** WARNING**

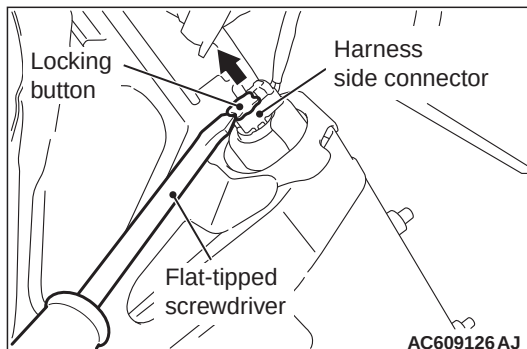
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.

**<> KNEE AIR BAG MODULE REMOVAL**** CAUTION**

- Never use an electric tester to diagnose the air bag module circuit. Never attempt to disassemble the air bag module.
- The removed air bag module should be stored in a clean, dry place.
- When discarding the air bag module, discard after deploying the air bag as specified in the service procedure (Refer to P.52B-268).

Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of knee air bag module only according to the specified procedure (Refer to P.52B-268).

1. When installing the new knee air bag module, refer to "INSPECTION" (Refer to P.52B-254).
2. Connect the negative (–) battery cable.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

3. Connect scan tool (M.U.T.-III) to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool (M.U.T.-III) to ensure entire SRS operates properly.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and air bag deployment.

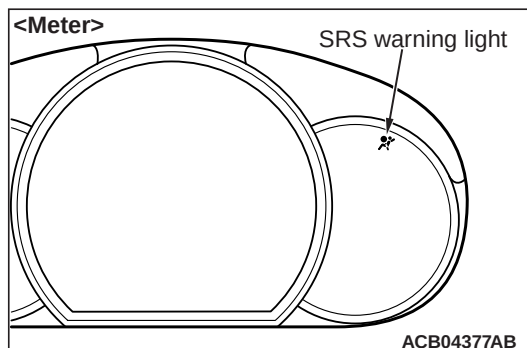
>>B<< KNEE AIR BAG MODULE INSTALLATION

⚠ CAUTION

- Take care not to contort the knee air bag when installing it.
- Connect the connector to the inflator thoroughly.

>>C<< POST-INSTALLATION INSPECTION

1. Turn the ignition switch to the "ON" position.
2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).



INSPECTION

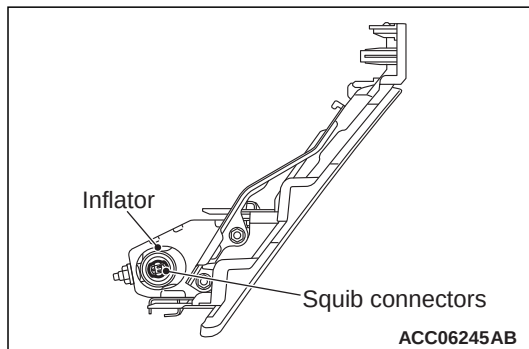
KNEE AIR BAG MODULE CHECK

⚠ DANGER

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

⚠ WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to [P.52B-268](#)).



1. Check the inflator surface for cracks, dents or deformations.
2. Check the air bag for breakage.
3. Check the connector for damage, the terminal for deformation and the harness for binding.

SIDE IMPACT SENSOR

REMOVAL AND INSTALLATION

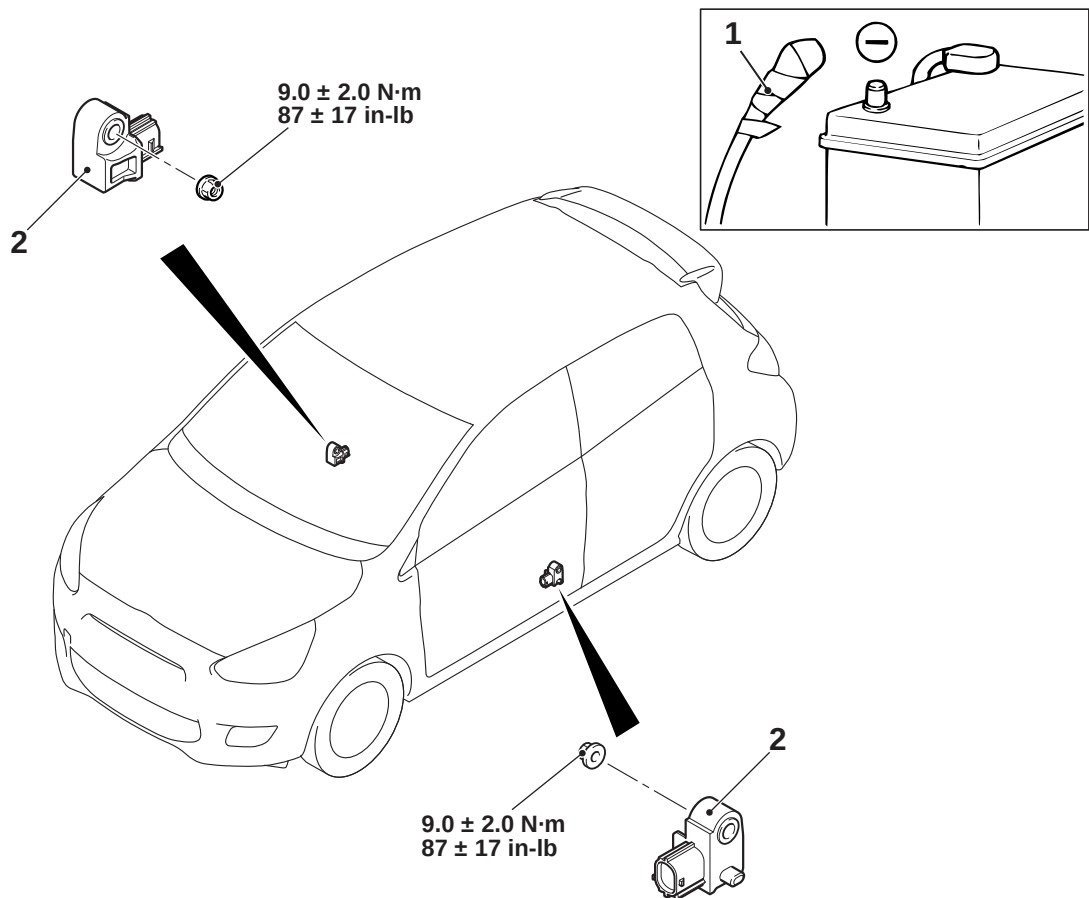
M1524004601473

⚠ WARNING

- *Never attempt to disassemble or repair the side impact sensor. If faulty, replace it.*
- *Do not drop or subject the side impact sensor to impact or vibration. Replace the side impact sensor, if dents, cracking, deformation, or rust are present.*
- *Replace the side impact sensor after the side and curtain air bag has deployed.*

Pre-removal operation

- Turn the ignition switch to the LOCK (OFF) position.



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<<A>>

Removal steps

1. Negative (–) battery cable
- Center pillar trim lower (Refer to GROUP 52A – Interior Trim [P.52A-9](#)).
2. Side impact sensor

<<A>>

>>A<<

Installation steps

- Pre-installation inspection
- >>B<< 2. Side impact sensor
- Center pillar trim lower (Refer to GROUP 52A – Interior Trim [P.52A-9](#)).
1. Negative (–) battery cable
- >>C<< • Post-installation inspection

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

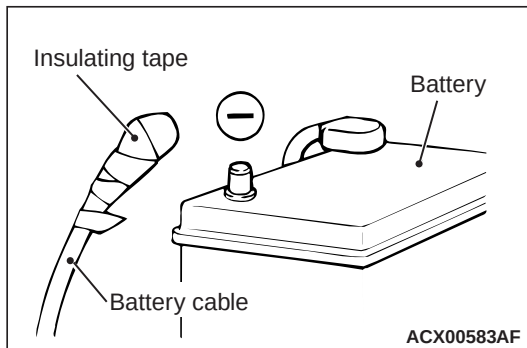
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

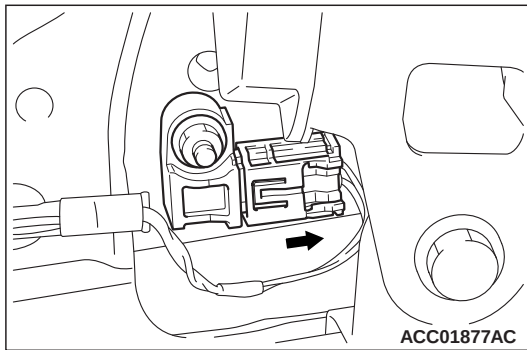
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<> SIDE IMPACT SENSOR CONNECTOR REMOVAL

Slide the outer housing of the side impact sensor connector in the arrow direction shown, and disconnect the connector.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Even when installing a new side impact sensor, perform an inspection before the installation (Refer to P.52B-257).

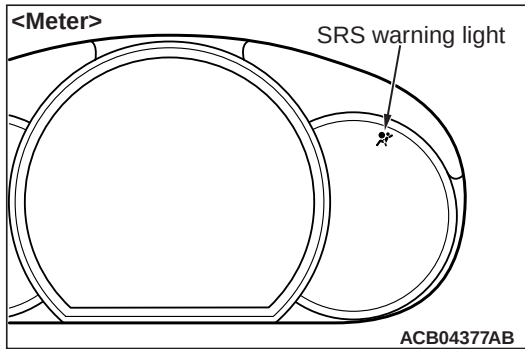
>>B<< SIDE IMPACT SENSOR INSTALLATION

⚠ WARNING

If the side impact sensor is not installed securely and correctly, the side-air bag may not operate normally. Securely connect the connector.

>>C<< POST-INSTALLATION INSPECTION

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



2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to [P.52B-14](#)).

INSPECTION

M1524004700808

WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the side impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to [P.52B-14](#)).

