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 comportments involved.***
- ***If you have any questions about the SRS, please contact the MMNA Tech Line.***

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GENERAL INFORMATION

M1524000102219

⚠ ***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 front air bag(s) in case of a frontal collision. In addition, the side-airbag and curtain air bag inflates 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.

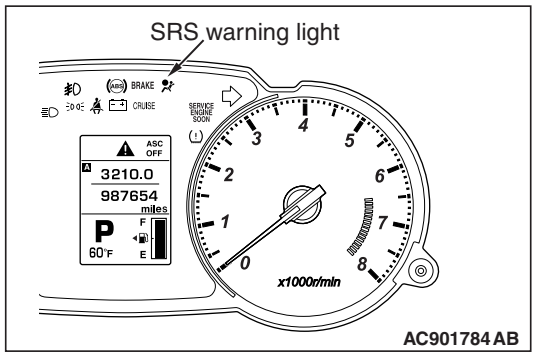
Side-airbag systems in the front seats are activated when side impacts exceed a criteria to protect the occupants' upper bodies.

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, passenger's air bag OFF indicator light, passenger's seat belt warning light, clock spring, seat belt pre-tensioner, seat belt buckle switch, seat slide sensor, weight 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 safing G-sensor, front air bag analog G-sensor and a side-airbag safing G-sensor. The front impact sensor is assembled in the headlight support panel upper 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 seat slide sensor is installed at the seat adjuster section of the driver seat in order to detect the driver seat slide position. The weight 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 lower left of the center panel, and illuminates when the passenger seat airbag is inactive. The passenger's seat belt warning light is installed to the lower right of the center panel, 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.



ON-BOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

The SRS-ECU monitors the SRS system and stores data concerning any detected faults in the system. When the ignition switch is in "ON" position, the SRS warning light, the SRS warning light, passenger's air bag OFF indicator light and passenger's seat belt warning light should illuminate for about seven seconds and then turn "OFF." That indicates that the SRS system is in operational order. If the SRS warning light does any of the following, the immediate inspection by an authorized dealer is needed:

1. The SRS warning light does not illuminate as described above.
2. The SRS warning light stays on for more than seven seconds.
3. The SRS warning light illuminates while driving.

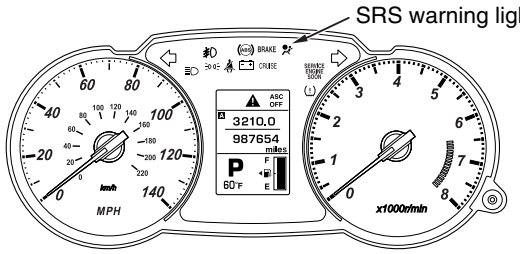
If a vehicle's SRS warning light is in any of these three conditions, the SRS system must be inspected, diagnosed and serviced in accordance with this manual.

CONSTRUCTION DIAGRAM

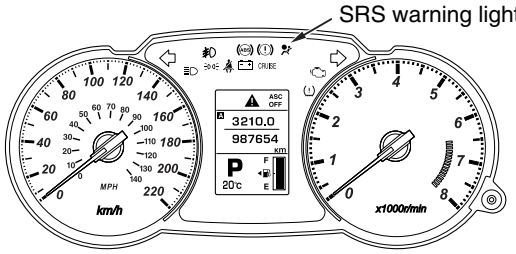
<Except RALLIART>

<Without color liquid crystal display>

<Vehicles for USA (Standard: 2.0 L engine, Option: 2.4 L engine)>

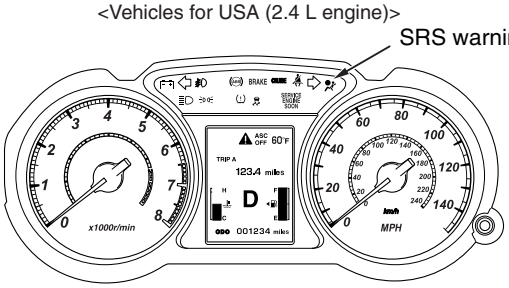


<Vehicles for CANADA (2.0 L engine)>

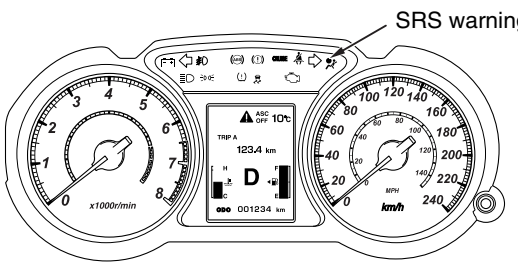


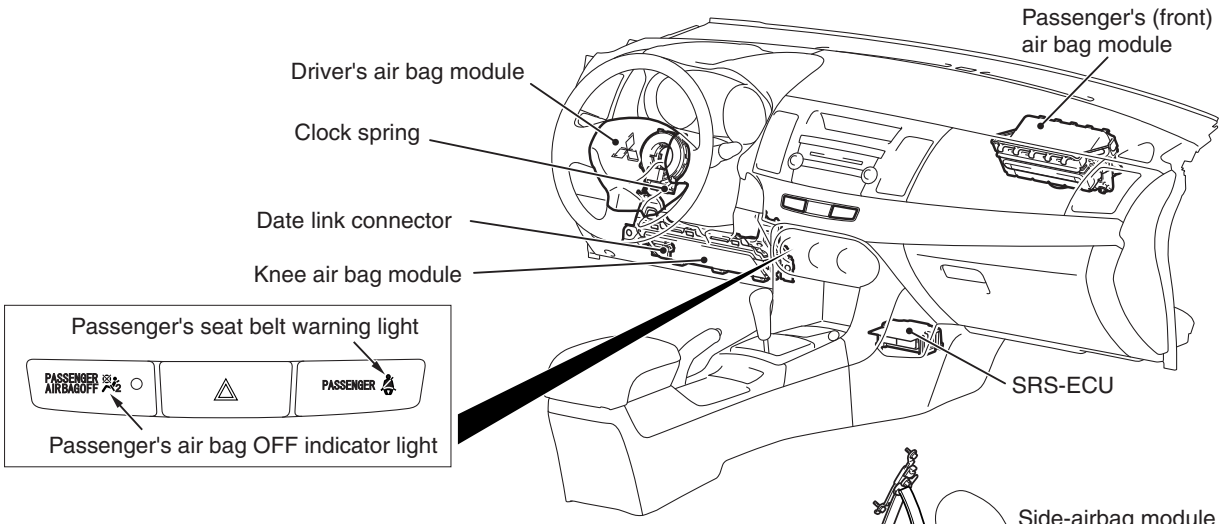
<With color liquid crystal display>

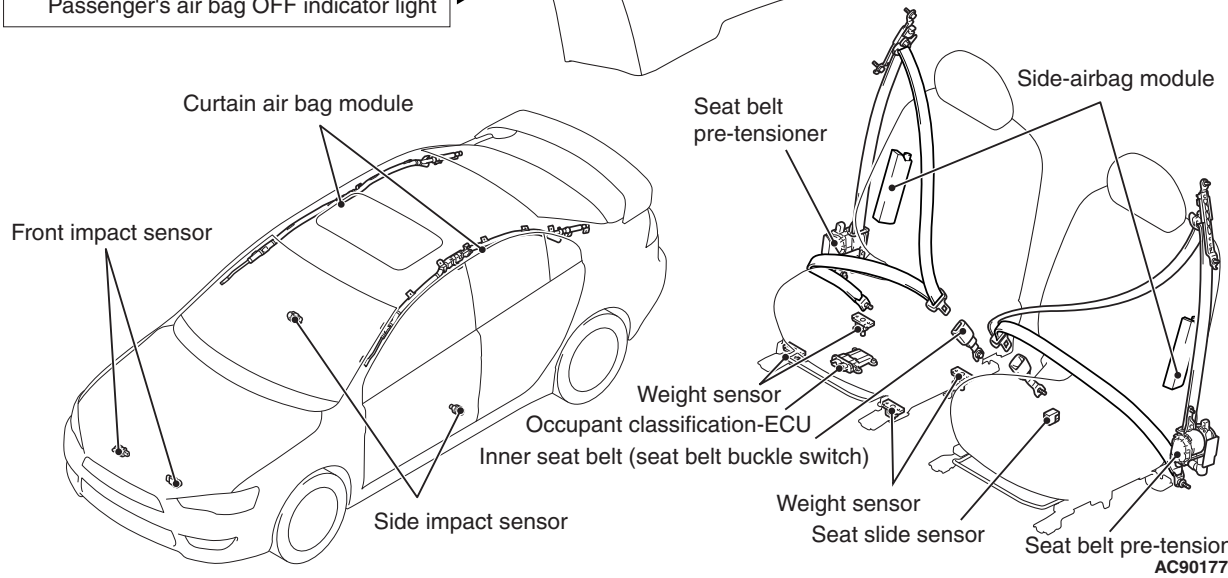
<Vehicles for USA (2.4 L engine)>



<Vehicles for CANADA (2.4 L engine)>







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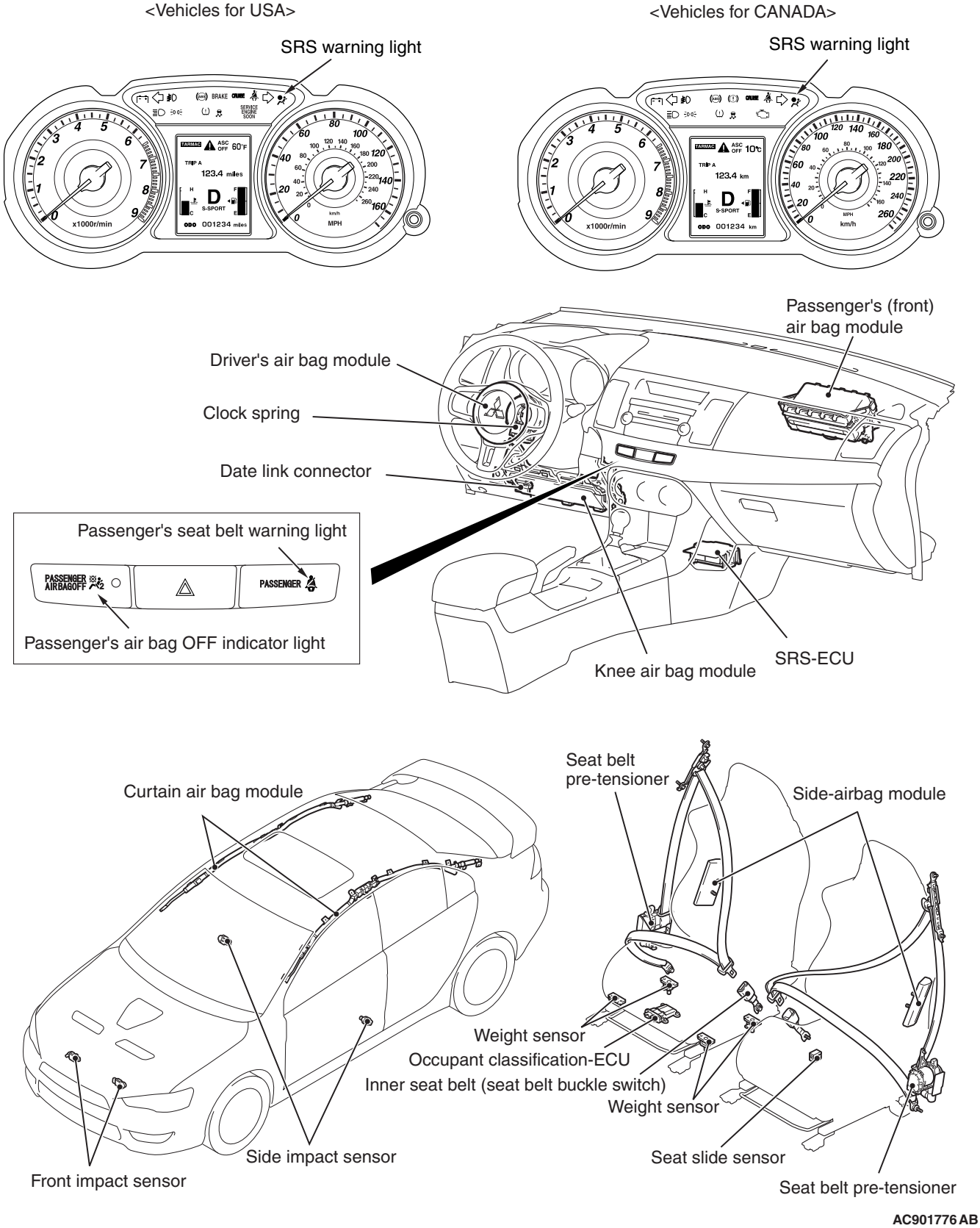

NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic(P.52B-10), "Configuration Diagrams(P.52B-12), " and "Circuit Diagram(P.52B-14)".

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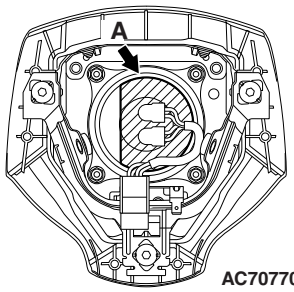
WARNING/CAUTION LABELS

A number of caution labels related to the SRS are found in the vehicle, as shown in the following illustrations. Follow label instructions when servicing SRS. The label I is not to be removed except by owner. If the other labels are dirty or damaged, replace them.

Driver's air bag module

<Except RALLIART>



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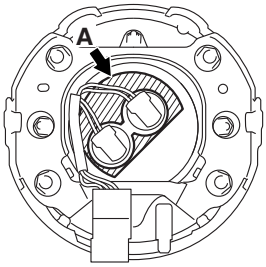
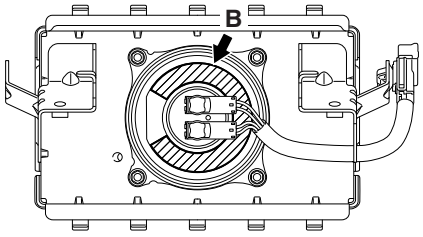
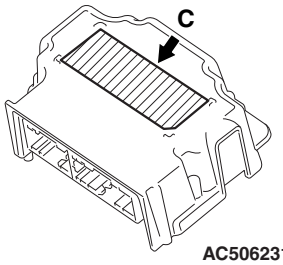


Passenger's (front) air bag module



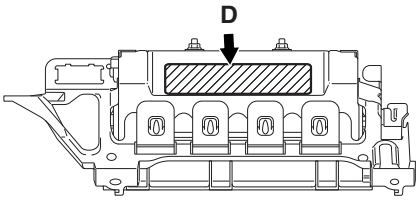
AC611162

SRS-ECU



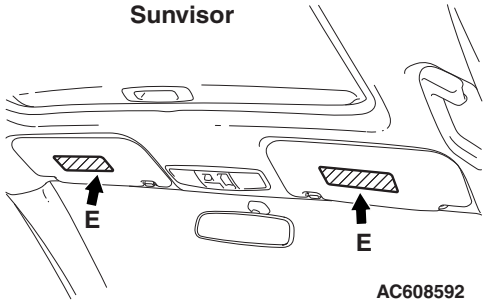
AC506231

Knee air bag



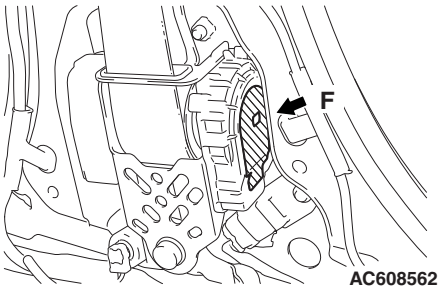
AC608596

Sunvisor



AC608592

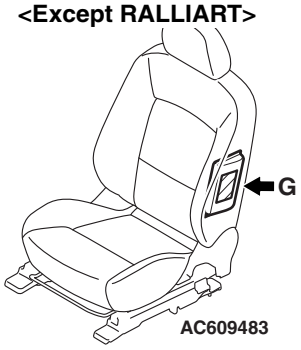
Seat belt pre-tensioner (right and left)



AC608562

Side-airbag module (right and left)

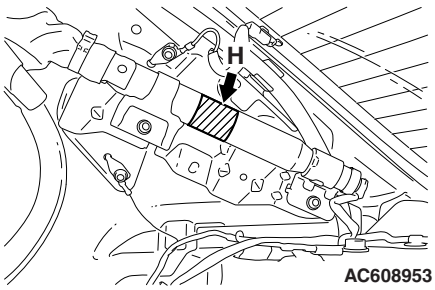
<Except RALLIART>



AC609483

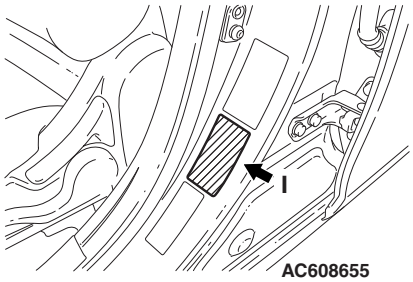
< RALLIART>

Curtain air bag module (right and left)



AC608953

Center pillar (right and left)



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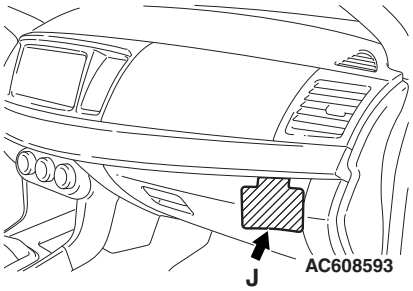
Glove box



AC608593

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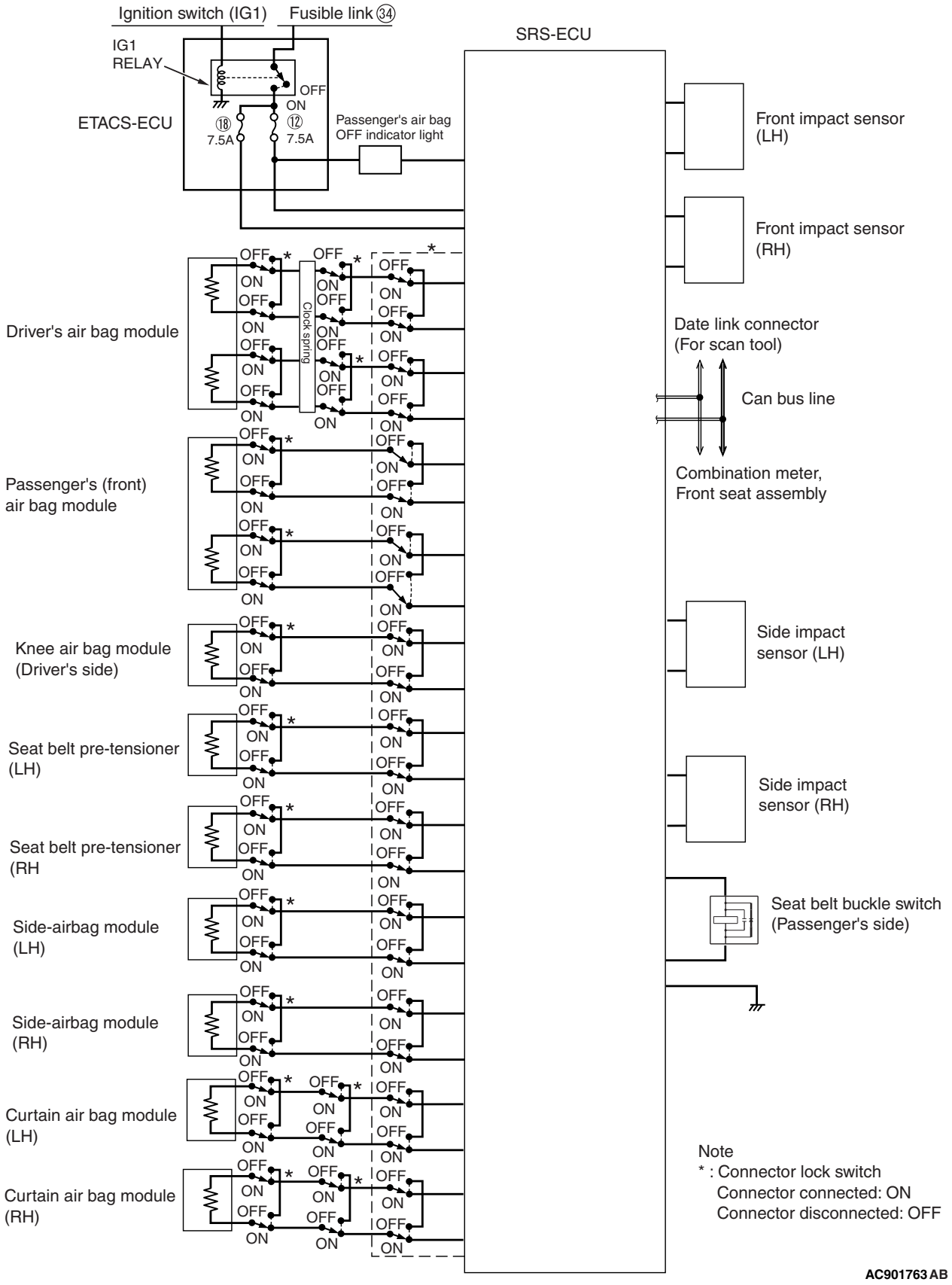
Label contents	
A, B	DANGER FLAMMABLE EXPLOSIVE DO NOT: DISASSEMBLE; HEAT; INCINERATE; APPLY ELECTRICITY; OR STORE AT HIGH TEMPERATURE (93°C or HIGHER). REFER TO WORKSHOP MANUAL FOR DETAILS.
C	CAUTION: DO NOT DISASSEMBLE OR DROP. IF DEFECTIVE, REFER TO SERVICE MANUAL.
D	DANGER FLAMMABLE EXPLOSIVE SRS AIR BAG MODULE • Do not disassemble or shock. • Do not heat or incinerate. • Do not contact with electricity or tester probes. • Do not test or diagnose. • Do not store in more than 200°F (93°C). • Store the air bag cover is top. • For information on handing, replacement, and disposal methods, refer to the service manual.
E<EXCEPT VEHICLES FOR CANADA> AC306673	WARNING EVEN WITH ADVANCED AIR BAGS • Children can be killed or seriously injured by the air bag • The back seat is the safest place for children • Never put a rear-facing child seat in the front • Always use seat belts and child restraints • See owner's manual for more information about air bags
E <VEHICLES FOR CANADA> V0037AA	WARNING DEATH or SERIOUS INJURY can occur • Children 12 and under can be killed by the air bag. • The BACK SEAT is the SAFEST place for children. • NEVER put a rear-facing child seat in the front. • Sit as far back as possible from the air bag. • ALWAYS use SEAT BELTS and CHILD RESTRAINTS.
F	SEAT BELT PRETENSIONER CAUTION THIS ASSEMBLY CONTAINS AN EXPLOSIVE INITIATOR. DANGER FLAMMABLE MATERIAL TO PREVENT PERSONAL INJURY • DO NOT REMOVE. INSTALL IT INTO ANOTHER VEHICLE. • SERVICE OR DISPOSE OF IT AS DIRECTED IN THE REPAIR MANUAL. • DO NOT DISMANTLE INCINERATE OR BRING INTO CONTACT WITH ELECTRICITY.

Label contents	
G	WARNING SRS AIR BAG MODULE FLAMMABLE/EXPLOSIVE TO AVOID SERIOUS INJURY: • DO NOT REPAIR, DISASSEMBLE OR TAMPER. • AVOID CONTACT WITH FLAME OR ELECTRICITY. • DO NO DIAGNOSIS/USE NO TEST EQPT OR PROBES. • STORE BELOW 200°F (93°C). • BEFORE DOING ANY WORK INVOLVING MODULE, READ SERVICE MANUAL FOR IMPORTANT FURTHER DATA.
H	DANGER CONTAINS HIGH-PRESSURE GAS AND FLAMMABLE MATERIAL To avoid injury, NEVER; [Repair, Disassembly, Incinerate, Bring into contact with electricity, Install onto another vehicle or Store where the temperature is above 93°C (200°F)] -See Repair Manual for details.-
I	SRS SIDE AIRBAG WARNING TO AVOID SERIOUS INJURY OR DEATH: • Do not lean against the door. • Do not use seat covers. See owner's manual for more information
J <EXCEPT VEHICLES FOR CANADA>	This Vehicle is Equipped with Advanced Air Bags Even with Advanced Air Bags Children can be killed or seriously injured by the air bag. The back seat is the safest place for children. Never put a rear-facing child seat in the front. Always use seat belts and child restraints. See owner's manual for more information about air bags. Not to be removed except by owner.
J <VEHICLES FOR CANADA>	WARNING MISE EN GARDE Children Can Be KILLED or INJURED by Passenger Air Bag The back seat is the safest place for children 12 and under. Make sure all children use seat belts or child seats. Not to be removed except by owner.

SCHEMATIC



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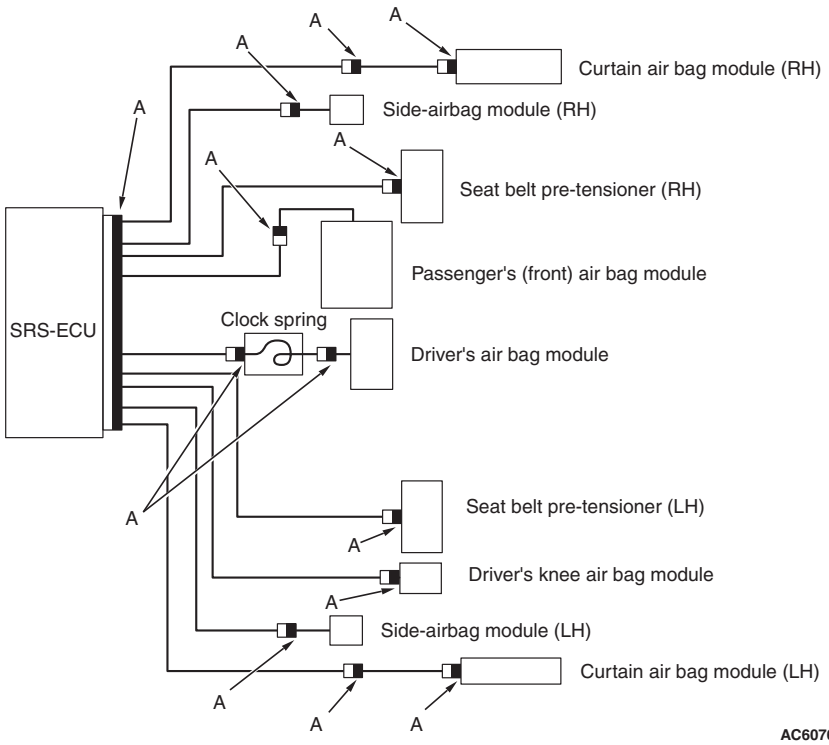
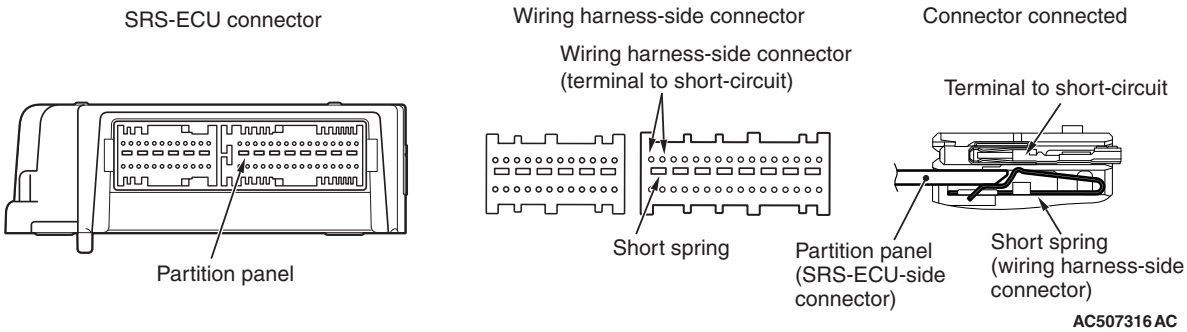
SRS AIR BAG SPECIAL CONNECTOR



To enhance the system reliability, a connector short circuiting mechanism is integrated in the SRS-ECU connector, air bag module connectors, clock spring connector, pre-tensioner connectors, and intermediate connector between curtain air bag module and SRS-ECU (black connector "A" shown in the figure).

SQUIB CIRCUIT CONNECTOR LOCK SWITCH



This mechanism prevents the improper deployment of air bag module because of the current application to the squib due to the static electricity when connectors between SRS-ECU and air bag modules (squibs) are disconnected. When the connector is disconnected, the short spring short circuits the power supply side terminal and ground side terminal of squibs, and prevents the static electricity from generating the potential difference. This connector mechanism is adopted for the following connectors.

- SRS-ECU connector
- Connector between the clock spring and body-side wiring harness
- Each air bag module connector
- Each pre-tensioner connector
- Intermediate connector between curtain air bag module and SRS-ECU

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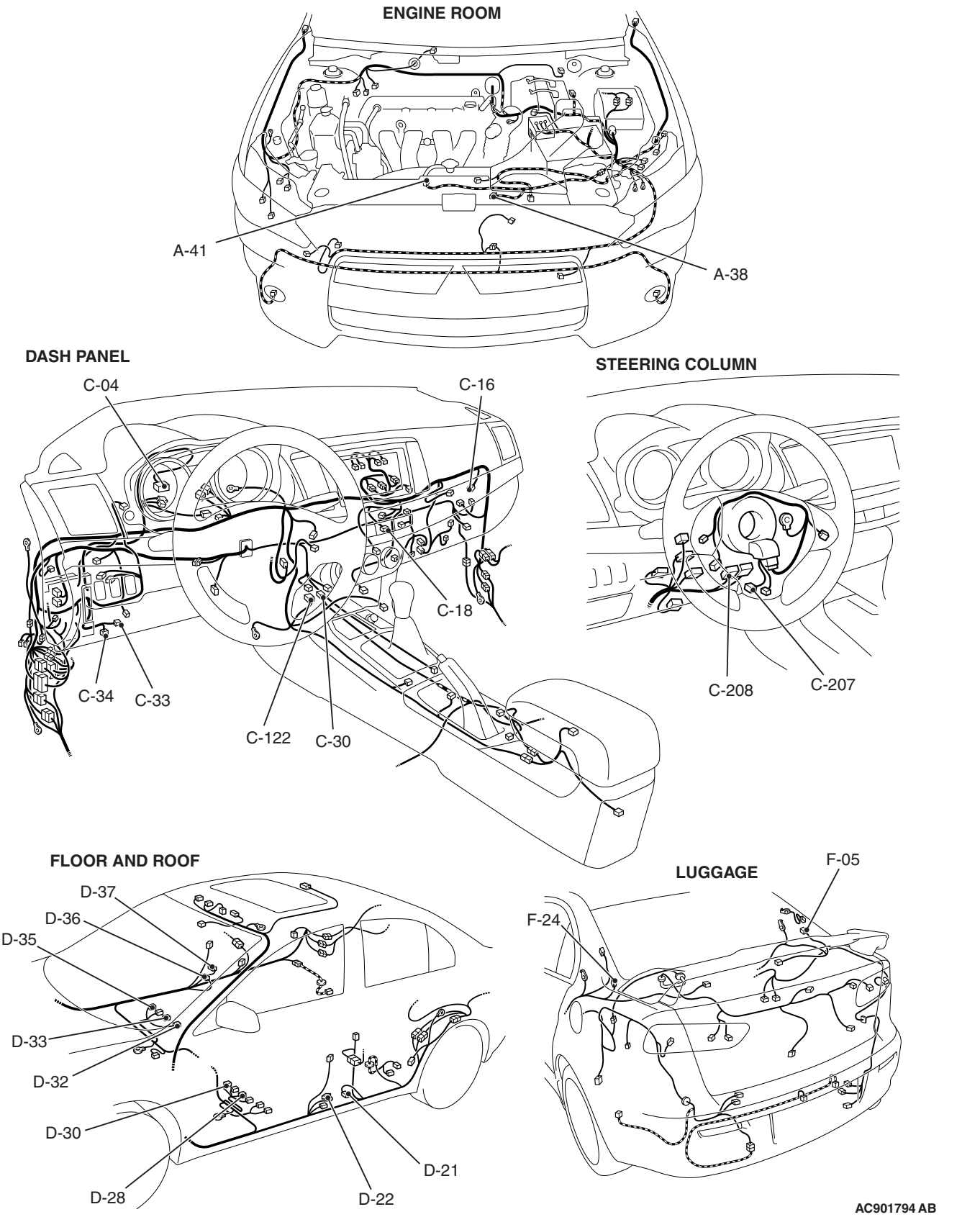
CONFIGURATION DIAGRAMS



A-38 (Y)	Front impact sensor (LH)
A-41 (Y)	Front impact sensor (RH)
C-04	Combination meter
C-16 (Y)	Passenger's (Front) air bag module
C-18 (Y)	Center panel assembly
C-30 (Y)	SRS-ECU

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C-33 (B)	Knee air bag module
C-34 (B)	Date link connector
C-122 (Y)	SRS-ECU
C-207 (Y)	Driver's air bag module
C-208 (Y)	Clock spring
D-21 (B)	Seat belt pre-tensioner (LH)
D-22 (Y)	Side impact sensor (LH)
D-28 (GR)	Seat slide sensor
D-30 (Y)	Side-airbag module (LH)
D-32 (Y)	Side-airbag module (RH)
D-33 (B)	Seat belt buckle switch (Passenger's side)
D-35	Front seat assembly (RH) (weight sensor, occupant classification-ECU)
D-36 (B)	Seat belt pre-tensioner (RH)
D-37 (Y)	Side impact sensor (RH)
F-05 (B)	Curtain air bag module (RH)
F-24 (B)	Curtain air bag module (LH)

CIRCUIT DIAGRAM

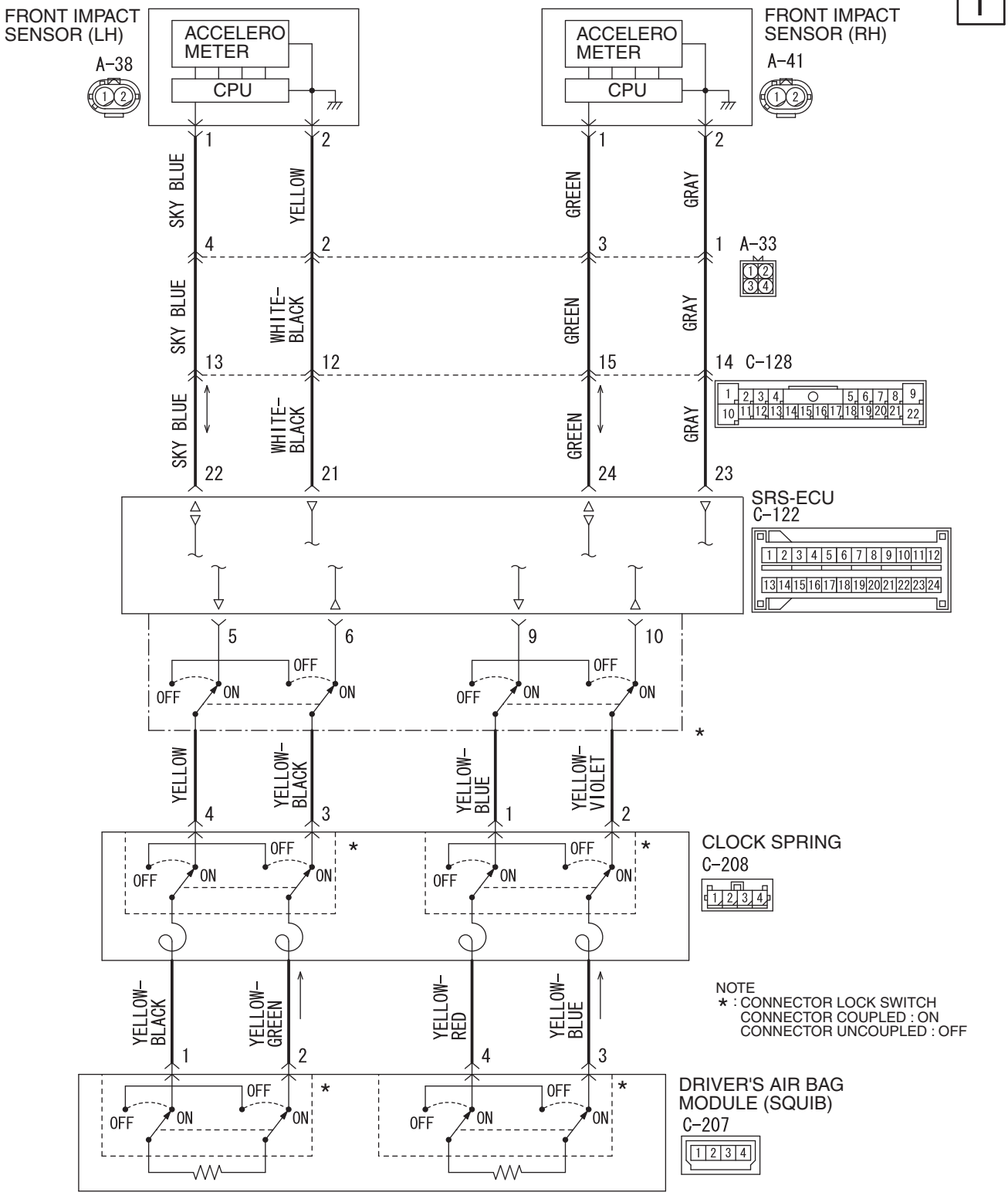
⚠ ***WARNING***

- ***Do not repair, splice, or modify the SRS wiring (except for specific repairs to the instrument panel wiring harness and the floor wiring harness shown on P.52B-25): replace the wiring if necessary, after reading and following all precautions and procedures in this manual.***
- ***Do not use an analog ohmmeter to check the SRS wiring or components; use only the special tools (refer to P.52B-401) and a digital multi-meter (refer to P.52B-28).***

⚠ **CAUTION**

Improper services cause the system to be inoperative. Do not disassemble or tamper with the SRS components to prevent the serious injury.

1



NOTE
* : CONNECTOR LOCK SWITCH
CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

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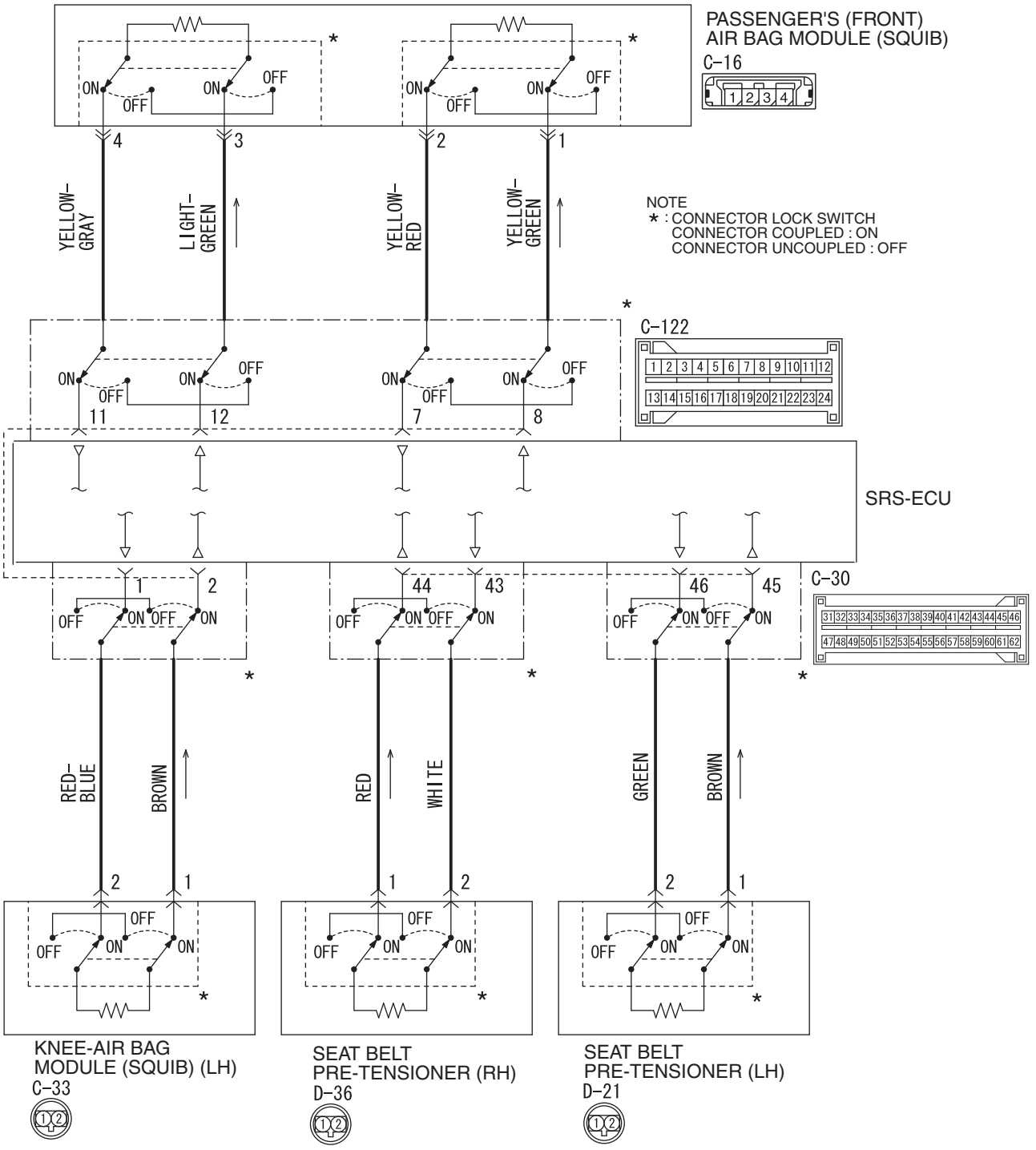
2



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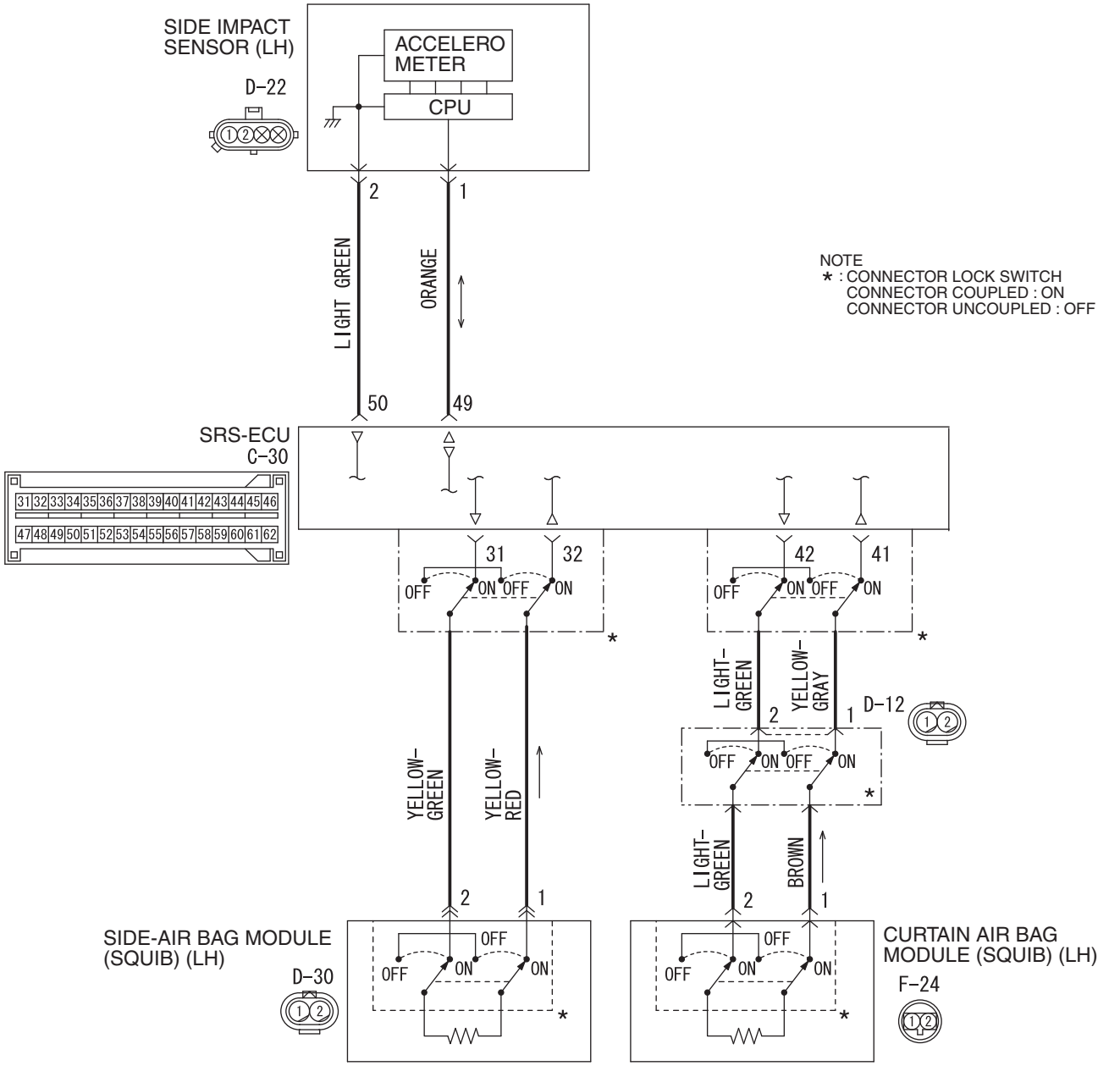