1. Check the side impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the center pillar.

SEAT BELTS WITH PRE-TENSIONER

REMOVAL AND INSTALLATION

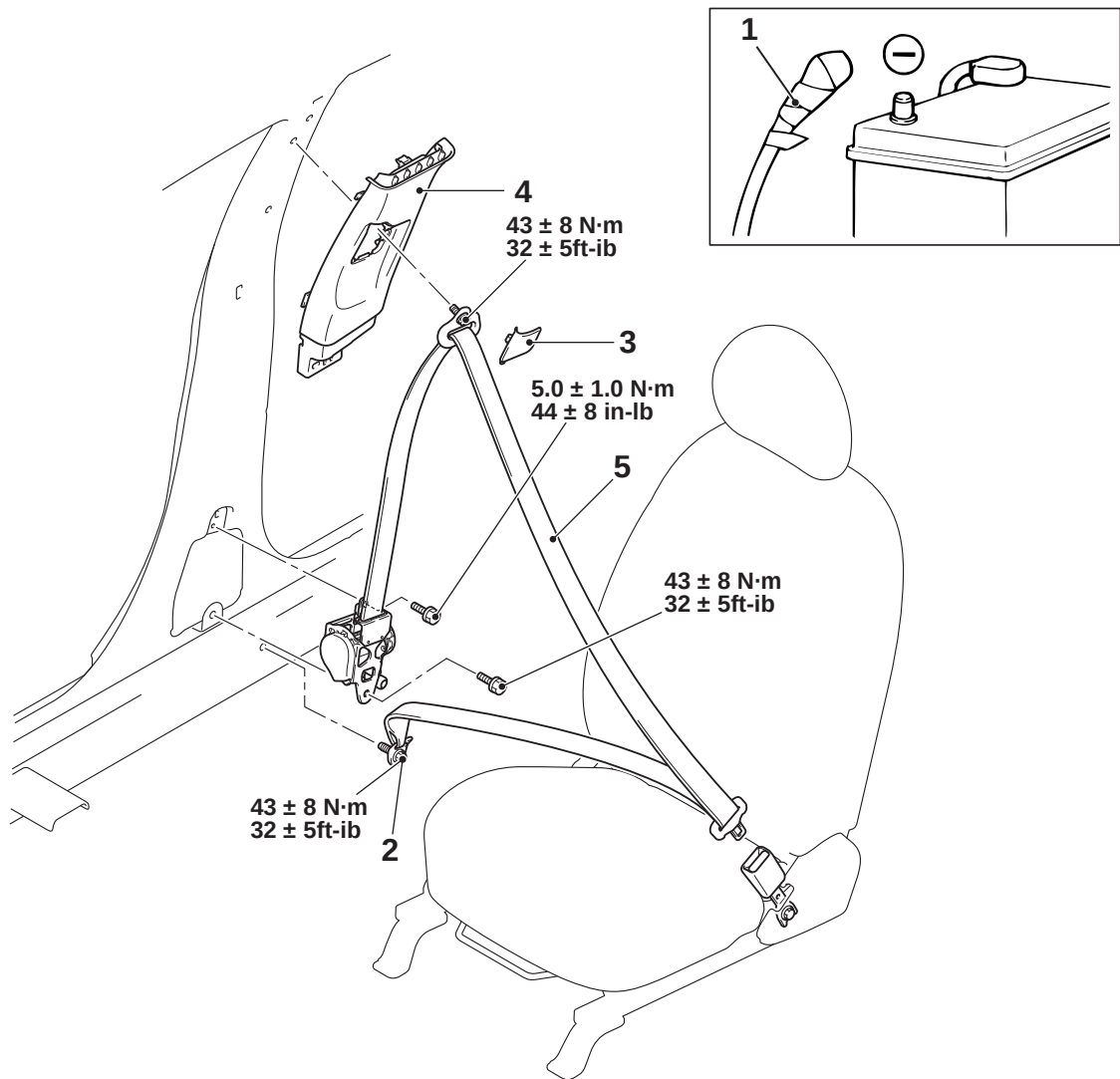
M1524004101791

⚠ WARNING

- *Never attempt to disassemble or repair the seat belt pre-tensioner. If faulty, replace it.*
- *Be extremely careful when handling the seat with pre-tensioner. Do not subject it to shocks, drop it, bring it close to strong magnets or allow contact with water, grease or oil. Always replace it with a new part if any dents, cracks or deformation is found.*
- *Do not place anything on the seat belt pre-tensioner.*
- *Do not expose the seat belt pre-tensioner to temperatures over 90 °C (194 °F).*
- *After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.*
- *Gloves and protective goggles must be worn when handling a seat belt pre-tensioner once it has been used.*
- *Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain perchlorate materials. Before deployment and/or disposal of these components, review and comply with all applicable Federal, state and local regulations.*
- *An undeployed seat belt with pre-tensioner should only be disposed of in accordance with the procedures (Refer to [P.52B-268](#)).*

Pre-removal operation

- Turn the ignition switch to the LOCK (OFF) position.



ACB03614AB

<<A>>

Removal steps

1. Negative (-) battery cable
 - Front scuff plate, scuff plate rear, center pillar trim lower (Refer to GROUP 52A – Interior Trim P.52A-9).
2. Outer seat belt mounting bolt
3. Center pillar trim upper cap
4. Center pillar trim upper (Refer to GROUP 52A – Interior Trim P.52A-9.)

<>

5. Seat belt with pre-tensioner

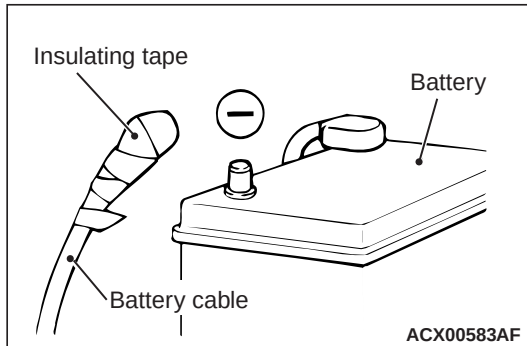
>>A<<

Installation steps

- Pre-installation inspection
- 5. Seat belt with pre-tensioner
- 4. Center pillar trim upper (Refer to GROUP 52A – Interior Trim P.52A-9).
- 3. Center pillar trim upper cap
- 2. Outer seat belt mounting bolt
 - Front scuff plate, scuff plate rear, center pillar trim lower (Refer to GROUP 52A – Interior Trim P.52A-9).

>>B<<

1. Negative (-) battery cable
- Post-installation inspection



REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

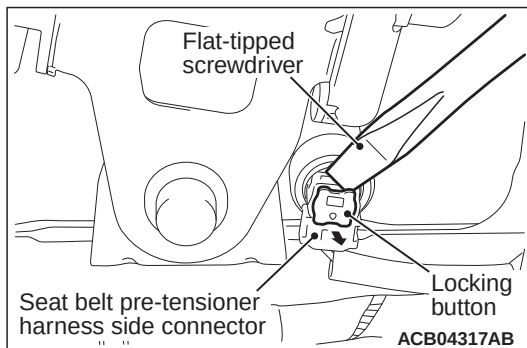
Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

<> SEAT BELT PRE-TENSIONER REMOVAL

⚠ CAUTION

When discarding the seat belt with pre-tensioner, discard after operating the seat belt pre-tensioner as specified in the service procedure (Refer to P.52B-285).

Use the flat-tipped screwdriver to pull out the locking button of wiring harness side connector, and release the lock.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of seat belt pre-tensioner only according to the specified procedure (Refer to P.52B-268).

1. When installing the new seat belt pre-tensioner, refer to "INSPECTION" (Refer to P.52B-261).
2. Connect the negative (–) battery cable.

⚠ CAUTION

To prevent damage to scan tool (M.U.T.-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (M.U.T.-III).

3. Connect scan tool (M.U.T.-III) to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool (M.U.T.-III) to ensure entire SRS operates properly.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

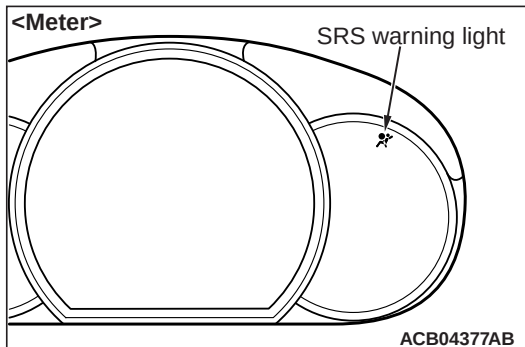
⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

>>B<< POST-INSTALLATION INSPECTION

1. Turn the ignition switch to the "ON" position.
2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).
4. Check the seat belt operation. If the seat belt cannot be draw out, replace with a new seat belt with pre-tensioner.



INSPECTION

M1524004200784

SEAT BELT WITH PRE-TENSIONER CHECK

⚠ WARNING

- **If any component damage is found during the following inspection, replace the seat belt with pre-tensioner with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-268).**
- **Never attempt to measure the circuit resistance of the seat belt pre-tensioner even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental seat belt pre-tensioner operation will result in serious personal injury.**

If any malfunction is found in the following inspections, replace the seat belt with pre-tensioner with a new one.

1. Check the seat belt pre-tensioner for dents, cracks or deformation.
2. Check the harness and connector for damage and the terminal for deformation.

OCCUPANT CLASSIFICATION-ECU

REMOVAL AND INSTALLATION

M1524053100035

⚠ WARNING

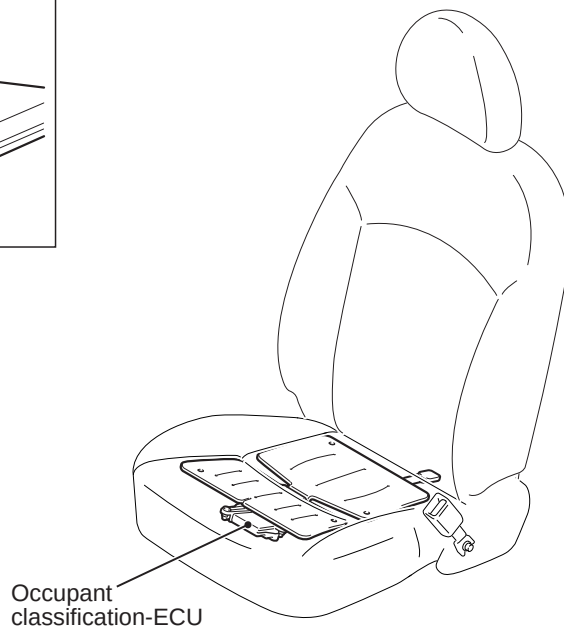
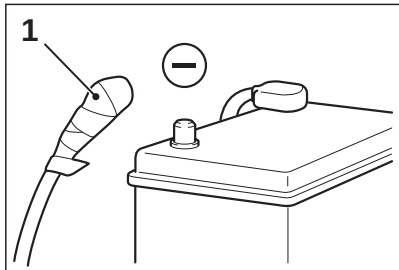
- *Never attempt to disassemble or repair the occupant classification-ECU. If faulty, replace it.*
- *Do not drop or subject the occupant classification-ECU to impact or vibration. Replace the occupant classification-ECU, if dents, cracking, deformation, or rust are present.*

⚠ CAUTION

- Always replace the front seat cushion cover and pad assembly together with the occupant classification-ECU.
- When replacing the front seat cushion cover and pad assembly, be careful not to apply static electricity to it.
- The front seat cushion cover and pad assembly must not be damped with any liquid or steam.

Pre-removal Operation

- Electric motor switch to the "LOCK" (OFF) position.

ACC06219
ACC07525AB

<<A>>

Removal steps

1. Negative (-) battery cable
- Occupant classification-ECU (Refer to GROUP 52A, Front seat assembly [P.52A-17](#))

>>A<<

Installation steps

- Pre-installation inspection
- Occupant classification-ECU (Refer to GROUP 52A, Front seat assembly [P.52A-17](#))
- 1. Negative (-) battery cable
- >>B<< • Post-installation inspection

REMOVAL SERVICE POINT

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

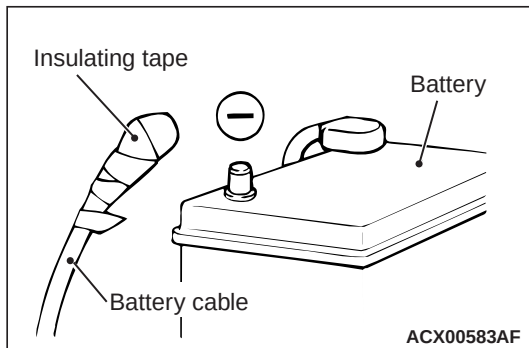
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



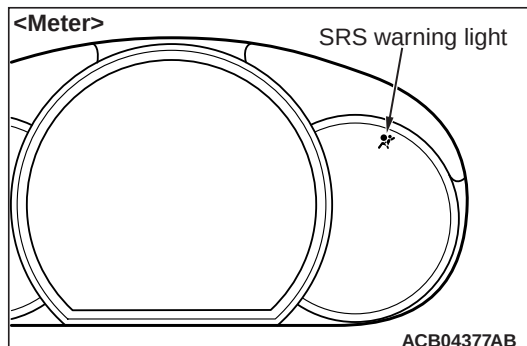
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Check the occupant classification-ECU for dents, breakage and bending and measure the resistance between the terminals, even when installing a new occupant classification-ECU.