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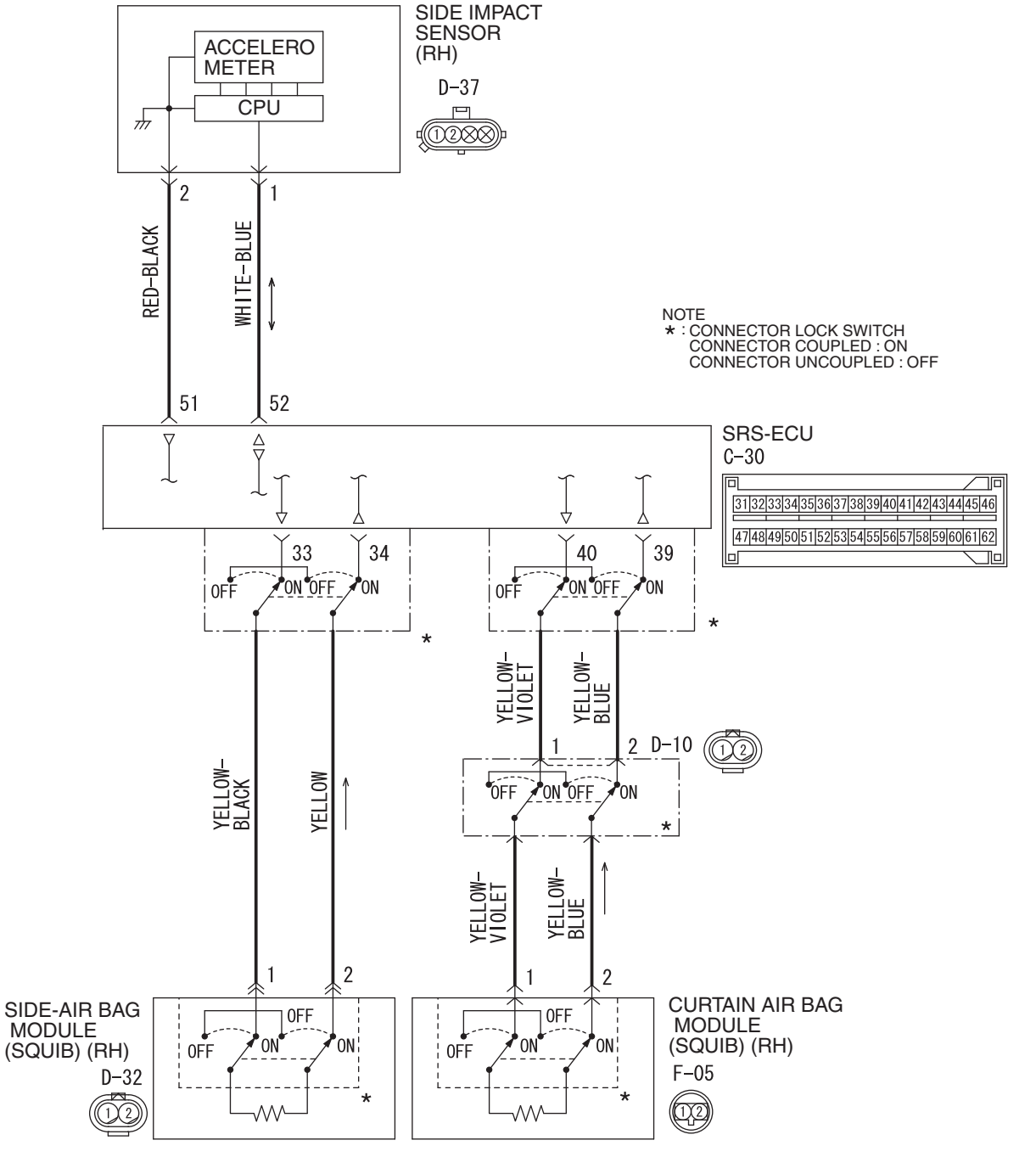

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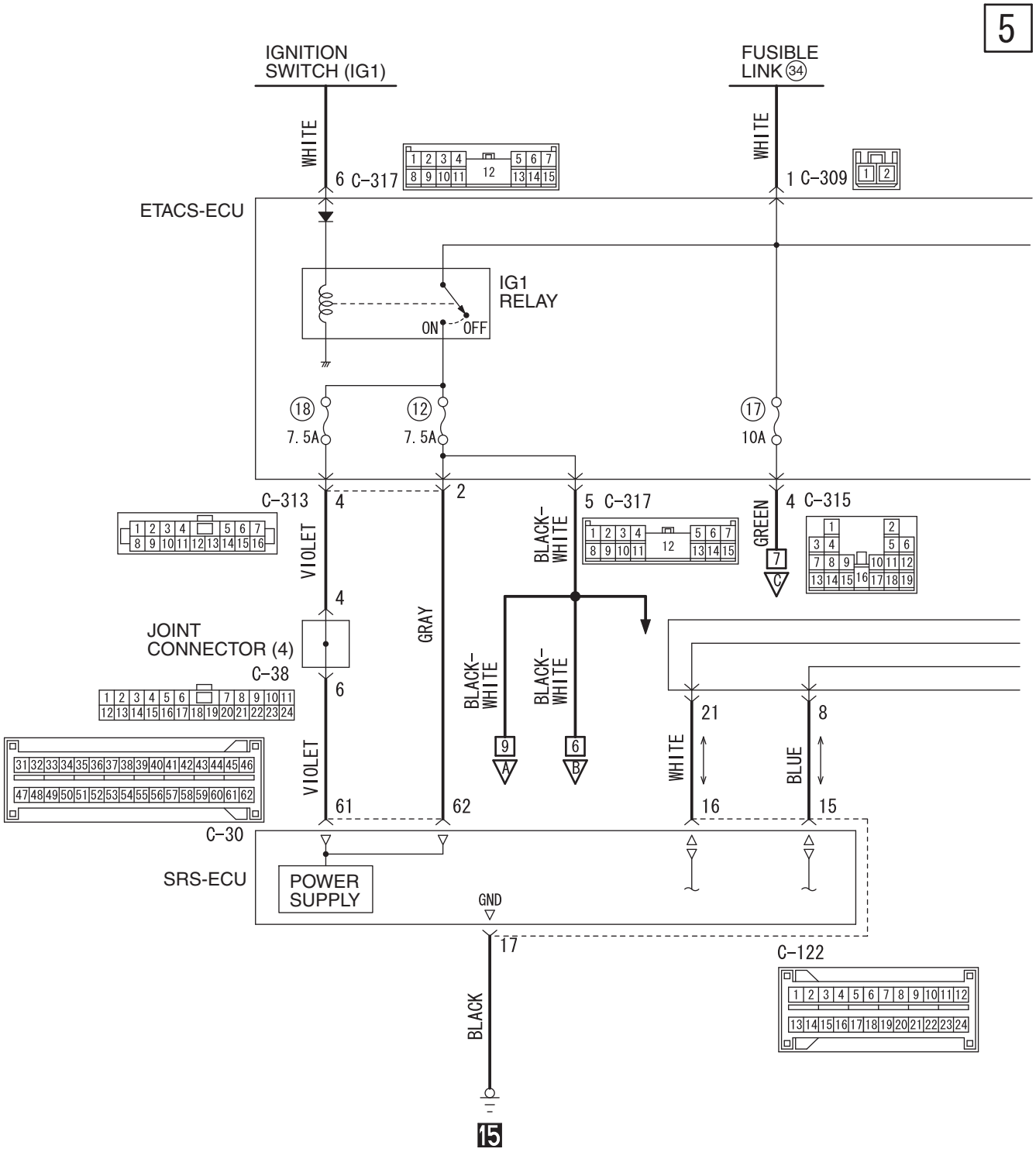
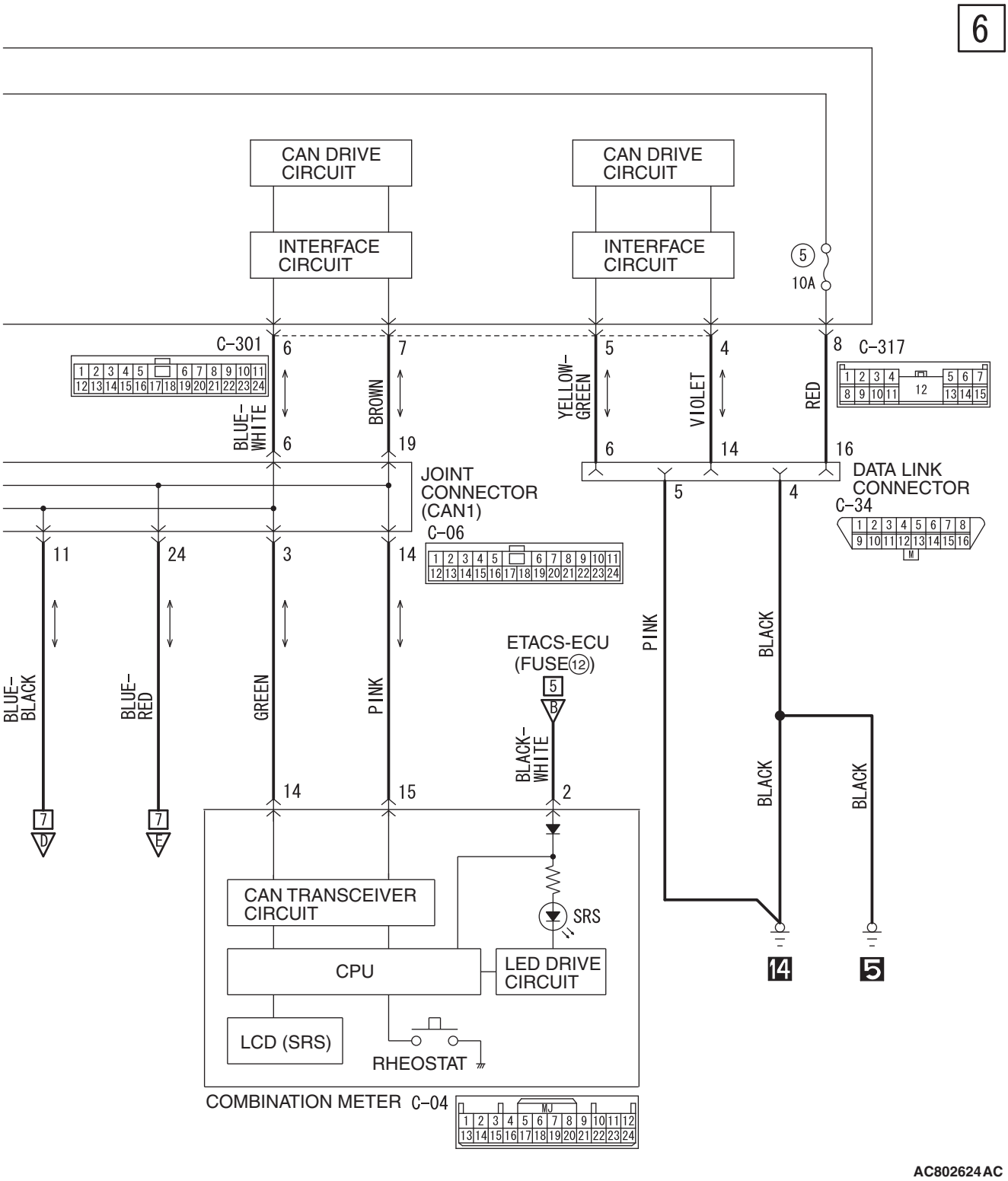

5
IGNITION SWITCH (IG1)
FUSIBLE LINK (34)
WHITE
6 C-317
1 C-309
ETACS-ECU
IG1 RELAY
ON
OFF
(18)
7.5A
(12)
7.5A
(17)
10A
C-313
4
2
5 C-317
4 C-315
VIOLET
BLACK-WHITE
GREEN
7
C
4
JOINT CONNECTOR (4)
C-38
GRAY
BLACK-WHITE
BLACK-WHITE
9
A
6
B
21
8
WHITE
BLUE
6
VIOLET
61
62
16
15
C-30
SRS-ECU
POWER SUPPLY
GND
17
BLACK
C-122
15
AC710754AC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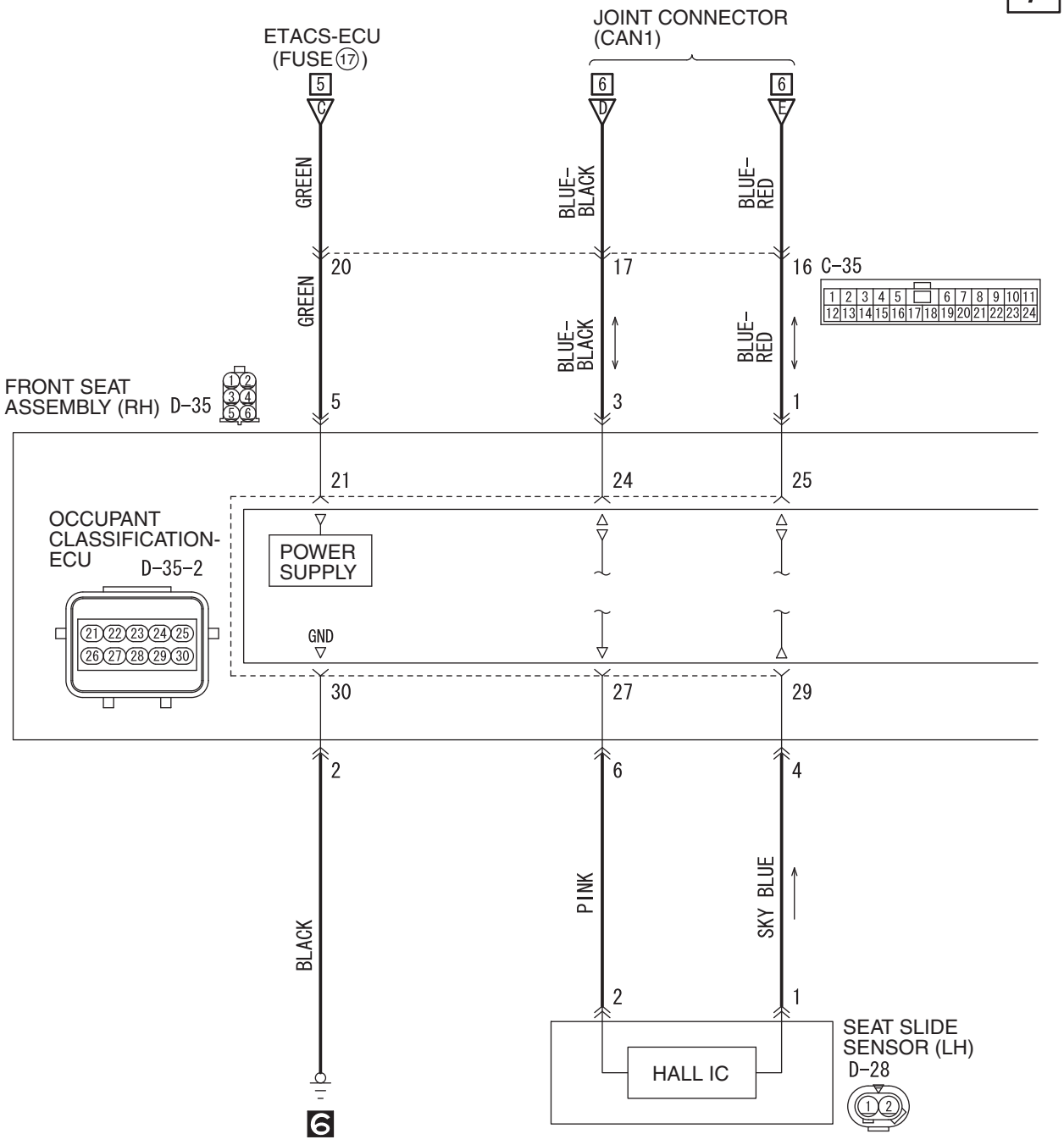
CAN DRIVE CIRCUIT
CAN DRIVE CIRCUIT
INTERFACE CIRCUIT
INTERFACE CIRCUIT
5
10A
C-301
C-317
BLUE-WHITE
BROWN
YELLOW-GREEN
VIOLET
RED
JOINT CONNECTOR (CAN1)
C-06
DATA LINK CONNECTOR
C-34
BLUE-BLACK
BLUE-RED
GREEN
PINK
PINK
BLACK
BLACK
BLACK
BLACK-WHITE
ETACS-ECU (FUSE⑫)
CAN TRANSCEIVER CIRCUIT
SRS
CPU
LED DRIVE CIRCUIT
LCD (SRS)
RHEOSTAT
COMBINATION METER C-04
14
5
AC802624AC

7



AC710876 AC

TSB Revision

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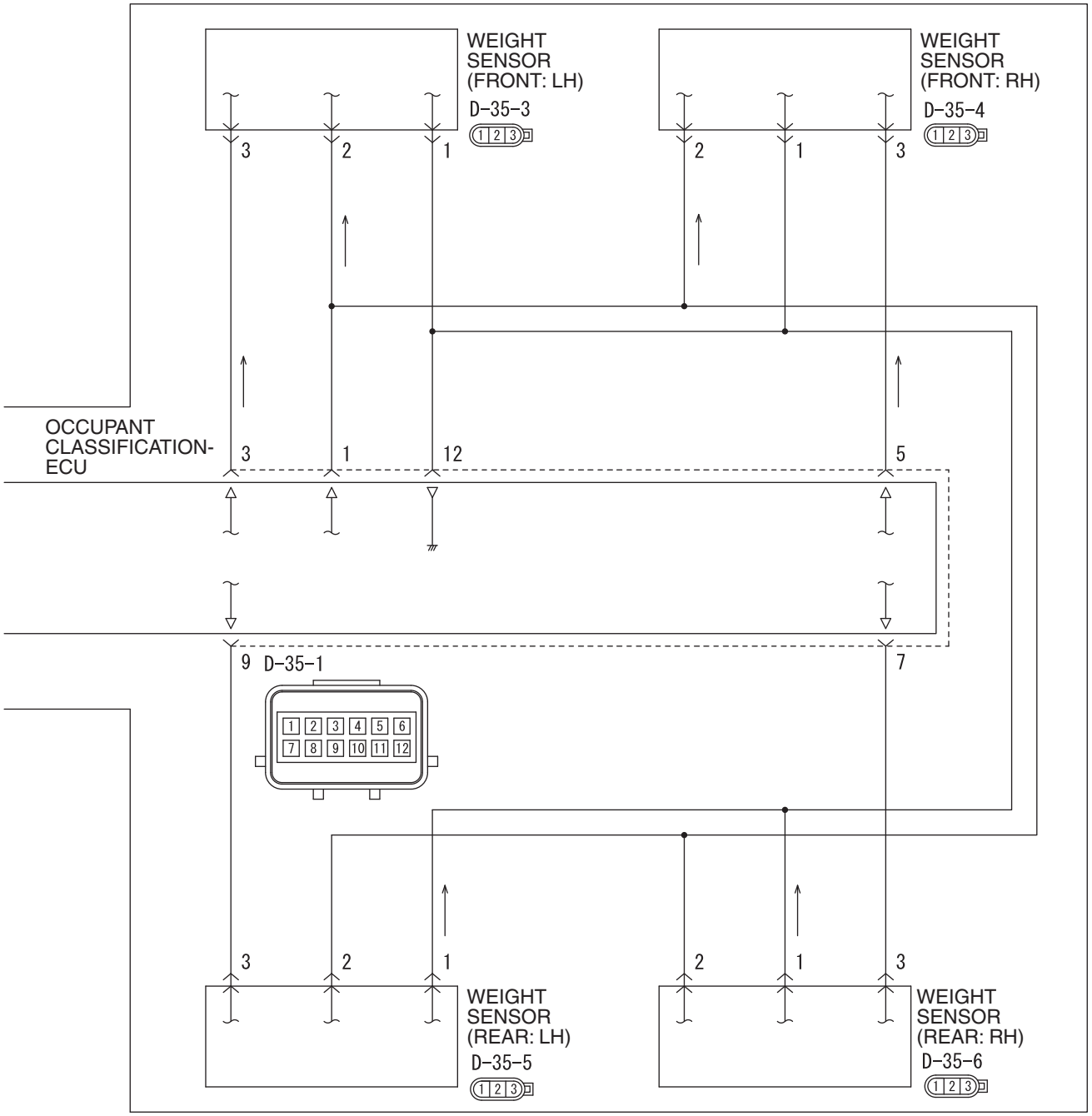

AC803889 AC

TSB Revision

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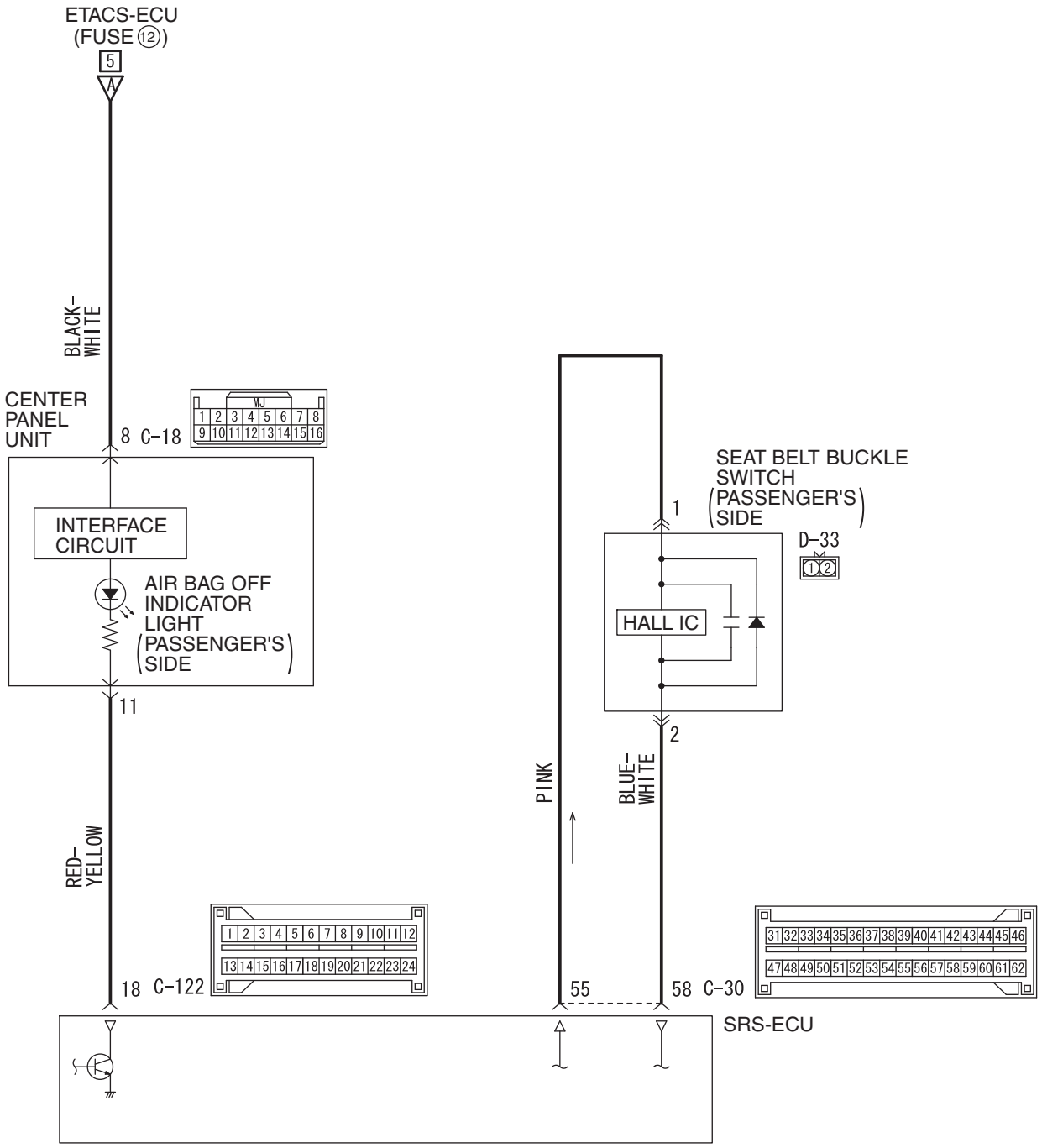

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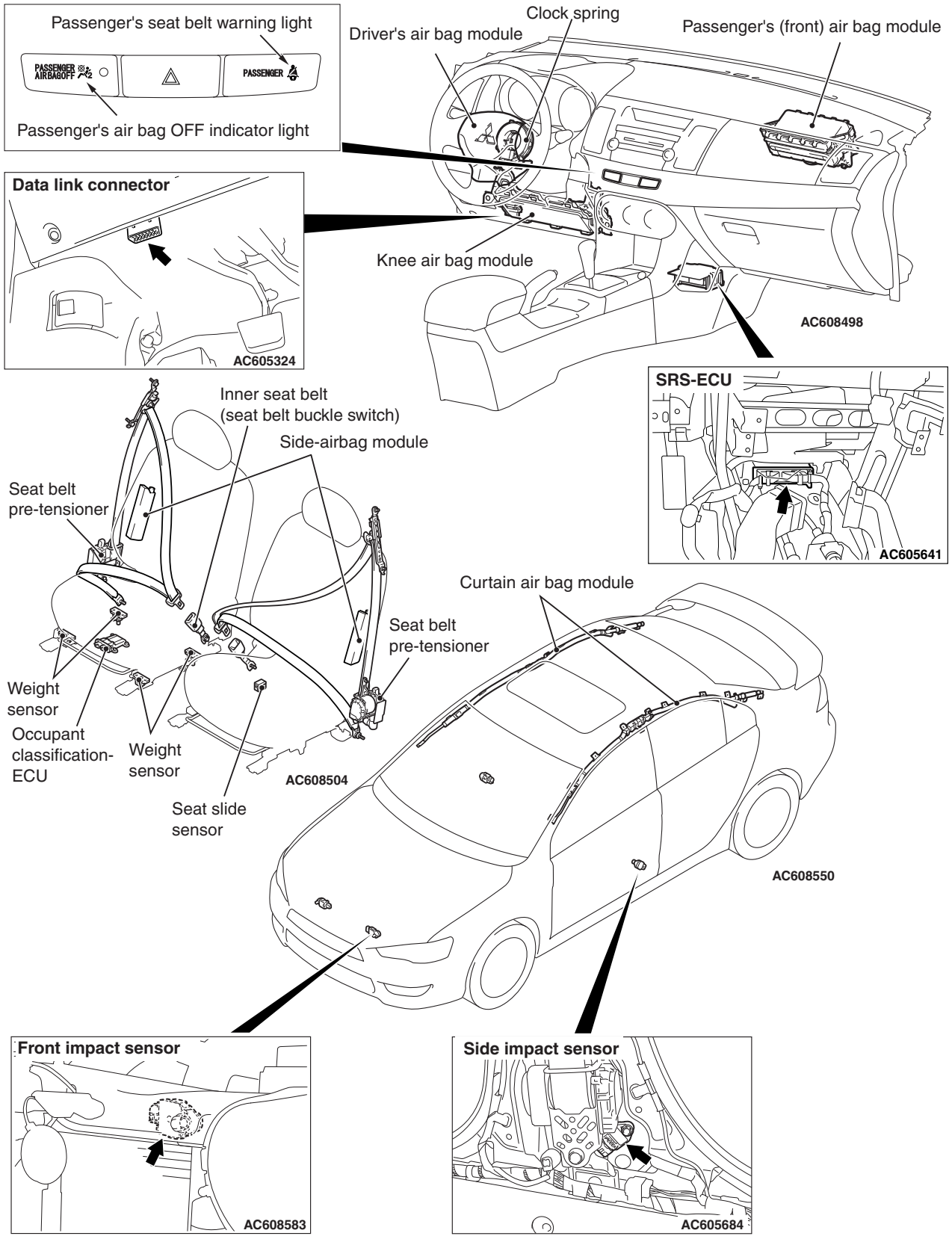
COMPONENT LOCATION



NOTE: The illustration above shows the front impact sensor (LH) and the side impact sensor (LH). The position of the front impact sensor (RH) and the side impact sensor (RH) is symmetrical to this.

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SERVICE PRECAUTIONS

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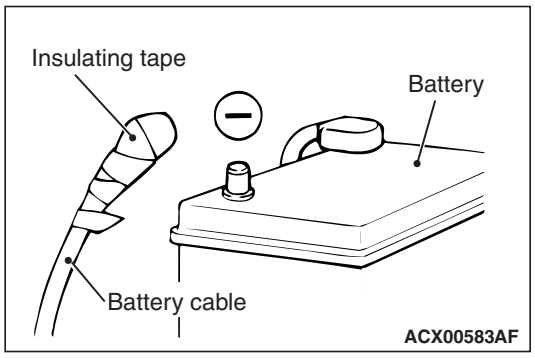
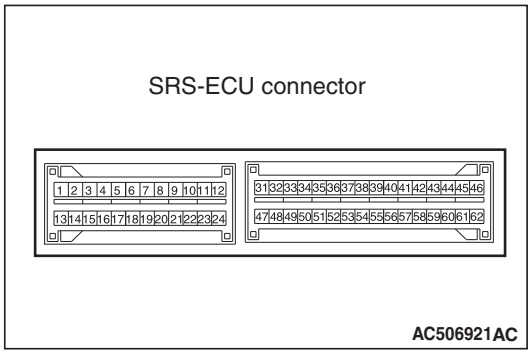


⚠ DANGER

- ***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. Special handling may apply. For additional information, see www.dtsc.ca.gov/hazardouswaste/perchlorate.***
- ***Do not use any electrical test equipment on or near the SRS components, except those specified on P.52B-402.***
- ***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-409.***
- ***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.***



SRS-ECU terminal No.	Destination of harness	Corrective action
1, 2	Instrument panel wiring harness → Knee air bag module	Correct or replace the instrument panel wiring harness.
5, 6	Instrument panel wiring harness → Clock spring → Driver's air bag module 1st squib side	Correct or replace the instrument panel wiring harness. Replace the clock spring.
7, 8	Instrument panel wiring harness → Passenger's (front) air bag module 1st squib side	Correct or replace the instrument panel wiring harness.
9, 10	Instrument panel wiring harness → Clock spring → Driver's air bag module 2nd squib side	Correct or replace the instrument panel wiring harness. Replace the clock spring.
11, 12	Instrument panel wiring harness → Passenger’s (front) air bag module 2nd squib side	Correct or replace the instrument panel wiring harness.
15, 16	CAN line	Correct or replace CAN line.
17	Instrument panel wiring harness → Ground	Correct or replace the instrument panel wiring harness.
18	Instrument panel wiring harness → Air bag OFF indicator light	Correct or replace the instrument panel wiring harness.
21, 22	Instrument panel wiring harness → Front wiring harness → Front impact sensor wiring harness → Front impact sensor (LH)	Correct or replace each wiring harness.
23, 24	Instrument panel wiring harness → Front wiring harness → Front impact sensor wiring harness → Front impact sensor (RH)	Correct or replace each wiring harness.
31, 32	Floor wiring harness → Side-airbag module (LH)	Correct or replace the floor wiring harness.
33, 34	Floor wiring harness → Side-airbag module (RH)	Correct or replace the floor wiring harness.
39, 40	Floor wiring harness → Rear floor wiring harness (RH) → Curtain air bag module (RH)	Correct or replace each wiring harness.
41, 42	Floor wiring harness → Rear floor wiring harness (LH) → Curtain air bag module (LH)	Correct or replace each wiring harness.
43, 44	Floor wiring harness → Seat belt pre-tensioner (RH)	Correct or replace the floor wiring harness.
45, 46	Floor wiring harness → Seat belt pre-tensioner (LH)	Correct or replace the floor wiring harness.
49, 50	Floor wiring harness → Side impact sensor (LH)	Correct or replace the floor wiring harness.
51, 52	Floor wiring harness → Side impact sensor (RH)	Correct or replace the floor wiring harness.

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SRS-ECU terminal No.	Destination of harness	Corrective action
55, 58	Instrument panel wiring harness → Passenger's seat belt buckle switch	Correct or replace the Instrument panel wiring harness.
61	Instrument panel wiring harness → ETACS-ECU (fuse No.18)	Correct or replace instrument panel wiring harness.
62	Instrument panel wiring harness → ETACS-ECU (fuse No.12)	Correct or replace instrument panel wiring harness.

⚠ ***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 (200°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.***

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 front air bag safing G-sensor and side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the safing 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.

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- 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-403).

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.00-14.

M1524003100892

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 Sub Assembly) MB991958.
6. Recreate the SRS DTC set conditions to see if the same SRS DTC will be set again.
   - If the same SRS DTC is set again, follow the Inspection Chart for the DTC and find the fault.
   - If you cannot get the same SRS DTC to be set again, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting – Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14.

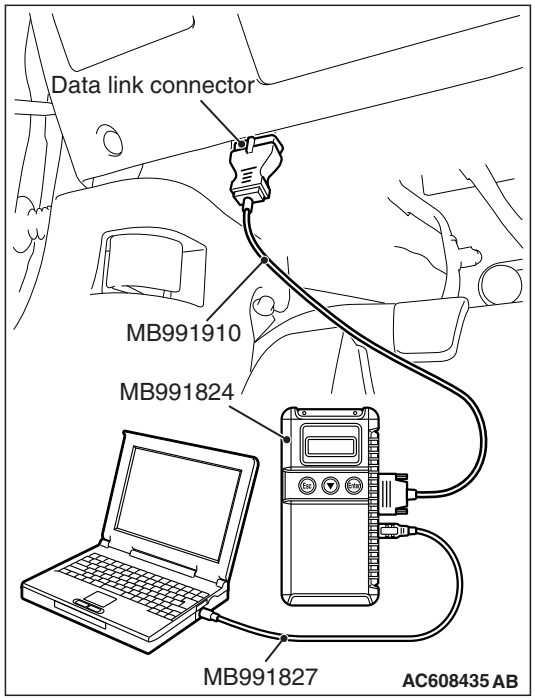
DIAGNOSTIC FUNCTION

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

M1524013800193

Required Special Tools:

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

1. Ensure that the ignition switch is at the "LOCK" (OFF) position.
2. Start up the personal computer.
3. Connect special tool MB991827 to special tool MB991824 and the personal computer.
4. Connect special tool MB991910 to special tool MB991824.
5. Connect special tool MB991910 to the data link connector.
6. Turn the power switch of special tool MB991824 to the "ON" position.

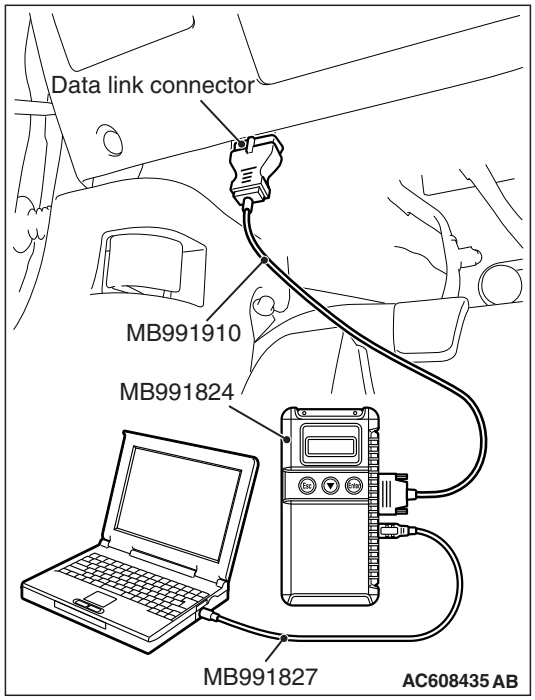
   NOTE: When special tool MB991824 is energized, special tool MB991824 indicator light will be illuminated in a green color.
7. Start the M.U.T.-III system on the personal computer.

NOTE: Disconnecting scan tool MB991958 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:

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

NOTE: If the battery voltage is low, diagnostic trouble codes will not be set. Check the battery if scan tool MB991958 does not display.

1. Connect scan tool MB991958 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 "SRS-AIR BAG" 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."
7. If a DTC is set, it is shown.
8. Choose "Erase DTCs" to erase the DTC.

SRS WARNING LIGHT CHECK

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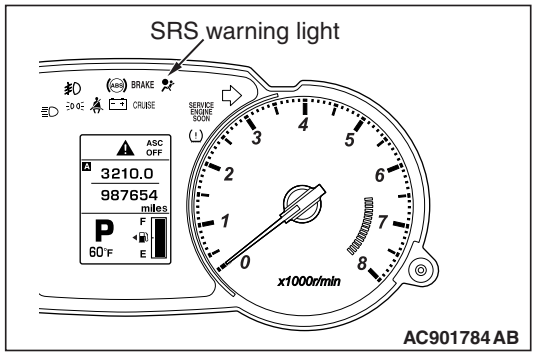

1. Check that the SRS warning light illuminates when the ignition switch is in the "ON" position.
2. Check that it illuminates for approximately seven seconds and then goes out.
3. If not, check for DTC.

PASSENGER'S SEAT BELT WARNING LIGHT CHECK

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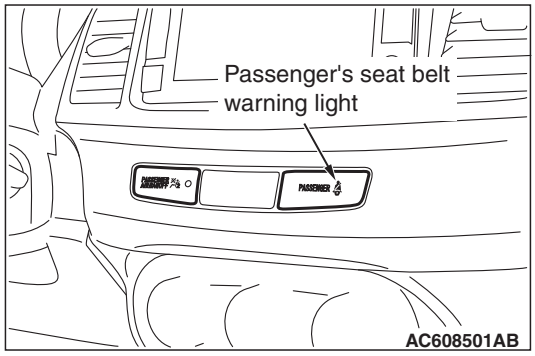
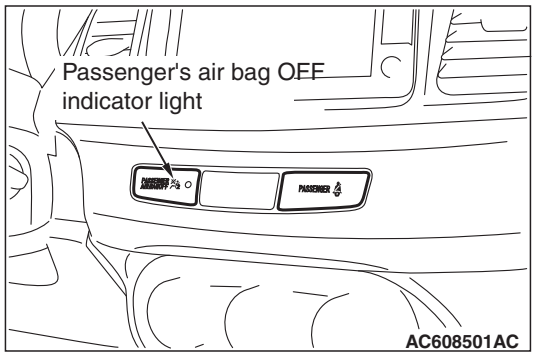


When an adult on the front passenger's seat wears the seat belt with the ignition switch "ON," confirm that the passenger's seat belt warning light goes out.
The light comes on when a person sits on the front passenger seat but does not fasten the seat belt.

PASSENGER'S AIR BAG OFF INDICATOR LIGHT CHECK

M1524026300206

SYSTEM CHECK

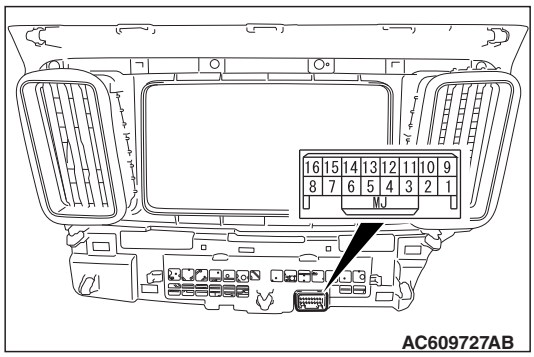


Check that the passenger’s air bag OFF indicator light illuminates when the ignition switch is in the "ON" position.
Check that it illuminates for approximately seven seconds and then goes out.
In the following situations, the indicator will stay on to show that the passenger’s (front) air bag is not operational.

- The occupant classification-ECU and weight sensor sense 66 pounds (30 kg) on the front passenger seat.
- The front passenger’s seat is not occupied.

Illumination check

1. Remove the instrument center panel.



2. Connect the positive battery terminal with the instrument center panel connector terminal No. 8. Then, check if the passenger's air bag OFF indicator light is illuminated when the negative battery terminal and the instrument center panel connector terminal No. 11 are connected.
3. If the passenger's air bag OFF indicator light is illuminated, it is judged good.

DIAGNOSTIC TROUBLE CODE CHART <SRS-ECU>

M1524003301639

⚠ CAUTION

During diagnosis, a DTC 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 DTC code(s). If DTC code(s) are set, erase them all.

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

Diagnostic trouble Code No.	Inspection item	Reference page
B1206	Passenger's air bag OFF indicator light (open circuit)	P.52B-35
B1207	Passenger's air bag OFF indicator light (short circuit between circuit terminal)	P.52B-39
B1B00	Driver's air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-43
B1B01	Driver's air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-50
B1B02	Driver's air bag module (1st squib) system (squib circuit open)	P.52B-57
B1B03	Driver's air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-64
B1B04	Driver's air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-43
B1B05	Driver's air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-50
B1B06	Driver's air bag module (2nd squib) system (squib circuit open)	P.52B-57
B1B07	Driver's air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-64
B1B08	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-72
B1B09	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-77
B1B0A	Passenger's (front) air bag module (1st squib) system (squib circuit open)	P.52B-82
B1B0B	Passenger's (front) air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-88
B1B0C	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-72
B1B0D	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-77
B1B0E	Passenger's (front) air bag module (2nd squib) system (squib circuit open)	P.52B-82
B1B0F	Passenger's (front) air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-88
B1B10	Driver’s knee air bag module (squib) system (shorted to squib circuit ground)	P.52B-94
B1B11	Driver’s knee air bag module (squib) system (shorted to squib circuit power supply)	P.52B-98
B1B12	Driver’s knee air bag module (squib) system (squib circuit open)	P.52B-103
B1B13	Driver’s knee air bag module (squib) system (short circuit between squib circuit terminals)	P.52B-108
B1B18	Curtain air bag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-114
B1B19	Curtain air bag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-121

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Diagnostic trouble Code No.	Inspection item	Reference page
B1B1A	Curtain air bag module (LH) (squib) system (squib circuit open)	P.52B-129
B1B1B	Curtain air bag module (LH) (squib) system (short circuit between squib circuit terminals)	P.52B-137
B1B20	Curtain air bag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-144
B1B21	Curtain air bag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-151
B1B22	Curtain air bag module (RH) (squib) system (squib circuit open)	P.52B-158
B1B23	Curtain air bag module (RH) (squib) system (short circuit between squib circuit terminals)	P.52B-166
B1B54	seat belt buckle switch (RH) circuit (ground side) shorted	P.52B-173
B1B55	seat belt buckle switch (RH) circuit (power supply side) shorted	P.52B-173
B1B56	seat belt buckle switch (RH) circuit open	P.52B-173
B1B70	Malfunction of G-sensor inside front impact sensor (LH)	P.52B-178
B1B71	Malfunction of G-sensor inside front impact sensor (RH)	P.52B-178
B1B72	Malfunction of G-sensor inside side impact sensor (LH)	P.52B-179
B1B75	Malfunction of G-sensor inside side impact sensor (RH)	P.52B-179
B1BA3	Driver’s seat slide sensor malfunction (occupant classification-ECU)	P.52B-181
B1BA5	SRS-ECU squib count mismatch	P.52B-183
B1BAA	Occupant classification-ECU configuration mismatch	P.52B-185
B1BC7	SRS-ECU (record data full) system	P.52B-187
B1C27	Side-airbag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-188
B1C28	Side-airbag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-193
B1C29	Side-airbag module (LH) (squib) system (squib circuit open)	P.52B-198
B1C2A	Side-airbag module (LH) (squib) system (short circuit between squib circuit terminals)	P.52B-204
B1C2B	Side-airbag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-209
B1C2C	Side-airbag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-214
B1C2D	Side-airbag module (RH) (squib) system (squib circuit open)	P.52B-219
B1C2E	Side-airbag module (RH) (squib) system (short circuit between squib circuit terminals)	P.52B-225
B1C38	Driver's seat belt pre-tensioner (squib) system (shorted to squib circuit ground)	P.52B-230
B1C39	Driver's seat belt pre-tensioner (squib) system (shorted to squib circuit power supply)	P.52B-236
B1C3A	Driver's seat belt pre-tensioner (squib) system (squib circuit open)	P.52B-241
B1C3B	Driver's seat belt pre-tensioner (squib) system (short circuit between squib circuit terminals)	P.52B-245
B1C47	Front passenger's seat belt pre-tensioner (squib) system (shorted to squib circuit ground)	P.52B-251
B1C48	Front passenger's seat belt pre-tensioner (squib) system (shorted to squib circuit power supply)	P.52B-255

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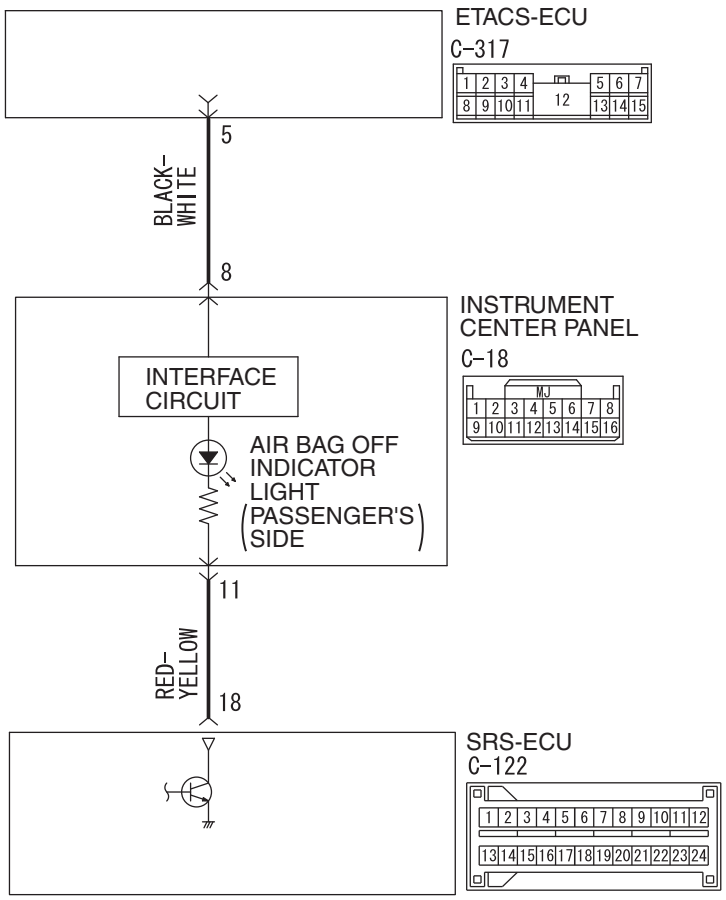
Diagnostic trouble Code No.	Inspection item	Reference page
B1C49	Front passenger's seat belt pre-tensioner (squib) system (squib circuit open)	P.52B-260
B1C4A	Front passenger's seat belt pre-tensioner (squib) system (short circuit between squib circuit terminals)	P.52B-266
B210D	Battery abnormal low voltage	P.52B-272
B212C	Open circuit to IG1 power supply (fuse No. 12 circuit)	P.52B-278
B212D	Open circuit to IG1 power supply (fuse No. 18 circuit)	P.52B-278
B2207	Occupant restraint controller internal 1	P.52B-283
B2208	Occupant restraint controller internal 2	P.52B-283
B2209	Occupant restraint controller internal 3	P.52B-283
B220A	Occupant restraint controller internal 4	P.52B-283
B220B	Occupant restraint controller firing stored energy	P.52B-283
B220C	Occupant restraint controller accelerometer 1	P.52B-283
B220D	Occupant restraint controller accelerometer 2	P.52B-283
B223D	OCM (Occupant Classification-ECU) DTC present	P.52B-285
U0019	Bus off (CAN-B)	P.52B-286
U0141	ETACS CAN timeout	P.52B-287
U0154	Occupant classification-ECU CAN timeout	P.52B-289
U0155	Combination meter CAN timeout	P.52B-291
U0164	A/C -ECU CAN timeout	P.52B-293
U0168	KOS -ECU or WCM CAN timeout	P.52B-295
U0170	Front impact sensor (LH) communication error	P.52B-297
U0171	Front impact sensor (RH) communication error	P.52B-301
U0172	Side impact sensor (LH) communication error	P.52B-304
U0175	Side impact sensor (RH) communication error	P.52B-307
U0184	Audio CAN timeout	P.52B-310
U0195	Satellite radio tuner CAN timeout	P.52B-312
U0197	Hands free Module CAN timeout	P.52B-314
U1414	Defective Coding Data	P.52B-316
U1415	Coding not completed/Data fail	P.52B-317

DIAGNOSTIC TROUBLE CODE PROCEDURES <SRS-ECU>

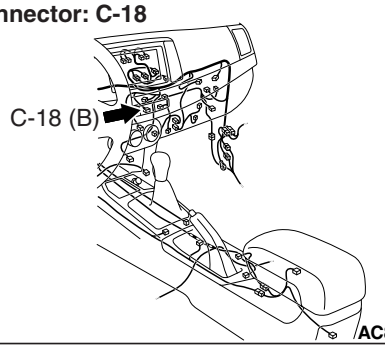
DTC B1206: Passenger's Air Bag OFF Indicator Light (Open Circuit)

Air Bag OFF Indicator Light Drive Circuit



AC710663AB

Connector: C-18



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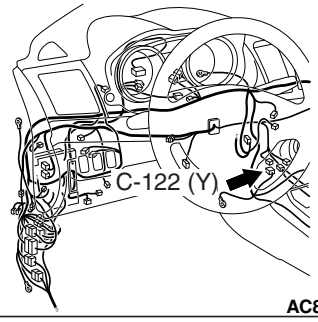
Connector: C-122



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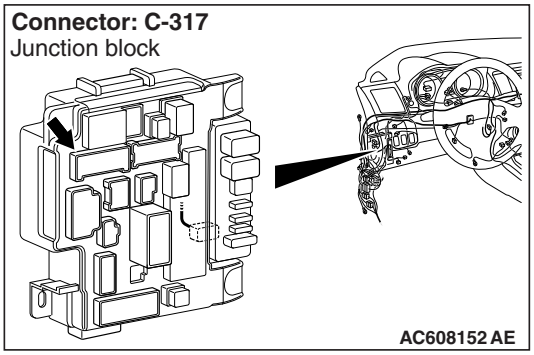
TSB Revision



⚠ CAUTION
If DTC B1206 is set 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 fusible link (34).
- 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 occupant is determined to be less than 66 lbs (30 kg) by the occupant classification-ECU.
  - The front passenger's seat is not occupied.

DTC SET CONDITIONS

This DTC will be set if an open circuit has occurred in the wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU.

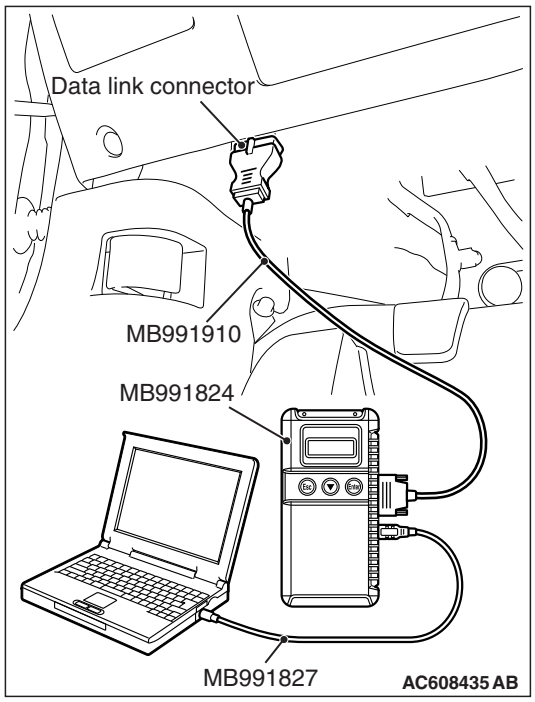
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- 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)



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-28."
(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-17).

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.00-14).

STEP 3. Check the passenger's air bag OFF indicator light.

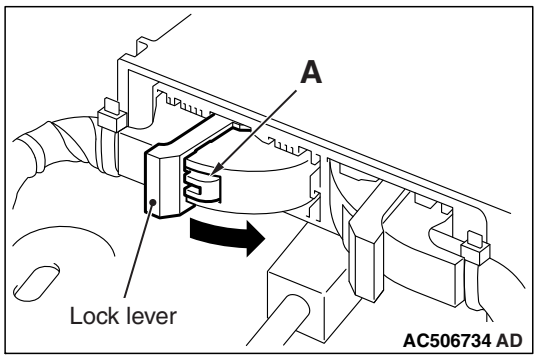
(1) It is checked whether the passenger's air bag OFF indicator light is normal (Refer to P.52B-30).

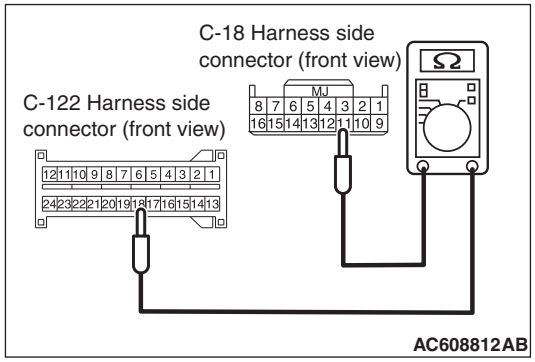
Q: Is the check result normal?

YES : Go to Step 4.
NO : Replace instrument center panel (Refer to GROUP 52A – Instrument Panel Assembly P.52A-3).

STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.18) and the instrument center panel connector C-18 (terminal No.11).

(1) Disconnect the negative battery terminal.
(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 C-122 SRS-ECU connector.
(3) Disconnect the instrument center panel connector C-18.





(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.18) and the instrument center panel connector C-18 (terminal No.11)

Q: Does continuity exist?

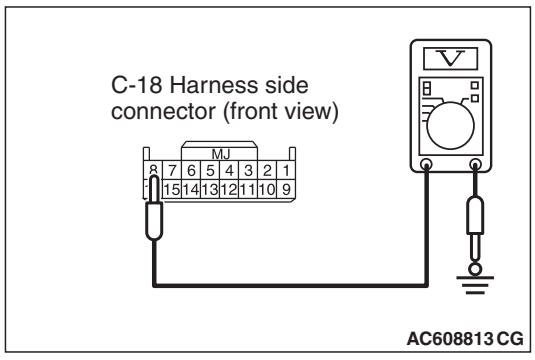
YES : Go to Step 5.
NO : Repair the harness wires.

STEP 5. Measure the voltage at the instrument center panel connector.

(1) Disconnect the negative battery terminal.
(2) Disconnect the C-18 instrument center panel connector.
(3) Connect the negative battery terminal.
(4) Ignition switch: ON.
(5) Measure the voltage between the C-18 harness side connector terminal No. 8 and body ground.
- The voltage should measure approximately 12 volts (battery positive voltage).

Q: Is the measured voltage approximately 12 volts (battery positive voltage)?

YES : Go to Step 6.
NO : Repair the wiring harness between the C-317 ETACS-ECU connector terminal No. 5 and the C-18 instrument center panel connector terminal No. 8.



STEP 6. Recheck for diagnostic trouble code.

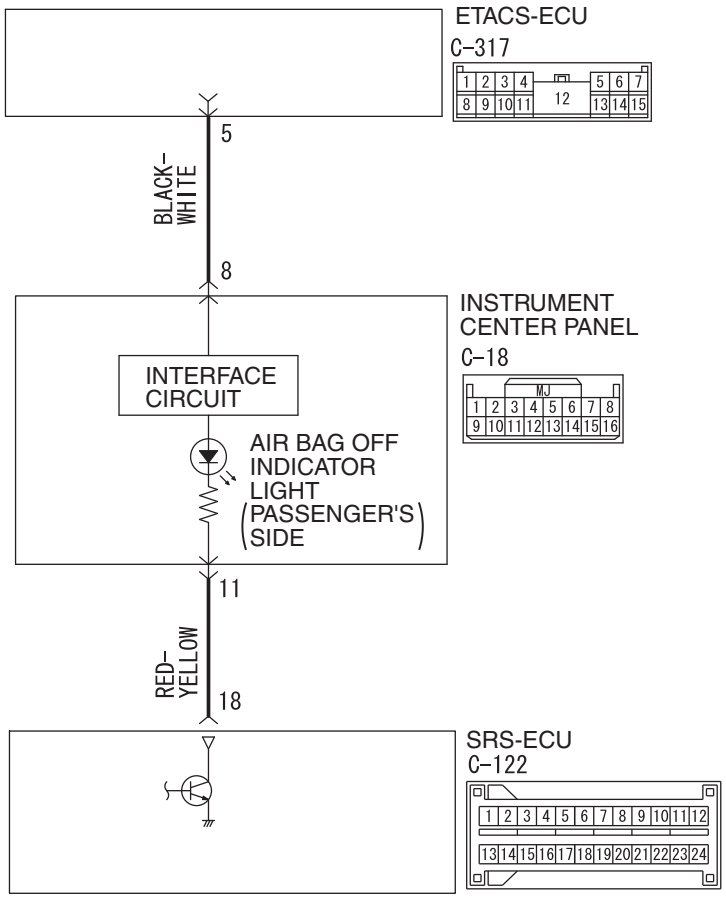
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1206 set?

YES : Replace SRS-ECU (Refer to P.52B-416).
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.00-14).

DTC B1207: Passenger's Air Bag OFF Indicator Light (Short Circuit between Circuit Terminal)

Air Bag OFF Indicator Light Drive Circuit



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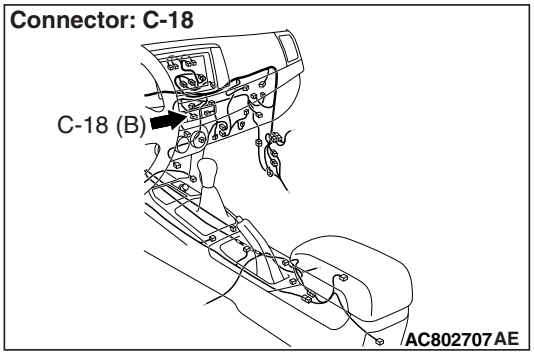
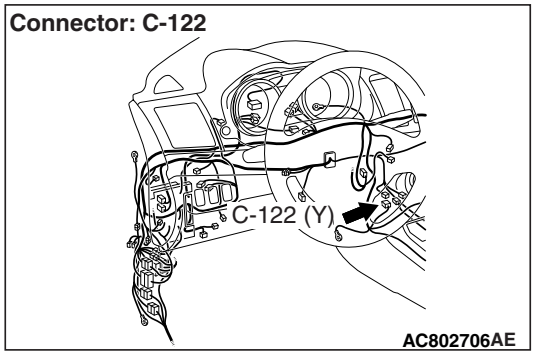
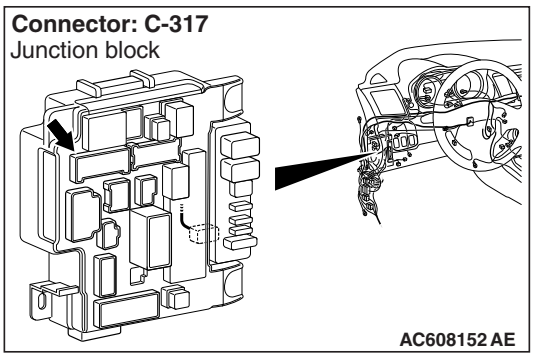






⚠ CAUTION
If DTC B1207 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the fusible link (34).
- 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 occupant is determined to be less than 66 lbs (30 kg) by the occupant classification-ECU.
  - The front passenger's seat is not occupied.

DTC SET CONDITIONS

This DTC will be set if the passenger's air bag OFF indicator light driving circuit is short to ground.

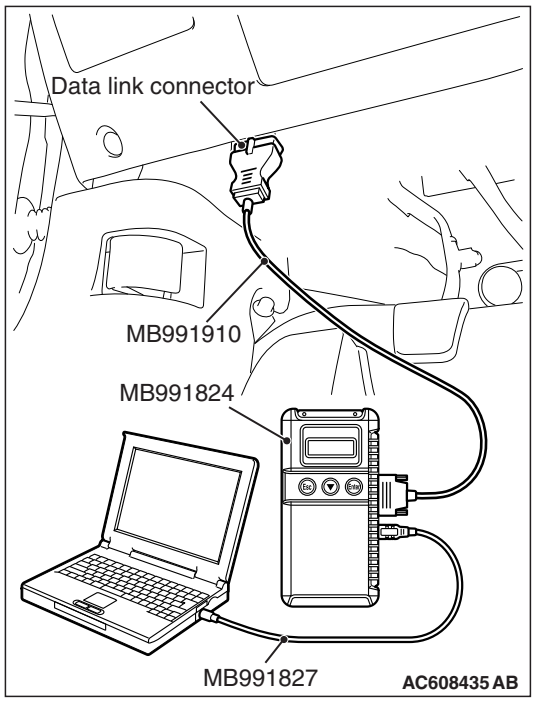
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- 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)



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-28."
(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-17).

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.00-14).

STEP 3. Check the passenger's air bag OFF indicator light.

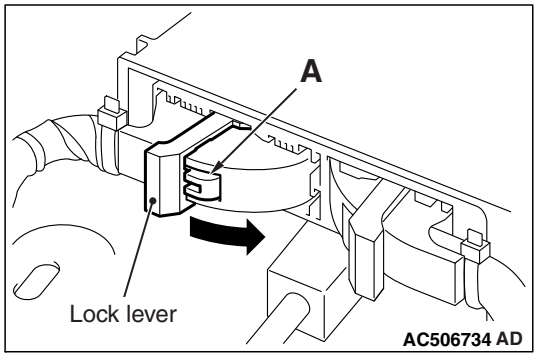
(1) It is checked whether the passenger's air bag OFF indicator light is normal (Refer to P.52B-30).

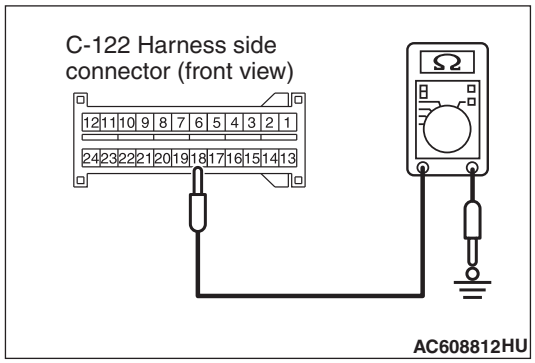
Q: Is the check result normal?

YES : Go to Step 4.
NO : Replace instrument center panel (Refer to GROUP 52A – Instrument Panel Assembly P.52A-3).

STEP 4. Resistance measurement at the C-122 SRS-ECU connector.

(1) Disconnect the negative battery terminal.
(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 C-122 SRS-ECU connector.
(3) Disconnect the instrument center panel connector C-18.





(4) Check for continuity between the C-122 harness side connector terminal No.18 and body ground.
It should be open circuit.

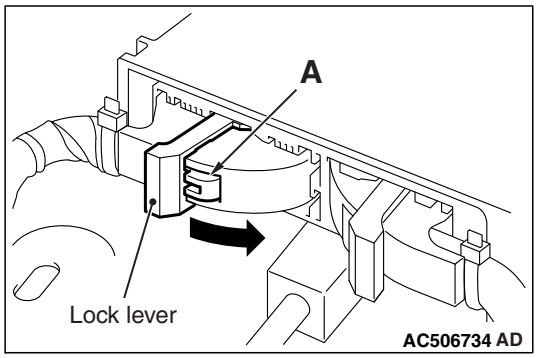
Q: Is it open circuit?

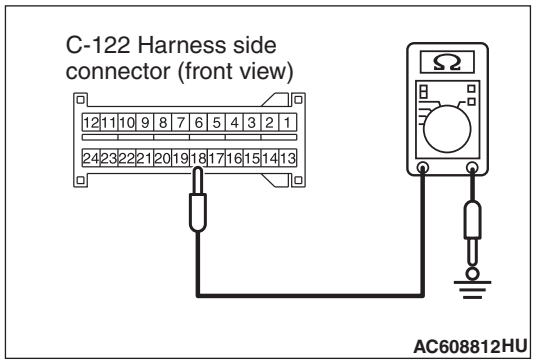
YES : Go to Step 5.
NO : Repair the wiring harnesses between the C-122 SRS-ECU connector terminal No. 18 and the C-18 instrument center panel connector No.11. Then go to Step 6

STEP 5. Resistance measurement at the C-122 SRS-ECU connector.

(1) Disconnect the negative battery terminal.
(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 C-122 SRS-ECU connector.

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





(3) Check for continuity between the C-122 harness side connector terminal No.18 and body ground.
It should be open circuit.

Q: Is it open circuit?

YES : Go to Step 6.
NO : Replace SRS-ECU (Refer to P.52B-416).

STEP 6. Recheck for diagnostic trouble code.

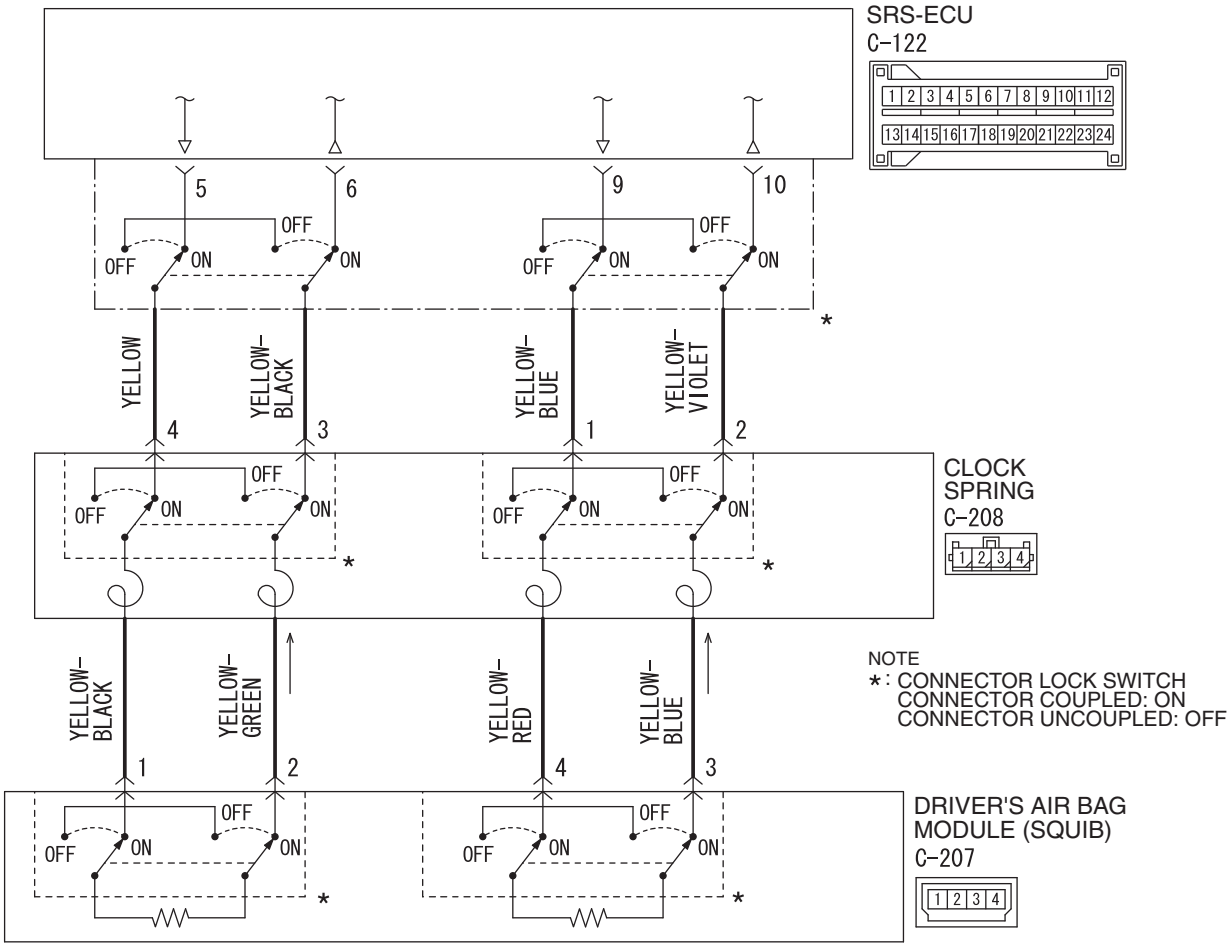
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1207 set?

YES : Replace SRS-ECU (Refer to P.52B-416).
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.00-14).

DTC B1B00: Driver's Air Bag Module (1st Squib) System (Shorted to Squib Circuit Ground)
DTC B1B04: Driver's Air Bag Module (2nd Squib) System (Shorted to Squib Circuit Ground)

Driver's Air Bag Module (Squib) Circuit



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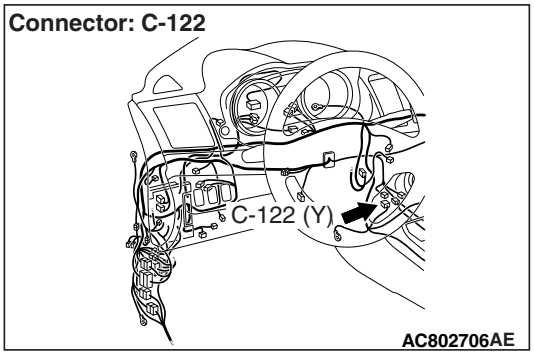
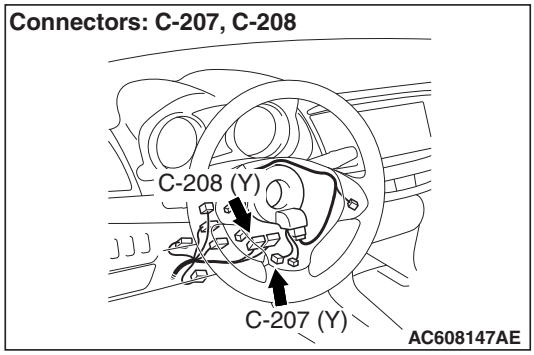




⚠ CAUTION

- **If DTC B1B00 <1st squib> or B1B04 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.**
- **When DTC B1B00 is set in the following diagnosis, check the 1st squib circuit. When DTC B1B04 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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 set if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

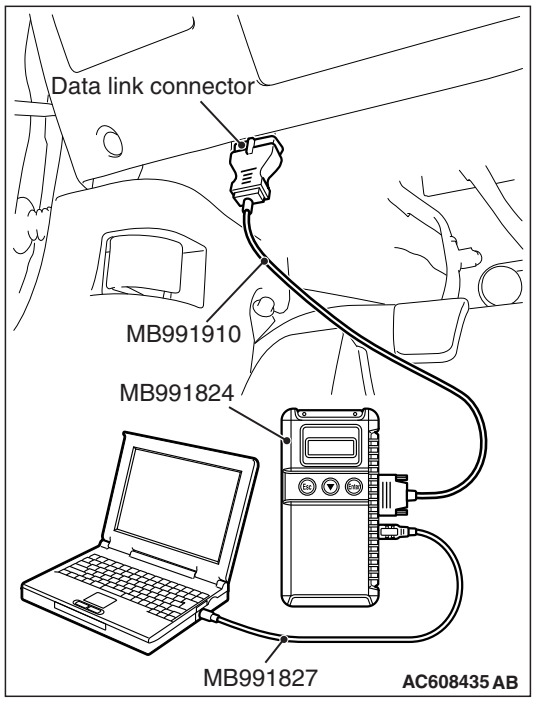
TROUBLESHOOTING HINTS

- 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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

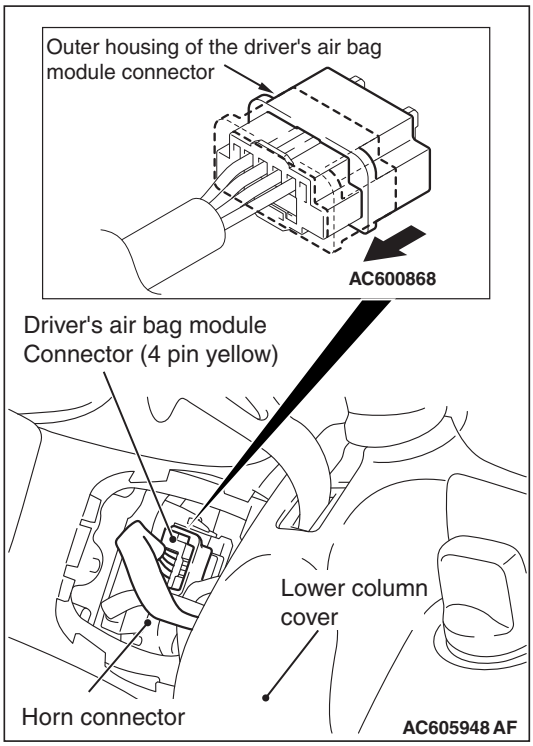
Q: Is the DTC set?

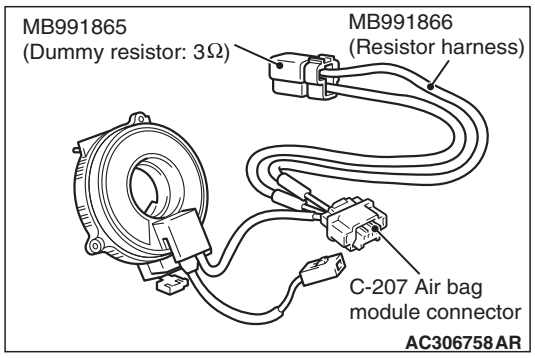
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

STEP 3. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-207 in the arrow direction shown, and disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into clock spring side air bag module connector C-207 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

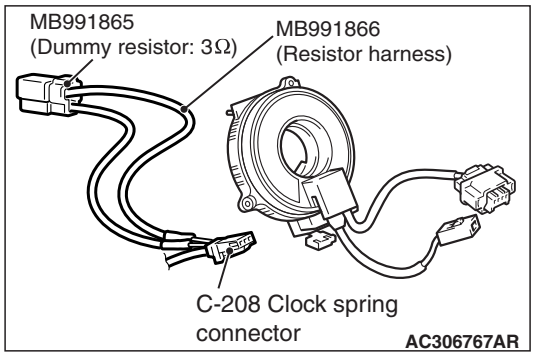
Always DTC B1B06 is set when checking DTC B1B00. This is because the second side terminal is isolated when checking it, DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B04 because the first side terminal is isolated.

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

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 7.



STEP 4. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into clock spring harness side connector C-208 (terminal No. 3 and 4 <1st squib> or terminal No. 2 and 1 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

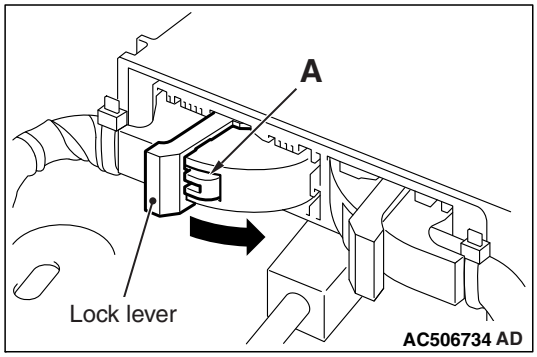
⚠ CAUTION

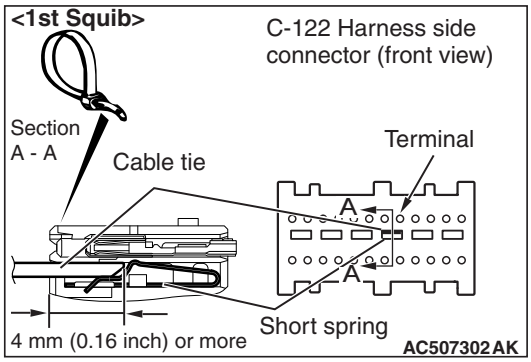
Always DTC B1B06 is set when checking DTC B1B00. This is because the second side terminal is isolated when checking it, DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B04 because the first side terminal is isolated.

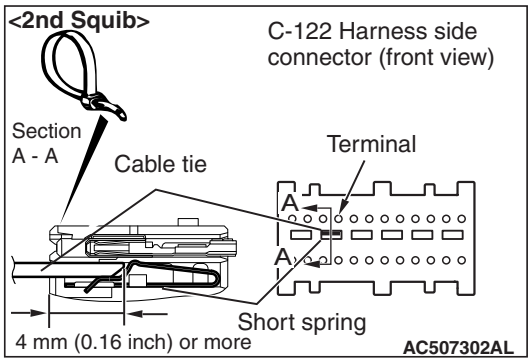
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 5.
NO : Replace the clock spring (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 7.







STEP 5. Check the driver's air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

(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 C-122 SRS-ECU connector.

⚠ ***DANGER***

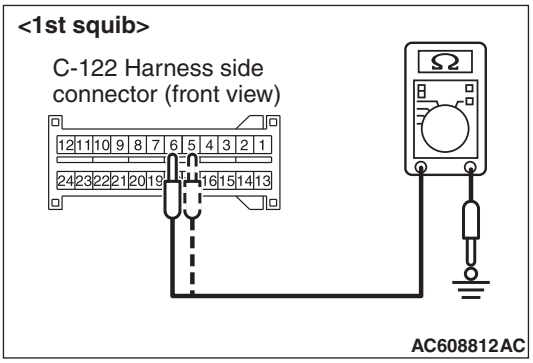
To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-208 to short the squib circuit.

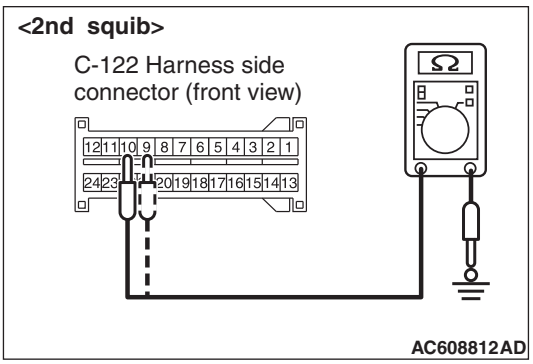
(3) Disconnect the clock spring connector C-208.

⚠ **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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 <1st squib> or 9, 10 <2nd squib> and the short spring to release the short spring.





(5) Check for continuity between C-122 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib> and body ground.
It should be open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B00 <1st squib> or B1B04 <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7.

NO : Go to Step 6.

STEP 6. Check the harness for short circuit to ground between the following connector.

- SRS-ECU connector C-122 (terminal No.5 and 6) and clock spring connector C-208 (terminal No.4 and 3) <1st squib>.
- SRS-ECU connector C-122 (terminal No.9 and 10) and clock spring connector C-208 (terminal No.1 and 2) <2nd squib>.

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 7.

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.

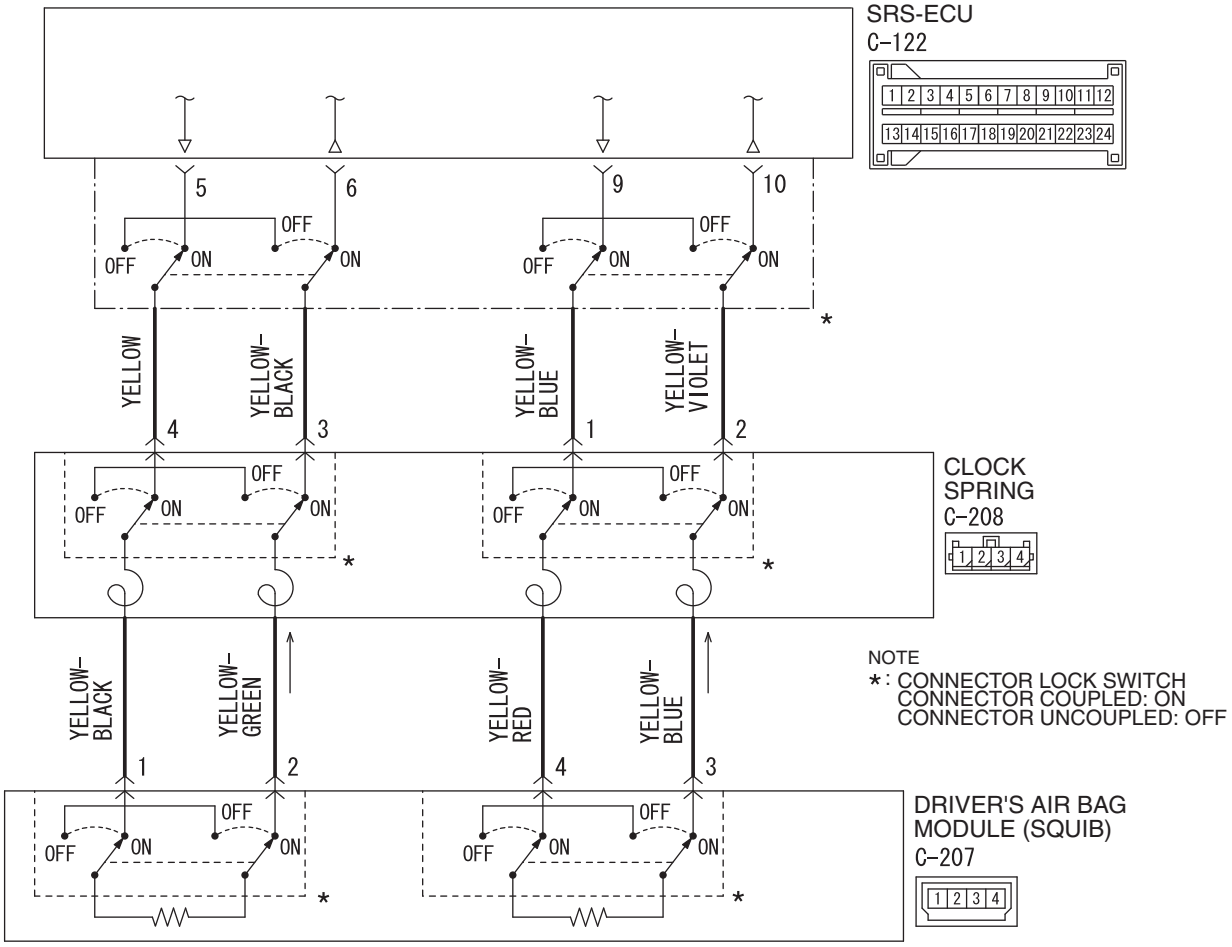
Q: Is DTC B1B00 <1st squib> or B1B04 <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

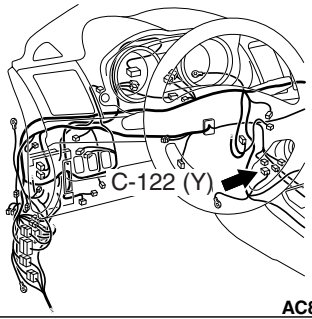
DTC B1B01: Driver's Air bag Module (1st squib) System (Shorted to Squib Circuit Power Supply)
DTC B1B05: Driver's Air bag Module (2nd squib) System (Shorted to Squib Circuit Power Supply

Driver's Air Bag Module (Squib) Circuit



W8G52M004A

Connector: C-122



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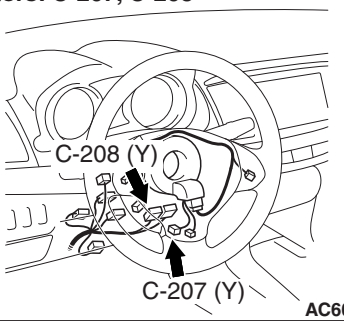
Connectors: C-207, C-208



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⚠ CAUTION

- **If DTC B1B01 <1st squib> or B1B05 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.**
- **When DTC B1B01 is set in the following diagnosis, check the 1st squib circuit. When DTC B1B05 is set, check the 2nd squib circuit.**

TSB Revision

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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 set if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

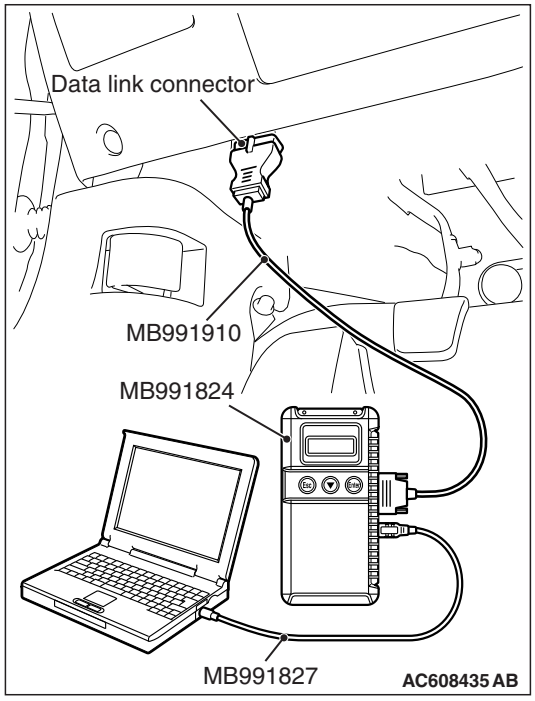
TROUBLESHOOTING HINTS

- 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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

TSB Revision

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?

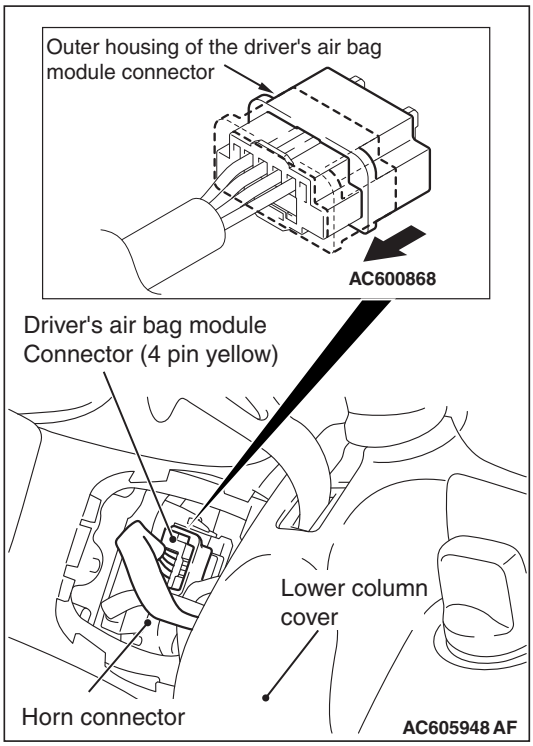
YES : Go to Step 3.

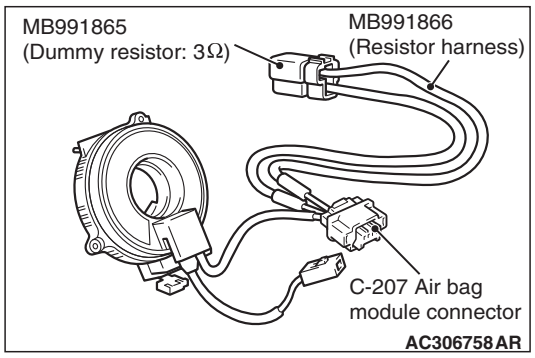
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

STEP 3. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-207 in the arrow direction shown, and disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into clock spring side air bag module connector C-207 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

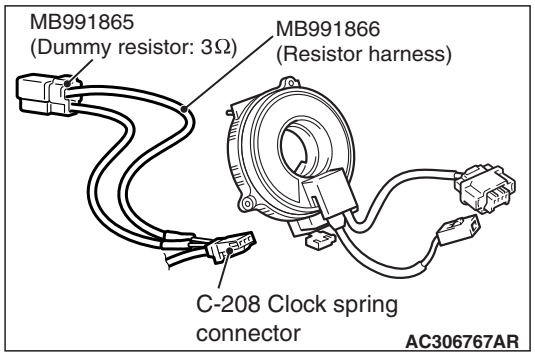
Always DTC B1B06 is set when checking DTC B1B01. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B05 because the first side terminal is isolated.

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

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 7.



STEP 4. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into clock spring harness side connector C-208 (terminal No.3 and 4 <1st squib> or terminal No. 2 and 1 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

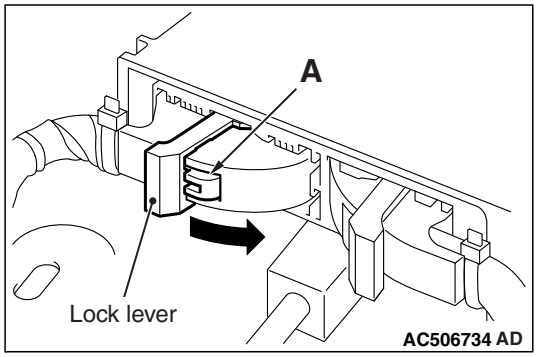
⚠ CAUTION

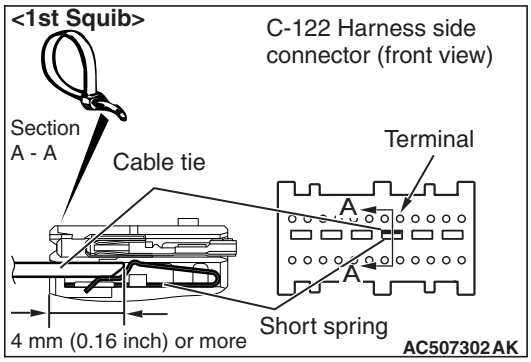
Always DTC B1B06 is set when checking DTC B1B01. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B05 because the first side terminal is isolated.

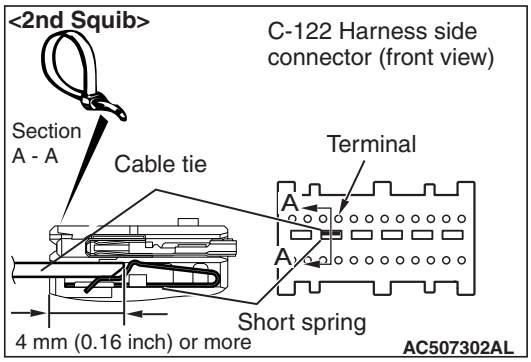
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 5.
NO : Replace the clock spring (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 7 .







STEP 5. Check the driver's air bag module circuit. Measure the voltage at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.
(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 C-122 SRS-ECU connector.

⚠ ***DANGER***

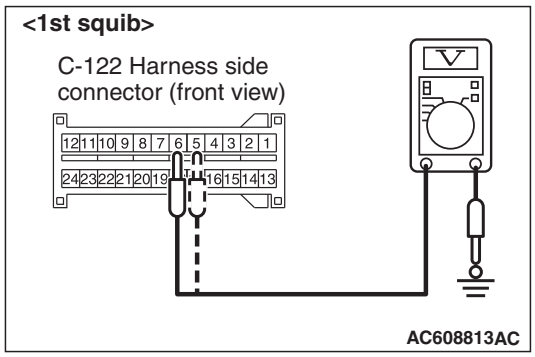
To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-208 to short the squib circuit.

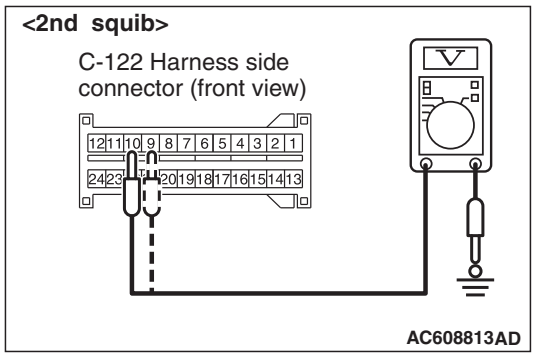
(3) Disconnect the clock spring connector C-208.

⚠ **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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 <1st squib> or 9, 10 <2nd squib> and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Ignition switch: ON.





(7) Measure the voltage between C-122 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib> and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B01 <1st squib> or B1B05 <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7.

NO : Go to Step 6.

STEP 6. Check the harness for short circuit to power supply between the following connector.

- SRS-ECU connector C-122 (terminal No.5 and 6) and clock spring connector C-208 (terminal No.4 and 3) <1st squib>.
- SRS-ECU connector C-122 (terminal No.9 and 10) and clock spring connector C-208 (terminal No.1 and 2) <2nd squib>.

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 7.

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.