>>B<< POST-INSTALLATION INSPECTION

1. Turn the ignition switch to the "ON" position.
2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).



INSPECTION

M1524053200032

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new ECU.

NOTE: For checking of the occupant classification-ECU other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-197).

1. Check the occupant classification-ECU for dent, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.

OCCUPANT CLASSIFICATION SENSOR

REMOVAL AND INSTALLATION

M1524025600107

⚠ WARNING

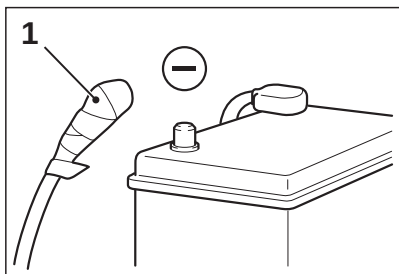
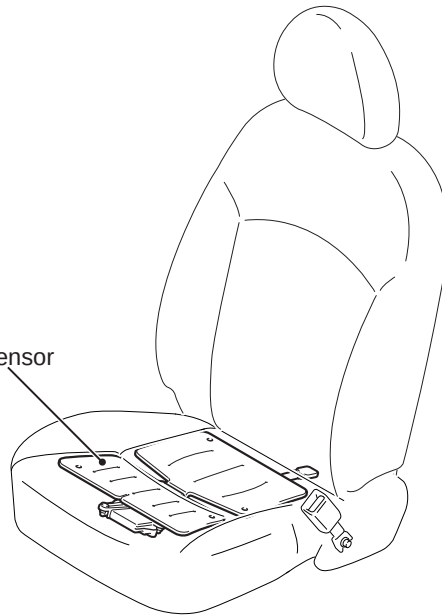
- *Never attempt to disassemble or repair the occupant classification sensor. If faulty, replace it.*
- *Do not drop or subject the occupant classification sensor to impact or vibration. Replace the occupant classification sensor, if dents, cracking, deformation, or rust are present.*

⚠ CAUTION

- Always replace the front seat cushion cover and pad assembly together with the occupant classification-ECU.

Pre-removal Operation

- Electric motor switch to the "LOCK" (OFF) position.

Occupant
classification sensorACC06219
ACC07525AC

<<A>>

Removal steps

1. Negative (-) battery cable
- Front seat cushion cover and pad assembly <Passenger's side> (Occupant classification sensor) (Refer to GROUP 52A, Front seat assembly [P.52A-22](#))

>>A<<

Installation steps

- Pre-installation inspection
- Front seat cushion cover and pad assembly <Passenger's side> (Occupant classification sensor) (Refer to GROUP 52A, Front seat assembly [P.52A-22](#))

1. Negative (-) battery cable

>>B<<

- Post-installation inspection

REMOVAL SERVICE POINT

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

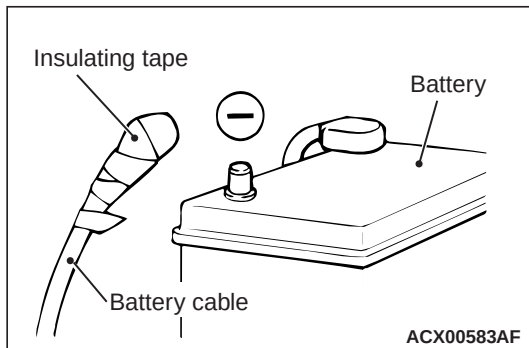
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



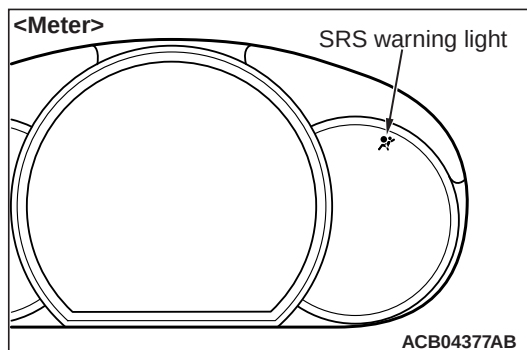
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Check the occupant classification sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new occupant classification sensor.

>>B<< POST-INSTALLATION INSPECTION

1. Turn the ignition switch to the "ON" position.
2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).



INSPECTION

M1524025700085

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new front seat cushion cover and pad assembly.

NOTE: For checking of the occupant classification sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-197).

1. Check the front seat cushion cover and pad assembly for damage (gouges and tears, etc.).
2. Check the connector and harness for damage, and terminals for deformation.

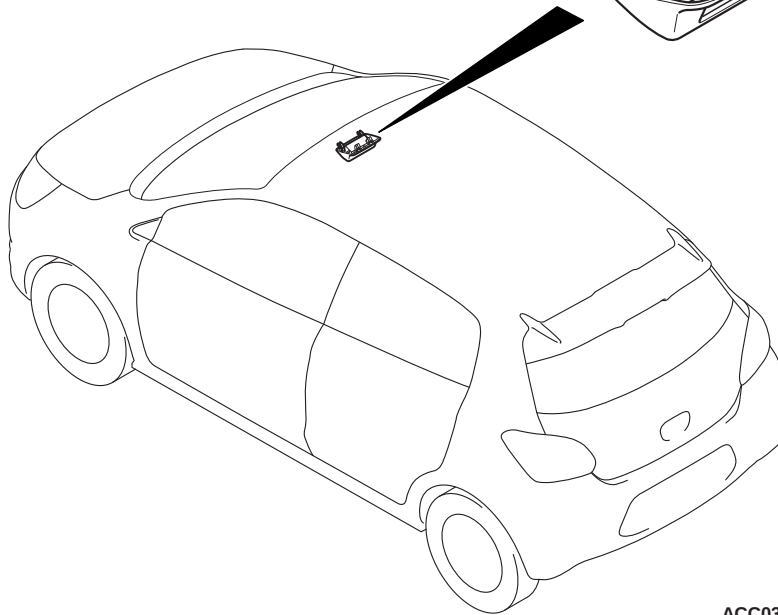
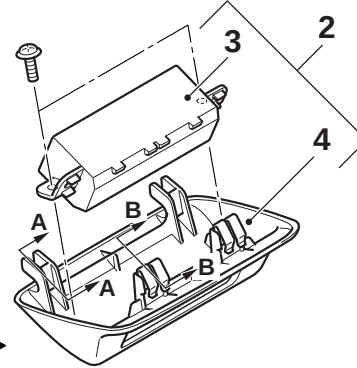
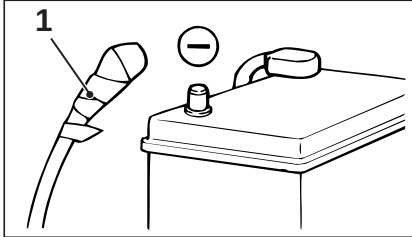
PASSENGER'S AIR BAG ON/OFF INDICATOR LIGHT

REMOVAL AND INSTALLATION

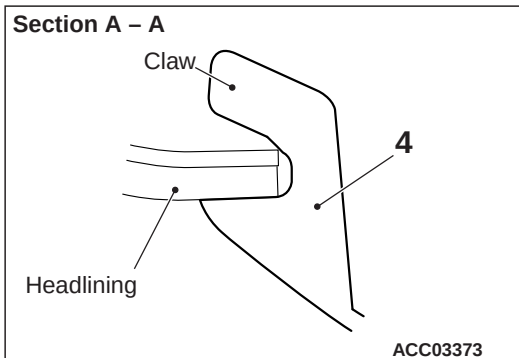
M1524057700017

Pre-removal Operation

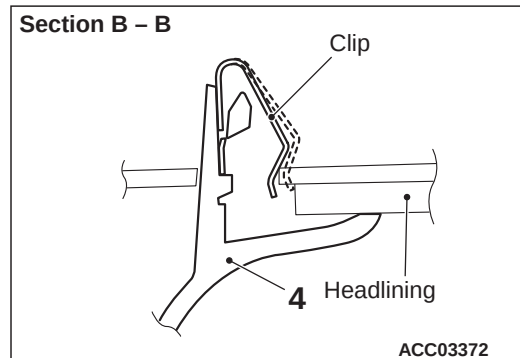
- Turn the ignition switch to the LOCK (OFF) position.



ACC03371



ACC03373



ACC03372

ACC05183AB

<<A>>

Removal steps

1. Negative (-) battery cable
2. Passenger's air bag OFF indicator light assembly
3. Passenger's air bag OFF indicator light
4. Cover

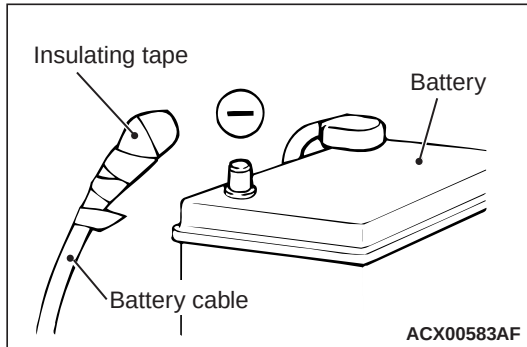
>>A<<

Installation steps

- Pre-installation inspection
4. Cover
 3. Passenger's air bag OFF indicator light
 2. Passenger's air bag OFF indicator light assembly

Installation steps (Continued)

- >>B<<
1. Negative (-) battery cable
- Post-installation inspection



REMOVAL SERVICE POINT

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-5).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.

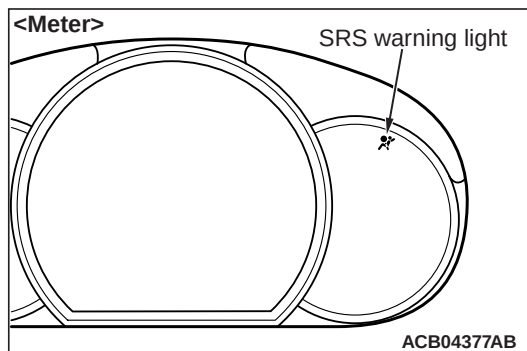
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Check the passenger's air bag OFF indicator light for dents, breakage and bending and measure the resistance between the terminals, even when installing a new passenger's air bag OFF indicator light.