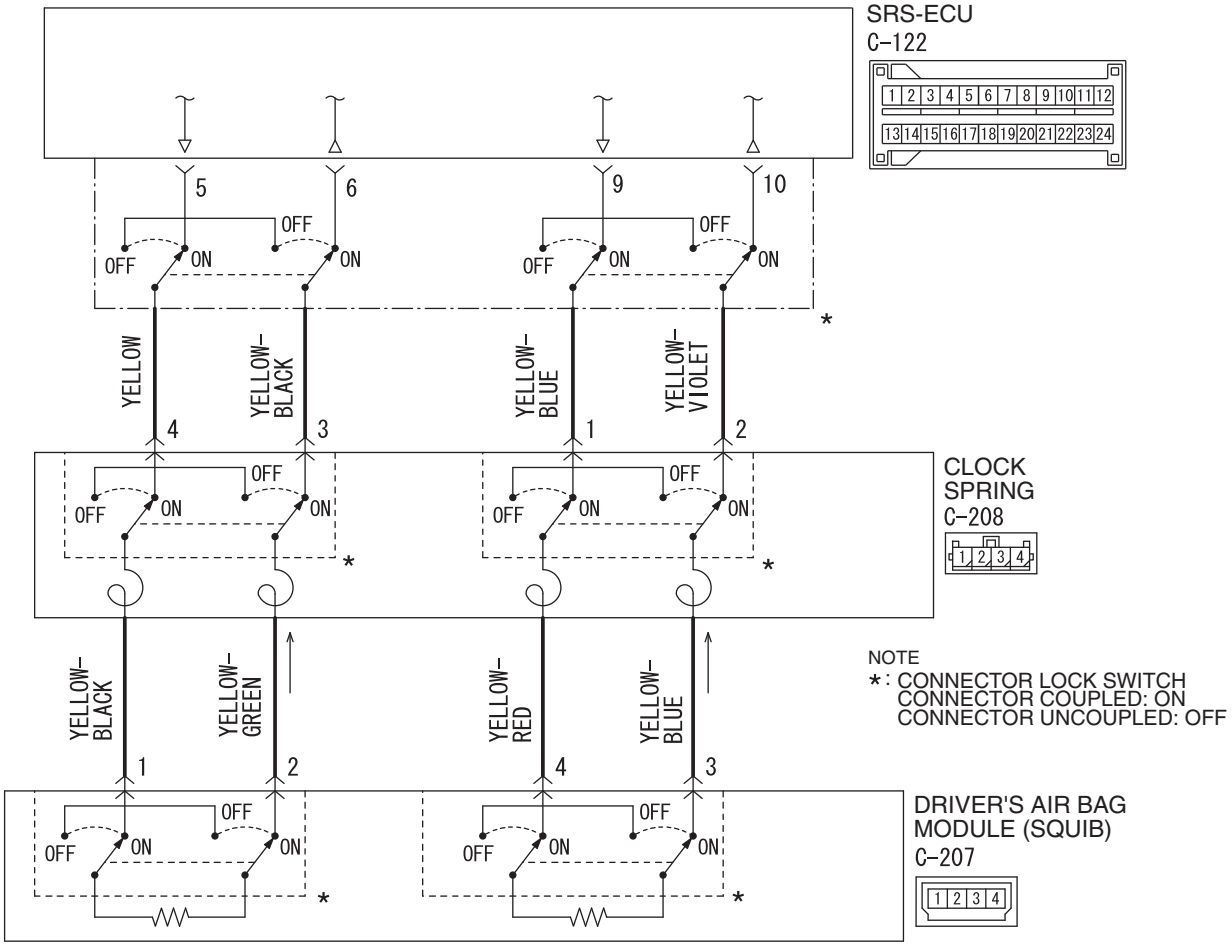
Q: Is DTC B1B01 <1st squib> or B1B05 <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B02: Driver's Air Bag Module (1st squib) System (Squib Circuit Open)
DTC B1B06: Driver's Air Bag Module (2nd squib) System (Squib Circuit Open)

Driver's Air Bag Module (Squib) Circuit



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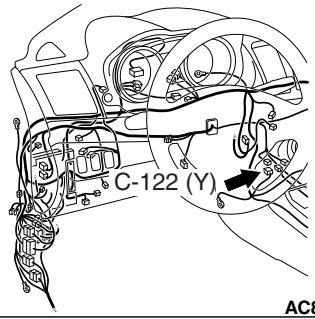
Connector: C-122



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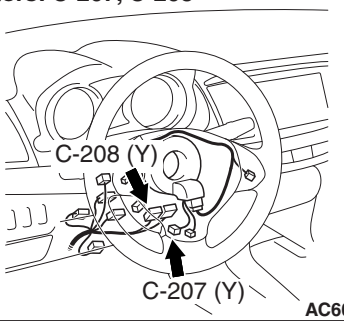
Connectors: C-207, C-208



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⚠ CAUTION

- **If DTC B1B02 <1st squib> or B1B06 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.**
- **When DTC B1B02 is set in the following diagnosis, check the 1st squib circuit. When DTC B1B06 is set, check the 2nd squib circuit.**

TSB Revision

CIRCUIT OPERATION

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

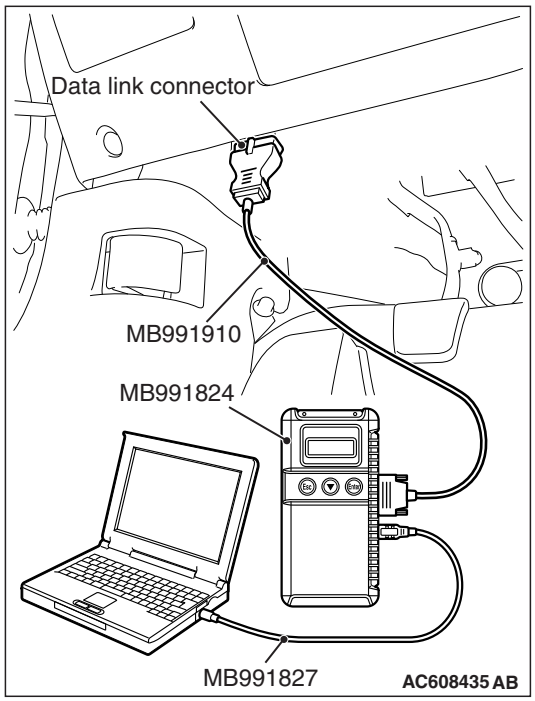
TROUBLESHOOTING HINTS

- 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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

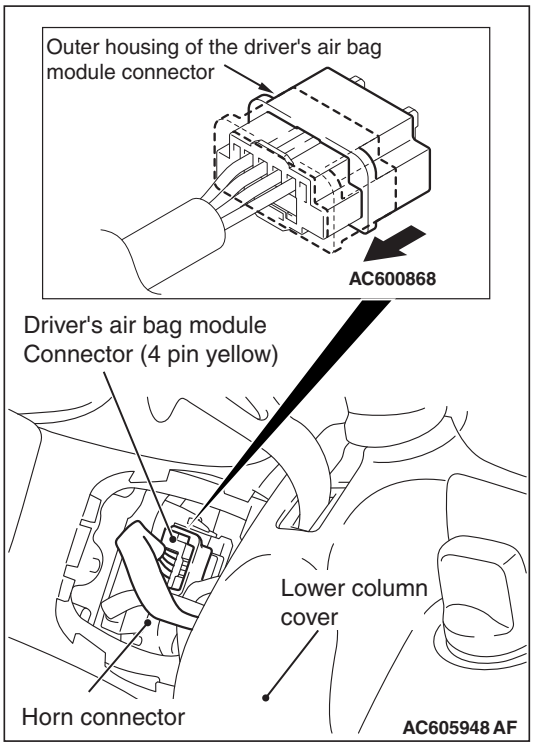
Q: Is the DTC set?

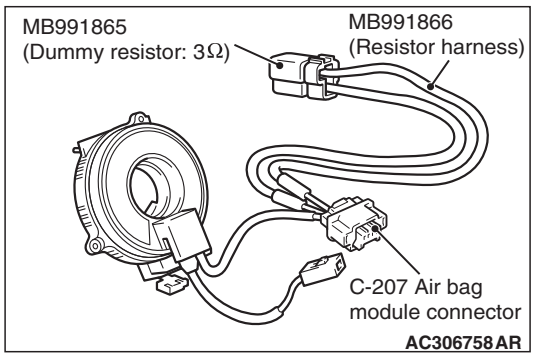
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

STEP 3. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-207 in the arrow direction shown, and disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into clock spring side of driver's air bag module connector C-207 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

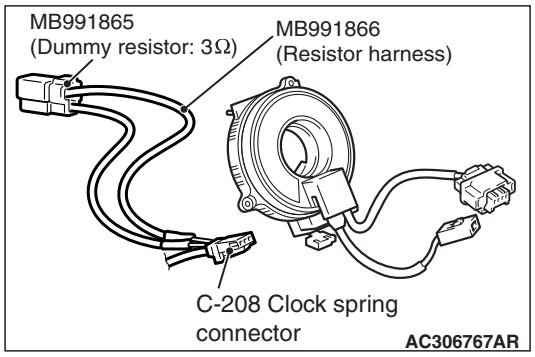
Always DTC B1B06 is set when checking DTC B1B02. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B06 because the first side terminal is isolated.

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

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 6.



STEP 4. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into harness side of clock spring connector C-208 (terminal No.3 and 4 <1st squib> or terminal No.1 and 2 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B02. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B06 because the first side terminal is isolated.

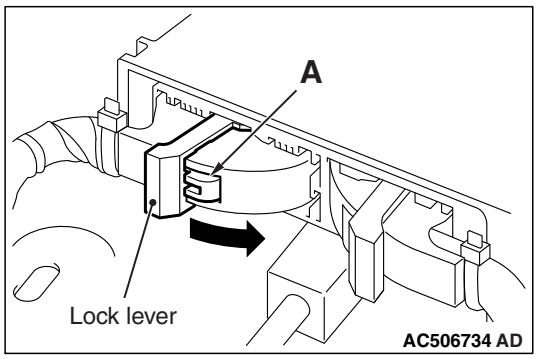
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 5.
NO : Replace the clock spring (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 6.

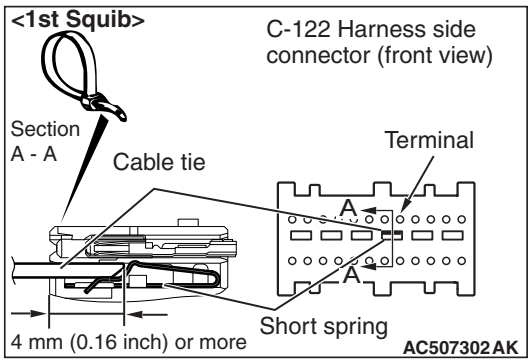
STEP 5. Check the harness for open circuit between the SRS-ECU connector C-122 and the clock spring connector C-208.

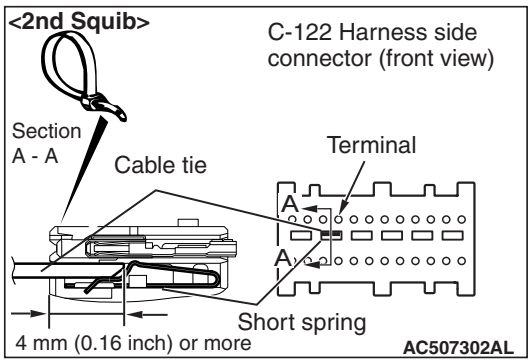
(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.
(3) Disconnect the clock spring connector C-208.



⚠ 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.

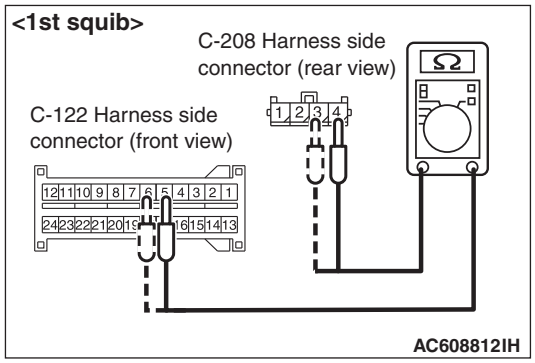
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 <1st squib> or 9, 10 <2nd squib> and the short spring to release the short spring.



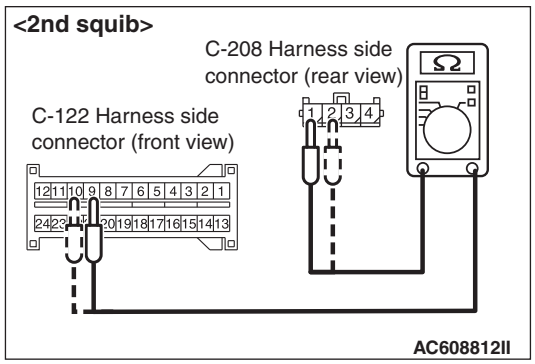


⚠ CAUTION
Do not insert a probe into the terminal from C-208 harness side connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.



- SRS-ECU connector C-122 (terminal No.5) and the clock spring connector C-208 (terminal No.4) <1st squib>
- SRS-ECU connector C-122 (terminal No.6) and the clock spring connector C-208 (terminal No.3) <1st squib>



- SRS-ECU connector C-122 (terminal No.9) and the clock spring connector C-208 (terminal No.1) <2nd squib>
- SRS-ECU connector C-122 (terminal No.10) and the clock spring connector C-208 (terminal No.2) <2nd squib>

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTCB1B02 <1st squib> or B1B06 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 6.

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.

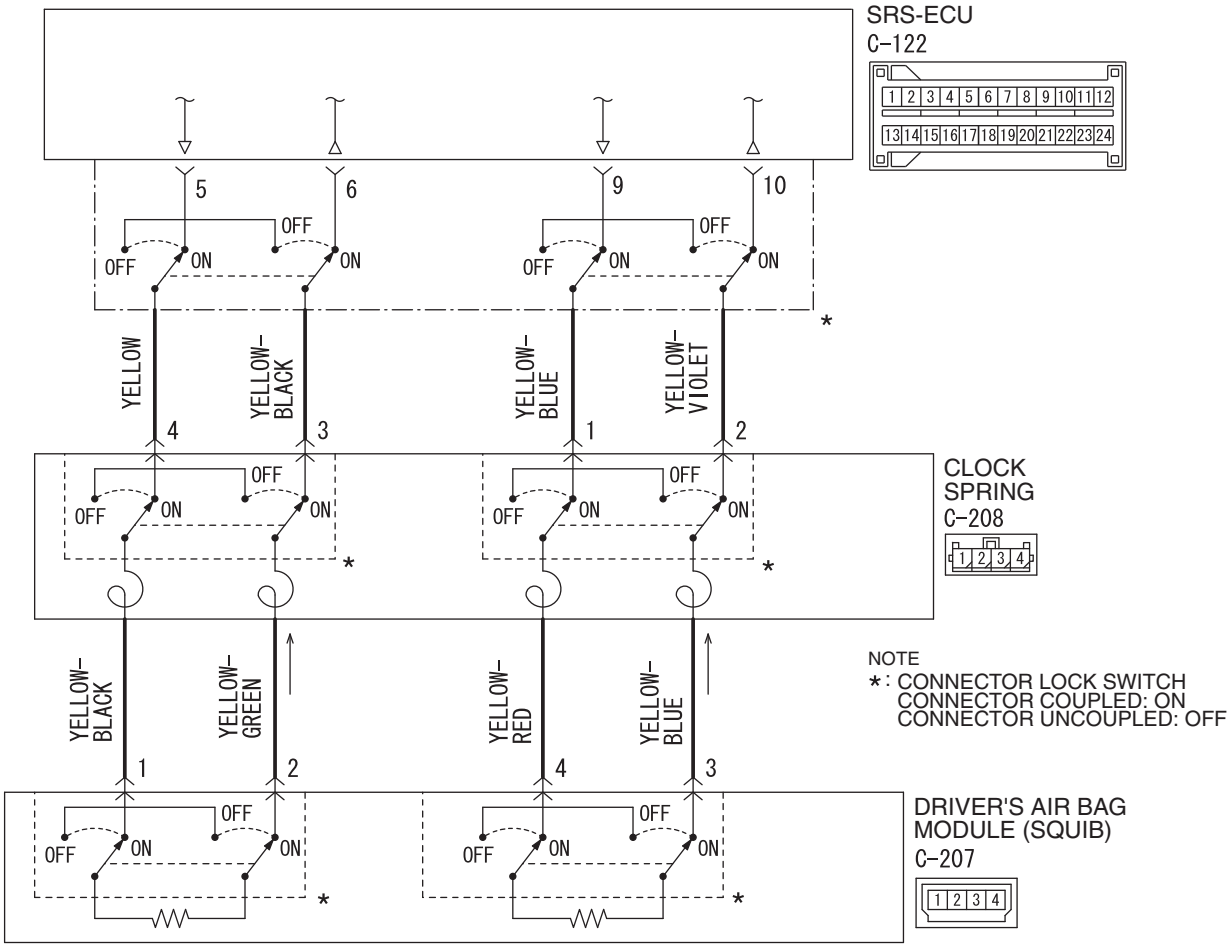
Q: Is DTCB1B02 <1st squib> or B1B06 <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

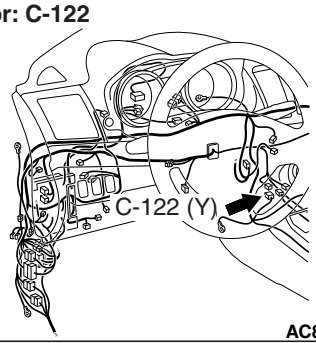
DTC B1B03: Driver's Air Bag Module (1st squib) System (Short Circuit Between Squib Circuit Terminals)
DTC B1B07: Driver's Air Bag Module (2nd squib) System (Short Circuit Between Squib Circuit Terminals)

Driver's Air Bag Module (Squib) Circuit



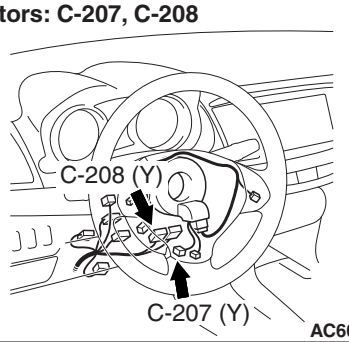
W8G52M004A

Connector: C-122



AC802706AE

Connectors: C-207, C-208



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TSB Revision

⚠ CAUTION

- **If DTC B1B03 <1st squib> or B1B07 <2nd squib> is set in the SRS-ECU, always diagnose the CAN bus lines.**
- **When DTC B1B03 is set in the following diagnosis, check the 1st squib circuit. When DTC B1B07 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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 set 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 set are the followings:
  - Short circuit in driver's air bag module (squib) or harness
  - Short circuit in the clock spring

TROUBLESHOOTING HINTS

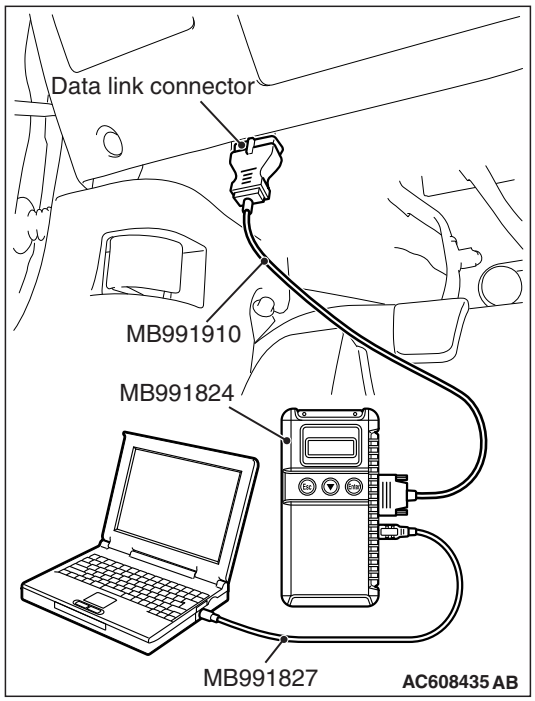
- Improper engaged connector or defective short spring*
- Short circuit in the clock spring
- Short circuit between the driver's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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) (Refer to P.52B-3). Therefore, if connector C-122, C-207 or C-208 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

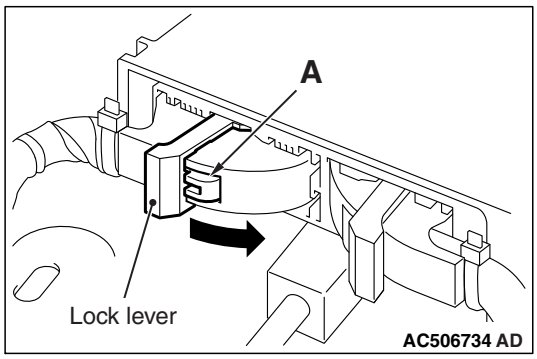
Q: Is the DTC set?

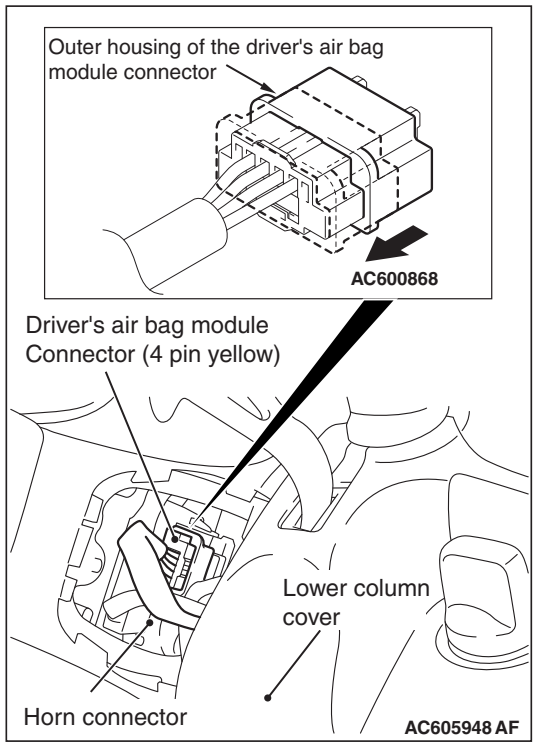
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

STEP 3. Check SRS-ECU connector C-122, driver's air bag module connector C-207 and clock spring connector C-208.

(1) Disconnect the negative battery terminal.

(2) While pressing the part A in the illustration of the C-122 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.





(3) Disconnect the C-208 clock spring connector and C-207 driver's air bag module connector, and then reconnect them. Disconnect C-207 driver's air bag module connector while sliding its outer housing toward the arrow direction in the illustration.

(4) Connect the negative battery terminal.

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

Q: Is DTC B1B03 <1st squib> or B1B07 <2nd squib> set?

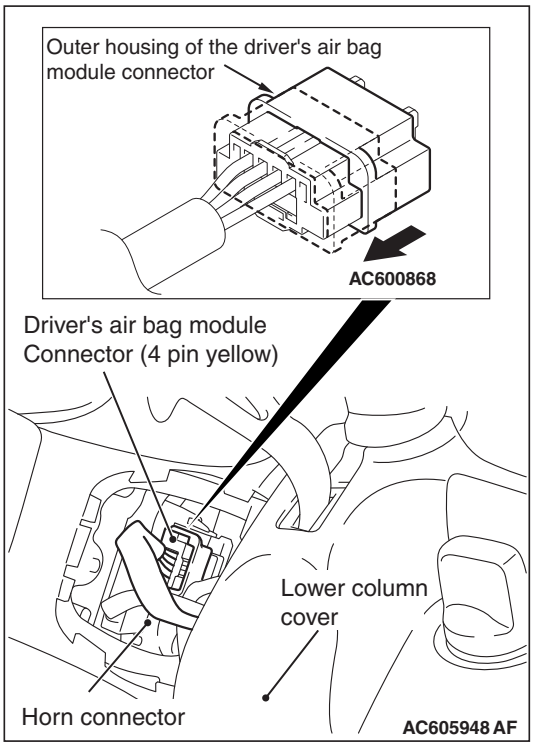
YES : Go to Step 4.

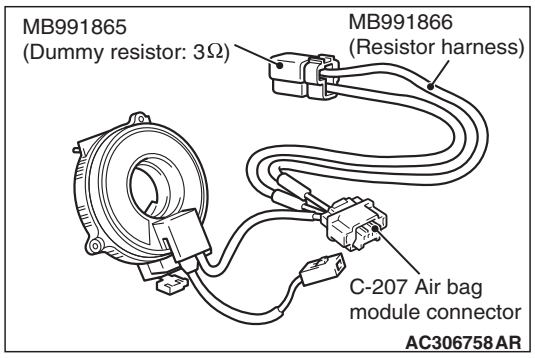
NO : The procedure is complete. It is assumed that DTC B1B03 <1st squib> or B1B07 <2nd squib> set because connector C-122, C-207 or C-208 was engaged improperly.

STEP 4. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the clock spring side of driver's air bag module connector C-207 in the arrow direction shown, and disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into clock spring side of driver's air bag module connector C-207 (terminal No.1 and 2 <1st squib> or No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

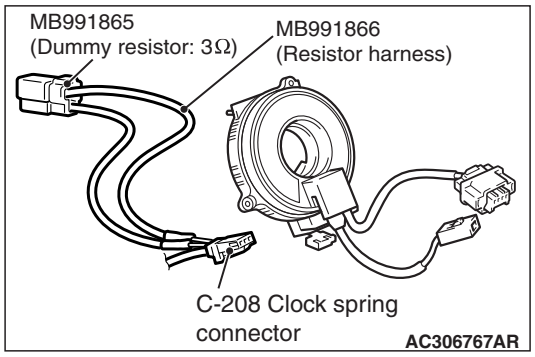
Always DTC B1B06 is set when checking DTC B1B03. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B07 because the first side terminal is isolated.

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

Q: Is the checked DTC set?

YES : Go to Step 5.

NO : Replace the driver's air bag module (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 8.



STEP 5. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from C-208 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring harness side connector C-208 (terminal No.3 and 4 <1st squib> or No.1 and 2 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

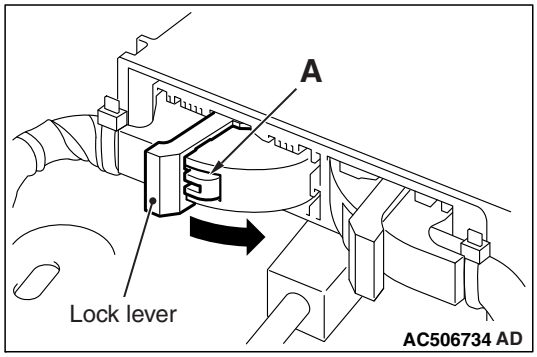
⚠ CAUTION

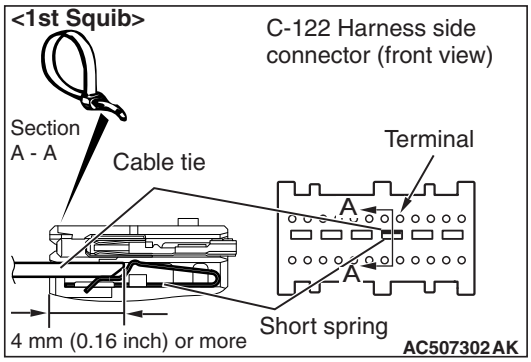
Always DTC B1B06 is set when checking DTC B1B03. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B07 because the first side terminal is isolated.

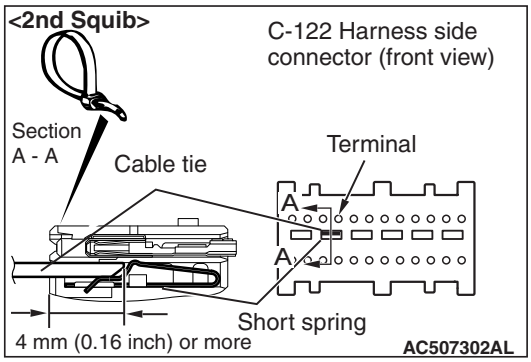
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 6.
NO : Replace the clock spring (Refer to P.52B-419) <Except RALLIART>, (Refer to P.52B-427) <RALLIART>. Then go to Step 8.







STEP 6. Check the driver's air bag module circuit. Measure the resistance at SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

(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 C-122 SRS-ECU connector.

⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect clock spring connector C-208 to short the squib circuit.

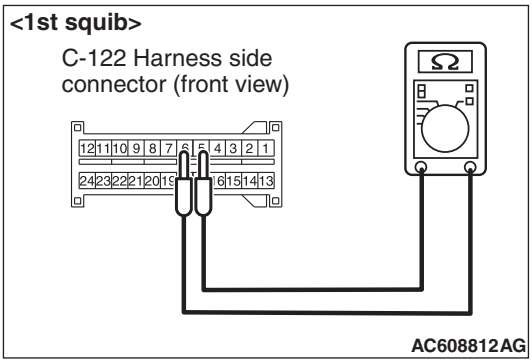
(3) Disconnect clock spring connector C-208.

⚠ **CAUTION**

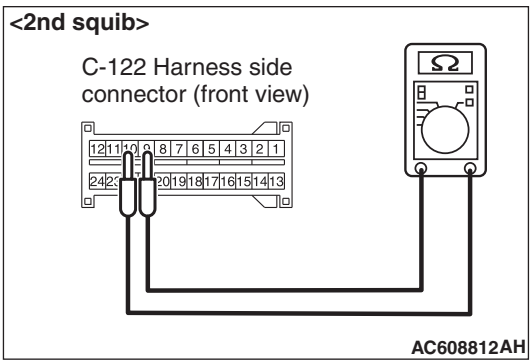
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 <1st squib> or 9, 10 <2nd squib> and the short spring to release the short spring.

<1st squib>



<2nd squib>



(5) Check for continuity between C-122 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib>. It should be open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B03 <1st squib> or B1B07 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 8.

NO : Go to Step 7.

STEP 7. Check the harness for short circuit between the harness wire and wire.

- SRS-ECU connector C-122 (terminal No.5 and 6) and clock spring connector C-208 (terminal No.4 and 3) <1st squib>.
- SRS-ECU connector C-122 (terminal No.9 and 10) and clock spring connector C-208 (terminal No.1 and 2) <2nd squib>.

Q: the check result normal?

YES : Go to Step 8.

NO : Repair the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 8.

STEP 8. 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.

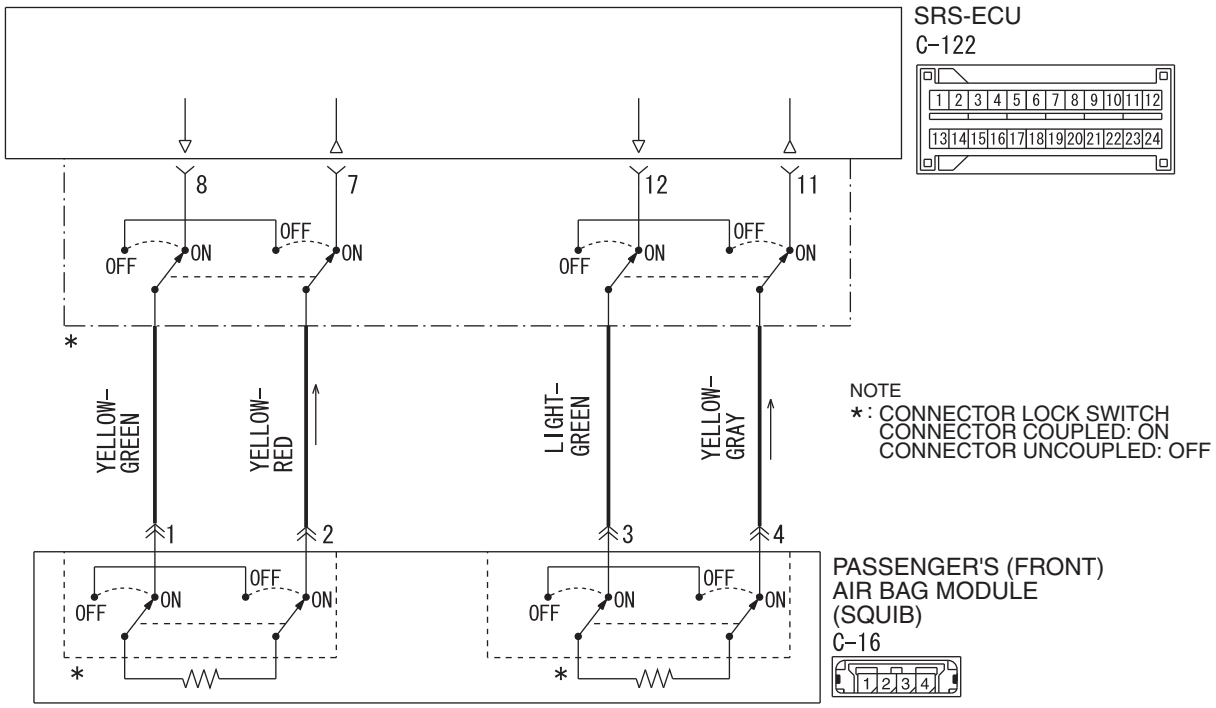
Q: Is DTC B1B03 <1st squib> or B1B07 <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B08: Passenger's (Front) Air Bag Module (1st squib) System (Shorted to Squib Circuit Ground)
DTC B1B0C: Passenger's (Front) Air Bag Module (2nd squib) System (Shorted to Squib Circuit Ground)

Passenger's (Front) Air Bag Module (Squib) Circuit



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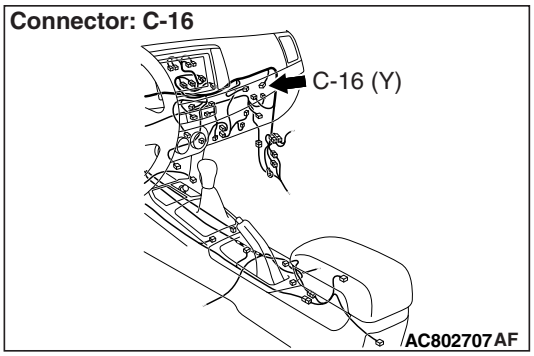

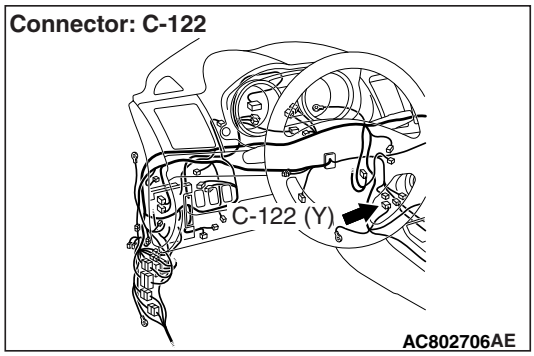

⚠ CAUTION

- **If DTC B1B08 <1st squib> or B1B0C <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.**
- **When DTC B1B08 is set in the following diagnosis, check the 1st squib circuit. When DTC B1B0C 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

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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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

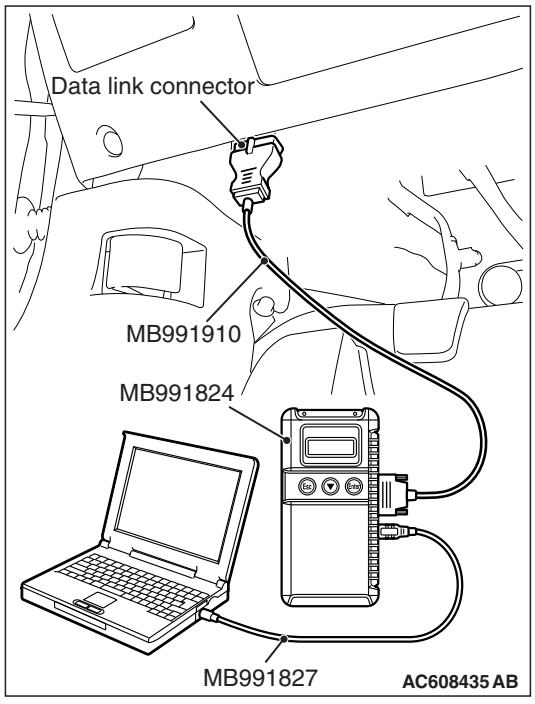
⚠ CAUTION

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-28."
(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-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

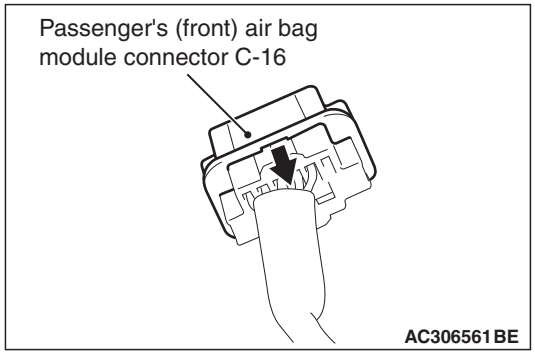
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

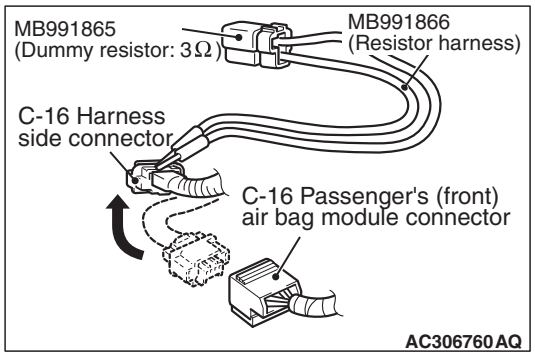
Q: Is the DTC set?

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.00-14).

STEP 3. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.





(3) Connect special tool MB991865 to special tool MB991866.

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

(4) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION
Always DTC B1B0E is set when checking DTC B1B08. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0C because the first side terminal is isolated.

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

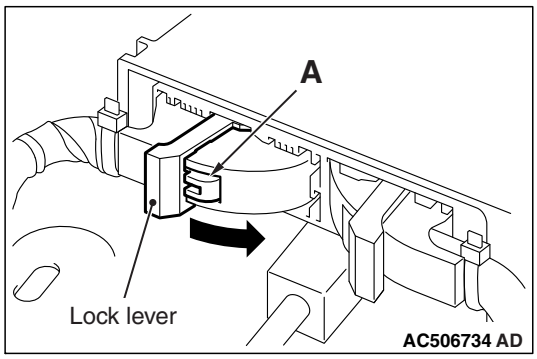
Q: Is the checked DTC set?

YES : Go to Step 4.
NO : Replace the passenger's (front) air bag module (Refer to P.52B-435). Then go to Step 6.

STEP 4. Check the passenger's (front) air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

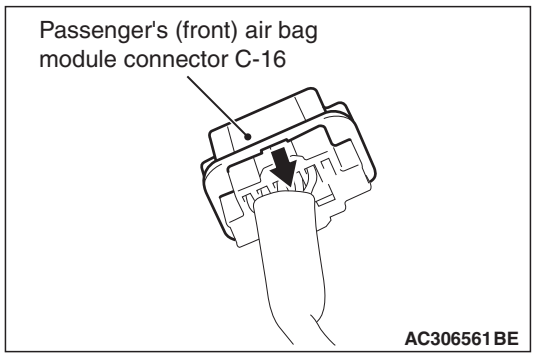
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-16 to short the squib circuit.

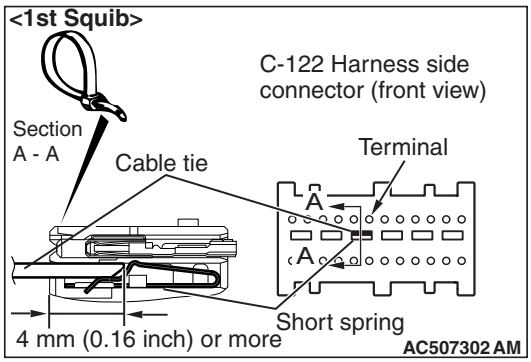
(3) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.

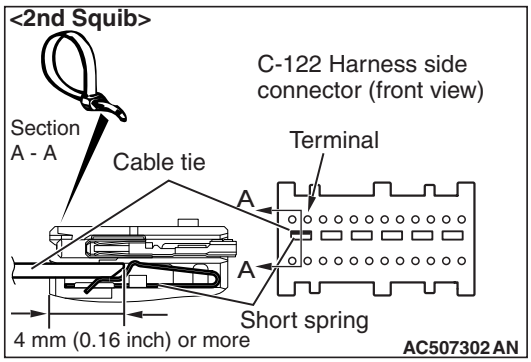


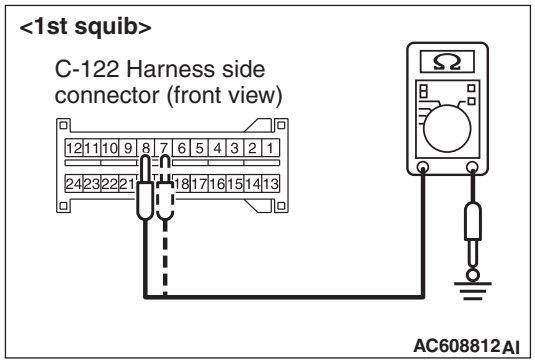
⚠ CAUTION

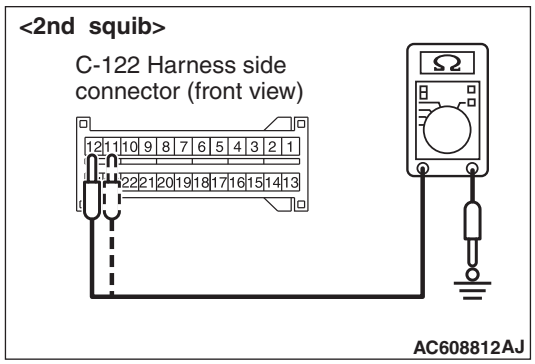
Insert an insulator such as a cable tie to a depth of 4 mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and the short spring to release the short spring.









(5) Check for continuity between C-122 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and body ground.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B08 <1st squib> B1B0C <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to ground between the following connector.

- SRS-ECU connector C-122 (terminal No.7 and 8) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1) <1st squib>.
- SRS-ECU connector C-122 (terminal No.11 and 12) and passenger's (front) air bag module connector C-16 (terminal No.4 and 3) <2nd squib>.

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16. Then go to Step 6.

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.

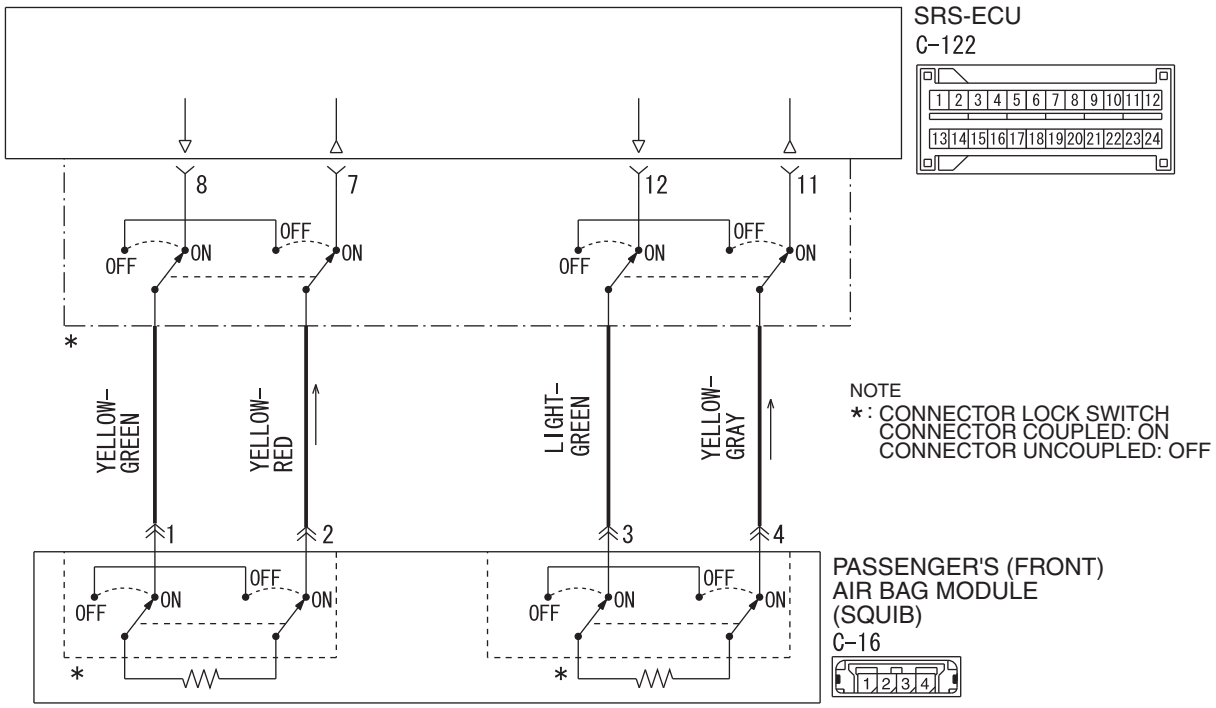
Q: Is DTC B1B08 <1st squib> B1B0C <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

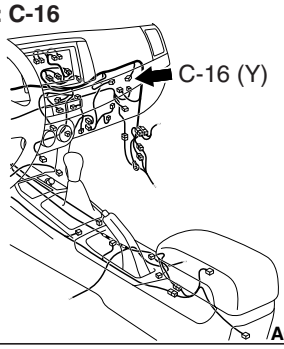
DTC B1B09: Passenger's (Front) Air Bag Module (1st squib) System (Shorted to Squib Circuit Power Supply)
DTC B1B0D: Passenger's (Front) Air Bag Module (2nd squib) System (Shorted to Squib Circuit Power Supply

Passenger's (Front) Air Bag Module (Squib) Circuit



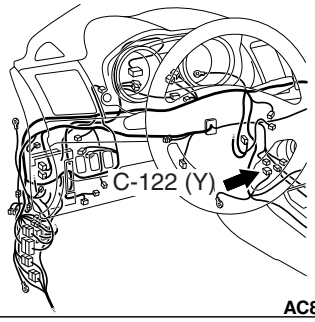
AC802638 AB

Connector: C-16



AC802707 AF

Connector: C-122



AC802706 AE

⚠ CAUTION

- **If DTC B1B09 <1st squib> or B1B0D <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.**
- **When DTC B1B09 is set in the following diagnosis, check the 1st squib circuit. When DTC B1B0D 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

TSB Revision

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 power supply in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

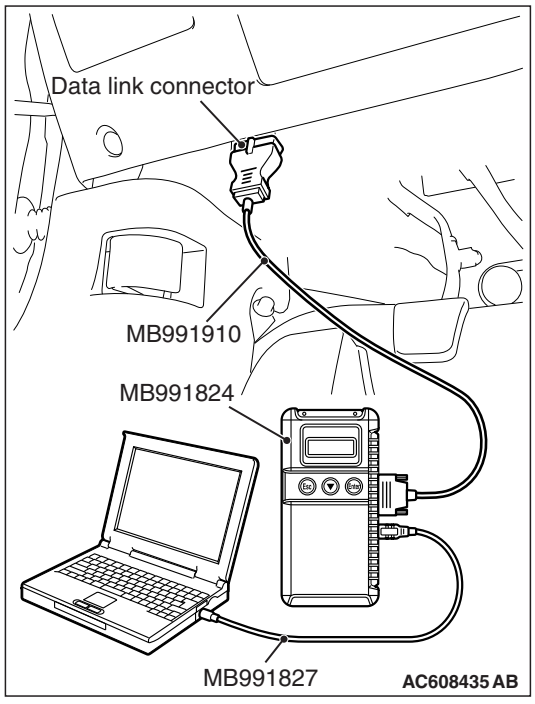
⚠ CAUTION

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-28."
(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-17).



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.