>>B<< POST-INSTALLATION INSPECTION

1. Turn the ignition switch to the "ON" position.
2. Check that the SRS warning light is illuminated for 6 to 8 seconds, and extinguished afterward.
3. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).
4. Check that the passenger's air bag OFF indicator light is illuminated for 6 to 8 seconds, and extinguished afterward.
5. If the light does not extinguish, perform the troubleshooting (Refer to P.52B-14).



INSPECTION

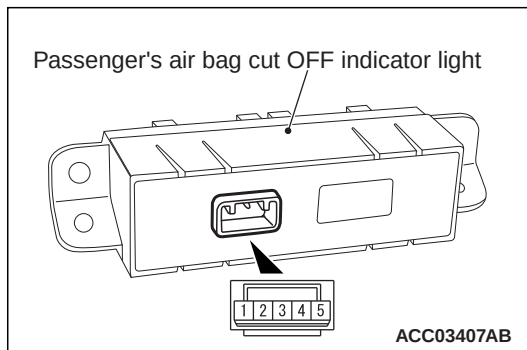
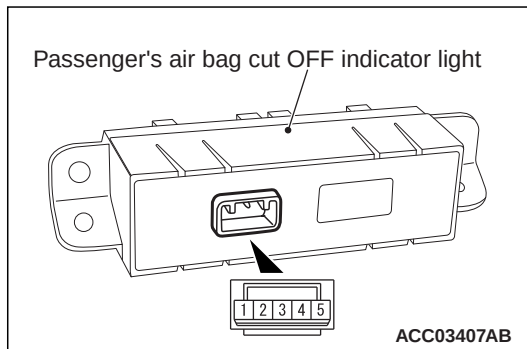
M1524057800014

PASSENGER'S AIR BAG OFF INDICATOR LIGHT
INSPECTION

1. Connect the positive battery terminal with the passenger's air bag OFF indicator light connector terminal No. 1. Then, check if the passenger's air bag OFF indicator light is illuminated when the negative battery terminal and the passenger's air bag cut OFF indicator light connector terminal No. 4 are connected.
2. When the passenger's air bag OFF indicator light is illuminated, the result is judged as good.

PASSENGER'S SEAT BELT WARNING LIGHT
INSPECTION

1. Connect the positive battery terminal with the passenger's air bag OFF indicator light connector terminal No. 1. Then, check if the passenger's seat belt warning light is illuminated when the negative battery terminal and the passenger's air bag OFF indicator light connector terminal No. 3 are connected.
2. When the passenger's seat belt warning light is illuminated, the result is judged as good.



AIR BAG MODULE DISPOSAL PROCEDURES

M1524001202101

When discarding the air bag modules or a vehicle with SRS air bags, be sure to deploy the air bags in advance as specified in the service procedure that follows.

DISPOSAL OF UNDEPLOYED AIR BAG MODULES

CAUTION

- If the vehicle is to be scrapped or disposed of, deploy the air bags inside the vehicle.
- If the vehicle is still to be used and only the air bag modules are to be discarded, deploy the air bags outside the vehicle.
- Since a large amount of smoke is produced when the air bags are deployed, avoid residential areas whenever possible. Also, do not perform the operation near the smoke detector.
- Since there is substantial report when the air bags are deployed, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.
- Suitable ear protection must be put on by personnel performing these procedures or by people in the immediate area.

DRIVER'S AIR BAG MODULE DEPLOYMENT INSIDE THE VEHICLE

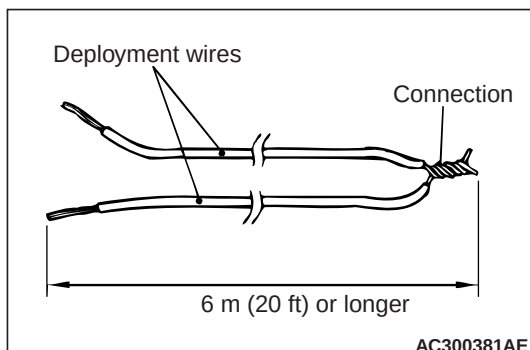
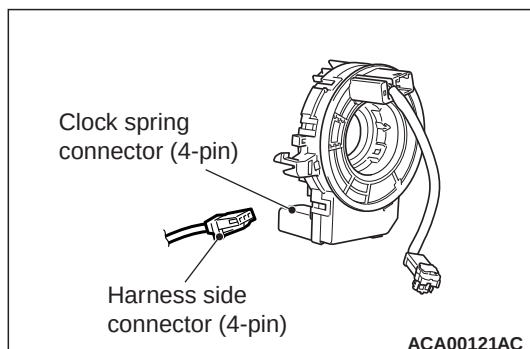
1. Move the vehicle to flat and isolated spot.

CAUTION

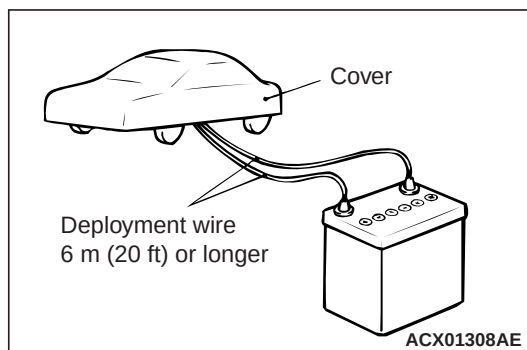
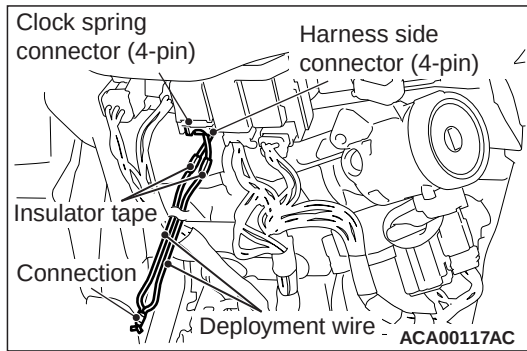
Disconnect the battery cable connection, and wait for 60 seconds or more before starting the work.

2. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.
3. Remove the Steering column lower cover (Refer to GROUP 37 – Steering column shaft assembly P.37-64).
4. Remove the connection between the clock spring connector (4-pin) and the harness side connector (4-pin).

NOTE: Once disconnected from the instrument panel wiring harness, both electrodes of the clock spring connector short automatically. This prevents the driver's air bag from accidental deployment caused by static, etc.



5. Obtain two suitable wires, which are 6 m (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.
6. Touch the vehicle's body with bare hands to discharge static in you.



7. Cut with a pliers, etc. the instrument panel wiring harness shown in the figure of the instructions, while the clock spring connector is disconnected.

NOTE: The disconnection location should be sufficiently away from the harness side connector with consideration to the expansion harness connection location upon disconnections.

8. Connect the deployment wires on the two instrument panel wiring harnesses disconnected, cover the connection areas with insulator tape and then pull out the deployment wires outside the vehicle.
9. Connect the harness side connector connected with an expansion harness to the clock spring connector.

⚠ WARNING

If the glass is scratched, the glass may be shattered at deployment. Therefore, cover with a vehicle cover to avoid danger.

10. In order to suppress the operation sound as much as possible, fully close all the door windows, close the doors, and then cover the vehicle with a vehicle cover.

⚠ CAUTION

- Make sure that no one is present inside or near the vehicle before deploying the air bag.
 - Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the air bag module does not deploy, consult with your distributor.
11. Disconnect the deployment wire connection at a place as far as possible from the vehicle. Then, connect the wires to the removed vehicle battery to deploy the air bag module.
 12. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

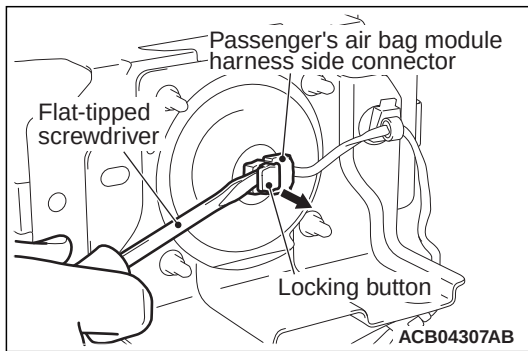
PASSENGER'S (FRONT) AIR BAG MODULE DEPLOYMENT INSIDE THE VEHICLE

1. Move the vehicle to flat and isolated spot.

⚠ CAUTION

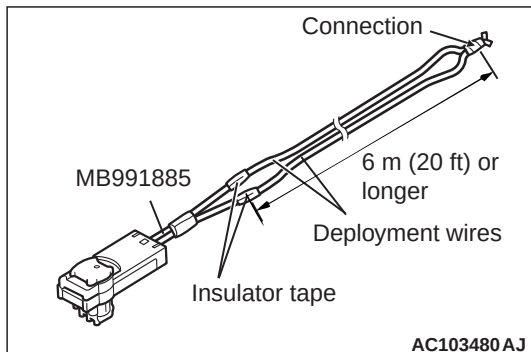
Disconnect the battery cable connection, and wait for 60 seconds or more before starting the work.

2. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.
3. Remove the passenger's (front) air bag module from the vehicle (Refer to [P.52B-240](#)).



4. Use the flat-tipped screwdriver to pull out the locking button of floor harness connector. After releasing the lock, disconnect the connector.

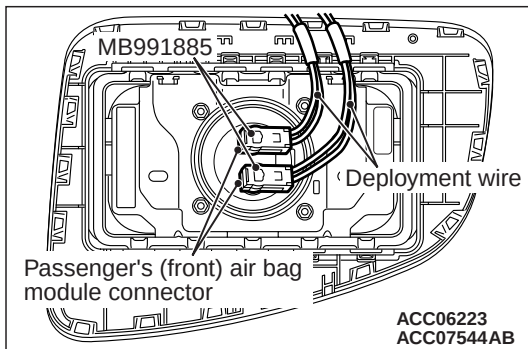
NOTE: When the passenger's (front) air bag module connector is disconnected from the inflator, the two pins of inflator connector are automatically shorted. This prevents the unintentional deployment of passenger's (front) air bags caused by the static or others.



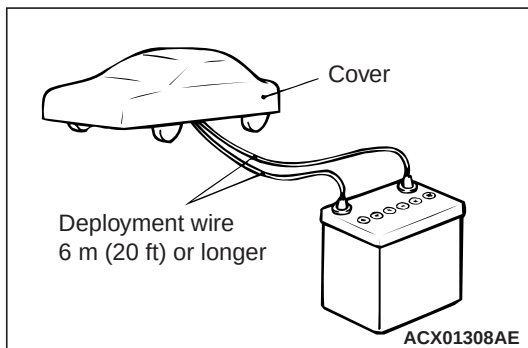
5. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB991885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

NOTE: This prevents the unintentional activation of inflator caused by the static or others.

6. Connect the adapter harness to the passenger's (front) air bag module.



7. Connect the adapter harness to the passenger's (front) air bag module, and then pull out the deployment wire to outside the vehicle.



⚠ WARNING

If the glass is scratched, the glass may be shattered at deployment. Therefore, cover with a vehicle cover to avoid danger.

8. In order to suppress the operation sound as much as possible, fully close all the door windows, close the doors, and then cover the vehicle with a vehicle cover.

⚠ CAUTION

- **Make sure that no one is present inside or near the vehicle before deploying the air bag.**
 - **Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.**
 - **If the air bag module does not deploy, consult with your distributor.**
9. Disconnect the deployment wire connection at a place as far as possible from the vehicle. Then, connect the wires to the removed vehicle battery to deploy the air bag module.
 10. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

KNEE AIR BAG MODULE DEPLOYMENT INSIDE THE VEHICLE

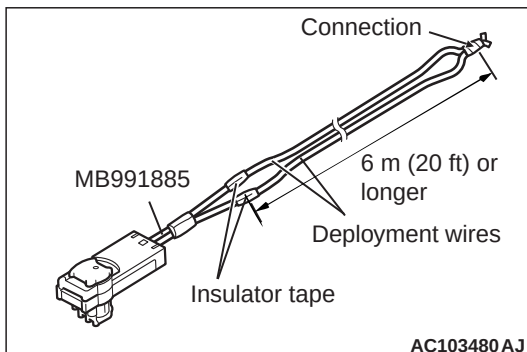
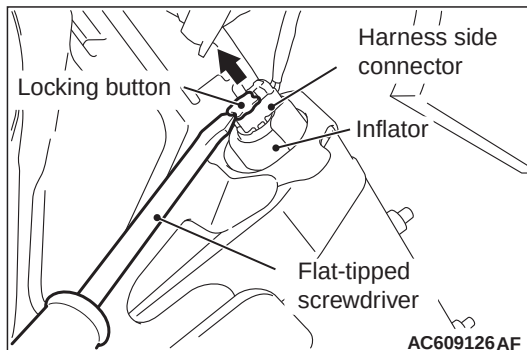
1. Move the vehicle to flat and isolated spot.

⚠ CAUTION

Disconnect the battery cable connection, and wait for 60 seconds or more before starting the work.

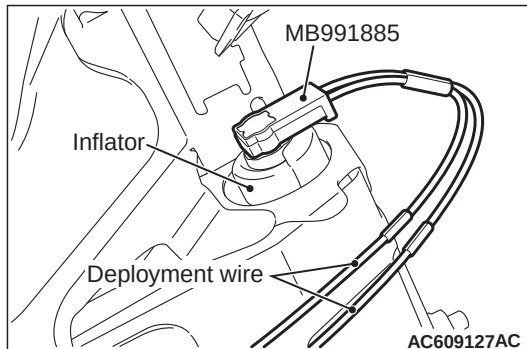
2. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.
3. Remove the knee air bag module (Refer to [P.52B-251](#)).
4. Use the flat-tipped screwdriver to pull out the locking button of harness side connector. After releasing the lock, disconnect the connector.

NOTE: When the harness side connector is disconnected from the inflator, the two pins of inflator connector are automatically shorted. This prevents the unintentional deployment of knee air bag caused by the static or others.



5. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB661885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

NOTE: This prevents the unintentional deployment of knee air bag caused by the static or others.

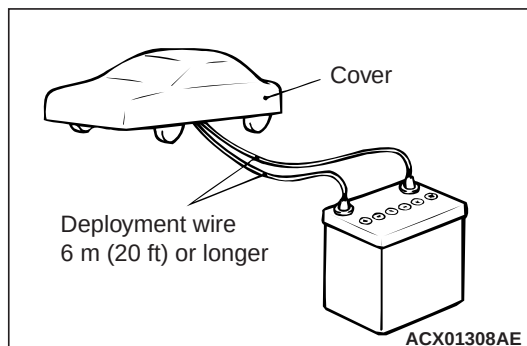


6. Connect the adapter harness to the inflator, and then pull out the deployment wire to outside the vehicle.

⚠ WARNING

If the glass is scratched, the glass may be shattered at deployment. Therefore, cover with a vehicle cover to avoid danger.

7. In order to suppress the operation sound as much as possible, fully close all the door windows, close the doors, and then cover the vehicle with a vehicle cover.



⚠ CAUTION

- Make sure that no one is present inside or near the vehicle before deploying the air bag.
 - Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the air bag module does not deploy, consult with your distributor.
8. Disconnect the deployment wire connection at a place as far as possible from the vehicle. Then, connect the wires to the removed vehicle battery to deploy the air bag module.
 9. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

CURTAIN AIR BAG MODULE DEPLOYMENT INSIDE THE VEHICLE

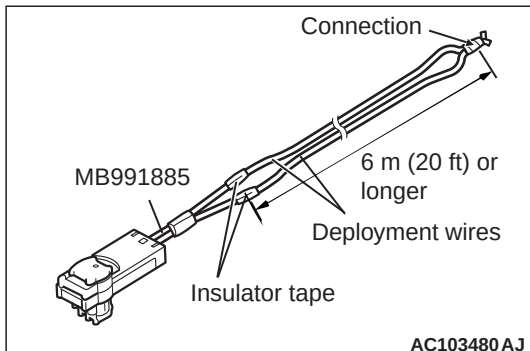
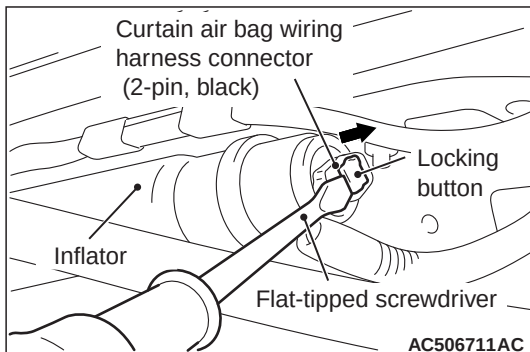
1. Move the vehicle to flat and isolated spot.

⚠ CAUTION

Disconnect the battery cable connection, and wait for 60 seconds or more before starting the work.

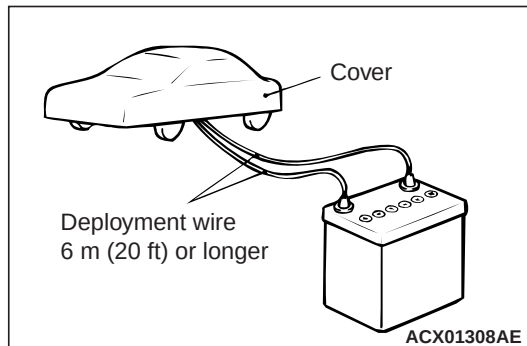
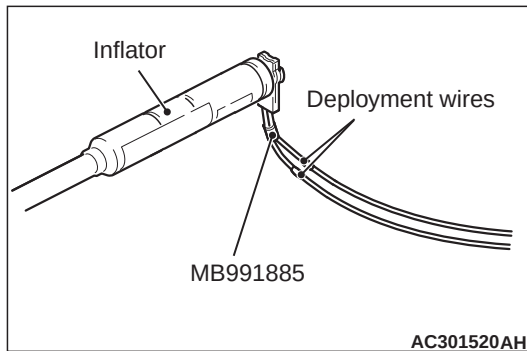
2. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.
3. Remove the headlining (Refer to GROUP 52A - Headlining [P.52A-15](#)).
4. Use the flat-tipped screwdriver to pull out the locking button of curtain air bag harness connector. After releasing the lock, disconnect the connector.

NOTE: When the curtain air bag module connector is disconnected from the inflator, the two pins of inflator connector are automatically shorted. This prevents the unintentional deployment of curtain air bags caused by the static or others.



5. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB661885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

NOTE: This prevents the unintentional deployment of curtain air bags caused by the static or others.



6. Connect the adapter harness to the inflator, and then pull out the deployment wire to outside the vehicle.

⚠ WARNING

If the glass is scratched, the glass may be shattered at deployment. Therefore, cover with a vehicle cover to avoid danger.

7. In order to suppress the operation sound as much as possible, fully close all the door windows, close the doors, and then cover the vehicle with a vehicle cover.

⚠ CAUTION

- Make sure that no one is present inside or near the vehicle before deploying the air bag.
 - Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the air bag module does not deploy, consult with your distributor.
8. Disconnect the deployment wire connection at a place as far as possible from the vehicle. Then, connect the wires to the removed vehicle battery to deploy the air bag module.
 9. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

SIDE-AIRBAG MODULE DEPLOYMENT INSIDE THE VEHICLE

1. Move the vehicle to flat and isolated spot.

⚠ CAUTION

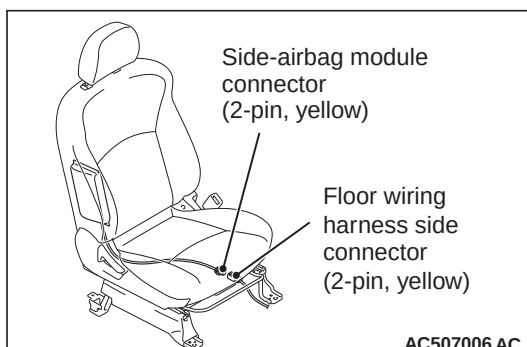
Disconnect the battery cable connection, and wait for 60 seconds or more before starting the work.

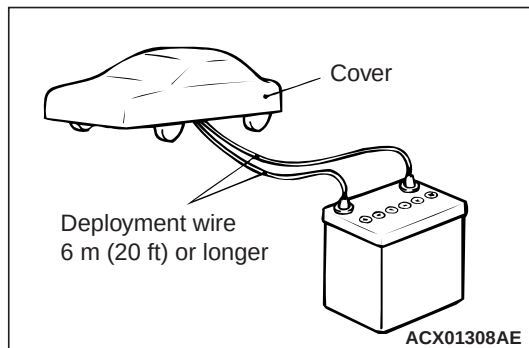
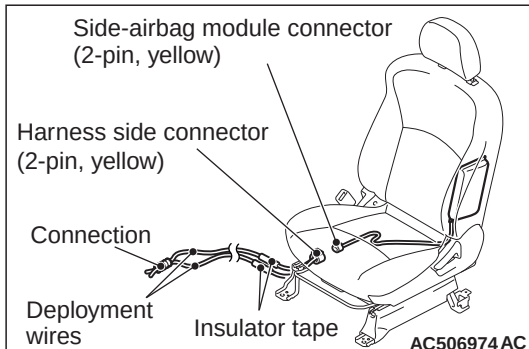
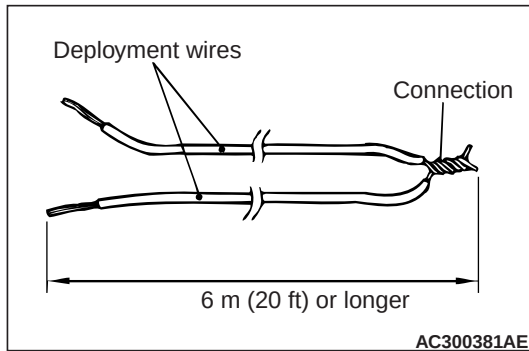
2. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.
3. Disconnect the connections of the side-airbag module connector (2-pin: yellow) and the floor harness connector (2-pin: yellow).

⚠ CAUTION

Make sure to deploy both driver's and front passenger's side-airbags.

NOTE: When the side-airbag module connector is disconnected from the floor harness, the two pins of side-airbag module connector are automatically shorted. This prevents the unintentional deployment of side-airbags caused by the static or others.





4. Prepare two deployment wires of 6 m (20 feet) or more, and keep the terminal at one end connected to that of the other wire (shorted).