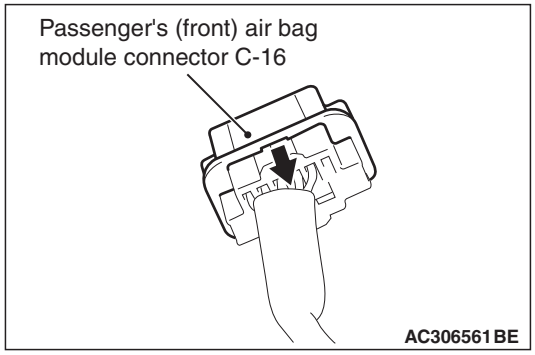
Q: Is the DTC set?

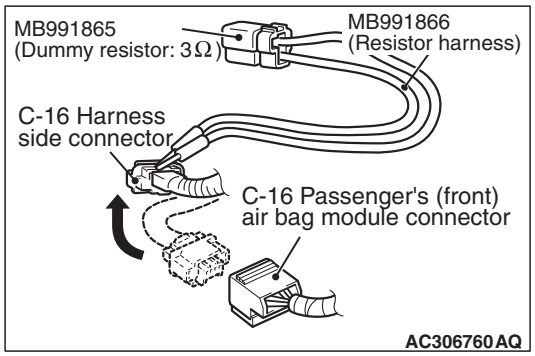
YES : Go to Step 3.

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.00-14).

STEP 3. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.





(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B09. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0D because the first side terminal is isolated.

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

Q: Is the checked DTC set?

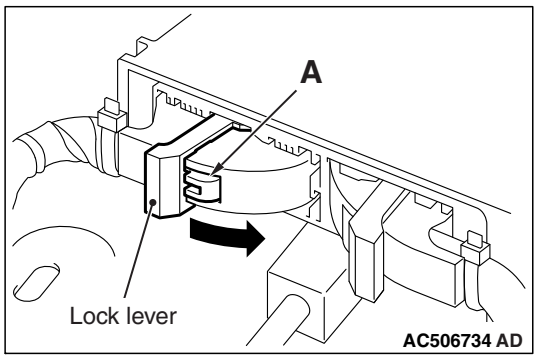
YES : Go to Step 4.

NO : Replace the passenger's (front) air bag module (Refer to P.52B-435). Then go to Step 6.

STEP 4. Check the passenger's (front) air bag module circuit. Measure the voltage at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

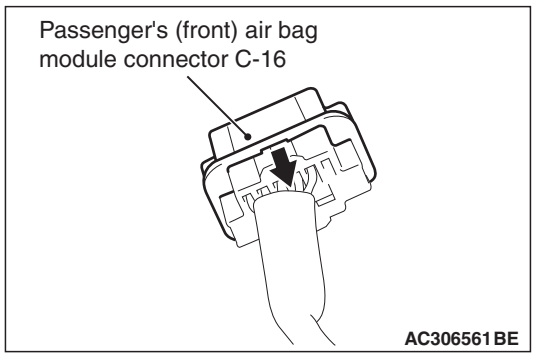
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-16 to short the squib circuit.

(3) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.



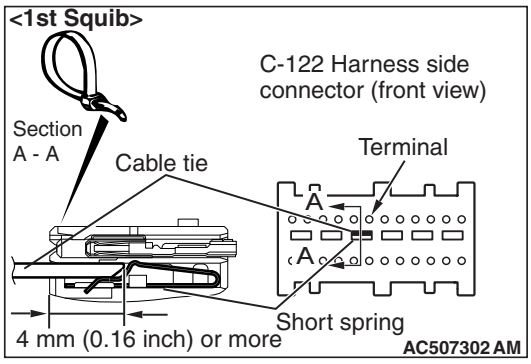
⚠ **CAUTION**

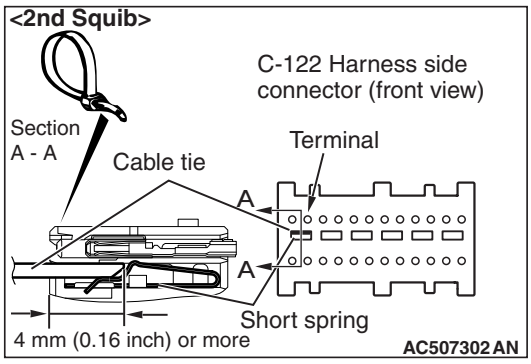
Insert an insulator such as a cable tie to a depth of 4 mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and the short spring to release the short spring.

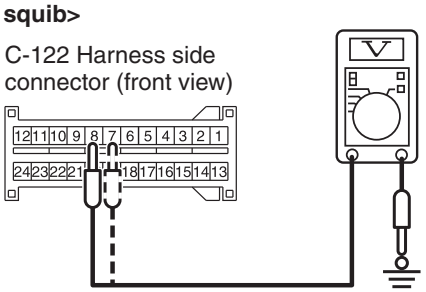
(5) Connect the negative battery terminal.

(6) Ignition switch: ON.

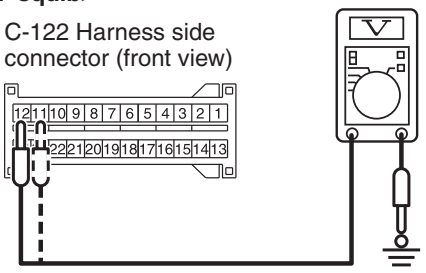




<1st squib>



<2nd squib>



(7) Measure the voltage between C-122 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib> and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B09 <1st squib> B1B0D <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between the following connector.

- SRS-ECU connector C-122 (terminal No.7 and 8) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1) <1st squib>.
- SRS-ECU connector C-122 (terminal No.14 and 12) and passenger's (front) air bag module connector C-16 (terminal No.4 and 3) <2nd squib>.

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16. Then go to Step 6.

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.

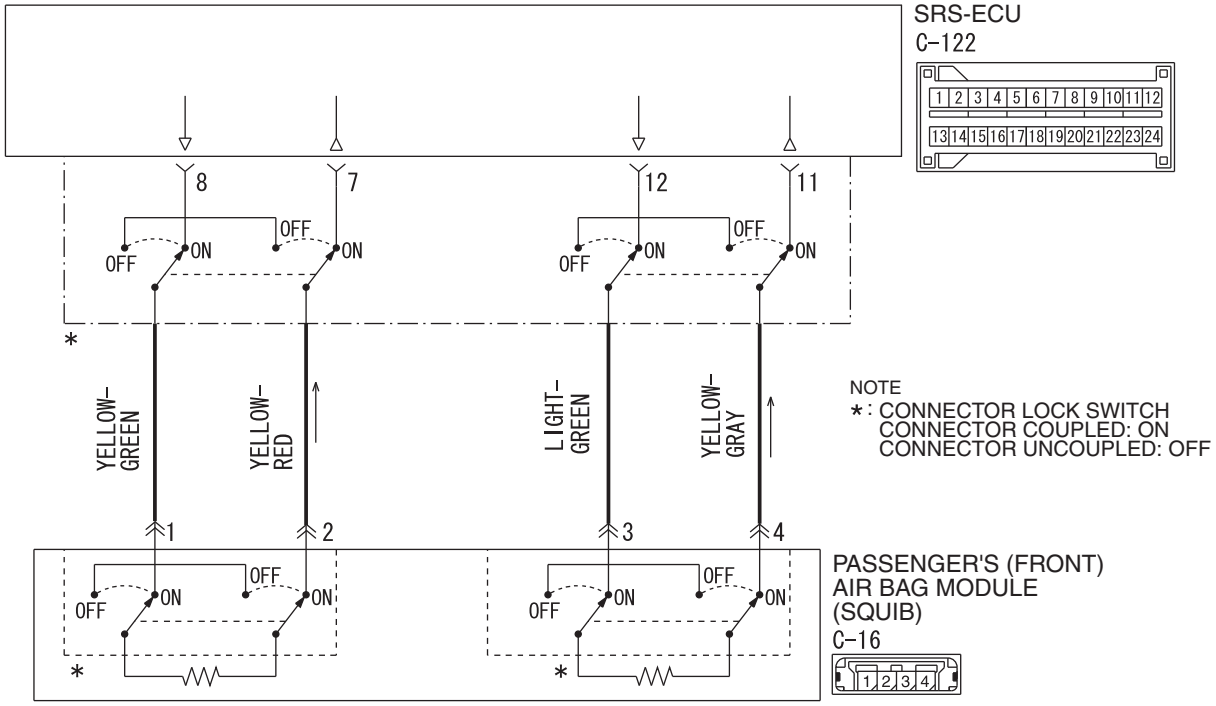
Q: Is DTC B1B09 <1st squib> B1B0D <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B0A: Passenger's (Front) Air Bag Module (1st squib) System (Squib Circuit Open)
DTC B1B0E: Passenger's (Front) Air Bag Module (2nd squib) System (Squib Circuit Open)

Passenger's (Front) Air Bag Module (Squib) Circuit



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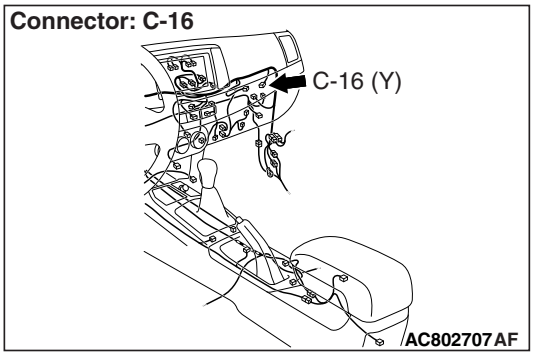
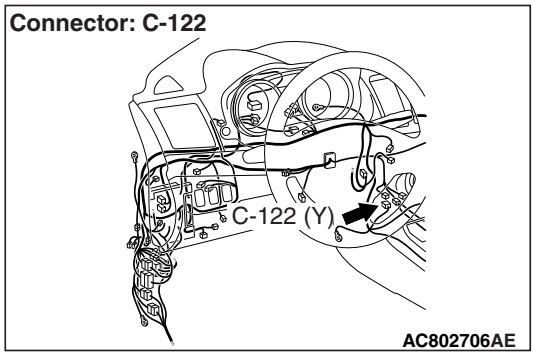




⚠ CAUTION

- **If DTC B1B0A <1st squib> or B1B0E <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.**
- **When DTC B1B0A is set in the following diagnosis, check the 1st squib circuit. When DTC B1B0E 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

TSB Revision

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).

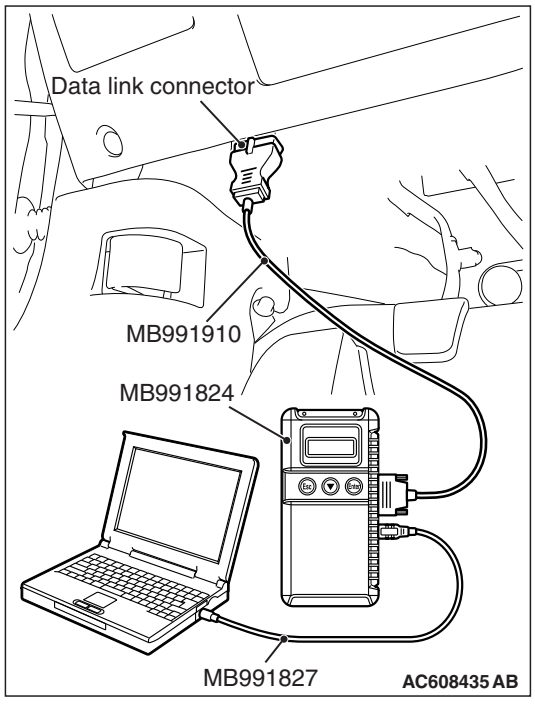
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991817: M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resister
- MB991866: Resister harness



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-28."
(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-17).

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.

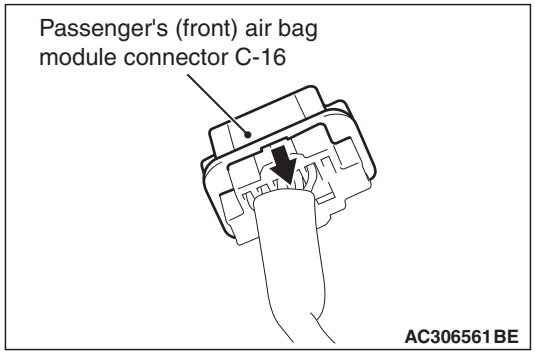
Q: Is the DTC set?

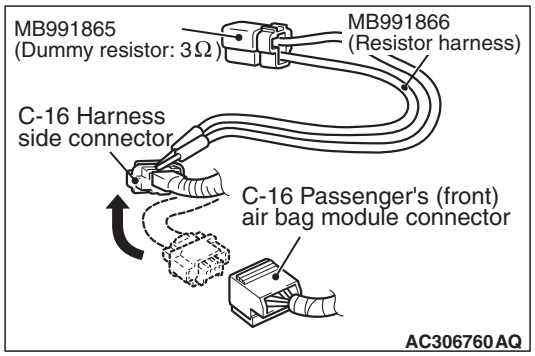
YES : Go to Step 3.

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.00-14).

STEP 3. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.





(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

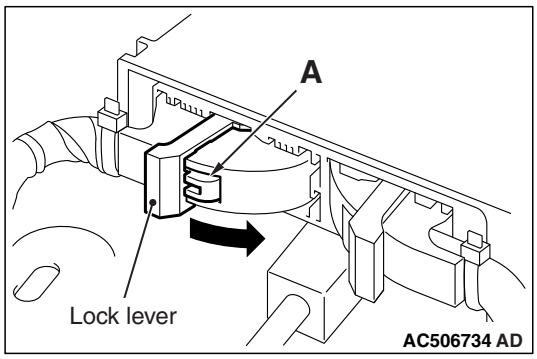
Always DTC B1B0E is set when checking DTC B1B0A. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0E because the first side terminal is isolated.

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

Q: Is the checked DTC set?

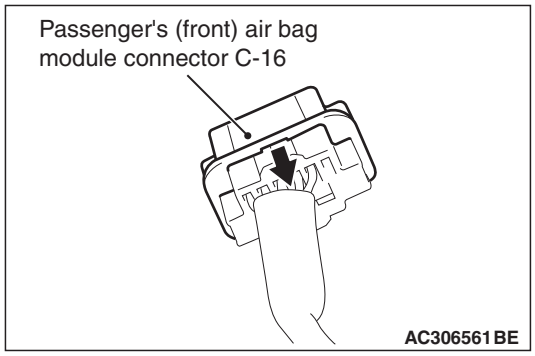
YES : Go to Step 4.

NO : Replace the passenger's (front) air bag module (Refer to P.52B-435). Then go to Step 5.

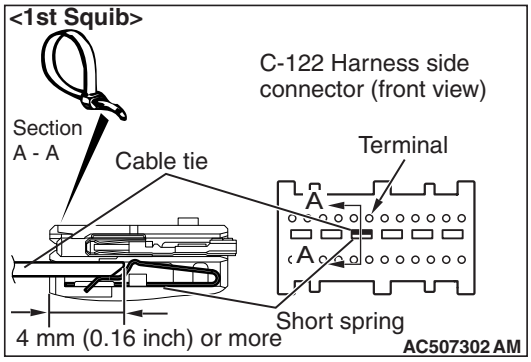


STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 and the passenger's (front) air bag module connector C-16.

(1) Disconnect the negative battery terminal.
(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 C-122 SRS-ECU connector.



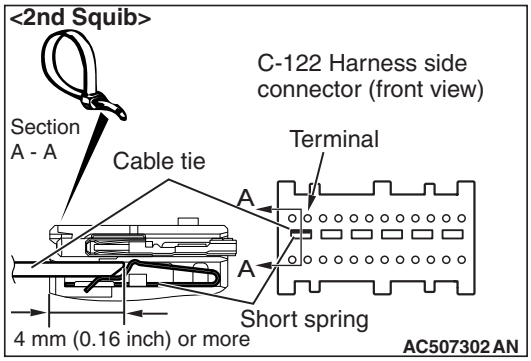
(3) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.



⚠ CAUTION

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

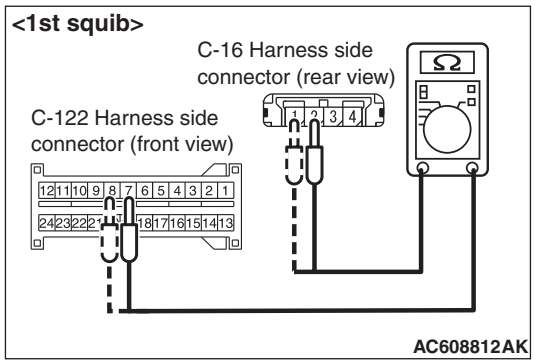
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and the short spring to release the short spring.

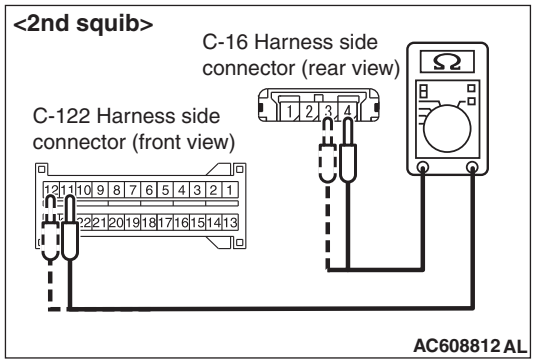


⚠ CAUTION

Do not insert a probe into the terminal from C-16 harness side connector front side directly as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.7) and the passenger's (front) air bag module connector C-16 (terminal No.2) <1st squib>
- SRS-ECU connector C-122 (terminal No.8) and the passenger's (front) air bag module connector C-16 (terminal No.1) <1st squib>





- SRS-ECU connector C-122 (terminal No.11) and the passenger's (front) air bag module connector C-16 (terminal No.4) <2nd squib>
- SRS-ECU connector C-122 (terminal No.12) and the passenger's (front) air bag module connector C-16 (terminal No.3) <2nd squib>

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B0A <1st squib> or B1B0E <2nd squib> set, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16. Then 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.

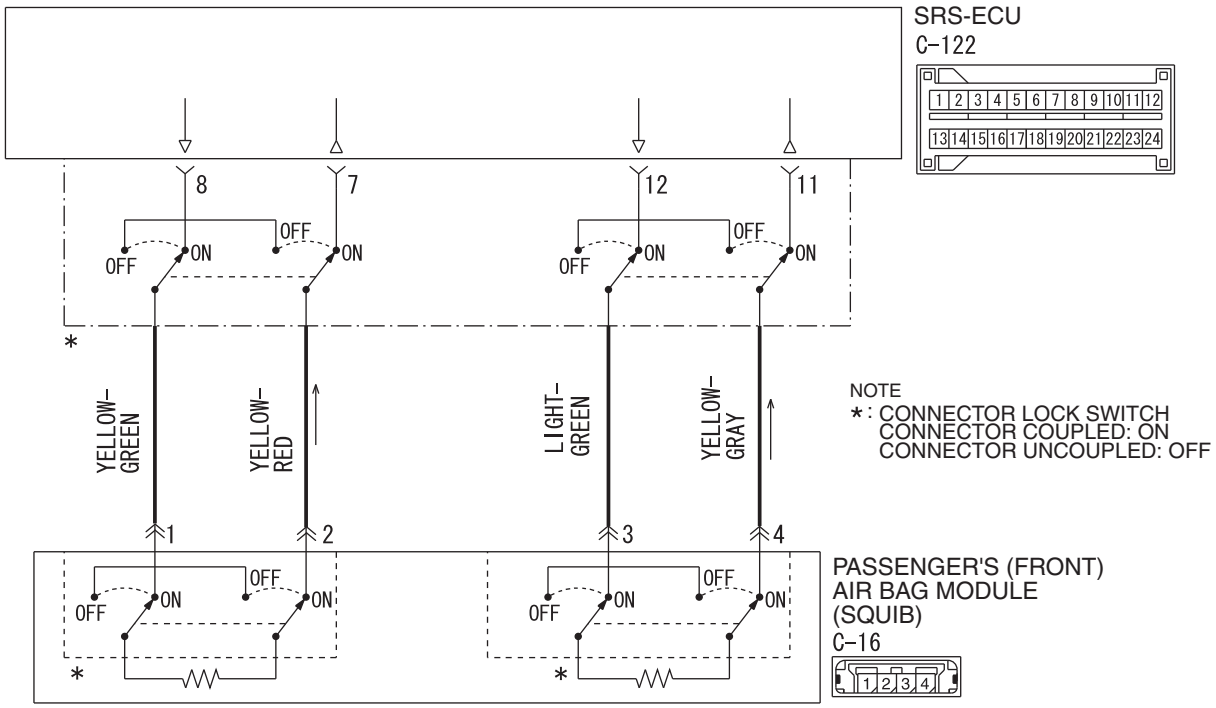
Q: Is DTC B1B0A <1st squib> or B1B0E <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

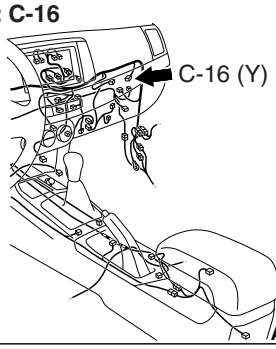
DTC B1B0B: Passenger's (Front) Air Bag Module (1st squib) System (Short Circuit Between Squib Circuit Terminals)
DTC B1B0F: Passenger's (Front) Air Bag Module (2nd squib) System (Short Circuit Between Squib Circuit Terminals)

Passenger's (Front) Air Bag Module (Squib) Circuit



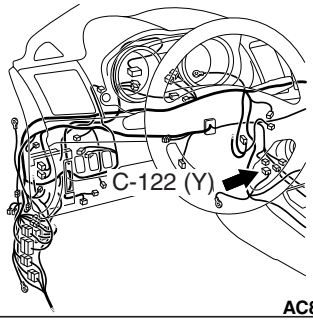
AC802638 AB

Connector: C-16



AC802707 AF

Connector: C-122



AC802706 AE

⚠ CAUTION

- **If DTC B1B0B <1st squib> or B1B0F <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.**
- **When DTC B1B0B is set in the following diagnosis, check the 1st squib circuit. When DTC B1B0F 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

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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

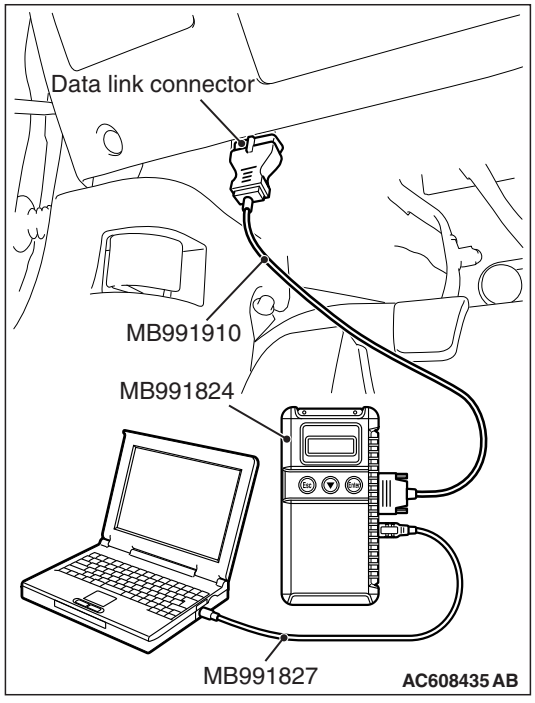
- Improper engaged connector or defective short spring*
- Short circuit between the passenger's (front) air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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) (Refer to P.52B-3). Therefore, if connector C-16 or C-122 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resister
- MB991866: Resister harness



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-28."
(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-17).

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.

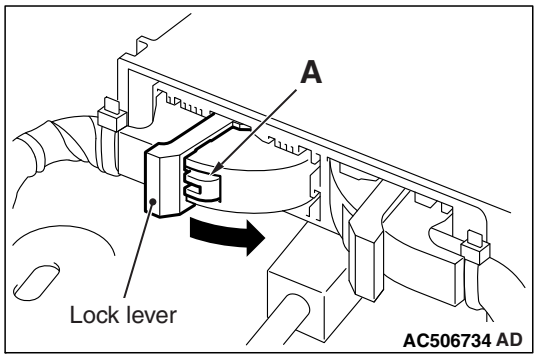
Q: Is the DTC set?

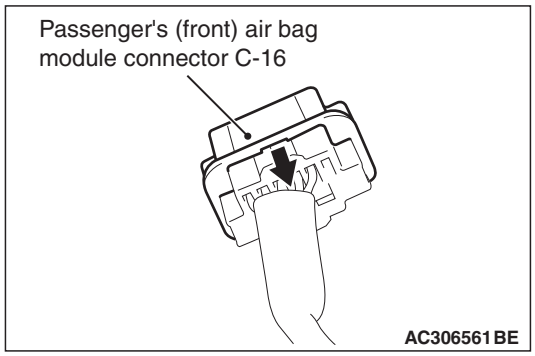
YES : Go to Step 3.

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.00-14).

STEP 3. Check SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16.

(1) Disconnect the negative battery terminal.
(2) While pressing the part A in the illustration of the C-122 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.



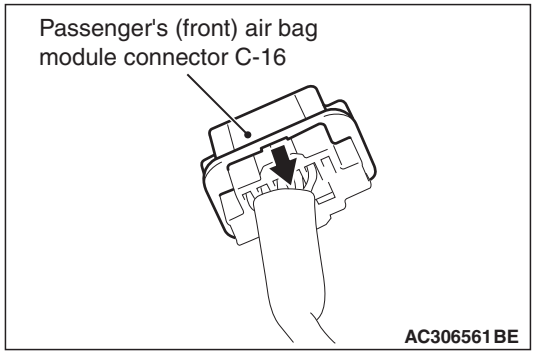


(3) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction, and then reconnect it.
(4) Connect the negative battery terminal.
(5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1B0B <1st squib> or B1B0F <2nd squib> set?

YES : Go to Step 4.

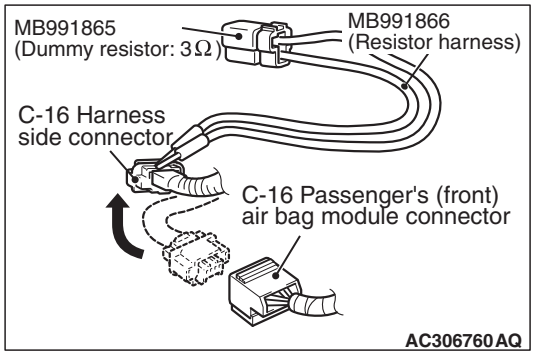
NO : The procedure is complete. It is assumed that DTC B1B0B <1st squib> or B1B0F <2nd squib> set as connector C-122 or C-16 was engaged improperly.



STEP 4. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.

(2) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.



(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B0B. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0F because the first side terminal is isolated.

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

Q: Is the checked DTC set?

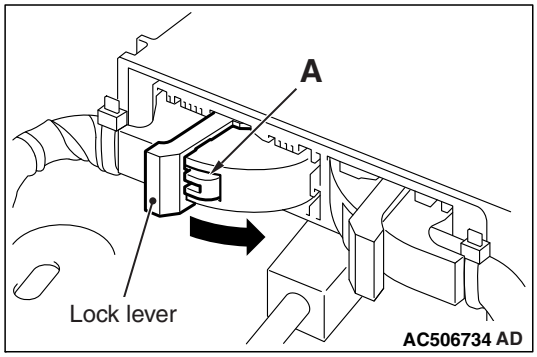
YES : Go to Step 5.

NO : Replace the passenger's (front) air bag module (Refer to P.52B-435). Then go to Step 7.

STEP 5. Check the passenger's (front) air bag module circuit at SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

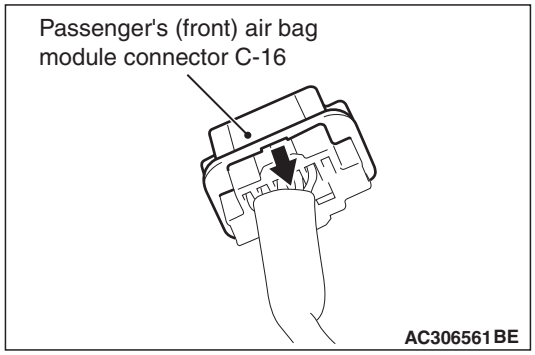
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-16 to short the squib circuit.

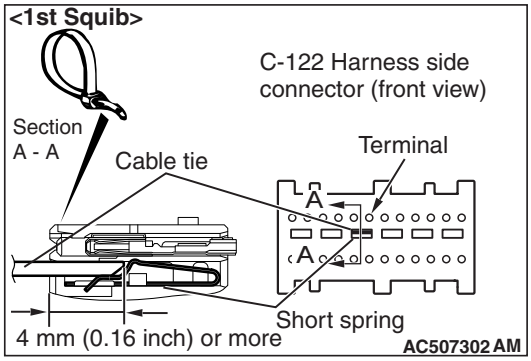
(3) Disconnect C-16 passenger's (front) air bag module harness side connector while sliding toward the arrow direction.

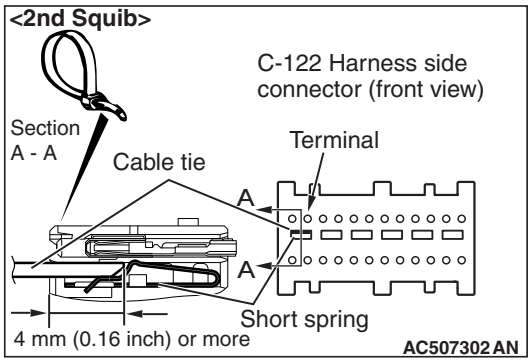


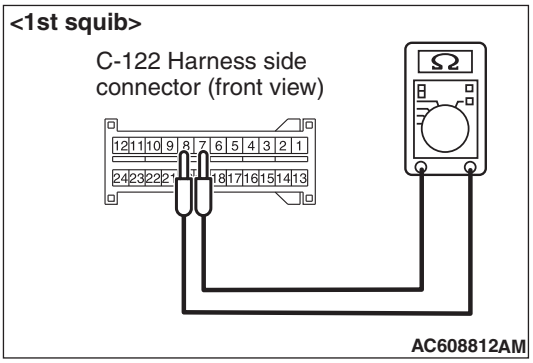
⚠ **CAUTION**

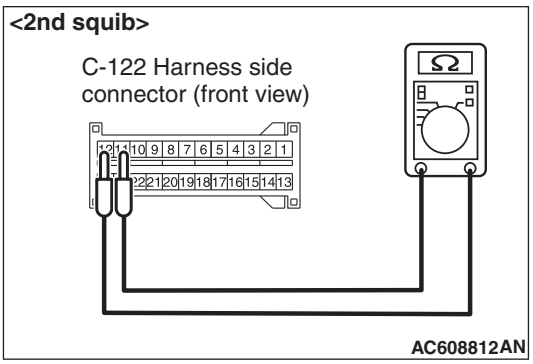
Insert an insulator such as a cable tie to a depth of 4 mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and the short spring to release the short spring.









(5) Check for continuity between C-122 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>. It should be open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B0B <1st squib> or B1B0F <2nd squib> set, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7.

NO : Go to Step 6.

STEP 6. Check the harness for short circuit between the harness wire and wire.

- SRS-ECU connector C-122 (terminal No.7 and 8) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1) <1st squib>.
- SRS-ECU connector C-122 (terminal No.11 and 12) and passenger's (front) air bag module connector C-16 (terminal No.4 and 3) <2nd squib>.

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16. Then go to Step 7.

STEP 7. Check 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.

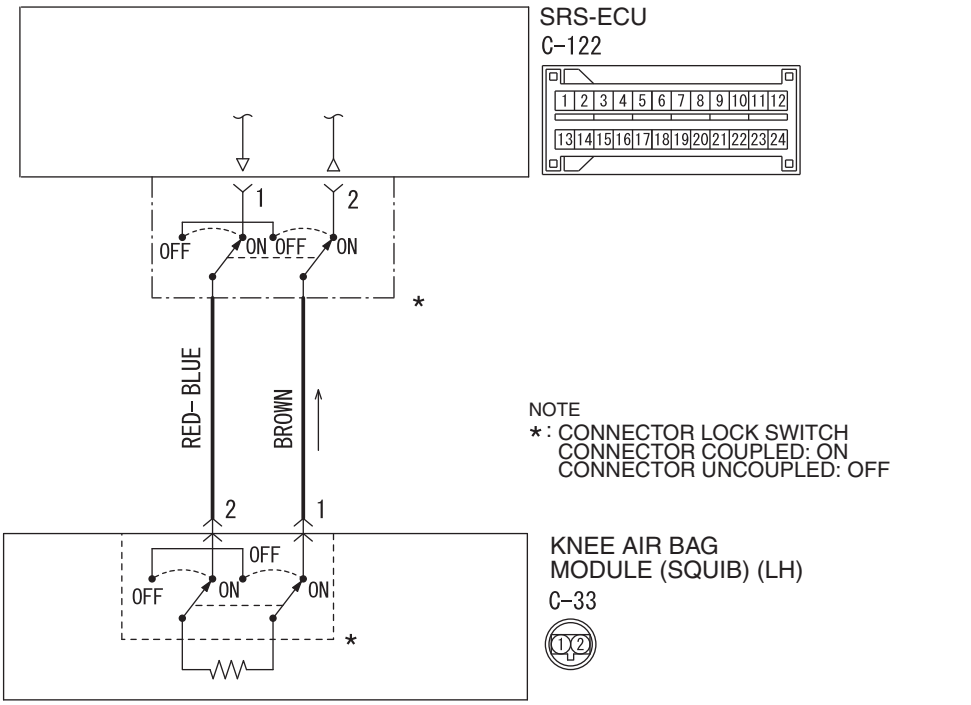
Q: Is DTC B1B0B <1st squib> or B1B0F <2nd squib> set?

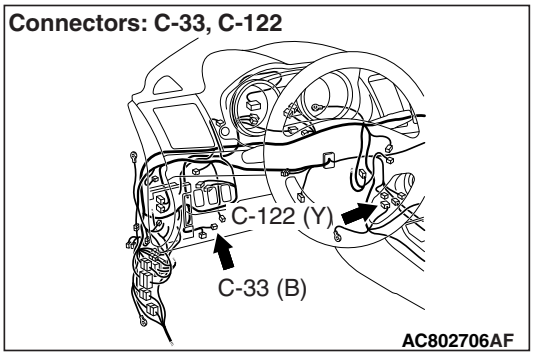
YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B10: Driver's Knee Air Bag (Squib) System (Shorted To Squib Circuit Ground)

Knee Air Bag Module (Squib) Circuit





⚠ CAUTION

If DTC B1B10 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the knee air bag module will deploy.

DTC SET CONDITIONS

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

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the knee air bag module (squib) harness
- Malfunction of the SRS-ECU

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DIAGNOSIS

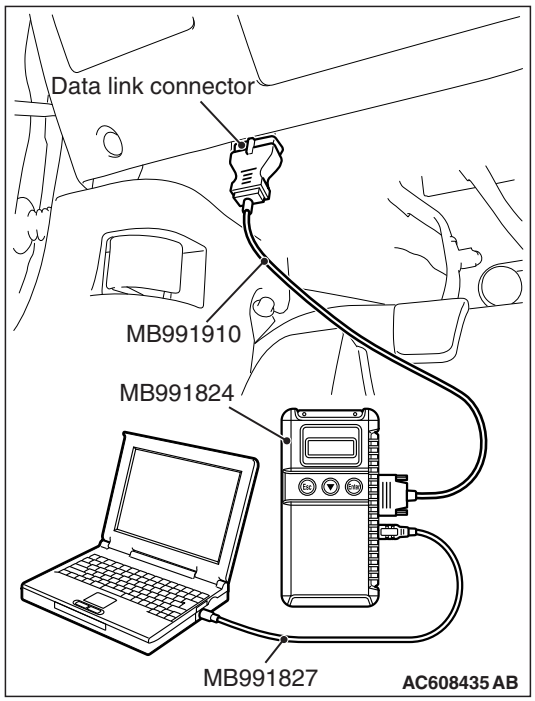
Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness

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-28."
(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?

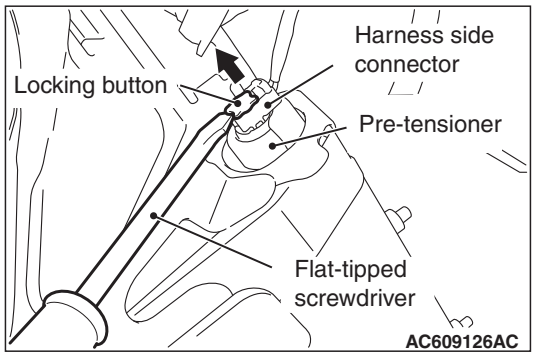
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

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.

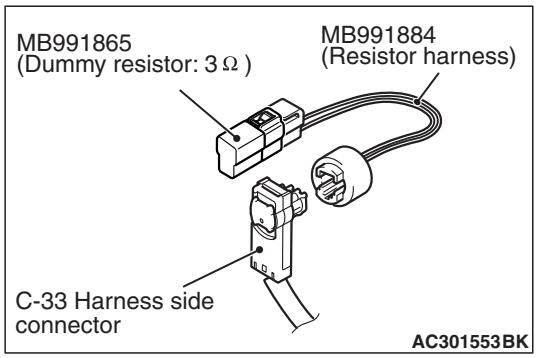
Q: Is the DTC set?

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.00-14).



STEP 3. Check the Knee air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

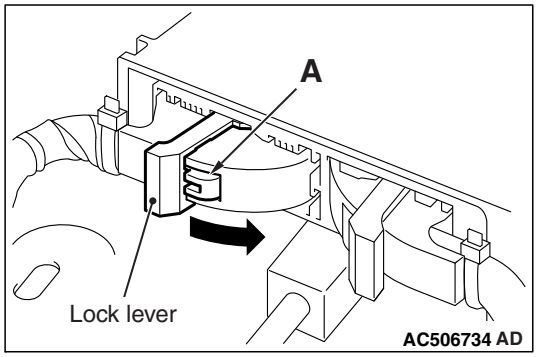
Q: Is DTC B1B10 set?

YES : Go to Step 4.
NO : Replace the driver's knee air bag module (Refer to P.52B-439). Then go to Step 6.

STEP 4. Check the knee air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

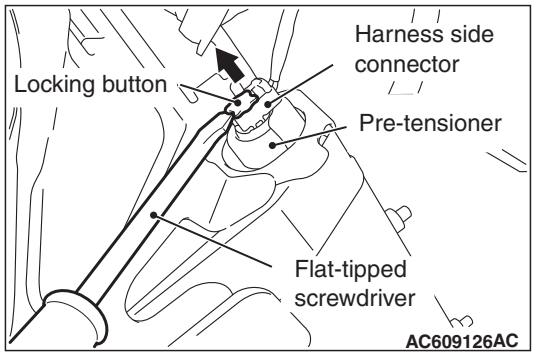
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



⚠ DANGER

To prevent the knee air bag module from deploying unintentionally, disconnect the knee air bag module connector C-33 to short the squib circuit.

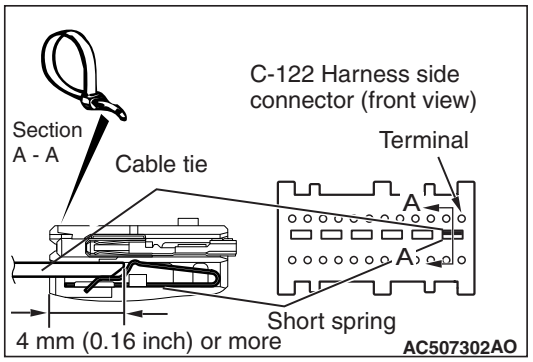
(3) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ 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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

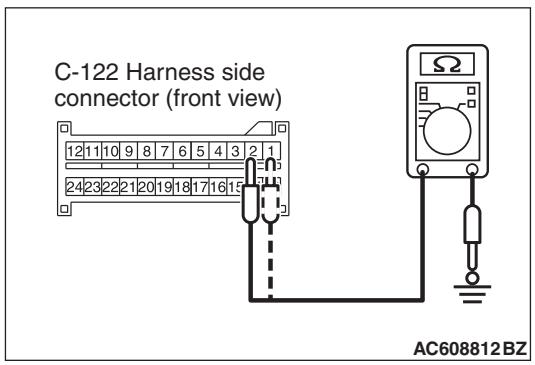


(5) Check for continuity between C-122 harness side connector terminals 1, 2 and body ground.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B10 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.



STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 6.

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.

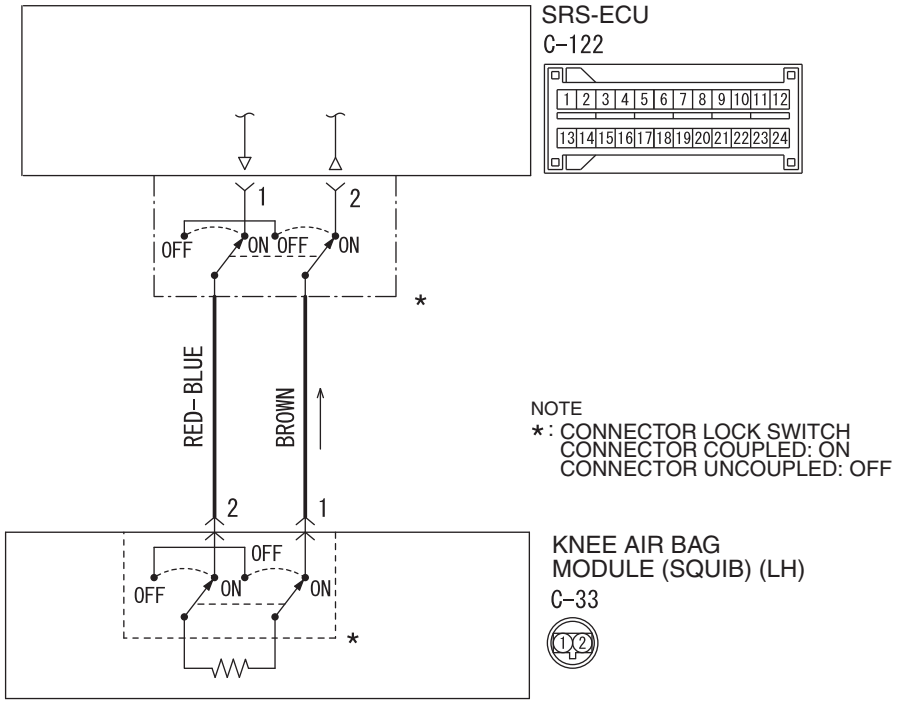
Q: Is DTC B1B10 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B11: Driver's Knee Air Bag (Squib) System (Shorted To Squib Circuit Power Supply)

Knee Air Bag Module (Squib) Circuit



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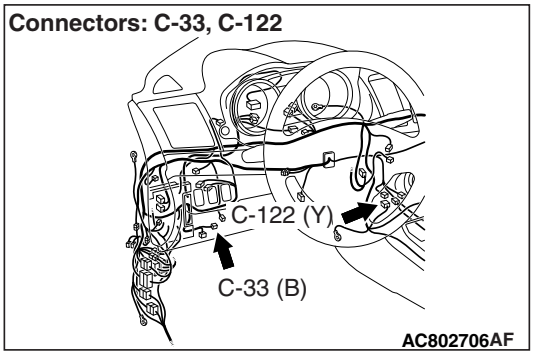


⚠ CAUTION
If DTC B1B11 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

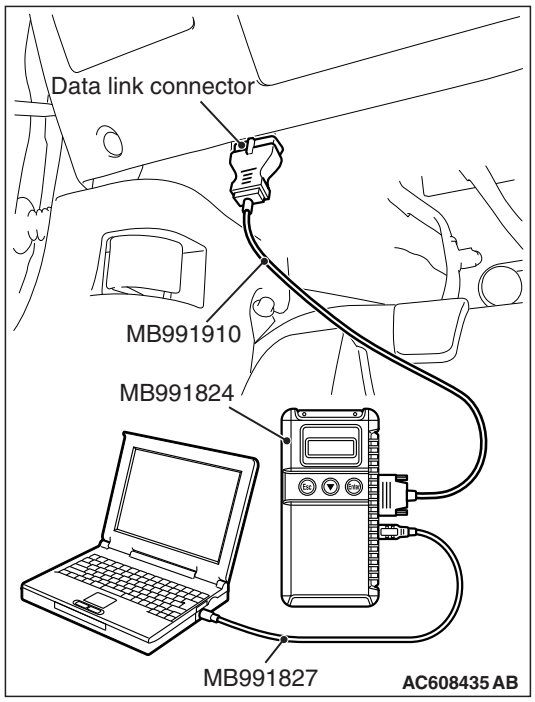
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to power supply in the knee air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness



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-28."
(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?

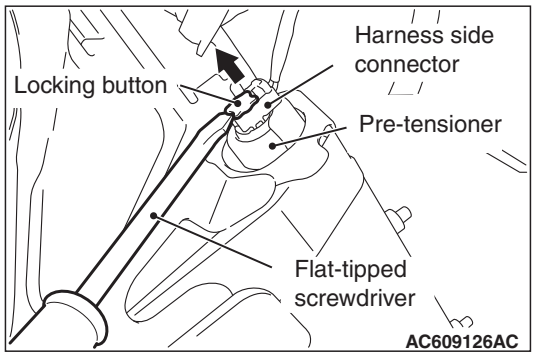
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

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.

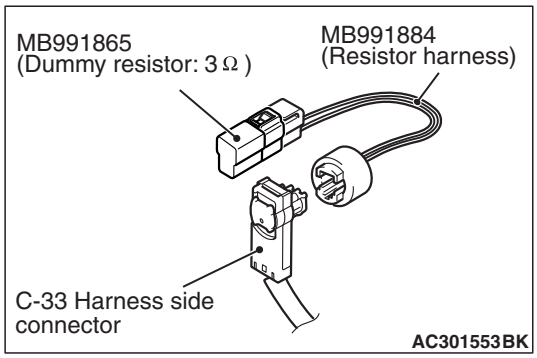
Q: Is the DTC set?

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.00-14).



STEP 3. Check the knee air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

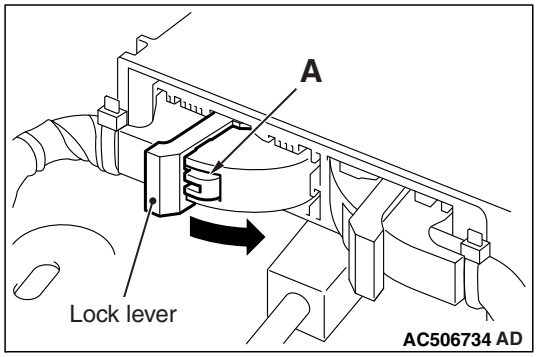
Q: Is DTC B1B11 set?