NOTE: This prevents the air bags from unintentional deployment caused by static.

⚠ CAUTION

The following procedures are intended to prevent the unintentional deployment caused by the static. Therefore, make sure to perform the procedures.

5. Touch the vehicle body with bare hands to release the charged static.
6. With the side-airbag module connector disconnected, cut the floor harness using a nipper or similar tools.
7. Connect the deployment wire to each of two cut wiring harnesses. After covering the connection areas with insulation tape, pull out the deployment wire to outside the vehicle.
8. Connect the floor harness, to which the deployment wire is connected, to the side-airbag module connector.

⚠ WARNING

If the glass is scratched, the glass may be shattered at deployment. Therefore, cover with a vehicle cover to avoid danger.

9. In order to suppress the operation sound as much as possible, fully close all the door windows, close the doors, and then cover the vehicle with a vehicle cover.

⚠ CAUTION

- Make sure that no one is present inside or near the vehicle before deploying the air bag.
 - Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the air bag module does not deploy, consult with your distributor.
10. Disconnect the deployment wire connection at a place as far as possible from the vehicle. Then, connect the wires to the removed vehicle battery to deploy the side-airbag module.
 11. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

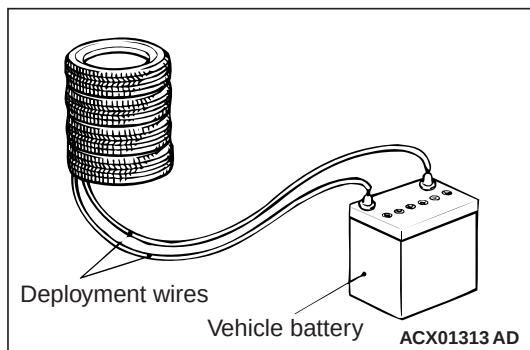
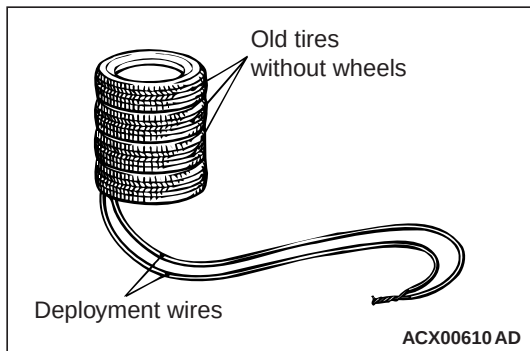
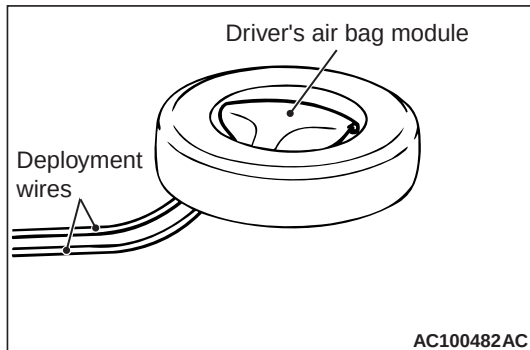
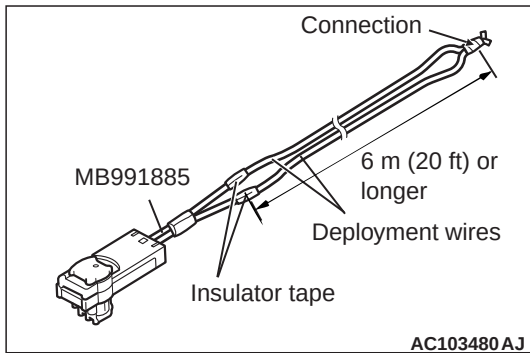
CAUTION

- ### CAUTION

CAUTION

3. Cut the part shown to connect the adapter harness (Special tool: MB991885) to the driver's airbag module connector.





4. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB991885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).
NOTE: This prevents the unintentional activation of inflator caused by the static or others.
5. Connect the adapter harness to the driver's air bag module.
6. To the torx screw installation hole located at the backside of air bag module, tie a thick wire for fixing the wheel.
7. Pass the deployment wire connected to the air bag module underneath the old tire with wheel. Then, fix the air bag module with deployment surface facing upward using the wire which is tied to the bolt.
8. Place three old tires without wheel onto the tire to which the air bag module is fixed.

⚠ CAUTION

- Make sure that no one is present near the air bag module before deploying the air bag.
 - Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the air bag module does not deploy, consult with your distributor.
9. Disconnect the deployment wire connection at a place as far as possible from the air bag module. Then, connect the wires to the removed vehicle battery to deploy the air bag module.
 10. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

**PASSENGER'S (FRONT) AIR BAG MODULE
DEPLOYMENT OUTSIDE THE VEHICLE****⚠ CAUTION**

- Deploy the air bag in the wide open, flat place with a distance of 6 m (20 feet) or more from obstacles and people.
- When deploying the air bag in the open space, do not deploy when the strong wind is blowing. Even with a slight breeze, ignite at the windward of the air bag module.

⚠ CAUTION

Before starting the work, wait for 60 seconds or more after the disconnection of the battery cable. (Refer to the item 5 [P.52B-5](#) of Service Precautions.)

1. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.

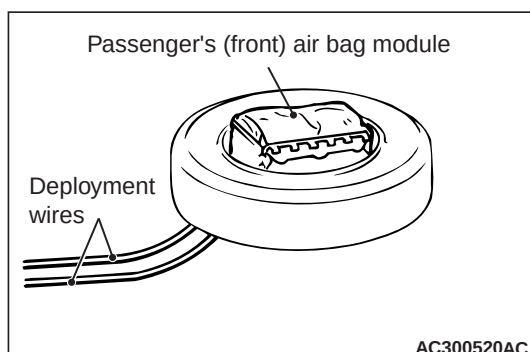
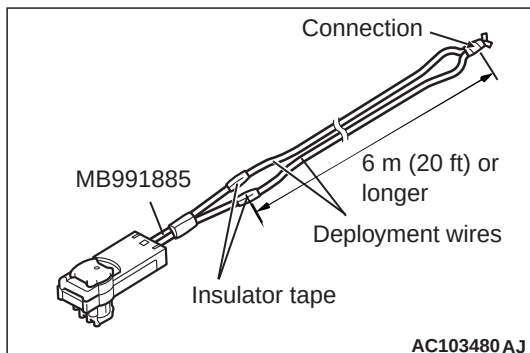
⚠ CAUTION

When the connector is disconnected, the two pins of air bag module are automatically shorted to prevent the unintentional deployment caused by the static or others. However, in preparation for the accidental deployment, store the air bag module on a flat place with the deployment surface facing upward. Also, do not put anything on it.

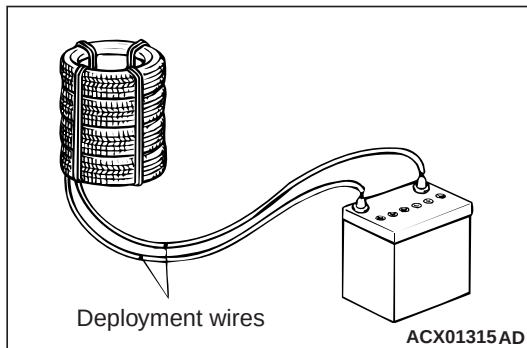
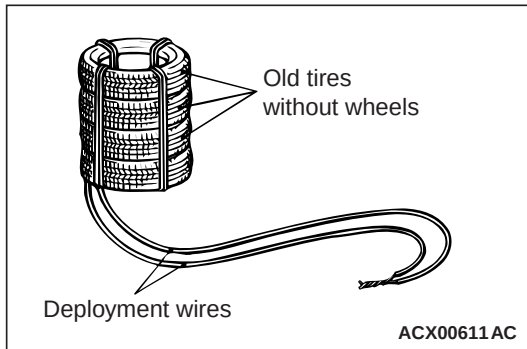
2. Remove the passenger's (front) air bag module from the vehicle (Refer to [P.52B-240](#)).
3. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB991885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

NOTE: This prevents the unintentional activation of inflator caused by the static or others.

4. Connect the adapter harness to the passenger's (front) air bag module.



5. Pass a thick wire through the hole of air bag module bracket. Then, with the air bag module deployment surface facing upward, fix the module to the old tire with wheel.



6. Place three old tires without wheel onto the tire to which the air bag module is fixed. Then, tie and fix all the tires with rope (4 positions).

NOTE: The passenger's (front) air bag has a larger deployment volume than the driver's air bag. Therefore, it is necessary to tie the tires with rope.

⚠ CAUTION

- Make sure that no one is present near the air bag module before deploying the air bag.
 - Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the air bag module does not deploy, consult with your distributor.
7. Disconnect the deployment wire connection at a place as far as possible from the air bag module. Then, connect the wires to the removed vehicle battery to deploy the air bag module.
 8. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

KNEE AIR BAG DEPLOYMENT OUTSIDE THE VEHICLE

⚠ CAUTION

- Deploy the air bag in the wide open, flat place with a distance of 6 m (20 feet) or more from obstacles and people.
- When deploying the air bag in the open space, do not deploy when the strong wind is blowing. Even with a slight breeze, ignite at the windward of the air bag module.

⚠ CAUTION

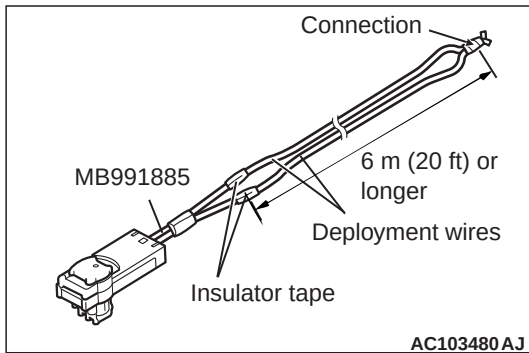
Disconnect the battery cable connection, and wait for 60 seconds or more before starting the work.

1. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.

⚠ CAUTION

When the connector is disconnected, the two pins of air bag module are automatically shorted to prevent the unintentional deployment caused by the static or others. However, in preparation for the accidental deployment, store the air bag module on a flat place with the deployment surface facing upward. Also, do not put anything on it.

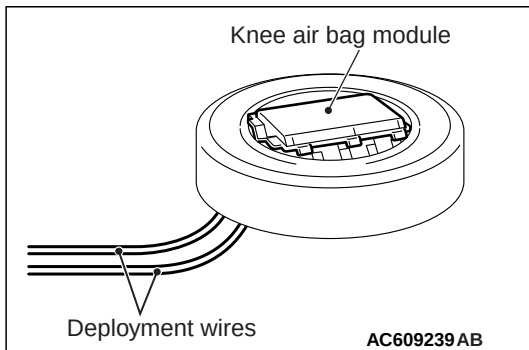
2. Remove the knee air bag module from the vehicle (Refer to [P.52B-251](#)).



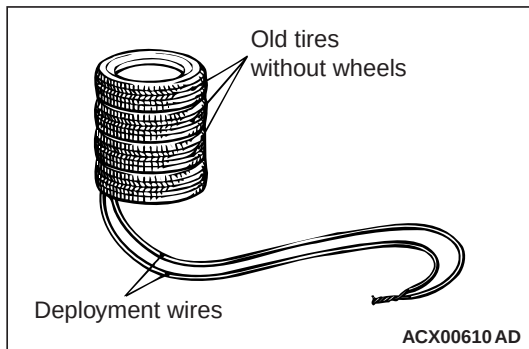
3. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB991885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

NOTE: This prevents the unintentional activation of inflator caused by the static or others.

4. Connect the adapter harness to the knee air bag module.



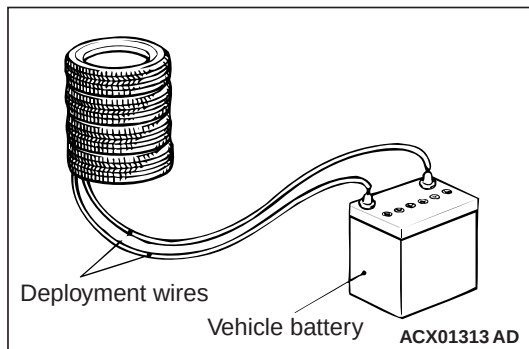
5. Pass the thick wire through the hole of air bag module mounting bracket. When, with the air bag module deployment surface facing upward, fit the module to the old tire with wheel.



6. Place three old tires without wheel onto the tire to which the air bag module is fixed.

⚠ CAUTION

- Make sure that no one is present near the air bag module before deploying the air bag.
- Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
- If the air bag module does not deploy, consult with your distributor.



7. Disconnect the deployment wire connection at a place as far as possible from the air bag module. Then, connect the wires to the removed vehicle battery to deploy the air bag module.
8. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

CURTAIN AIR BAG INFLATOR ACTIVATION OUTSIDE THE VEHICLE

CAUTION

- Activate the inflator in the wide open, flat place with a distance of 6 m (20 feet) or more from obstacles and people.
- When deploying in the open space, do not deploy when the strong wind is blowing. Even with a slight breeze, ignite at the windward of the inflator.

CAUTION

Before starting the work, wait for 60 seconds or more after the disconnection of the battery cable. (Refer to the item 5 P.52B-5 of Service Precautions.)

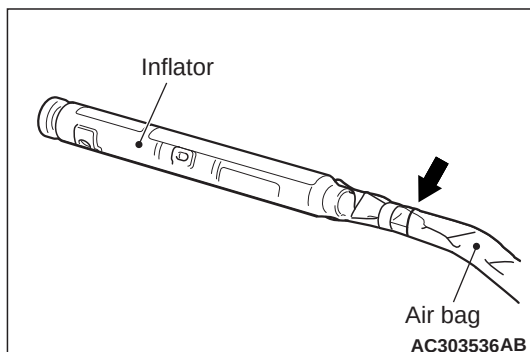
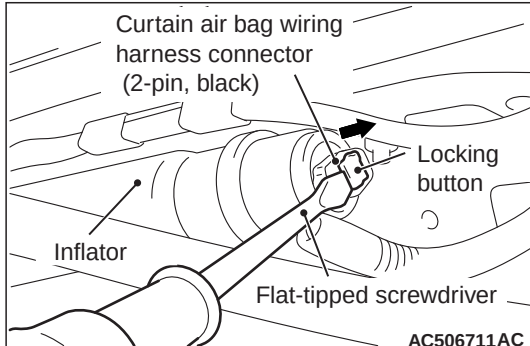
1. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.

CAUTION

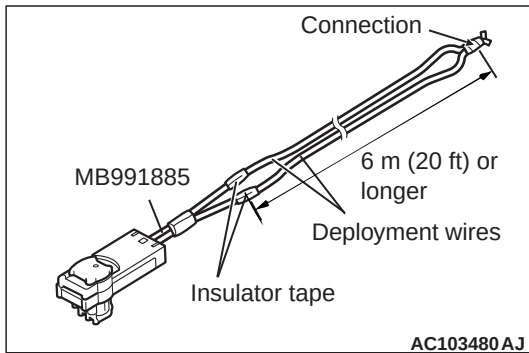
When the connector is disconnected, the two pins of inflator are automatically shorted to prevent the unintentional activation caused by the static or others. However, in preparation for the accidental activation, store the air bag module on a flat place with the activation surface facing upward. Also, do not put anything on it.

2. Remove the headlining (Refer to GROUP 52A - Headlining P.52A-15).
3. Use the flat-tipped screwdriver to pull out the locking button of curtain air bag harness connector. After releasing the lock, disconnect the connector.

NOTE: When the harness connector is disconnected from the inflator, the two pins of inflator connector are automatically shorted. This prevents the unintentional activation of inflator caused by the static or others.

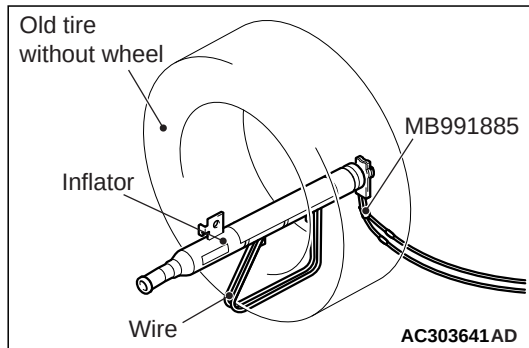


4. Cut the inflator from the air bag as shown in the figure using a cutter or a similar tool.

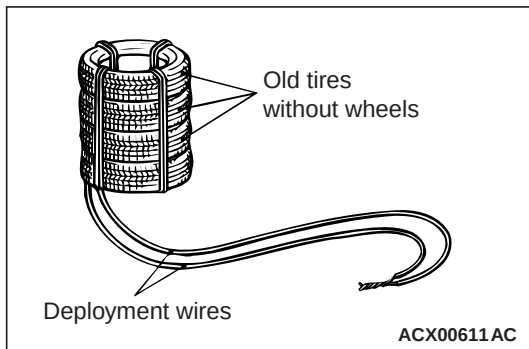


5. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB991885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

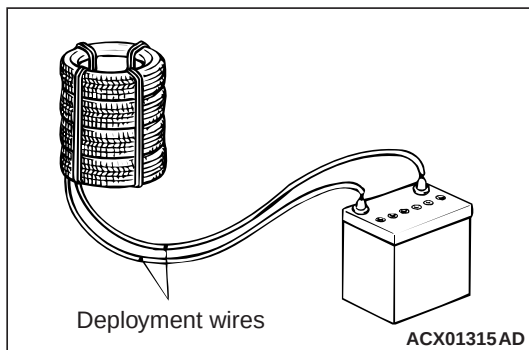
NOTE: This prevents the unintentional activation of inflator caused by the static or others.



6. Feed a thick wire through the bracket of the inflator, and connect it to an old tire with a wheel.
7. Connect the adapter harness to the inflator connector.



8. Place the tire to which the inflator is fixed onto the two stacked tires. Then, place 1 or more old tires without wheel onto the stacked tires, and tie and fix all the tires with rope. (4 positions)



⚠ CAUTION

- Make sure that no one is present near the inflator before the activation.
 - Immediately after the inflator activation, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the inflator does not activate, consult with your distributor.
9. Disconnect the deployment wire connection at a place as far as possible from the inflator. Then, connect the wires to the removed vehicle battery to activate the inflator.
 10. Discard the activated inflator according to the disposal procedures (Refer to [P.52B-284](#)).

SIDE-AIRBAG MODULE DEPLOYMENT OUTSIDE THE VEHICLE

CAUTION

- Deploy the air bag in the wide open, flat place with a distance of 6 m (20 feet) or more from obstacles and people.
- When deploying the air bag in the open space, do not deploy when the strong wind is blowing. Even with a slight breeze, ignite at the windward of the air bag module.

CAUTION

Before starting the work, wait for 60 seconds or more after the disconnection of the battery cable. (Refer to the item 5 P.52B-5 of Service Precautions.)

1. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.
2. Remove the front seat assembly incorporated in side-airbag from the vehicle (GROUP 52A – Front Seat Assembly P.52A-17).

CAUTION

When the connector is disconnected, the two pins of side-airbag module are automatically shorted to prevent the unintentional deployment caused by the static or others. However, in preparation for the accidental deployment, store the air bag module on a flat place with the deployment surface facing upward. Also, do not put anything on it.

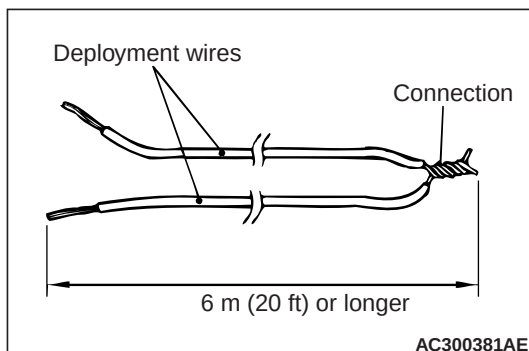
3. Remove the side-airbag module from the front seat assembly incorporated in the side-airbag (Refer to P.52B-243).
4. Prepare two deployment wires of 6 m (20 feet) or more, and keep the terminal at one end connected to that of the other wire (shorted).

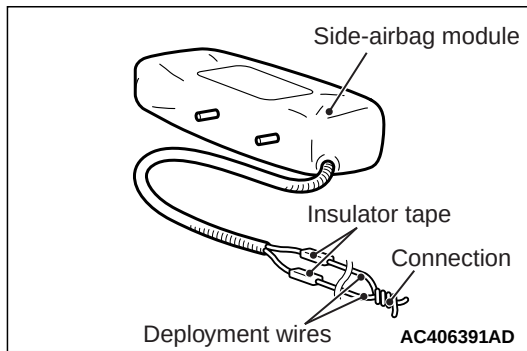
NOTE: This prevents the air bags from unintentional deployment caused by static.

CAUTION

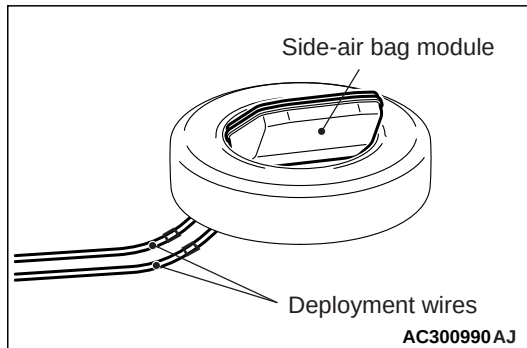
The following procedures are intended to prevent the unintentional deployment caused by the static. Therefore, make sure to perform the procedures.