YES : Go to Step 4.
NO : Replace the driver's knee air bag module (Refer to P.52B-439). Then go to Step 6.

STEP 4. Check the knee air bag module circuit. Measure the voltage at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

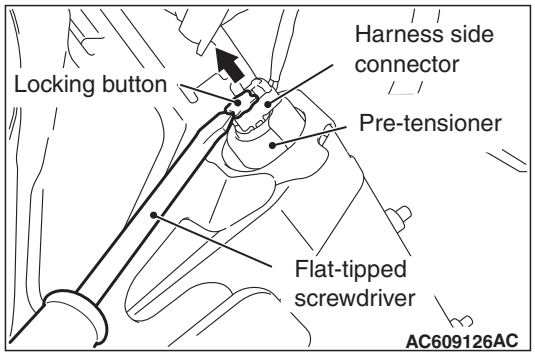
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



⚠ DANGER

To prevent the knee air bag module from deploying unintentionally, disconnect the knee air bag module connector C-33 to short the squib circuit.

(3) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



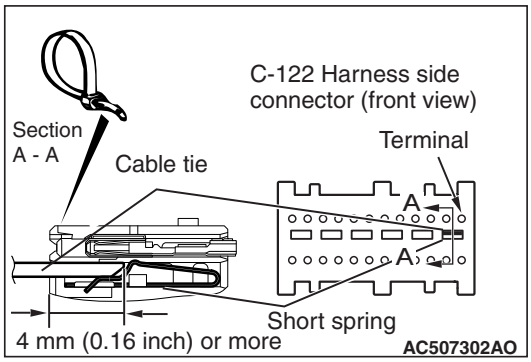
⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: ON.

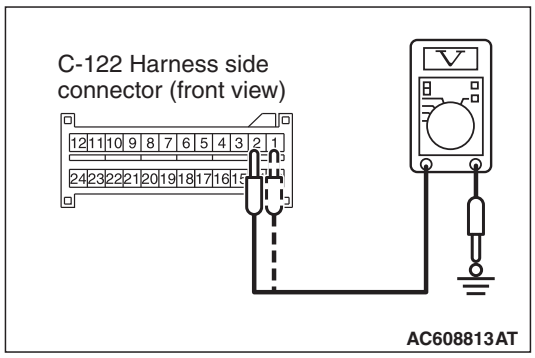


(7) Measure the voltage between C-122 harness side connector terminals 1, 2 and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B11 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.



STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 6.

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.

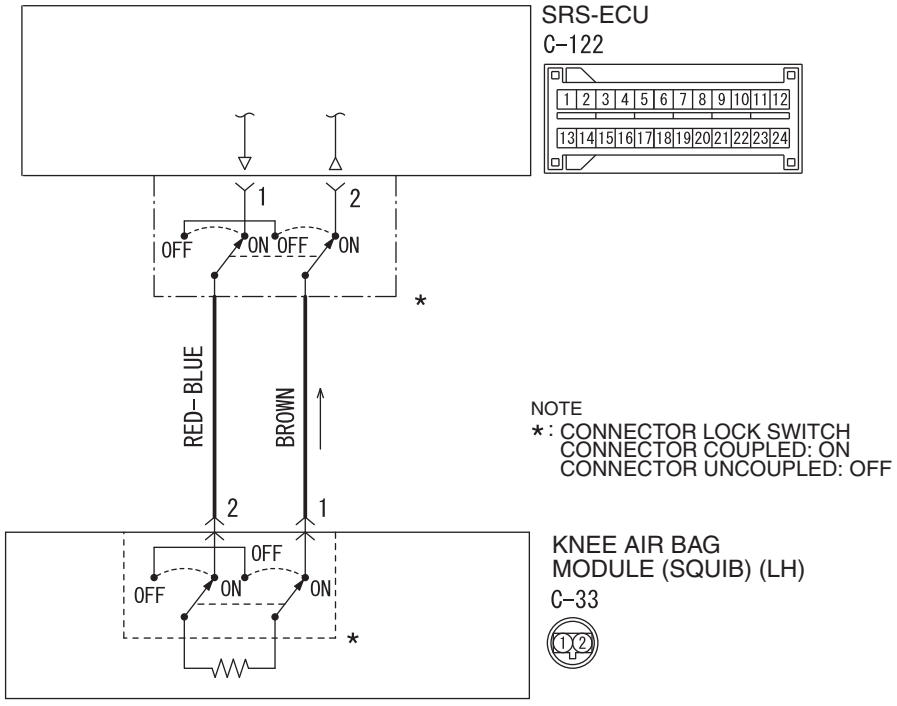
Q: Is DTC B1B11 set?

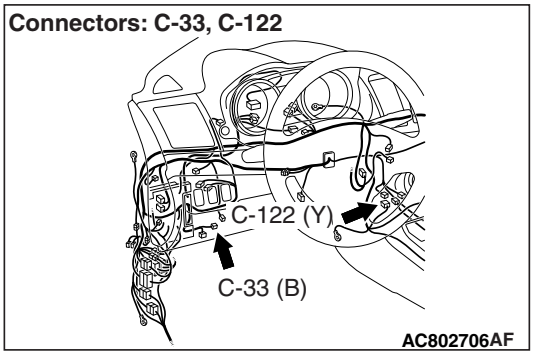
YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B12: Driver's Knee Air Bag (Squib) System (Squib Circuit Open)

Knee Air Bag Module (Squib) Circuit





⚠ CAUTION

If DTC B1B12 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the knee air bag module will deploy.

DTC SET CONDITIONS

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

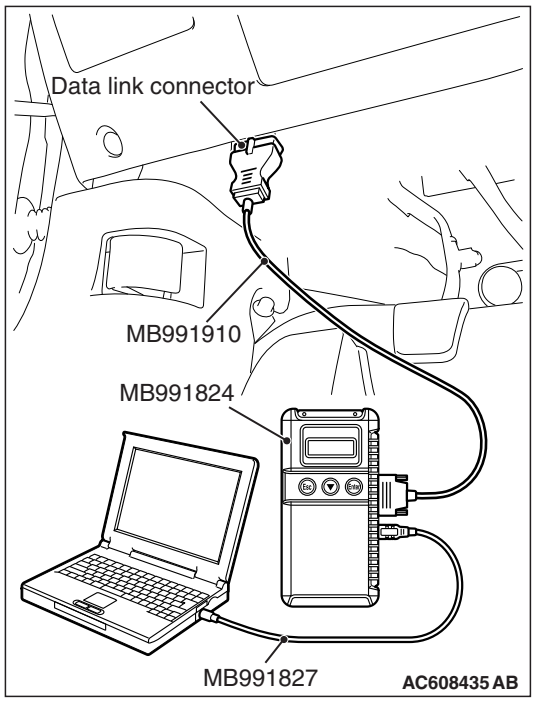
TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the knee air bag module (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness



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-28."
(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-17).

STEP 2. Recheck for diagnostic trouble code.

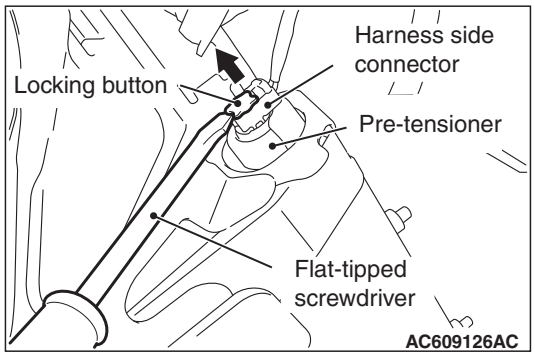
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

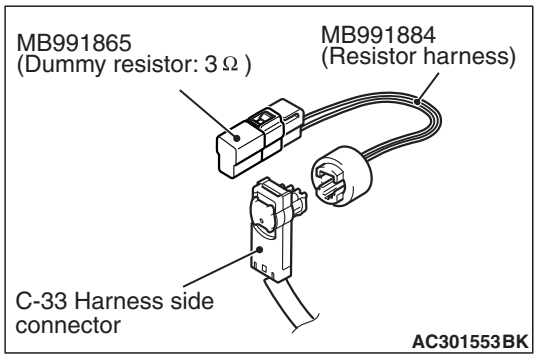
Q: Is the DTC set?

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.00-14).

STEP 3. Check the knee air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





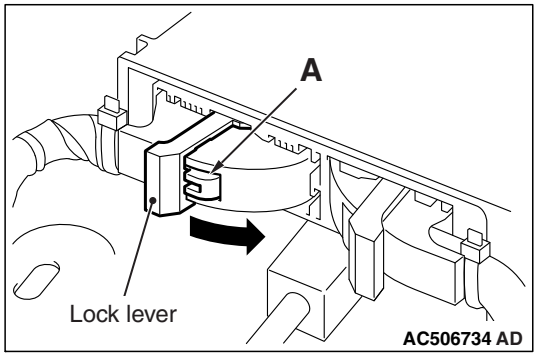
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

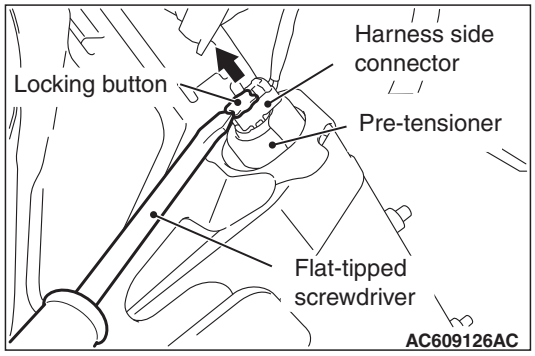
Q: Is DTC B1B12 set?

YES : Go to Step 4.
NO : Replace the driver's knee air bag module (Refer to P.52B-439). Then go to Step 5.

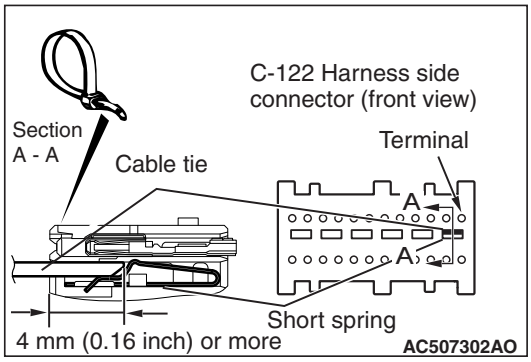
STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 and the knee air bag module C-33.

(1) Disconnect the negative battery terminal.
(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 C-122 SRS-ECU connector.



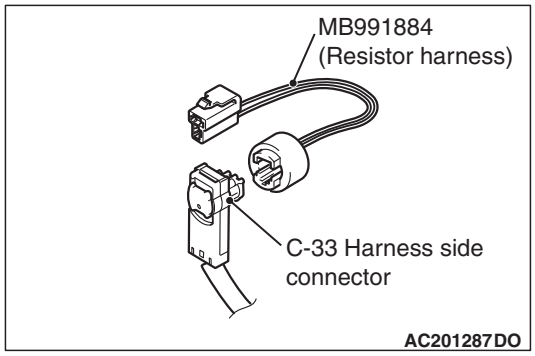


(3) Disconnect SRS-ECU connector C-122 and knee air bag module connector C-33, and measure at the wiring harness side. For connector C-33, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

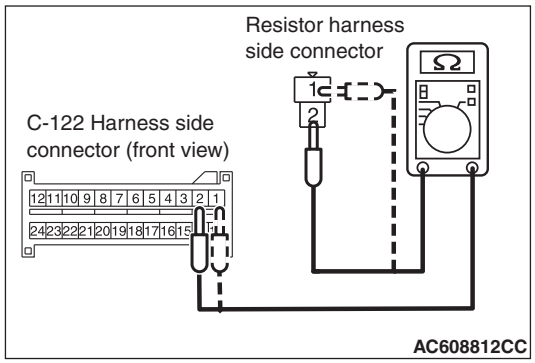


⚠ CAUTION
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



(5) Connect C-33 harness side connector to special tool MB991884.



(6) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.1) and the special tool (terminal No.1)
- SRS-ECU connector C-122 (terminal No.2) and the special tool (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1B12 set, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 5.

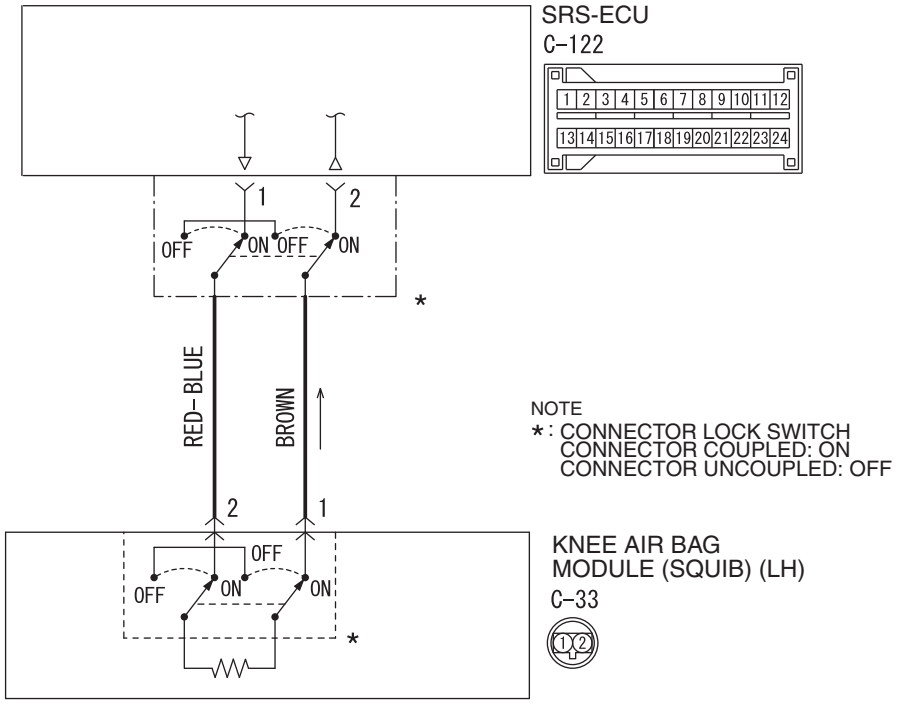
STEP 5. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B12 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B13: Driver's Knee Air Bag (Squib) System (Short Circuit Between Squib Circuit Terminals)

Knee Air Bag Module (Squib) Circuit



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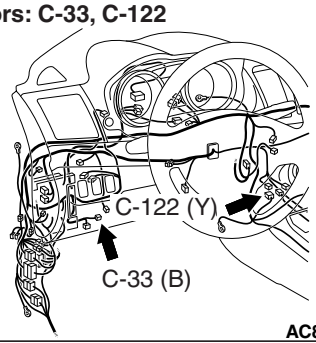
Connectors: C-33, C-122



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⚠ CAUTION
If DTC B1B13 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TROUBLESHOOTING HITS

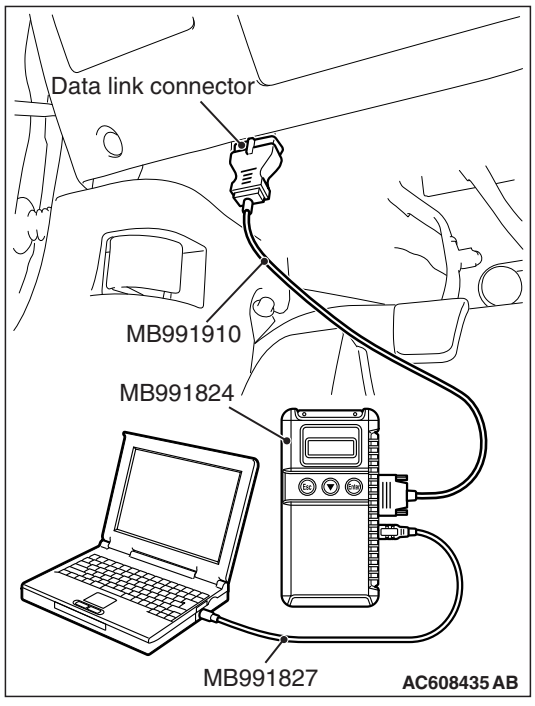
- Improper engaged connector or defective short spring*
- Short circuit between the knee air bag module (squib) circuit terminals
- Damaged connector(s)

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the knee air bag module 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 C-122 or C-33 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness



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-28."
(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-17).

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.

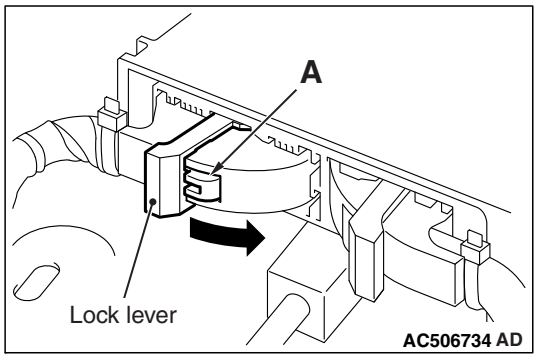
Q: Is the DTC set?

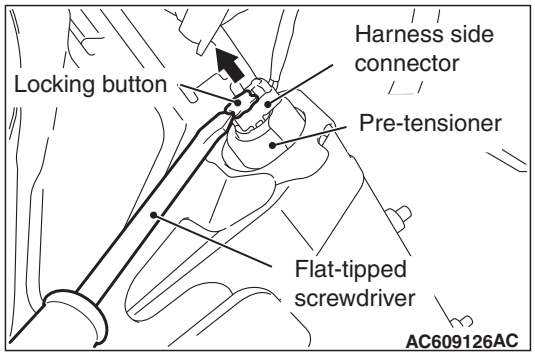
YES : Go to Step 3 .

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.00-14).

STEP 3. Check SRS-ECU connector C-122 and Knee air bag module connector C-33.

(1) Disconnect the negative battery terminal.
(2) While pressing the part A in the illustration of the C-122 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.



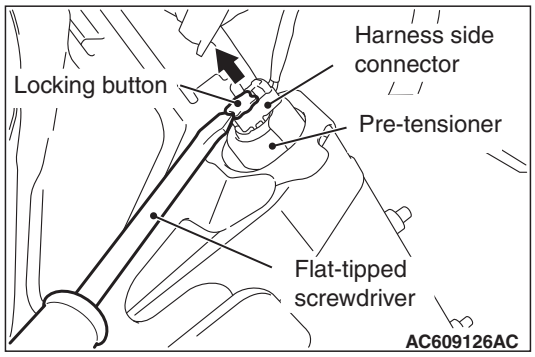


(3) Disconnect C-33 driver's knee air bag module harness side connector, and then reconnect it. Use a flat-tipped (–) screwdriver to pull out the connector locking button toward the arrow direction, release the lock, and then disconnect the connector.
(4) Connect the negative battery terminal.
(5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1B13 set?

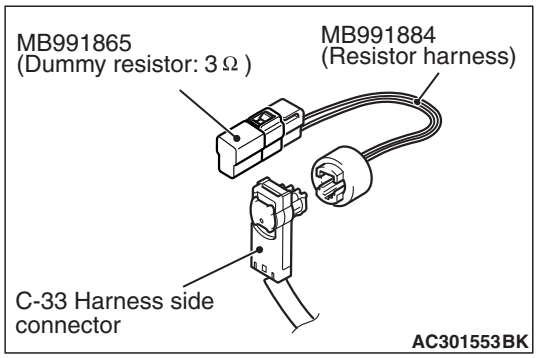
YES : Go to Step 4.

NO : The procedure is complete. It is assumed that DTC B1B13 set because connector C-122 or C-33 was engaged improperly.



STEP 4. Check the knee air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

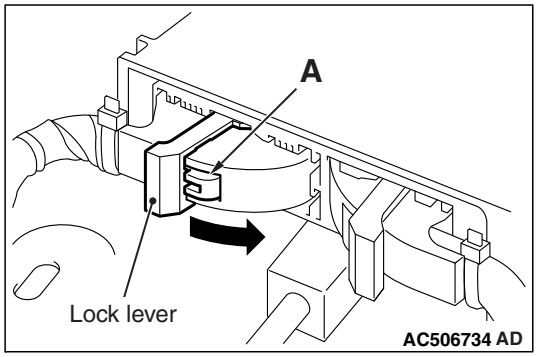
Q: Is DTC B1C36 set?

YES : Go to Step 5.
NO : Replace the driver's knee air bag module (Refer to P.52B-439. Then go to Step 7.

STEP 5. Check the knee air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

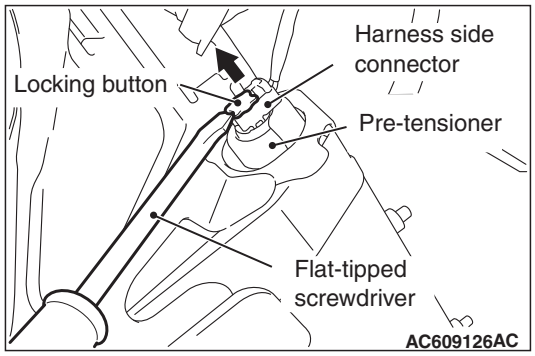
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



⚠ ***DANGER***

To prevent the knee air bag module from deploying unintentionally, disconnect the knee air bag module connector C-33 to short the squib circuit.

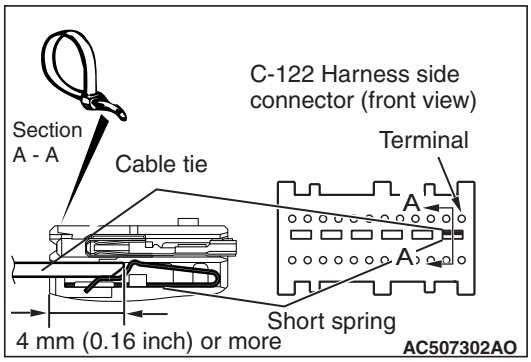
(3) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ **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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

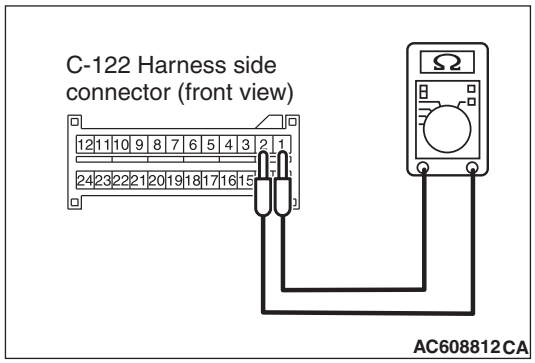


(5) Check for continuity between C-122 harness side connector terminals 1 and 2.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B13 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7.

NO : Go to Step 6.



STEP 6. Check the harness for short circuit between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 7.

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.

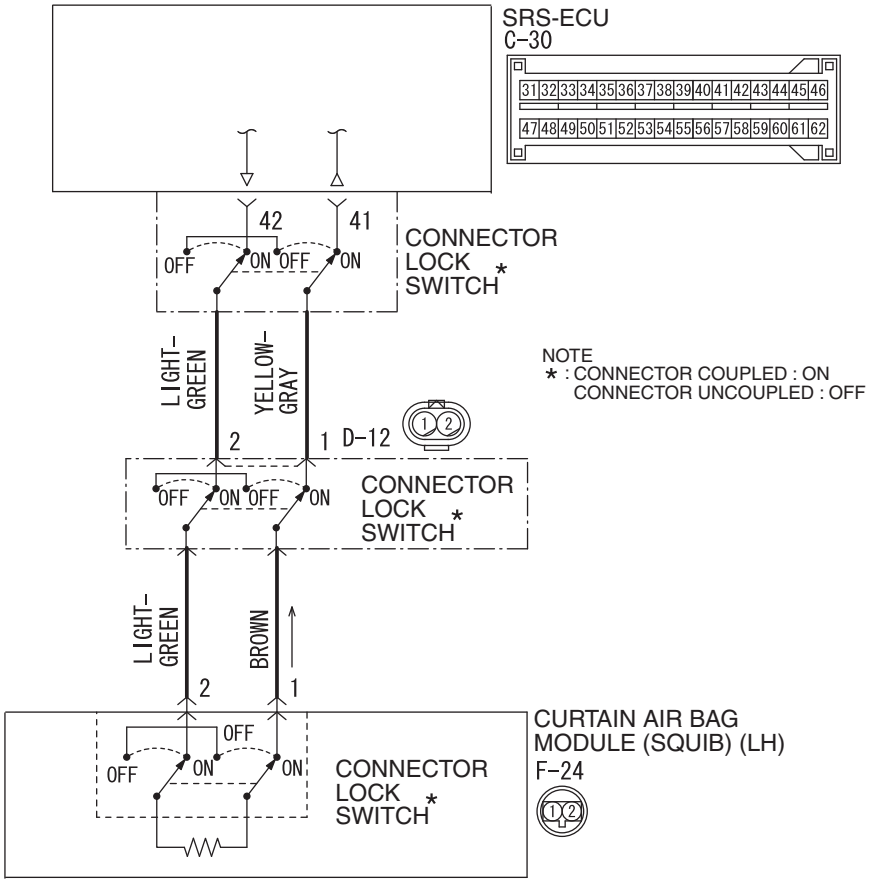
Q: Is DTC B1C36 set?

YES : Return to Step 1.

NO : The procedure is complete.

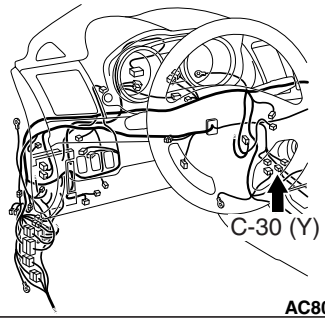
DTC B1B18: Curtain Air Bag Module (LH) (Squib) System (Shorted to Squib Circuit Ground)

Curtain Air Bag Module (Squib) (LH) Circuit



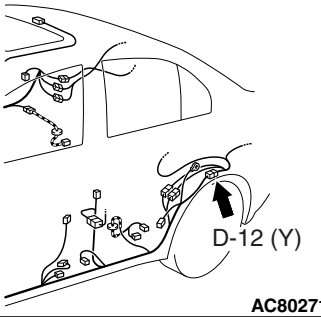
AC710900AB

Connector: C-30



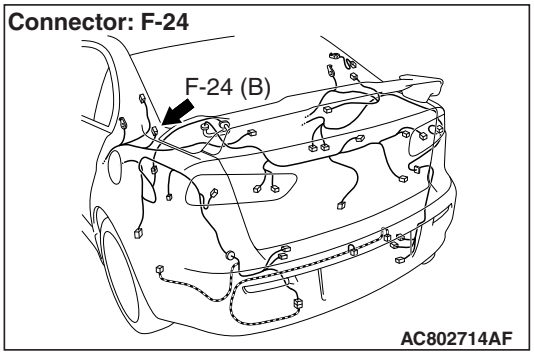
AC802706AG

Connector: D-12



AC802711AE

TSB Revision



⚠ CAUTION
If DTC B1B18 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

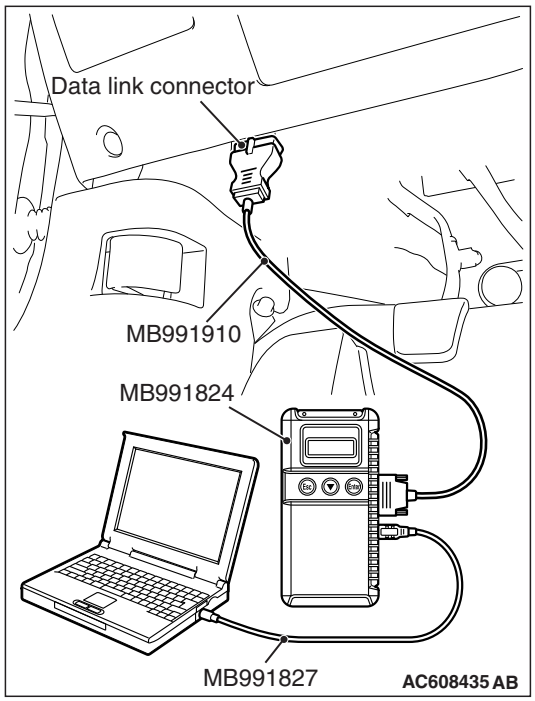
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

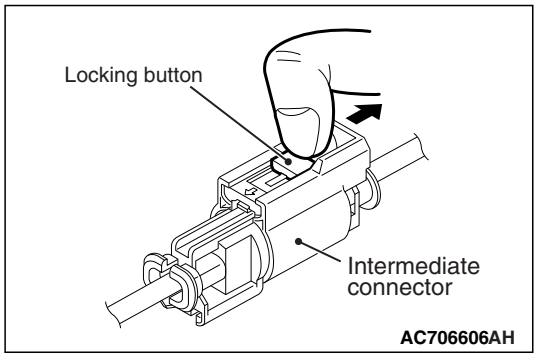
Q: Is the DTC set?

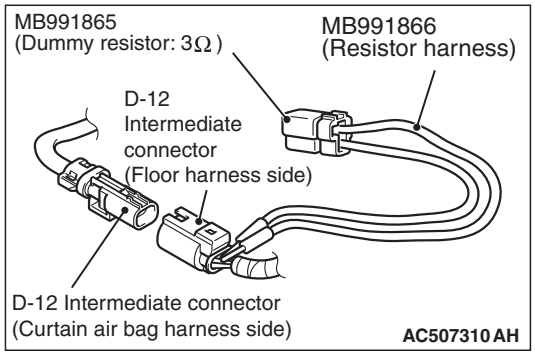
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-12 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).

(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 B1B18 set?

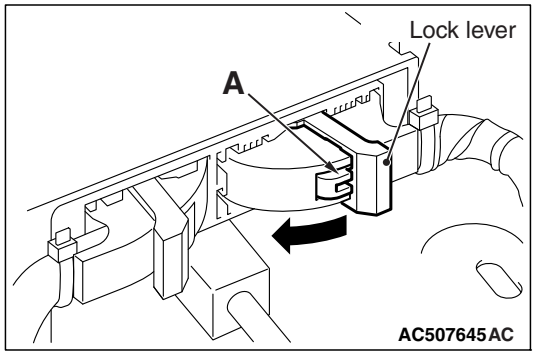
YES : Go to Step 4.

NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.

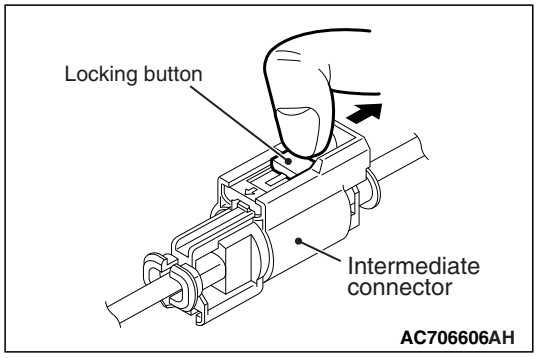
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-12 to short the squib circuit.

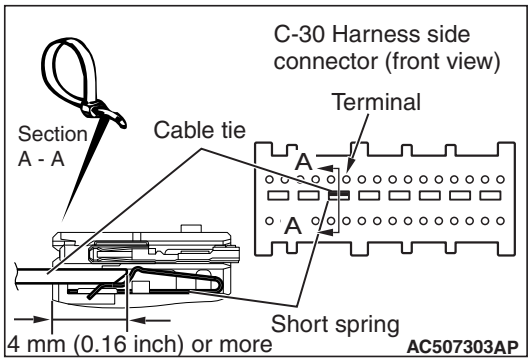
(3) Disconnect the D-12 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

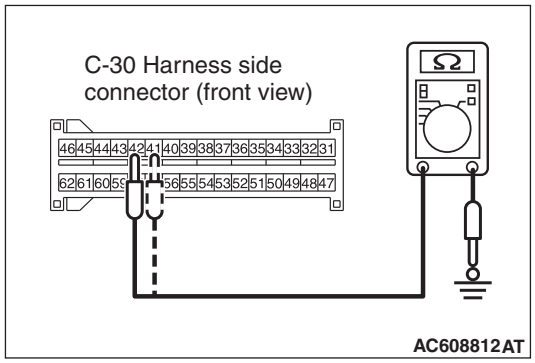


⚠ **CAUTION**

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 41, 42 and the short spring to release the short spring.





(5) Check for continuity between C-30 wiring harness side connector terminal No. 41, 42 and body ground.
It should be open circuit.

Q: Is it open circuit?

YES : Go to Step 6.
NO : Repair the wiring harness.

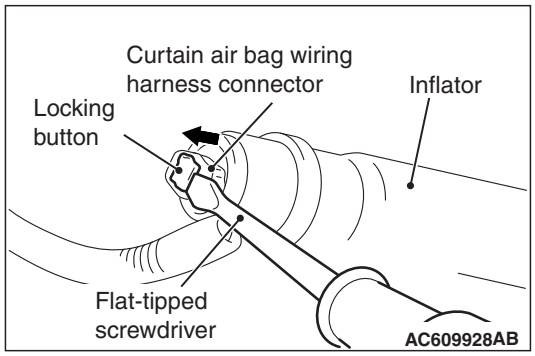
STEP 5. Resistance measurement at the D-12 intermediate connector.

(1) Disconnect the negative battery terminal.

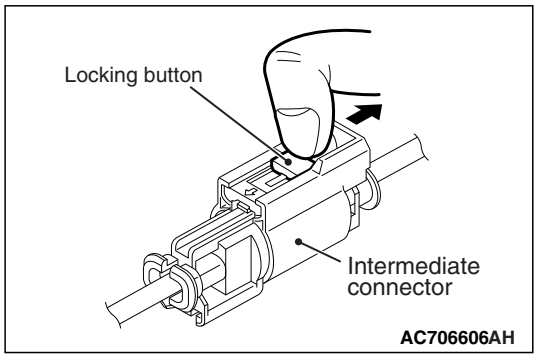
⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-24 to short the squib circuit.

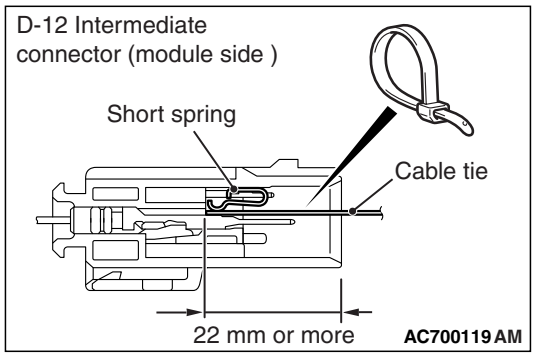
(2) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Disconnect the D-12 intermediate 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.



(4) Because the short spring is installed to the D-12 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ **CAUTION**

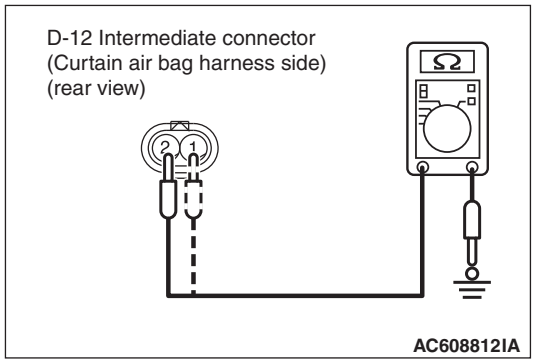
Do not insert a probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(5) Check for continuity between the D-12 intermediate connector (module side) terminal No. 1, 2 and the body ground.
It should be open circuit.

Q: Is it open circuit?

YES : Replace the curtain air bag module (LH) (Refer to P.52B-454).

NO : Repair the wiring harness.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

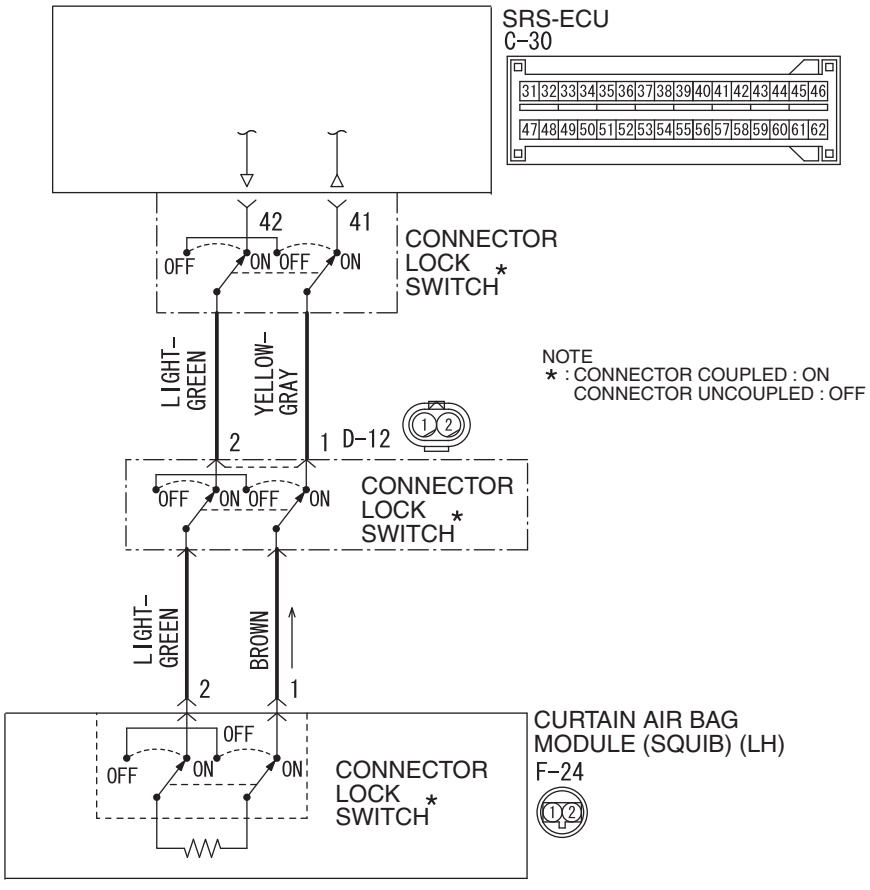
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B18 set?

YES : Replace SRS-ECU (Refer to P.52B-416).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

DTC B1B19: Curtain Air bag Module (LH) (Squib) System (Shorted to Squib Circuit Power Supply)

Curtain Air Bag Module (Squib) (LH) Circuit



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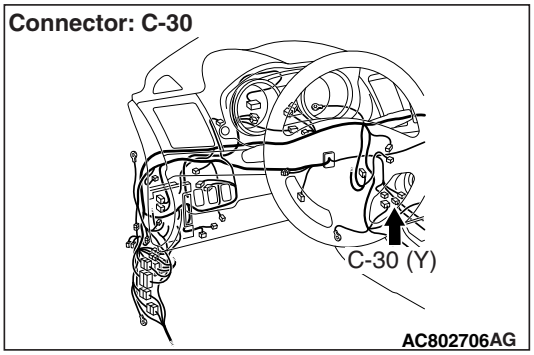
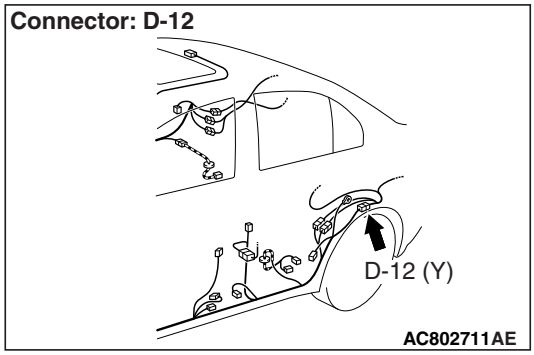
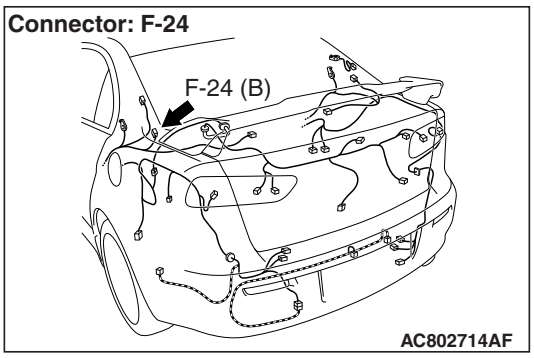






⚠ CAUTION

If DTC B1B19 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

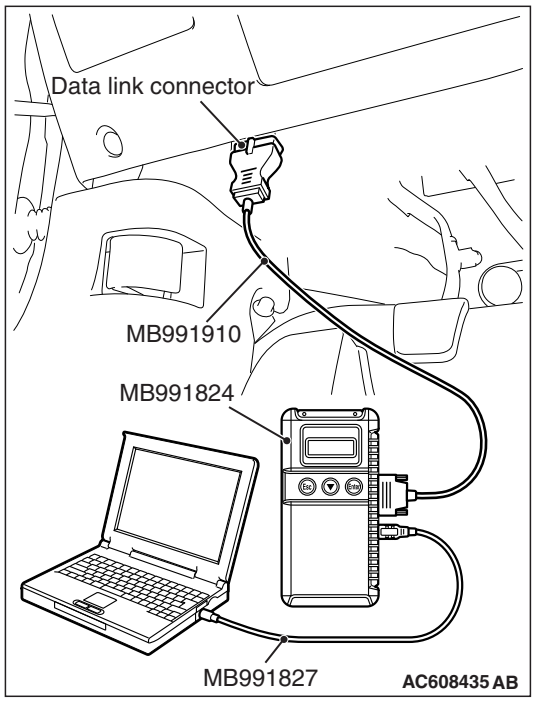
TROUBLESHOOTING HITS

- 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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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?

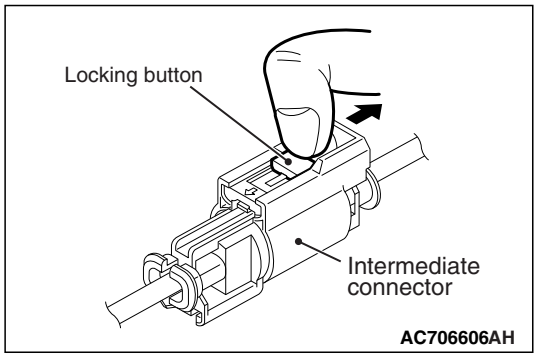
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

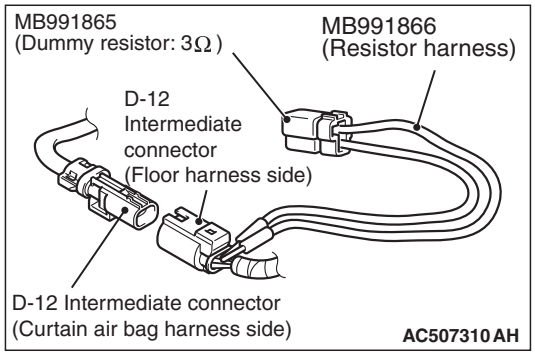
STEP 2. Recheck for diagnostic trouble code.

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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).





STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-12 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).
(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.

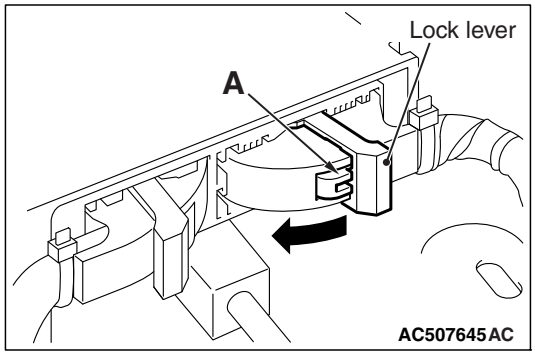
Q: Is DTC B1B19 set?

YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Voltage measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.

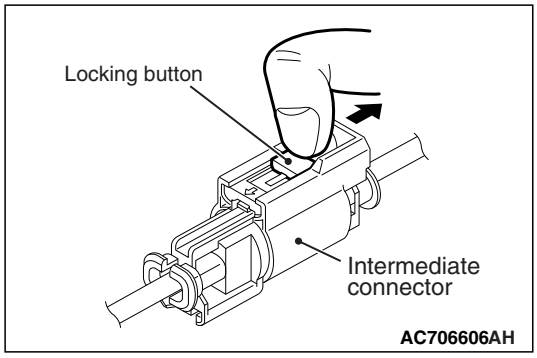
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-12 to short the squib circuit.

(3) Disconnect the D-12 intermediate 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.



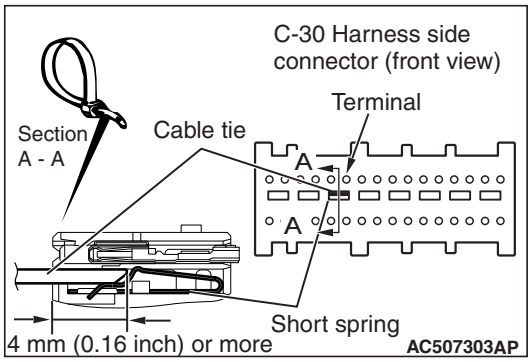
⚠ CAUTION

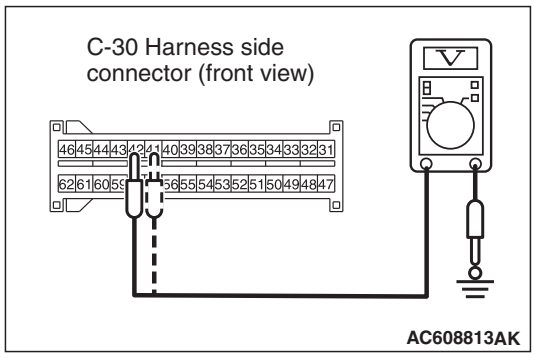
The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 41, 42 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: ON





(7) Measure the voltage between the C-30 wiring harness side connector terminal No. 41, 42 and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

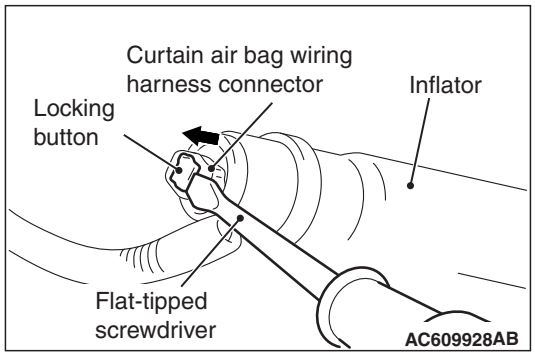
YES : Go to Step 6.
NO : Repair the wiring harness.