5. Touch the vehicle body with bare hands to release the charged static.

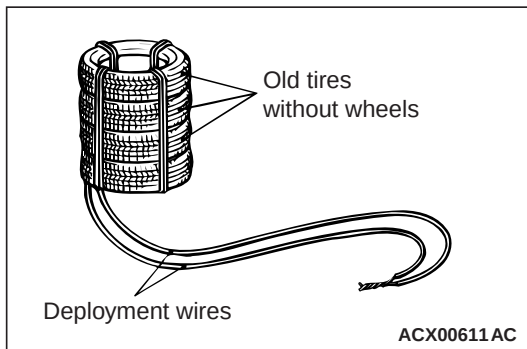




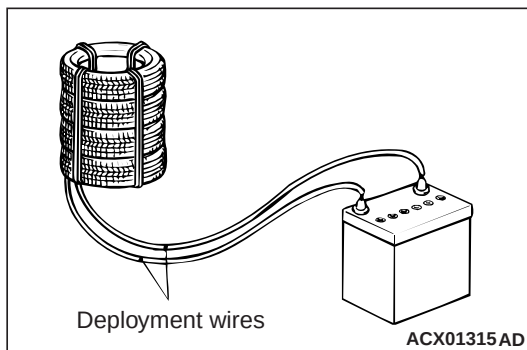
6. Cut off the side-airbag module wiring harness connector from the wiring harness with nippers. Connect the deployment wire to each of the two cut wiring harnesses, and cover the connection areas with insulation tape.



7. Pass the deployment wire under the tire with wheel, and connect it to the side-airbag module connector.
8. Install a surplus nut to the side-airbag module bolt. Then, tie a thick wire for fixing the wheel to the bolt. Fix the side-airbag module to the wheel of old tire with the module deployment surface facing upward.



9. Place three old tires without wheel onto the tire to which the side-airbag module is fixed. Then, tie and fix all the tires with rope. (4 positions)



⚠ CAUTION

- Make sure that no one is present near the air bag module before deploying the air bag.
- Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
- If the air bag module does not deploy, consult with your distributor.

10. Disconnect the deployment wire connection at a place as far as possible from the air bag module. Then, connect the wires to the removed vehicle battery to deploy the air bag module.

11. Discard the deployed air bag module according to the disposal procedures (Refer to [P.52B-284](#)).

DISCARD OF DEPLOYED AIR BAG MODULE

After deployment and operation, the air bag module and seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag or seat belt pre-tensioner disposal:

1. Immediately after the air bag deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
2. Do not pour water or oil onto the deployed air bag module.
3. To the deployed air bag module, substances that irritate eyes and skin may be deposited. Therefore, wear gloves and protective glasses when handling the module. When the substance comes in contact with eyes or skin, flush with a large amount of water.
4. Place the air bag module in the sturdy plastic bag, and seal the bag for disposal.
5. After the work, be sure to wash your hands with water.

SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

M1524004400487

When discarding the seat belt with pre-tensioner or a vehicle which is equipped with seat belts with pre-tensioner, be sure to deploy the pre-tensioner in advance as specified in the service procedure that follows.

UNDEPLOYED SEAT BELT WITH PRE-TENSIONER DISPOSAL

CAUTION

- If the vehicle is to be scrapped or otherwise disposed of, operate the seat belt pre-tensioner inside the vehicle.
- When replacing the seat belt with pre-tensioner, the seat belt pre-tensioner of old parts must be operated outside the vehicle.
- Since a large amount of smoke is produced when the seat belt pre-tensioner is operated, avoid residential areas whenever possible. Also, do not perform the operation near the smoke detector.
- Since there is substantial report when the seat belt pre-tensioner is operated, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.
- Suitable ear protection must be put on by personnel performing these procedures or by people in the immediate area.

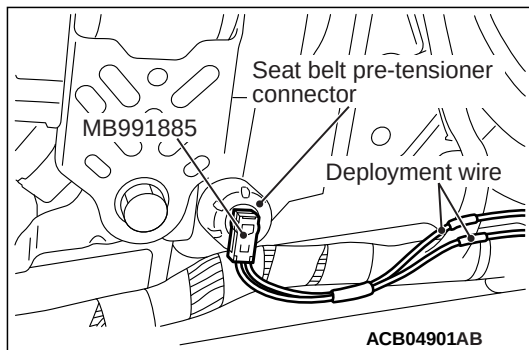
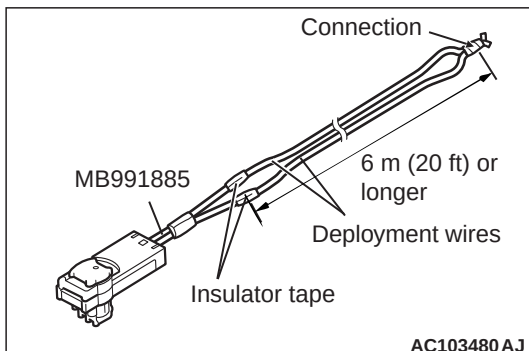
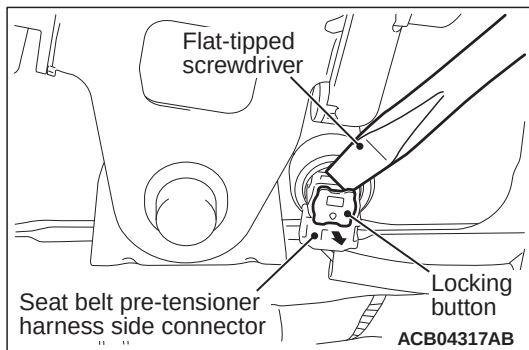
SEAT BELT PRE-TENSIONER DEPLOYMENT INSIDE THE VEHICLE

1. Move the vehicle to flat and isolated spot.

CAUTION

Before starting the work, wait for 60 seconds or more after the disconnection of the battery cable. (Refer to the item 5 P.52B-5 of Service Precautions).

2. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.



3. Remove the center pillar trim lower (Refer to GROUP 52A – Interior Trim [P.52A-9](#)).
4. Use the flat-tipped screwdriver to pull out the locking button of floor harness connector. After releasing the lock, disconnect the connector.

NOTE: When the floor harness connector is disconnected from the seat belt pre-tensioner, the two pins of the seat belt pre-tensioner connector are automatically shorted. This prevents the unintentional deployment of the seat belt pre-tensioner caused by the static or others.

5. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB991885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

NOTE: This prevents the unintentional deployment of seat belt pre-tensioner caused by the static or others.

6. Connect the adapter harness (MB991885) to the 2-pin connector of seat belt pre-tensioner, and then pull out the deployment wire to outside the vehicle.
7. In order to suppress the operation sound as much as possible, fully close all the door windows and close the doors.

⚠ CAUTION

- Make sure that no one is present inside or near the vehicle before the deployment.
 - Immediately after the pre-tensioner deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the seat belt pre-tensioner does not deploy, consult with your distributor.
8. Disconnect the deployment wire connection at a place as far as possible from the vehicle. Then, connect the wires to the removed vehicle battery to deploy the seat belt pre-tensioner.
 9. Discard the deployed seat belt pre-tensioner according to the disposal procedures (Refer to [P.52B-288](#)).

SEAT BELT PRE-TENSIONER DEPLOYMENT OUTSIDE THE VEHICLE

⚠ CAUTION

- Deploy the seat belt pre-tensioner in the wide open, flat place with a distance of 6 m or more from obstacles and people.
- When deploying in the open space, do not deploy when the strong wind is blowing. Even with a slight breeze, ignite at the windward of the seat belt pre-tensioner.

⚠ CAUTION

Before starting the work, wait for 60 seconds or more after the disconnection of the battery cable. (Refer to the item 5 P.52B-5 of Service Precautions).

1. Disconnect the (–) and (+) terminals of battery cable, and then remove the battery from the vehicle.

⚠ CAUTION

When the connector is disconnected, the two pins of seat belt pre-tensioner is automatically shorted to prevent the unintentional deployment caused by the static or others.

2. Remove the seat belt with pre-tensioner from the vehicle (Refer to P.52B-258).
3. Connect the deployment wires of 6 m (20 feet) or more to each of the two wiring harnesses of special tool adapter harness (MB991885), and cover the connection areas with insulation tape. Keep the other ends of deployment wires connected to each other (shorted).

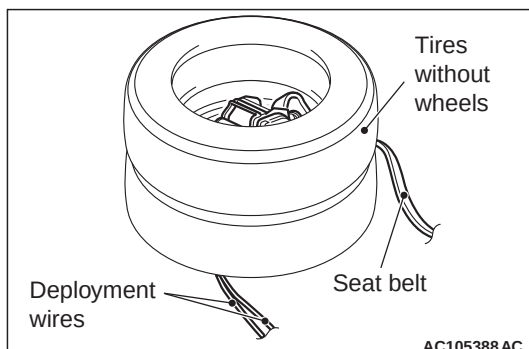
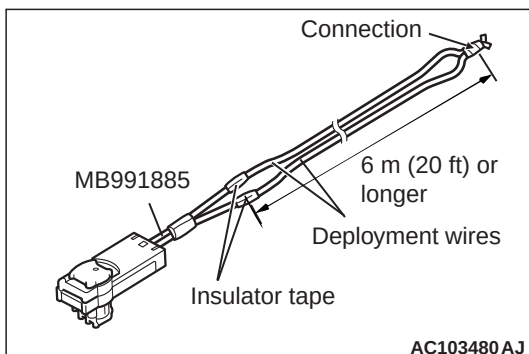
NOTE: This prevents the unintentional deployment of seat belt pre-tensioner the static or others.

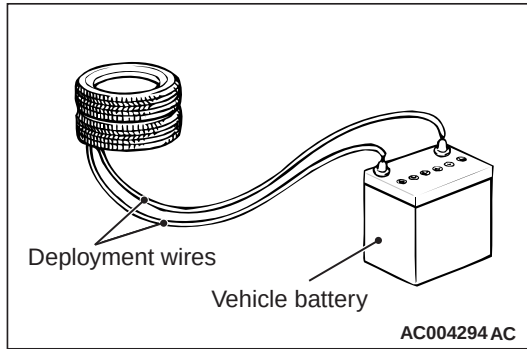
4. Pass a thick wire through the seat belt pre-tensioner bracket hole, and attach it to the old tire with wheel.
5. Connect the adapter harness to the seat belt pre-tensioner connector. (Retractor side)

⚠ CAUTION

Set so that the connector of pre-tensioner adapter harness does not get pinched between the tires when deployed.

6. Pull out the seat belt to outside the tire.
7. Place an old tire without wheel onto the seat belt with pre-tensioner.



**⚠ CAUTION**

- Make sure that no one is present near the seat belt with pre-tensioner before the deployment.
 - Immediately after the seat belt pre-tensioner deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
 - If the seat belt pre-tensioner does not deploy, consult with your distributor.
8. Disconnect the deployment wire connection at a place as far as possible from the seat belt with pre-tensioner. Then, connect the wires to the removed vehicle battery to deploy the seat belt pre-tensioner.
 9. Discard the deployed seat belt with pre-tensioner according to the disposal procedures (Refer to [P.52B-288](#)).

DISCARD OF DEPLOYED SEAT BELT WITH PRE-TENSIONER

After deployment and operation, the air bag module and seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag or seat belt pre-tensioner disposal:

1. Immediately after the pre-tensioner deployment, the inflator is extremely hot. Thus, before handling, leave the inflator for 30 minutes or more to cool.
2. Do not pour water or oil onto the deployed pre-tensioner.
3. To the deployed pre-tensioner, substances that irritate eyes and skin may be deposited. Therefore, wear gloves and protective glasses when handling. When the substance comes in contact with eyes or skin, flush with a large amount of water.
4. Place the seat belt with pre-tensioner in the sturdy plastic bag, and seal the bag for disposal.
5. After the work, be sure to wash your hands with water.