STEP 5. Voltage measurement at the D-12 intermediate connector.

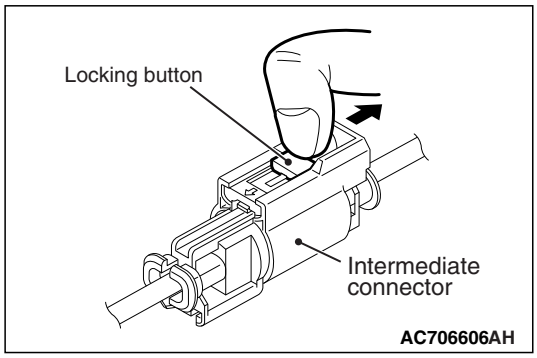
(1) Disconnect the negative battery terminal.

⚠ ***DANGER***

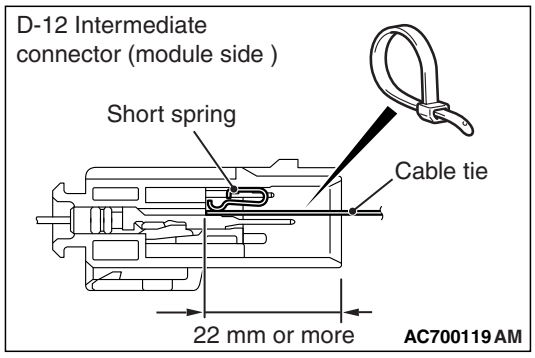
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-24 to short the squib circuit.



(2) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



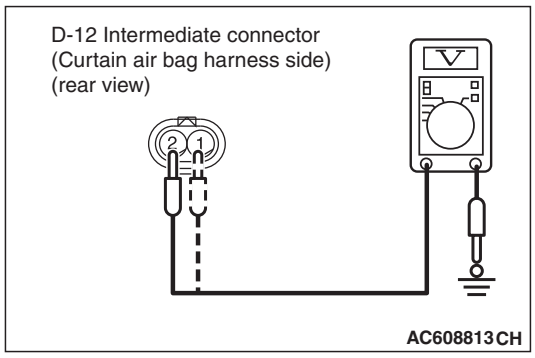
(3) Disconnect the D-12 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



(4) Because the short spring is installed to the D-12 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Ignition switch: ON

⚠ **CAUTION**

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



(7) Check for continuity between the D-12 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Replace the curtain air bag module (LH) (Refer to P.52B-454).

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.

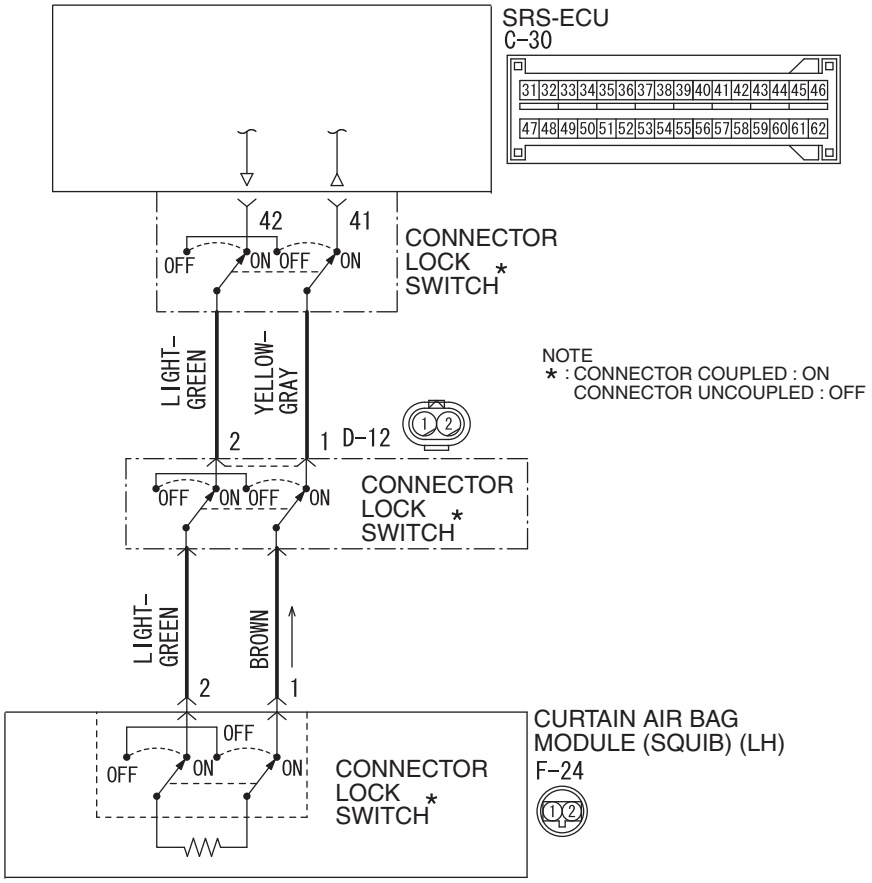
Q: Is DTC B1B19 set?

YES : Replace SRS-ECU (Refer to P.52B-416).

NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

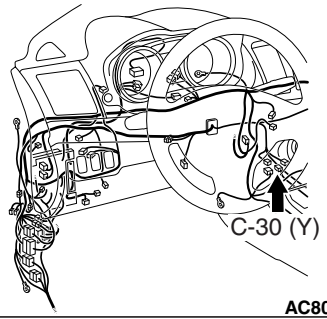
DTC B1B1A: Curtain Air Bag Module (LH) (Squib) System (Squib Circuit Open)

Curtain Air Bag Module (Squib) (LH) Circuit



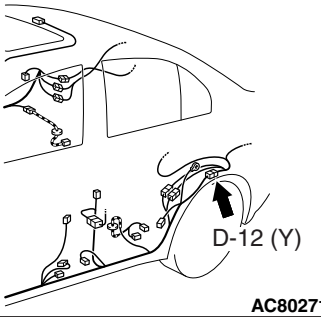
AC710900AB

Connector: C-30



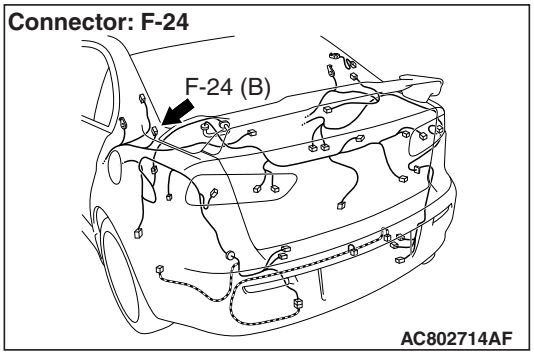
AC802706AG

Connector: D-12



AC802711AE

TSB Revision



⚠ CAUTION
If DTC B1B1A 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

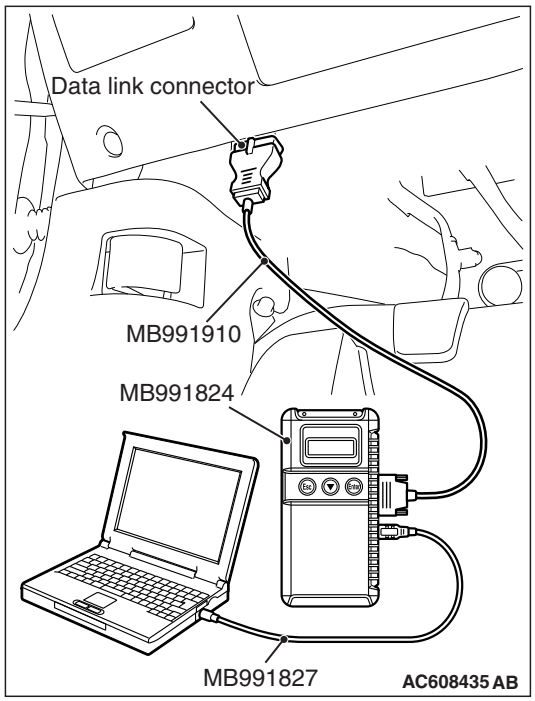
TROUBLESHOOTING HITS

- Open circuit in the curtain air bag module (LH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness
- MB991884: Resister harness



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-28."
(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-17).

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.

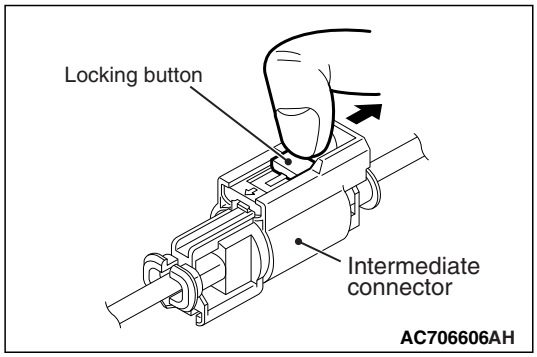
Q: Is the DTC set?

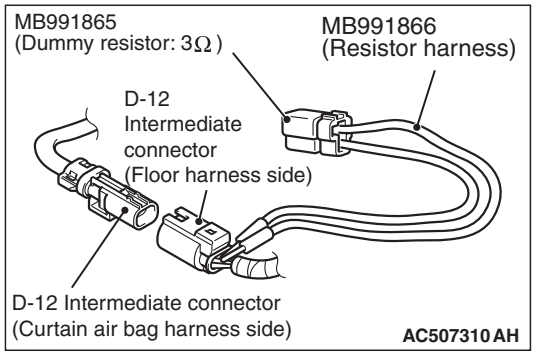
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-12 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).

(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 B1B1A set?

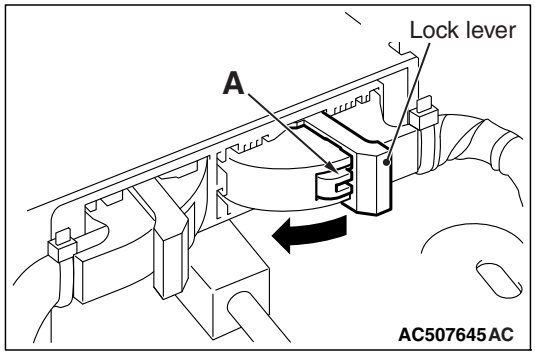
YES : Go to Step 4.

NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector and the D-12 intermediate connector.

(1) Disconnect the negative battery terminal.

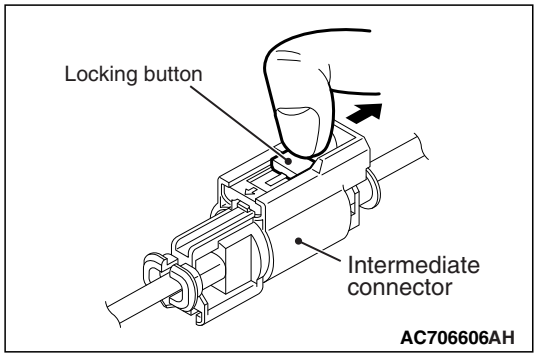
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

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

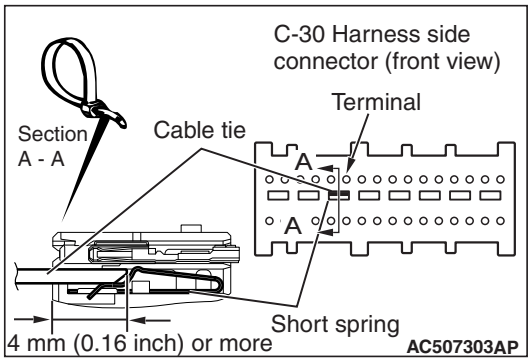
(3) Disconnect the D-12 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

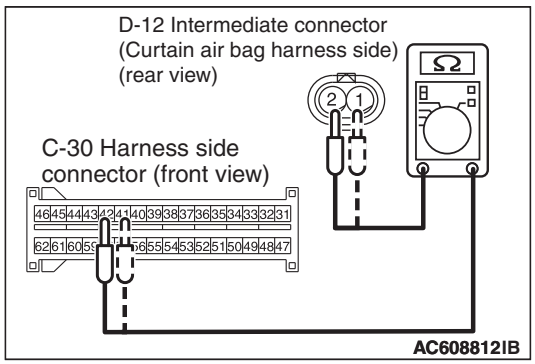


⚠ **CAUTION**

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 41, 42 and the short spring to release the short spring.





⚠ CAUTION

Do not insert a probe into the terminal from D-12 intermediate connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.41) and the intermediate connector D-12 (terminal No.1)
- SRS-ECU connector C-30 (terminal No.42) and the intermediate connector D-12 (terminal No.2)

Q: Does continuity exist?

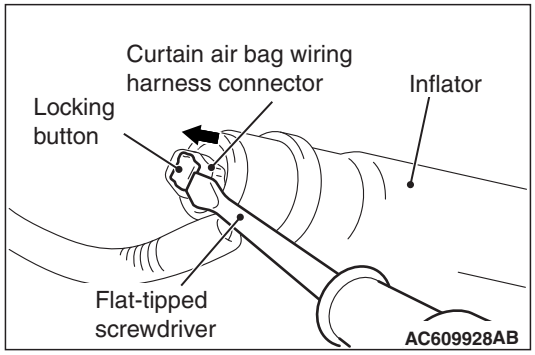
YES : Go to Step 6.

NO : Repair the wiring harness between the C-30 harness side connector terminal No. 41, 42 and the D-12 intermediate connector (floor harness side) terminal No. 1, 2.

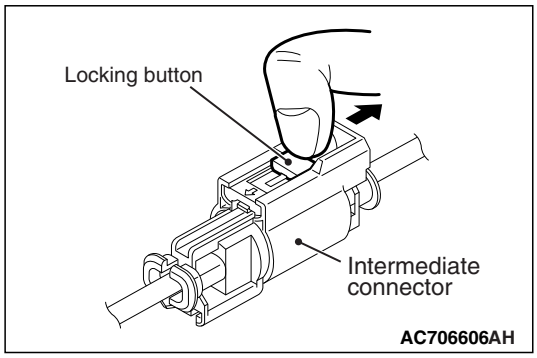
STEP 5. Resistance measurement at the D-12 intermediate connector terminal No. 1, 2 and the F-24 curtain air bag module harness side connector terminal No. 1, 2.

(1) Disconnect the negative battery terminal.

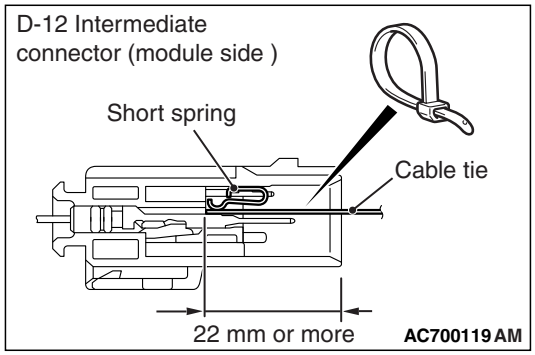
(2) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



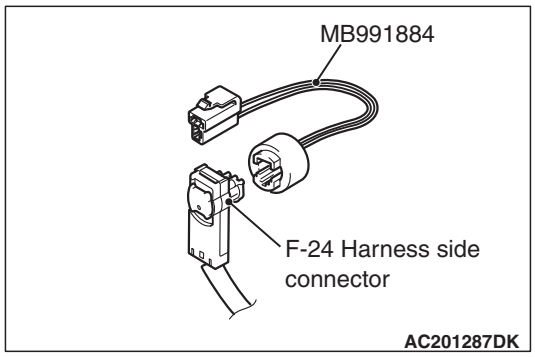
(3) Disconnect the D-12 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

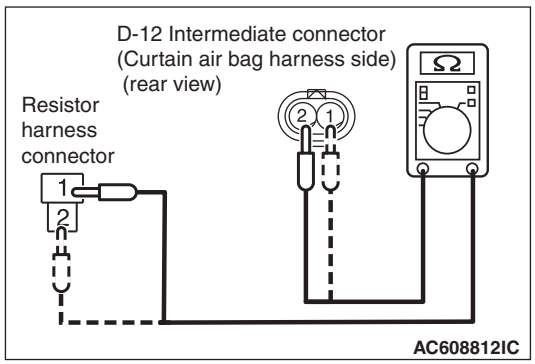


(4) Because the short spring is installed to the D-12 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



(5) Connect special tool MB991884 to the removed F-24 harness side connector.





⚠ CAUTION

Do not insert a probe into the terminal from D-12 intermediate connector front side directly, as the connector contact pressure may be weakened.

(6) Check for continuity between the following terminals. It should be less than 2 ohms.
- Intermediate connector D-12 (terminal No.1) and resistor harness connector terminal No.2)
- Intermediate connector D-12 (terminal No.2) and resistor harness connector terminal No.1)

Q: Does continuity exist?

YES : Replace the curtain air bag module (LH) (Refer to P.52B-454).

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.

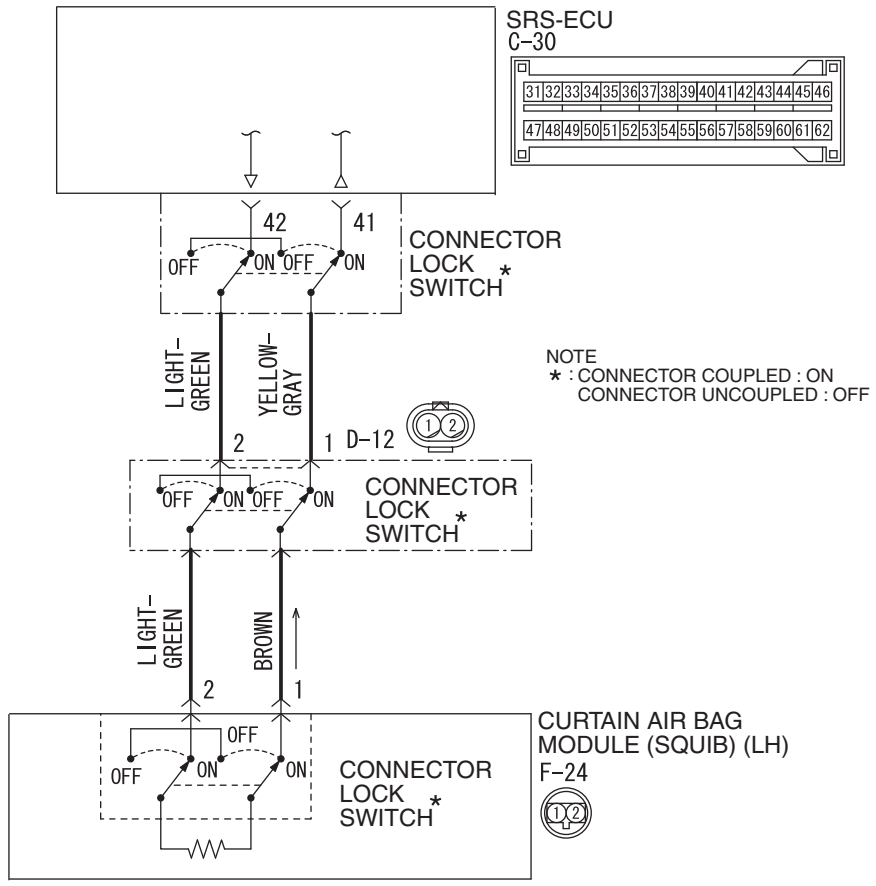
Q: Is DTC B1B1A set?

YES : Replace SRS-ECU (Refer to P.52B-416).

NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

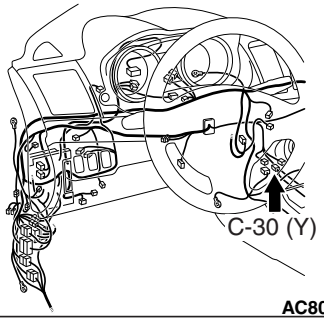
DTC B1B1B: Curtain Air Bag Module (LH) (Squib) System (Short Circuit between Squib Circuit Terminals)

Curtain Air Bag Module (Squib) (LH) Circuit



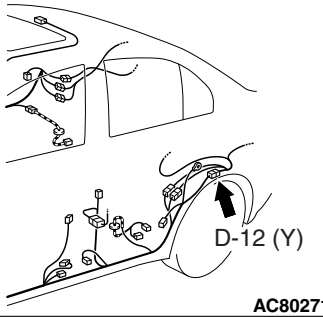
AC710900AB

Connector: C-30



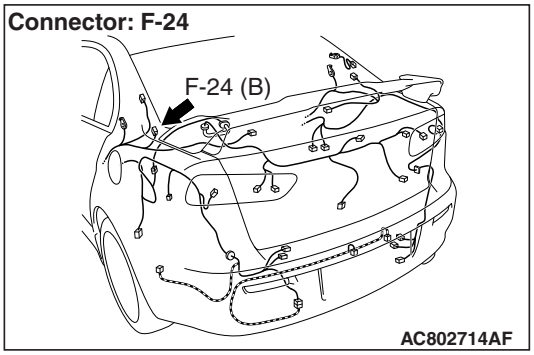
AC802706AG

Connector: D-12



AC802711AE

TSB Revision



⚠ CAUTION
If DTC B1B1B 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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

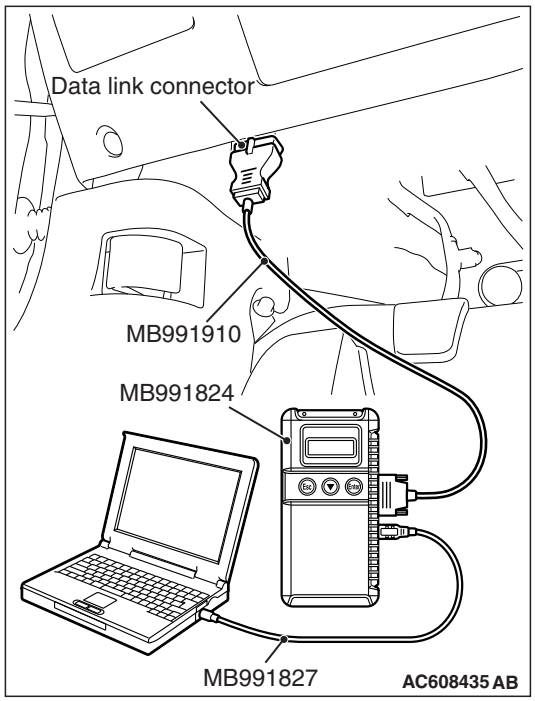
- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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 C-30, D-12 or F-24 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

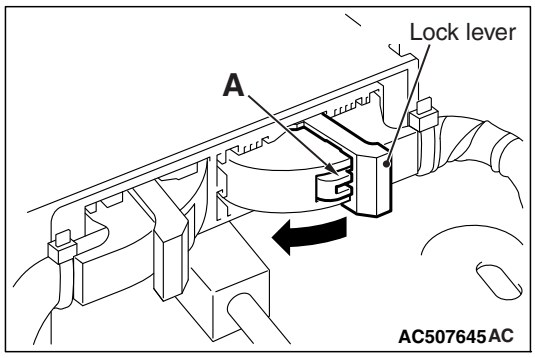
Q: Is the DTC set?

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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

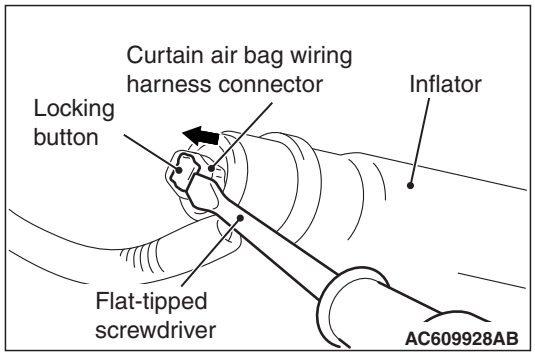
STEP 3. Check SRS-ECU connector C-30, curtain air bag module (LH) connector F-24 and intermediate connector D-12.

(1) Disconnect the negative battery terminal.

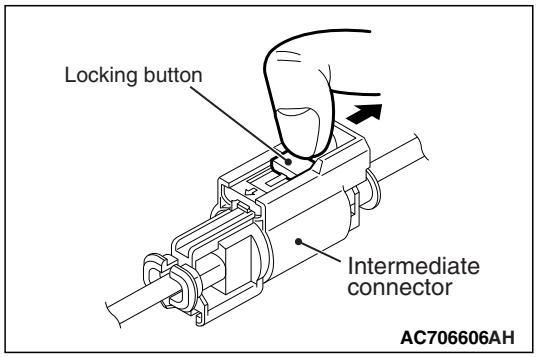
(2) While pressing the part A in the illustration of the C-30 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.



(3) Disconnect the F-24 connectors, and then reconnect it. Use a flat-tipped (–) screwdriver to pull out the F-24 curtain air bag module harness side connector locking button toward the arrow direction, release the lock, and then disconnect the connector.



(4) Disconnect the D-12 connector's, and then reconnect them. Unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



(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 B1B1B set?

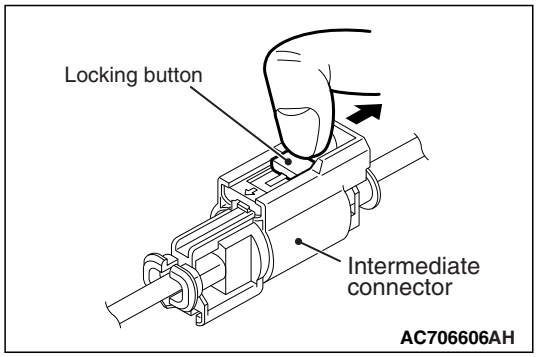
YES : Go to Step 4.

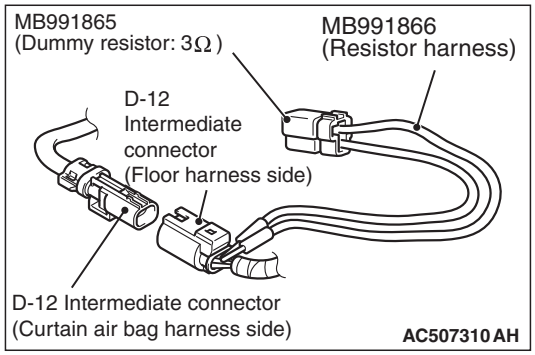
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

STEP 4. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-12 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).

(5) Connect the negative battery terminal.

(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q: Is DTC B1B1B set?

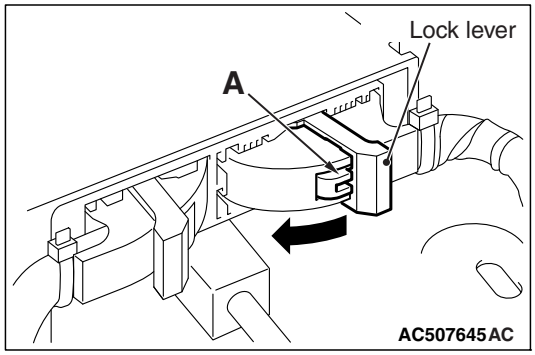
YES : Go to Step 5.

NO : Go to Step 6.

STEP 5. Resistance measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.

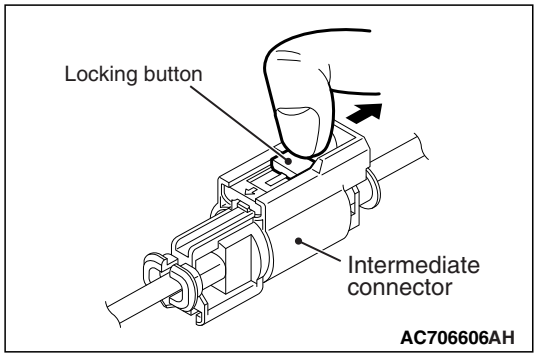
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-12 to short the squib circuit.

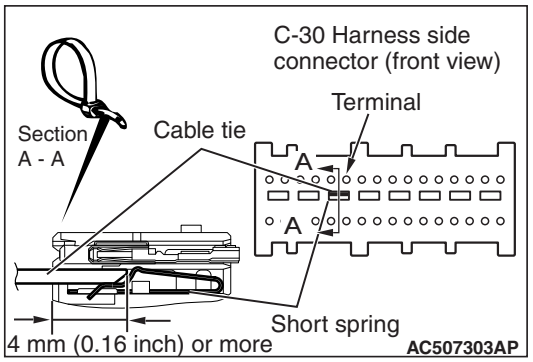
(3) Disconnect the D-12 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



⚠ **CAUTION**

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 41, 42 and the short spring to release the short spring.

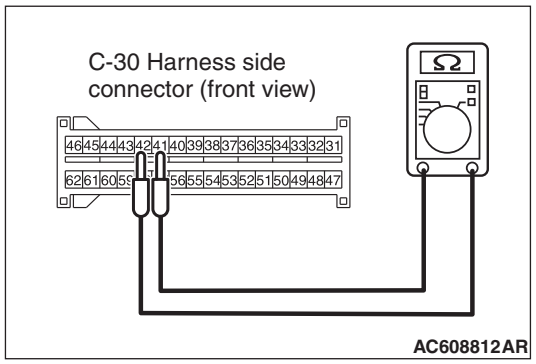


(5) Check for continuity between the C-30 wiring harness side connector terminal No. 41 and No. 42.
It should be open circuit.

Q: Is it open circuit?

YES : Go to Step 7.

NO : Repair the wiring harness.

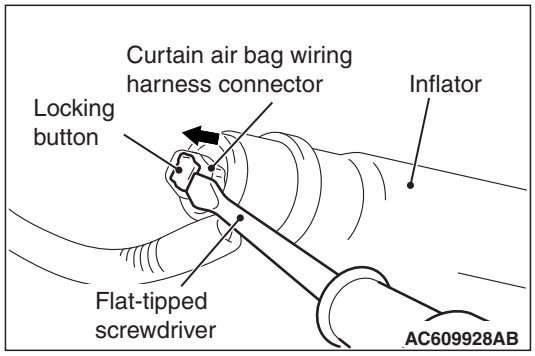


STEP 6. Short circuit check between the F-24 curtain air bag module harness side connector and the D-12 intermediate harness.

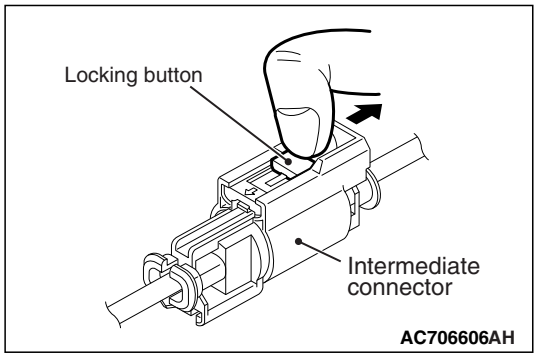
(1) Disconnect the negative battery terminal.

⚠ ***DANGER***

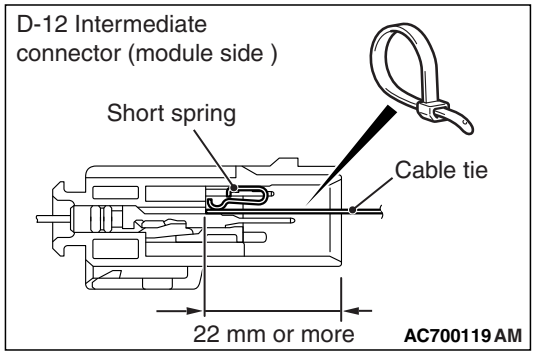
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-24 to short the squib circuit.



(2) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



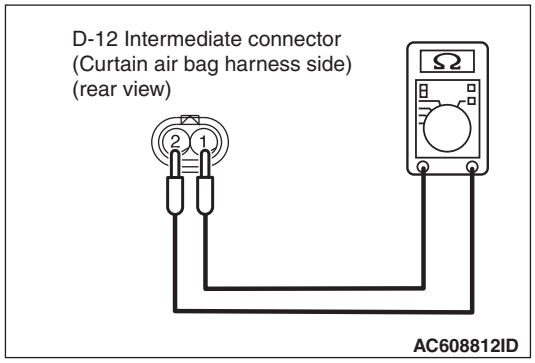
(3) Disconnect the D-12 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



(4) Because the short spring is installed to the D-12 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

⚠ **CAUTION**

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



(5) Check for continuity between the D-12 intermediate connector (curtain air bag harness side) terminal No.1 and 2.
It should be open circuit.

Q: Is it open circuit?

YES : Replace the curtain air bag module (LH) (Refer to P.52B-454). Then go to Step 7.

NO : Repair the wiring harness.

TSB Revision

STEP 7. Recheck for diagnostic trouble code.

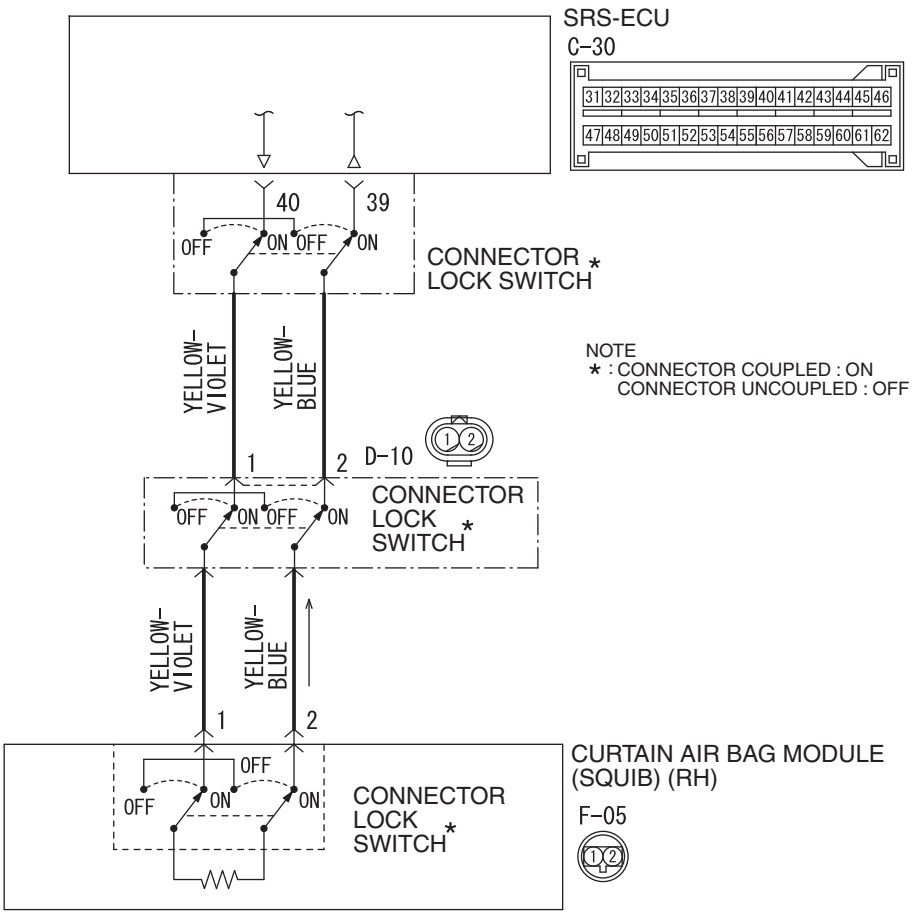
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B1B set?

YES : Replace SRS-ECU (Refer to P.52B-416).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

DTC B1B20: Curtain Air Bag Module (RH) (Squib) System (Shorted to Squib Circuit Ground)

Curtain Air Bag Module (Squib) (RH) Circuit



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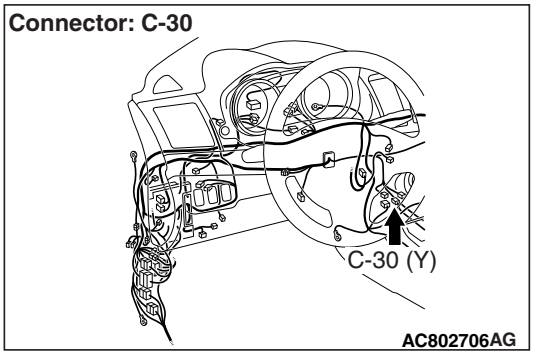
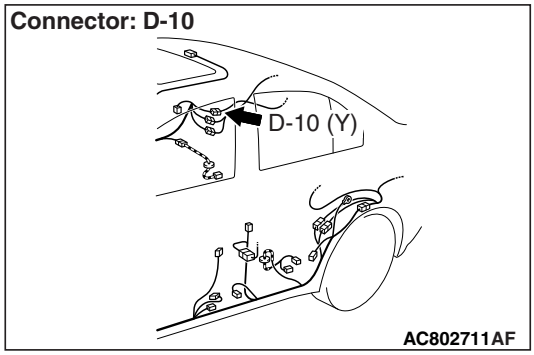
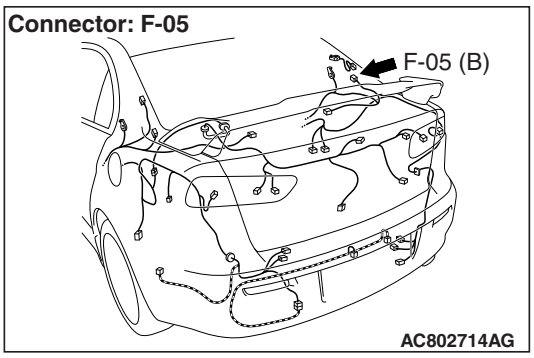
TSB Revision







⚠ CAUTION
If DTC B1B20 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

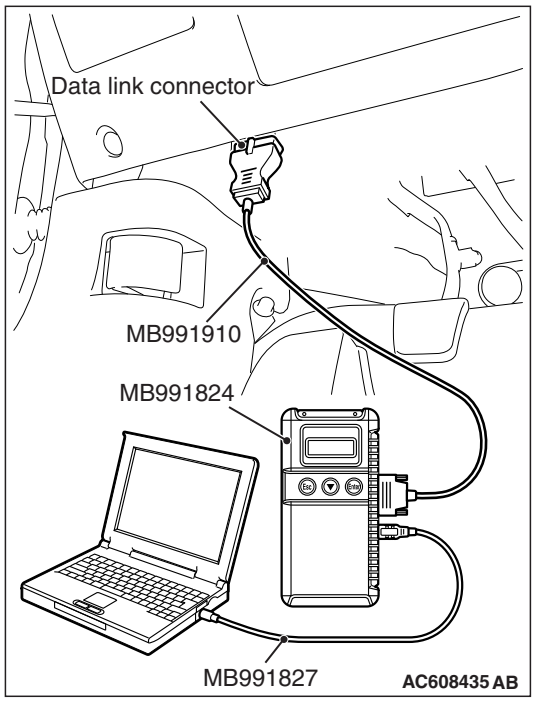
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

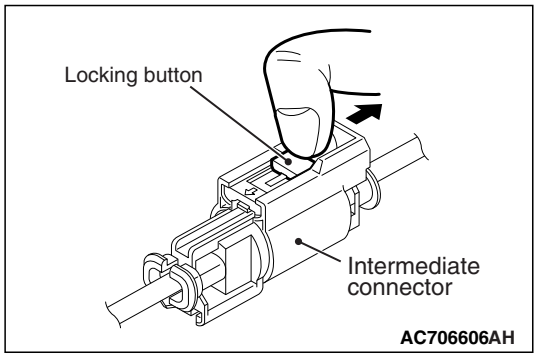
Q: Is the DTC set?

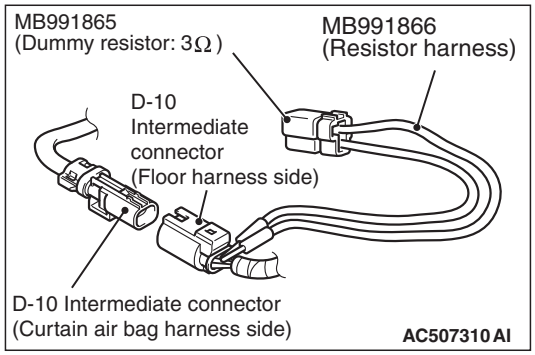
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-10 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).

(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 B1B20 set?

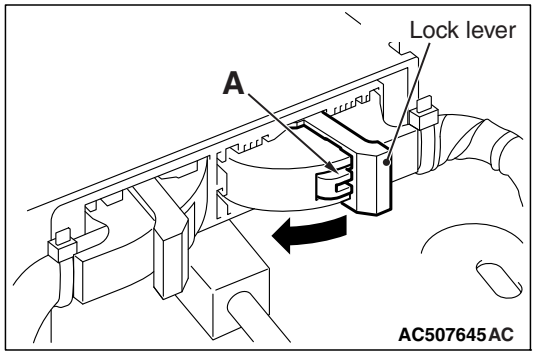
YES : Go to Step 4.

NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector

(1) Disconnect the negative battery terminal.

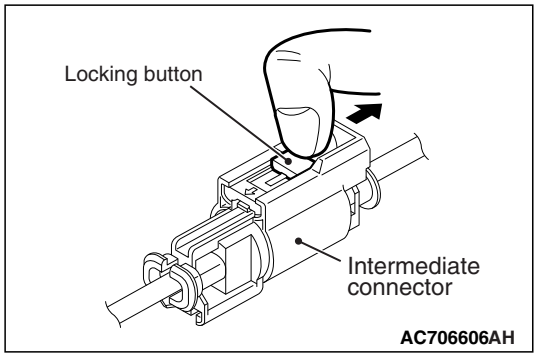
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-10 to short the squib circuit.

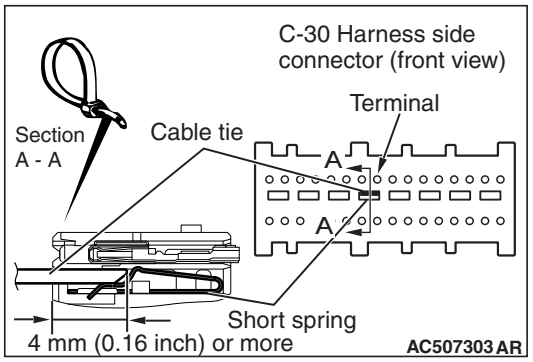
(3) Disconnect the D-10 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

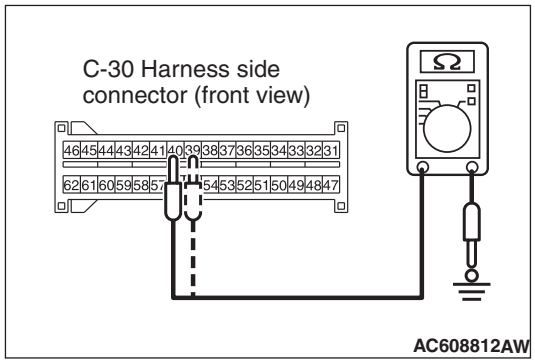


⚠ **CAUTION**

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 39, 40 and the short spring to release the short spring.





(5) Check for continuity between C-30 wiring harness side connector terminal No. 39, 40 and body ground.
It should be open circuit.

Q: Is it open circuit?

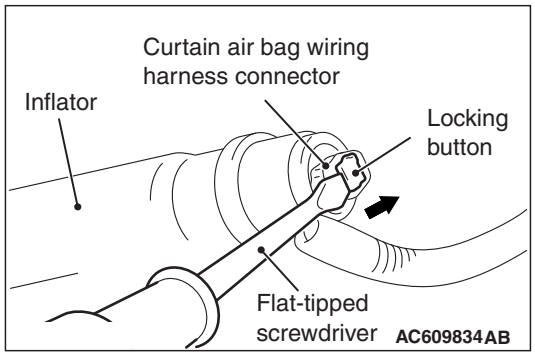
YES : Go to Step 6.
NO : Repair the wiring harness.

STEP 5. Resistance measurement at the D-10 intermediate connector.

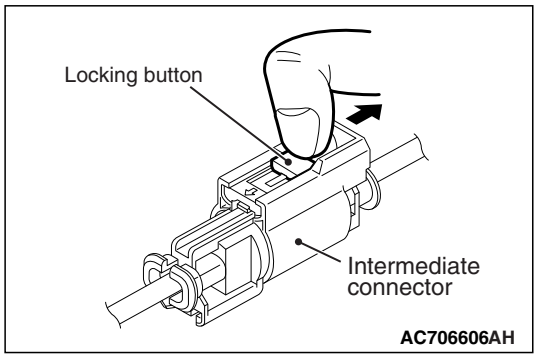
(1) Disconnect the negative battery terminal.

⚠ ***DANGER***

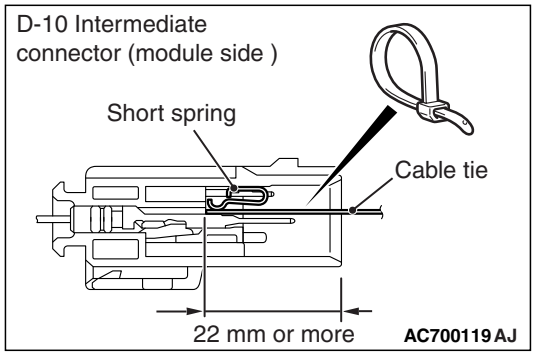
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-05 to short the squib circuit.



(2) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



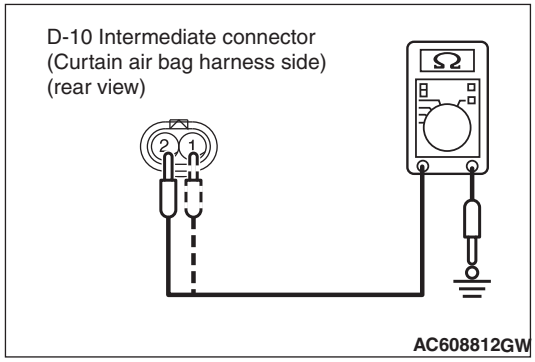
(3) Disconnect the D-10 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



(4) Because the short spring is installed to the D-10 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

⚠ **CAUTION**

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



(5) Check for continuity between the D-10 intermediate connector (module side) terminal No. 1, 2 and the body ground.
It should be open circuit.

Q: Is it open circuit?

YES : Replace the curtain air bag module (RH) (Refer to P.52B-454).

NO : Repair the wiring harness.

TSB Revision

STEP 6. Recheck for diagnostic trouble code.

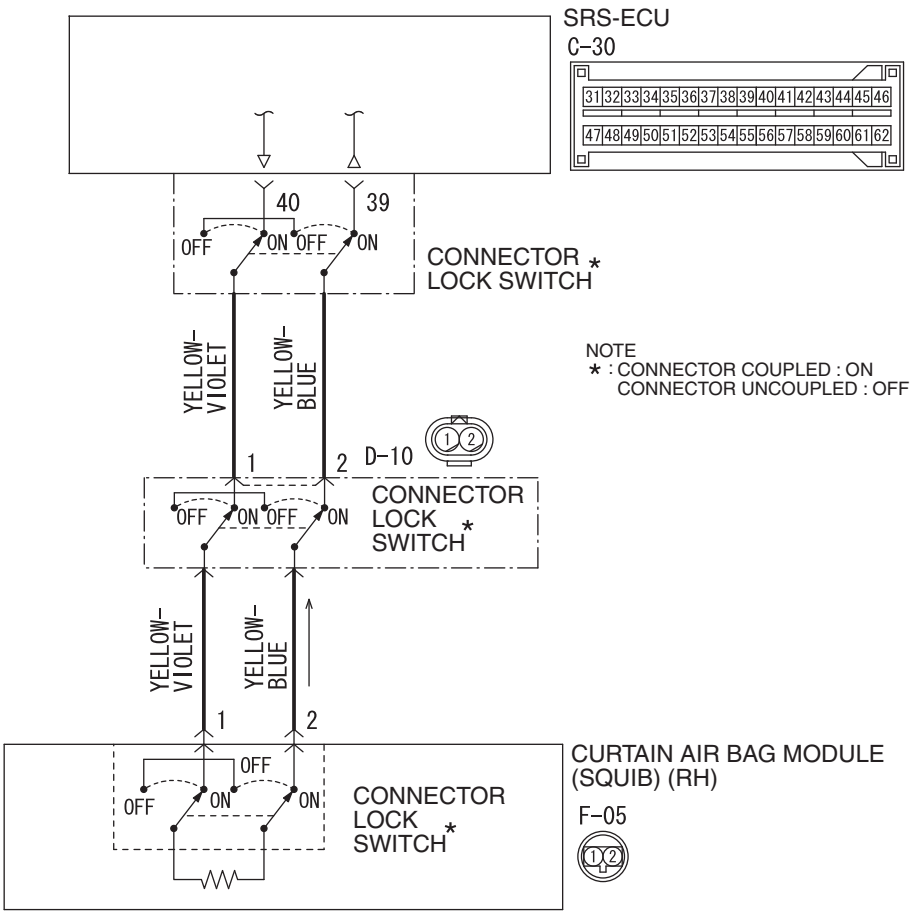
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B20 set?

YES : Replace SRS-ECU (Refer to P.52B-416).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

DTC B1B21: Curtain Air Bag Module (RH) (Squib) System (Shorted to Squib Circuit Power Supply)

Curtain Air Bag Module (Squib) (RH) Circuit



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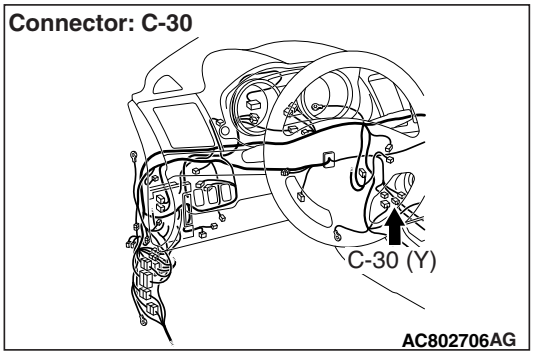
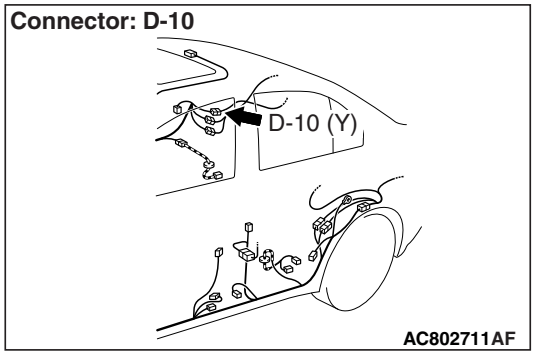
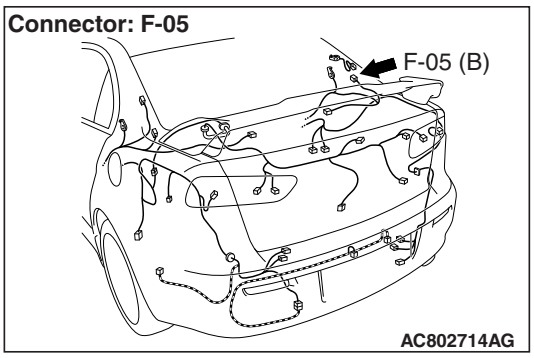
TSB Revision







⚠ CAUTION
If DTC B1B21 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

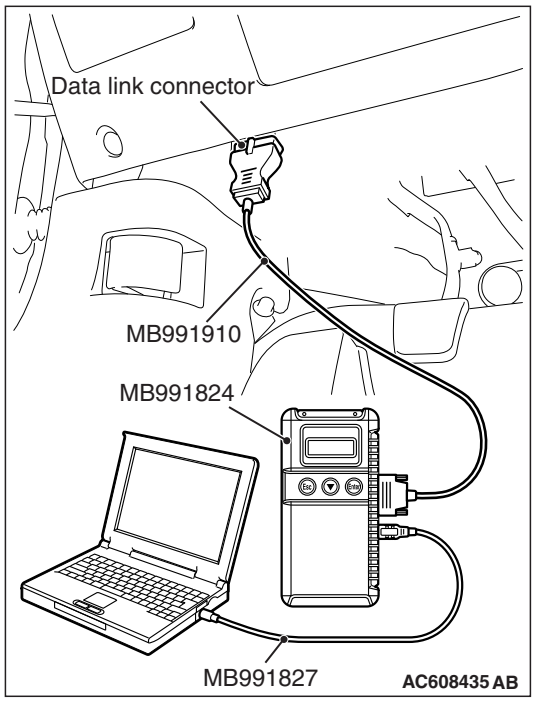
TROUBLESHOOTING HITS

- 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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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?

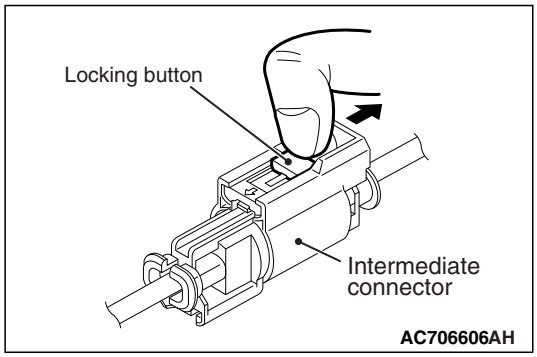
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

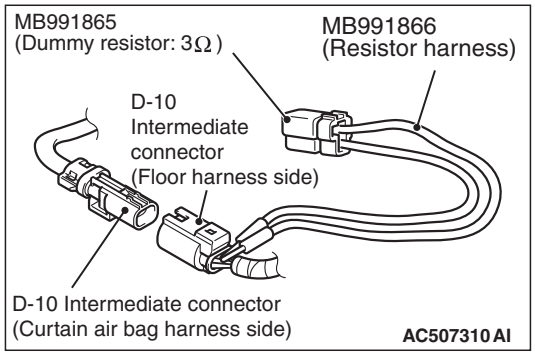
STEP 2. Recheck for diagnostic trouble code.

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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).





STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-10 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).
(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.

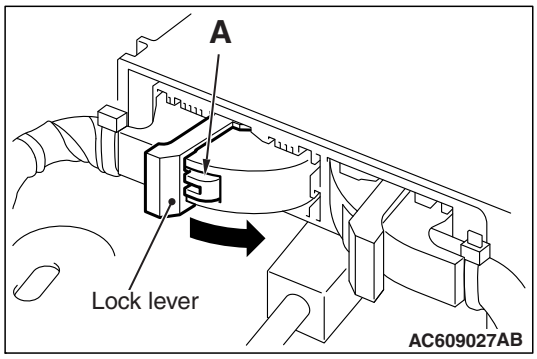
Q: Is DTC B1B21 set?

YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Voltage measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.

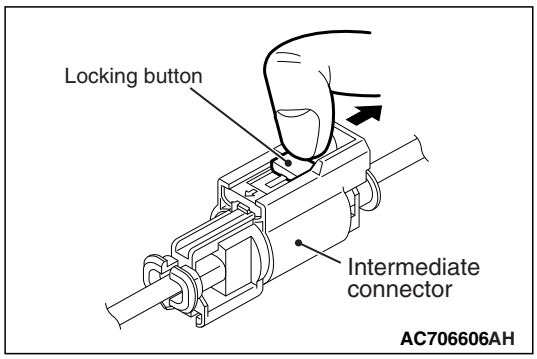
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-10 to short the squib circuit.

(3) Disconnect the D-10 intermediate 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.



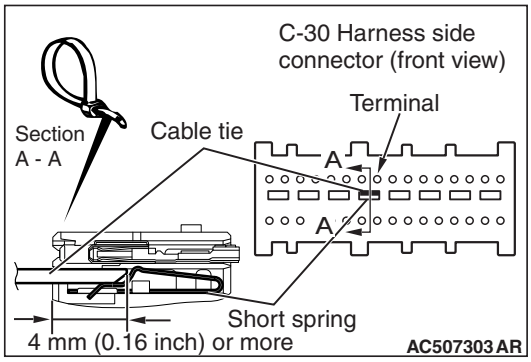
⚠ **CAUTION**

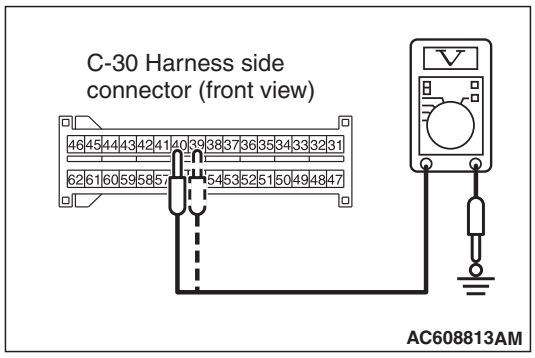
The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 39, 40 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: ON





(7) Measure the voltage between the C-30 wiring harness side connector terminal No. 39, 40 and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

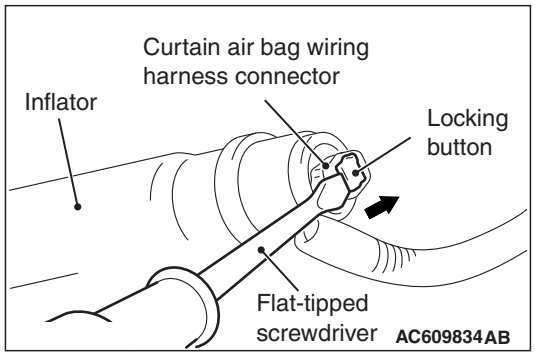
YES : Go to Step 6.
NO : Repair the wiring harness.

STEP 5. Voltage measurement at the D-10 intermediate connector.

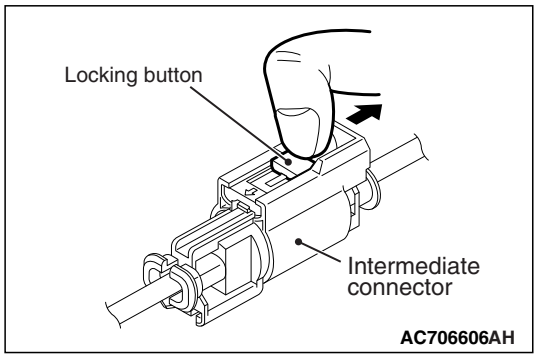
(1) Disconnect the negative battery terminal.

⚠ ***DANGER***

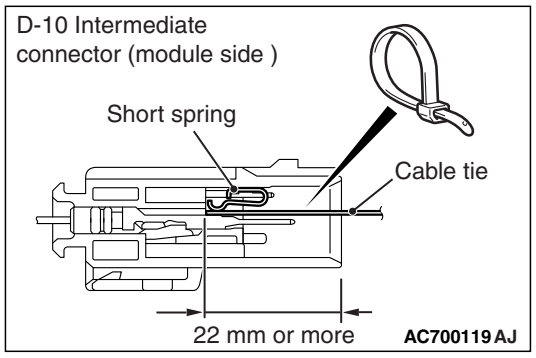
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-05 to short the squib circuit.



(2) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



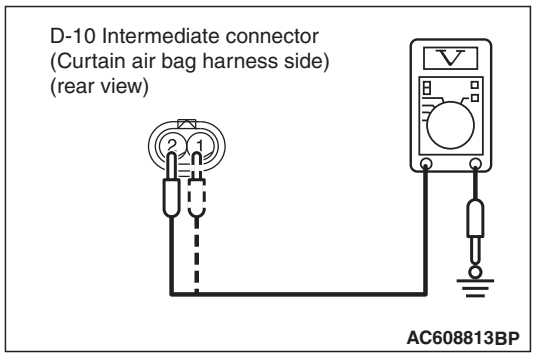
(3) Disconnect the D-10 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



(4) Because the short spring is installed to the D-10 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: ON



⚠ **CAUTION**

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

(7) Check for continuity between the D-10 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Replace the curtain air bag module (RH) (Refer to P.52B-454).

NO : Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

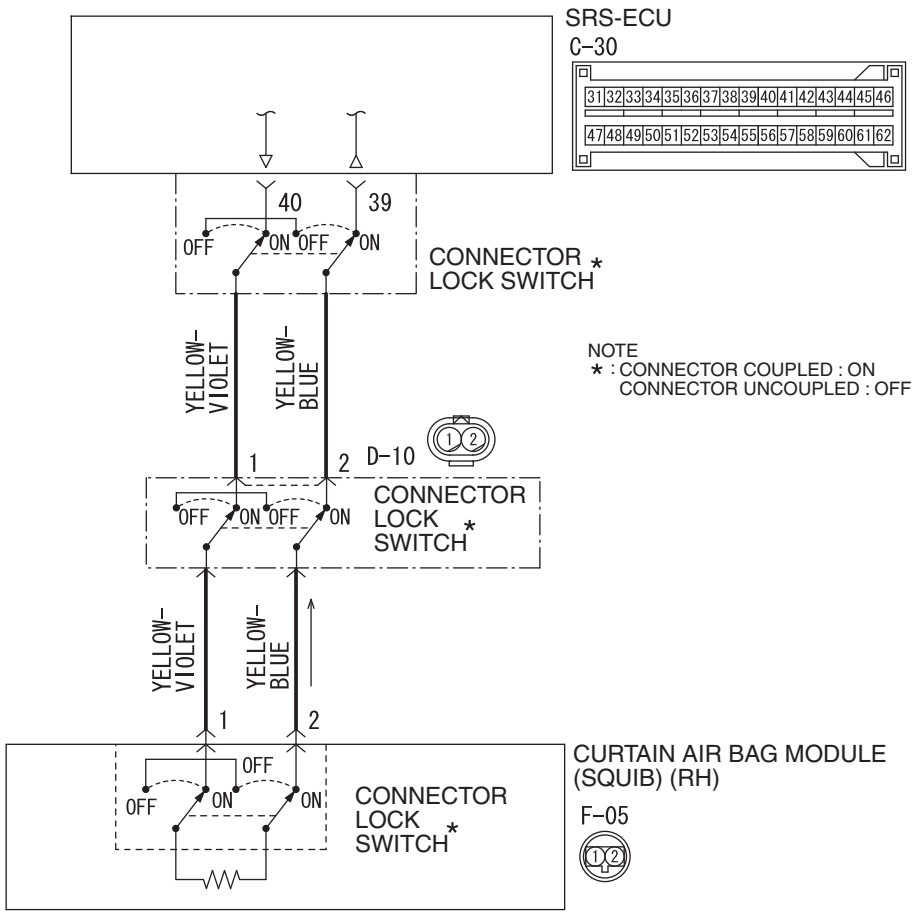
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B21 set?

YES : Replace SRS-ECU (Refer to P.52B-416).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

DTC B1B22: Curtain Air Bag Module (RH) (Squib) System (Squib Circuit Open)

Curtain Air Bag Module (Squib) (RH) Circuit



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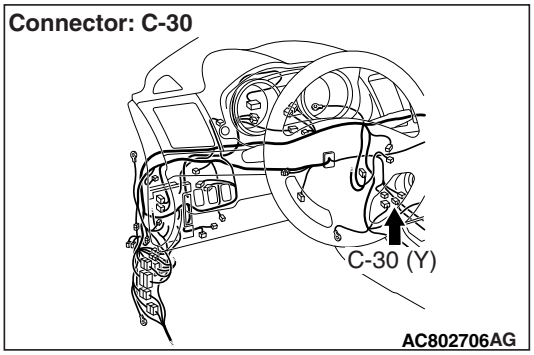
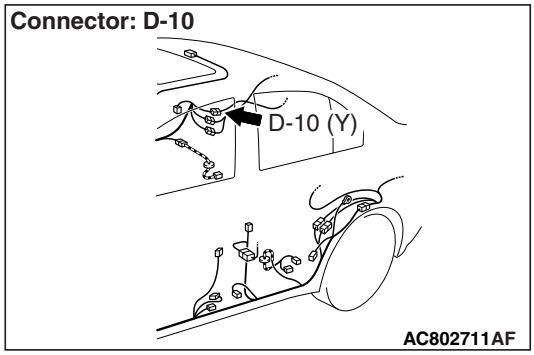
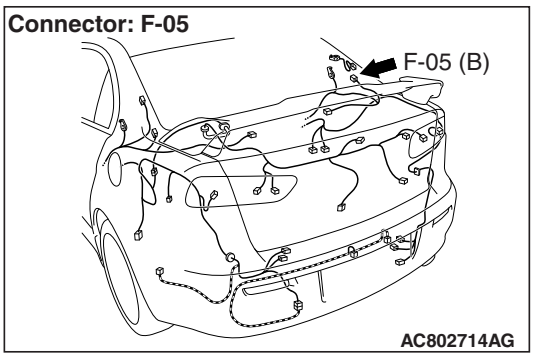
TSB Revision







⚠ CAUTION
If DTC B1B22 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

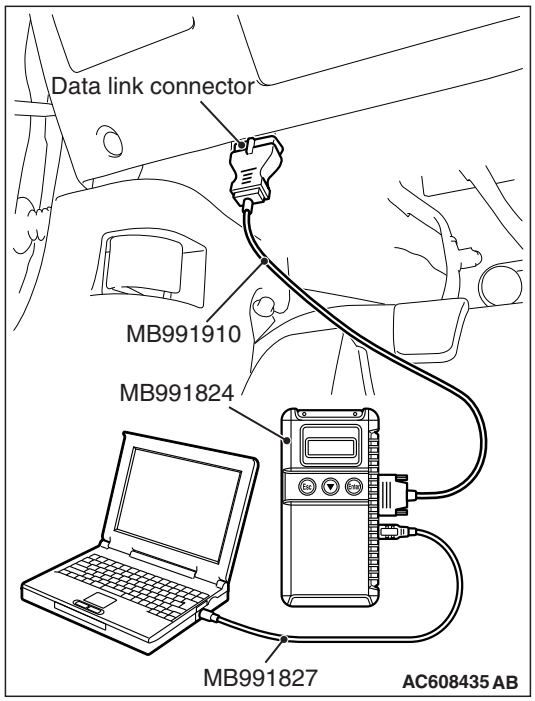
TROUBLESHOOTING HITS

- Open circuit in the curtain air bag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness
- MB991884: Resister harness



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-28."
(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-17).

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.

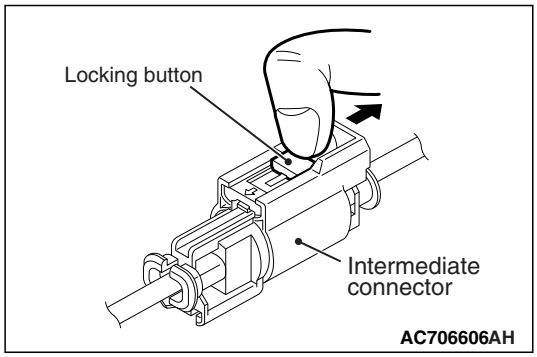
Q: Is the DTC set?

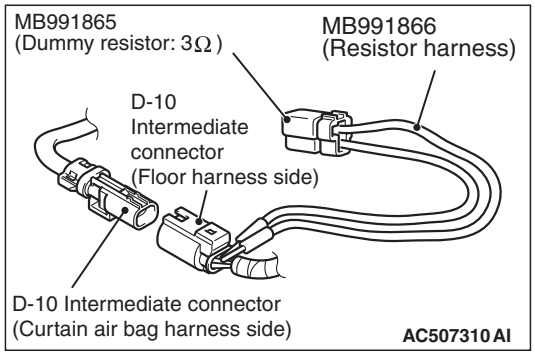
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-10 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).

(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 B1B22 set?

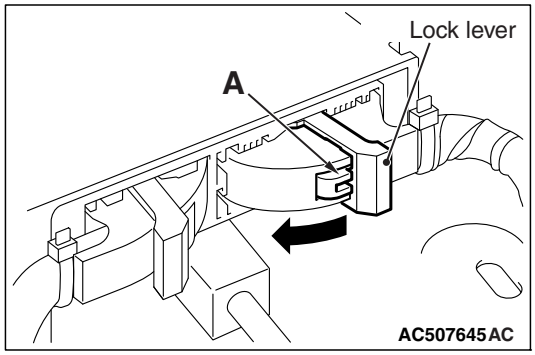
YES : Go to Step 4.

NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector and the D-10 intermediate connector.

(1) Disconnect the negative battery terminal.

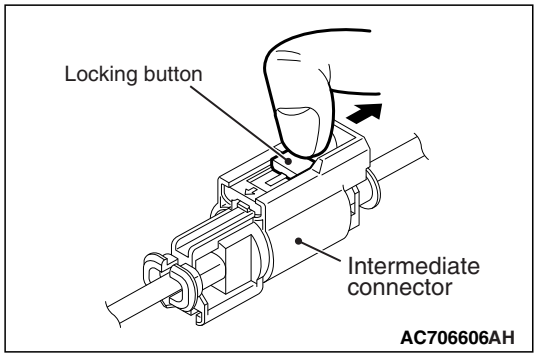
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-10 to short the squib circuit.

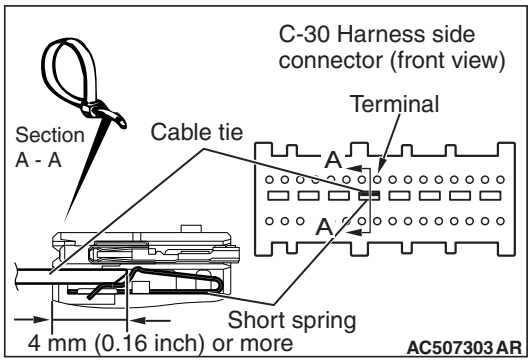
(3) Disconnect the D-10 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

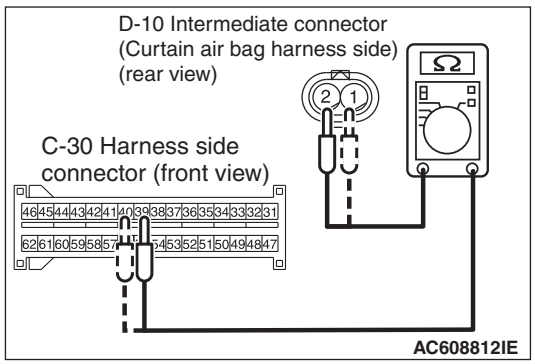


⚠ **CAUTION**

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 39, 40 and the short spring to release the short spring.





⚠ CAUTION

Do not insert a probe into the terminal from D-10 intermediate connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.39) and the intermediate connector D-10 (terminal No.2)
- SRS-ECU connector C-30 (terminal No.40) and the intermediate connector D-10 (terminal No.1)

Q: Does continuity exist?

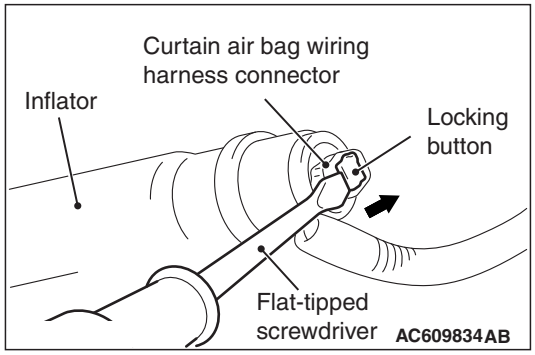
YES : Go to Step 6.

NO : Repair the wiring harness between the C-30 harness side connector terminal No. 39, 40 and the D-10 intermediate connector (floor harness side) terminal No. 2, 1.

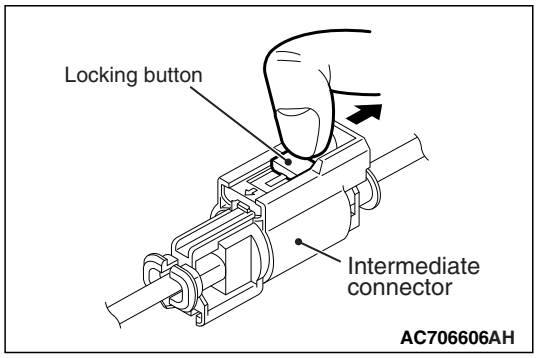
STEP 5. Resistance measurement at the D-10 intermediate connector terminal No. 1, 2 and the F-05 curtain air bag module harness side connector terminal No. 1, 2.

(1) Disconnect the negative battery terminal.

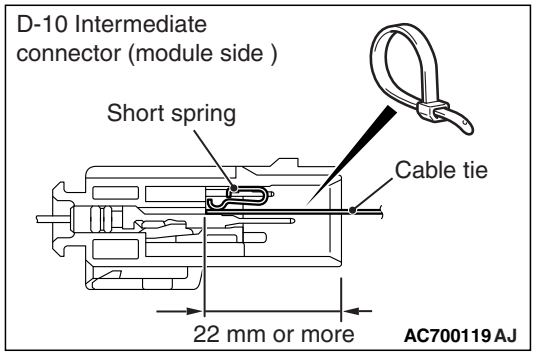
(2) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



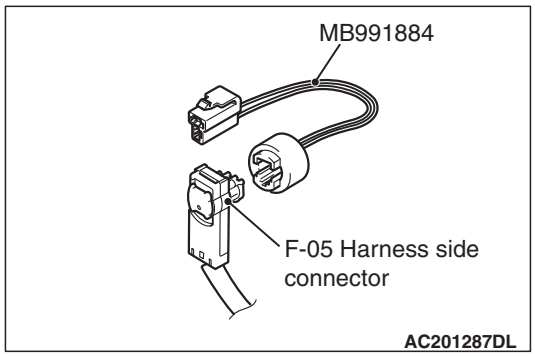
(3) Disconnect the D-10 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

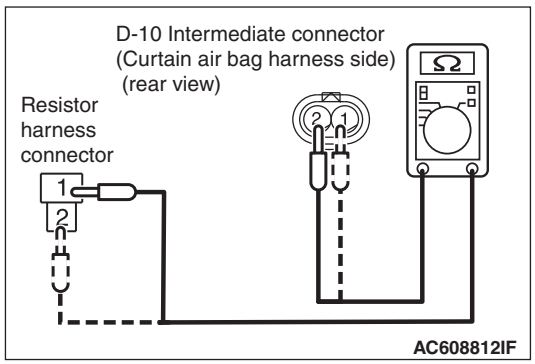


(4) Because the short spring is installed to the D-10 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



(5) Connect special tool MB991884 to the removed F-05 harness side connector.





⚠ CAUTION

Do not insert a probe into the terminal from D-10 intermediate connector front side directly, as the connector contact pressure may be weakened.

(6) Check for continuity between the following terminals.
It should be less than 2 ohms.
- Intermediate connector D-10 (terminal No.1) and resistor harness connector terminal No.2)
- Intermediate connector D-10 (terminal No.2) and resistor harness connector terminal No.1)

Q: Does continuity exist?

YES : Replace the curtain air bag module (RH) (Refer to P.52B-454).

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.

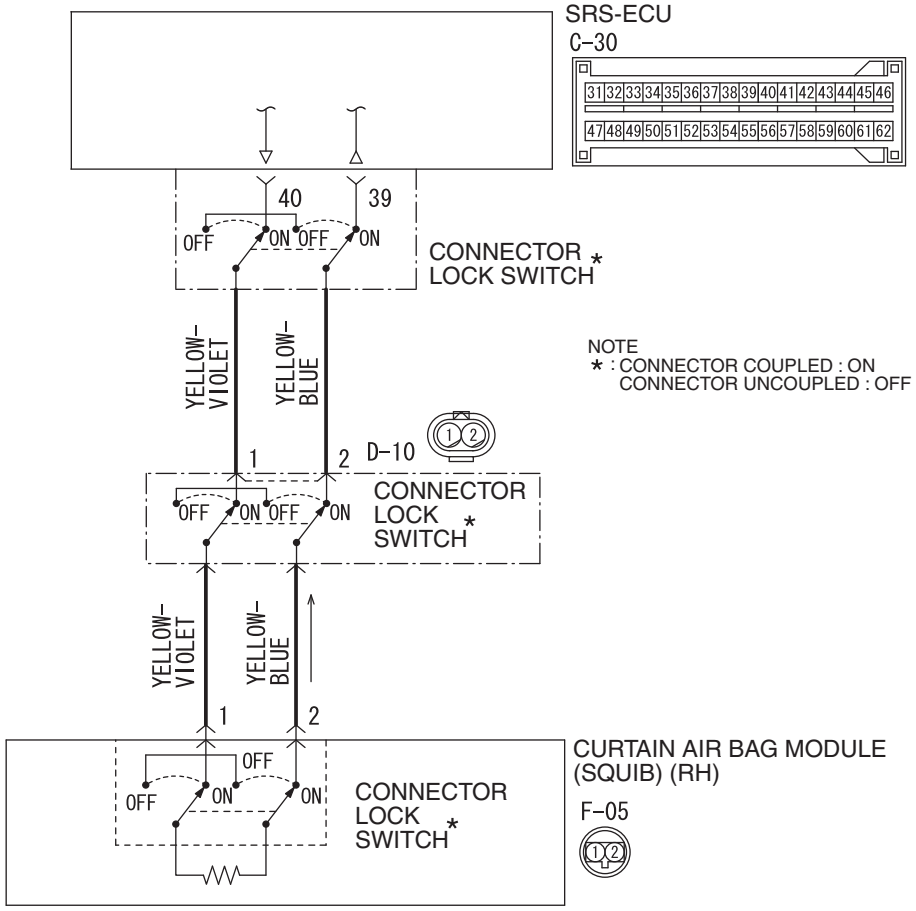
Q: Is DTC B1B22 set?

YES : Replace SRS-ECU (Refer to P.52B-416).

NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

DTC B1B23: Curtain Air Bag Module (RH) (Squib) System (Short Circuit between Squib Circuit Terminals)

Curtain Air Bag Module (Squib) (RH) Circuit



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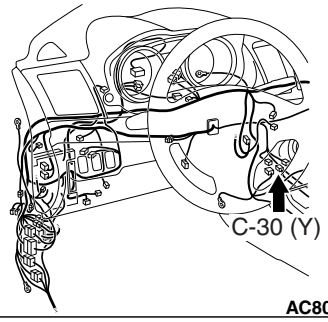
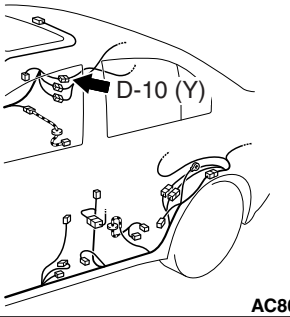
Connector: C-30



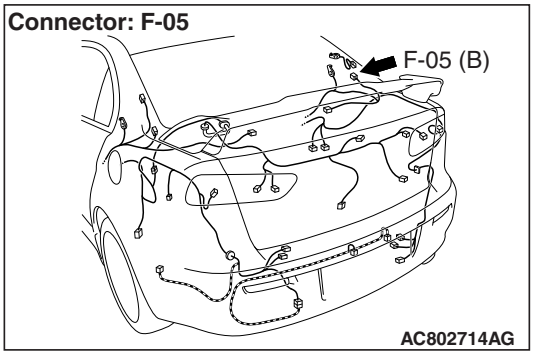
AC802706AG

Connector: D-10



AC802711AF

TSB Revision



⚠ CAUTION
If DTC B1B23 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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

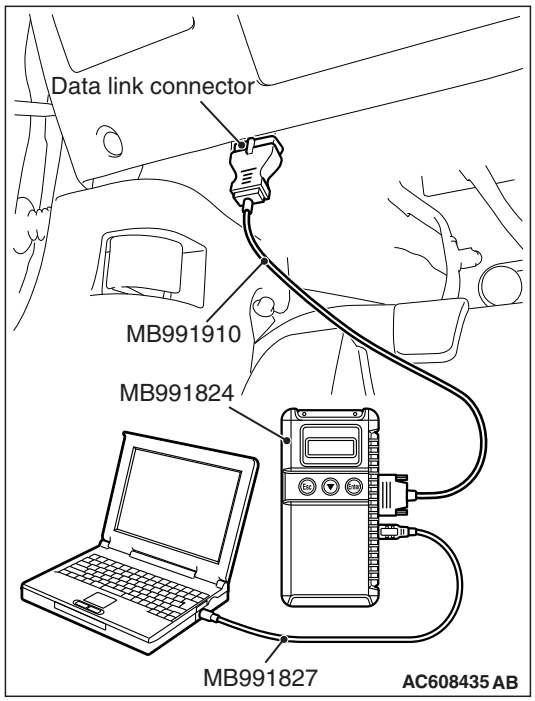
- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (RH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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 C-30, D-10 or F-05 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

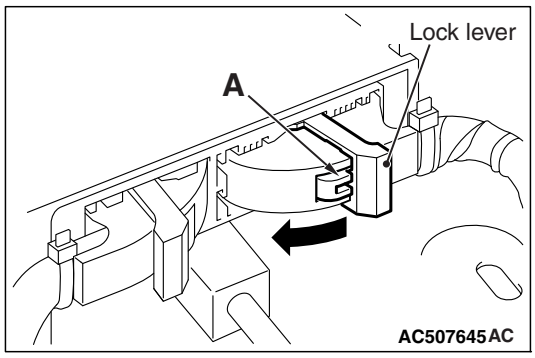
Q: Is the DTC set?

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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

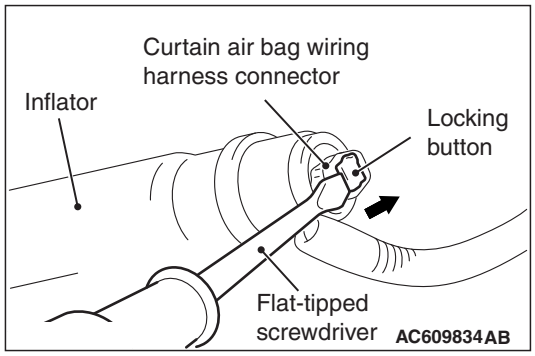
STEP 3. Check SRS-ECU connector C-30, curtain air bag module (RH) connector F-05 and intermediate connector D-10.

(1) Disconnect the negative battery terminal.

(2) While pressing the part A in the illustration of the C-30 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.



(3) Disconnect the F-05 connector, and then reconnect it. Use a flat-tipped (–) screwdriver to pull out the F-05 curtain air bag module harness side connector locking button toward the arrow direction, release the lock, and then disconnect the connector.

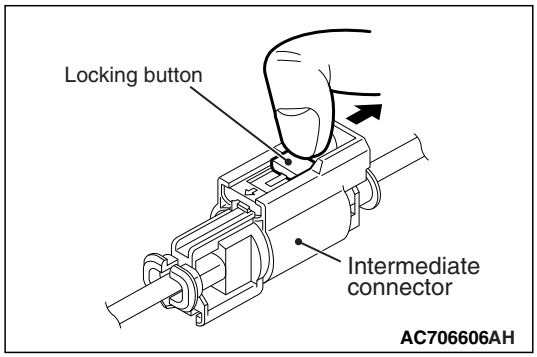


(4) Disconnect the D-10 connector's, and then reconnect them. Unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

(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 B1B23 set?

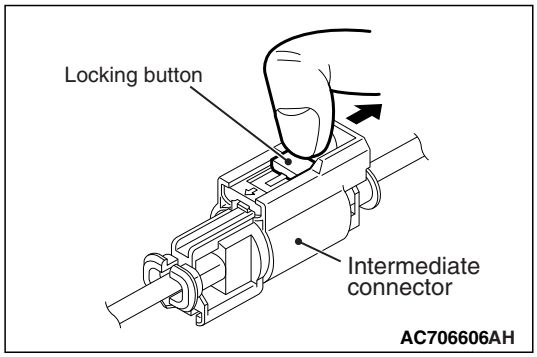
YES : Go to Step 4.

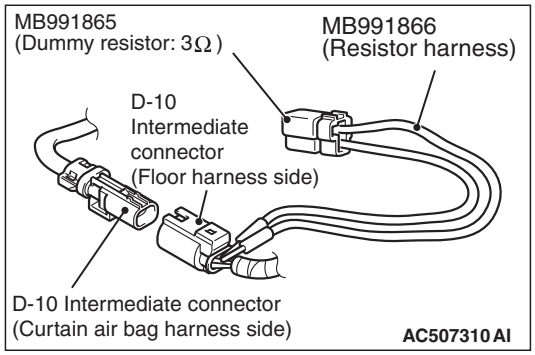
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

STEP 4. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-10 intermediate 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).

(5) Connect the negative battery terminal.

(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q: Is DTC B1B23 set?

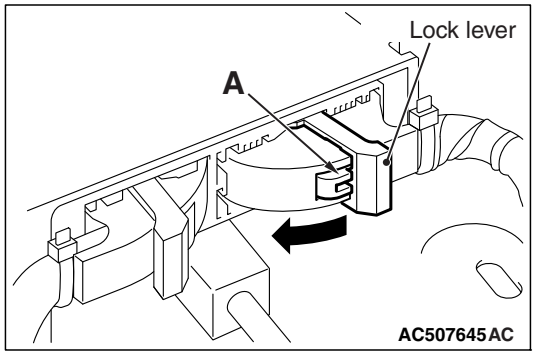
YES : Go to Step 5.

NO : Go to Step 6.

STEP 5. Resistance measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.

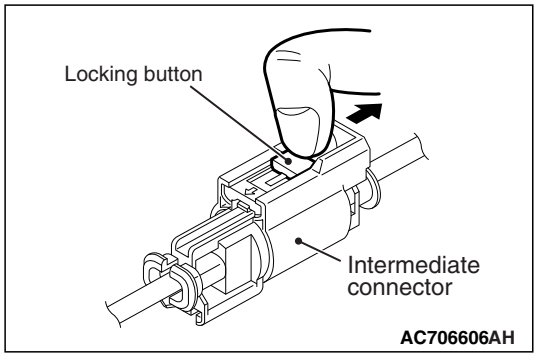
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-10 to short the squib circuit.

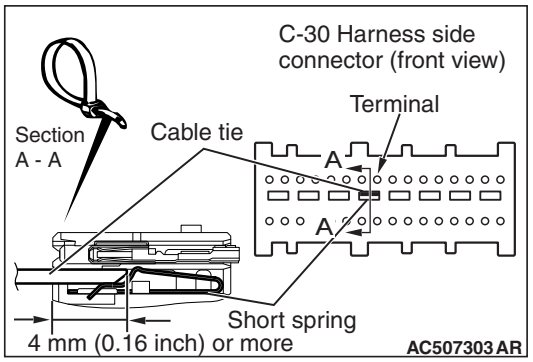
(3) Disconnect the D-10 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



⚠ **CAUTION**

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 39, 40 and the short spring to release the short spring.

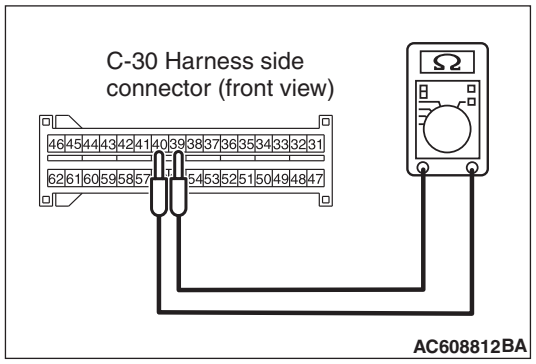


(5) Check for continuity between the C-30 wiring harness side connector terminal No. 39 and No. 40.
It should be open circuit.

Q: Is it open circuit?

YES : Go to Step 7.

NO : Repair the wiring harness.

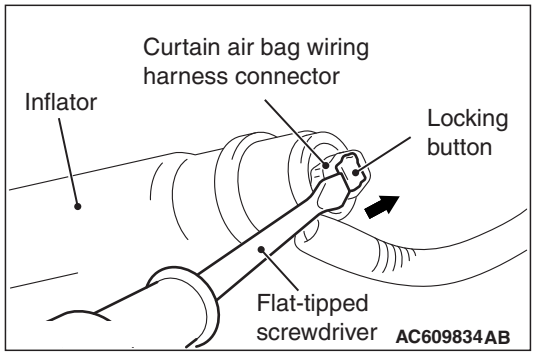


STEP 6. Short circuit check between the F-05 curtain air bag module harness side connector and the D-10 intermediate harness.

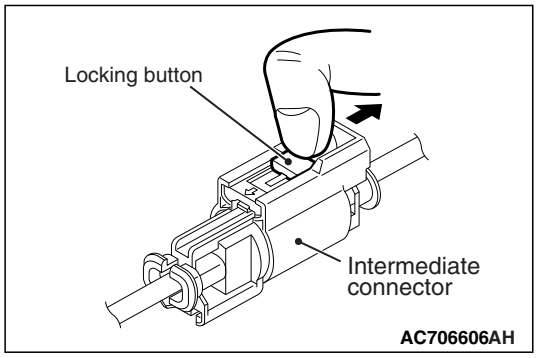
(1) Disconnect the negative battery terminal.

⚠ ***DANGER***

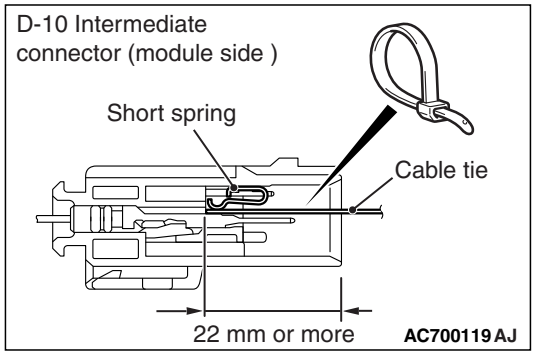
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-05 to short the squib circuit.



(2) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



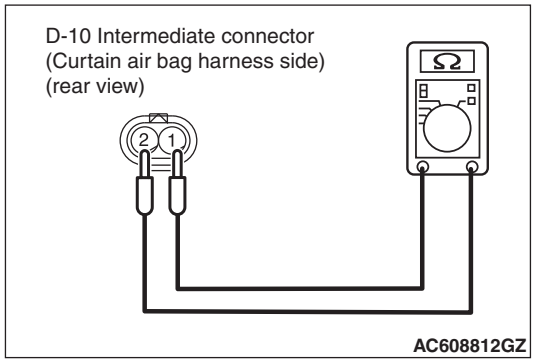
(3) Disconnect the D-10 intermediate connector unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



(4) Because the short spring is installed to the D-10 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

⚠ **CAUTION**

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



(5) Check for continuity between the D-10 intermediate connector (curtain air bag harness side) terminal No.1 and 2.
It should be open circuit.

Q: Is it open circuit?

YES : Replace the curtain air bag module (RH) (Refer to P.52B-454). Then go to Step 7.

NO : Repair the wiring harness.

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STEP 7. Recheck for diagnostic trouble code.

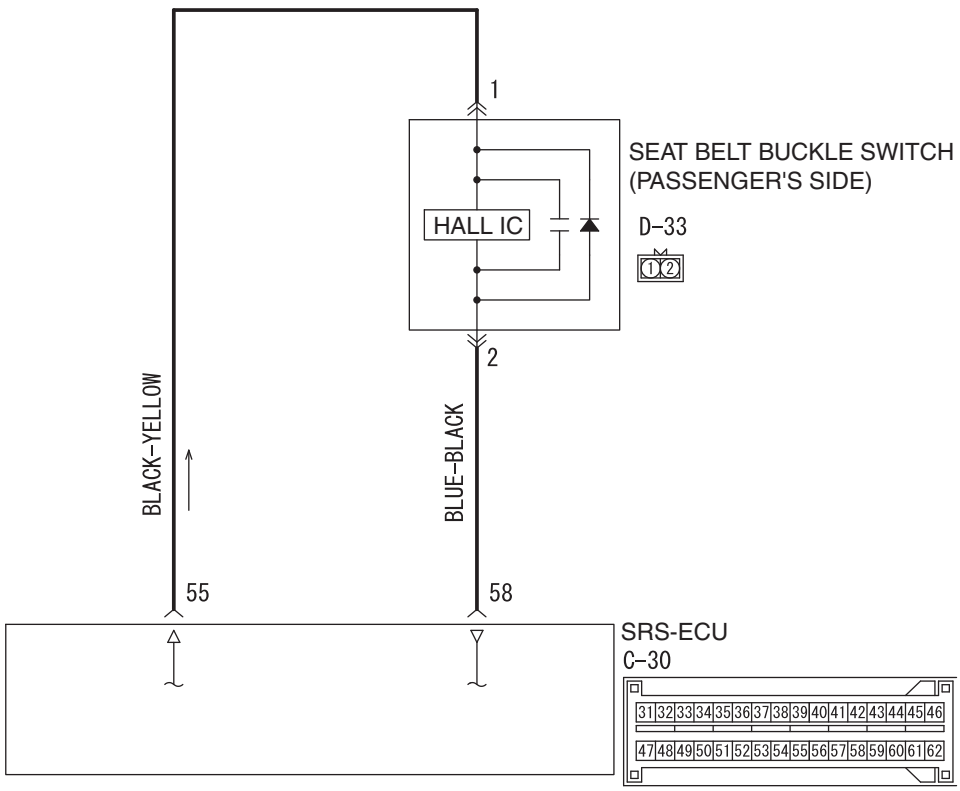
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B23 set?

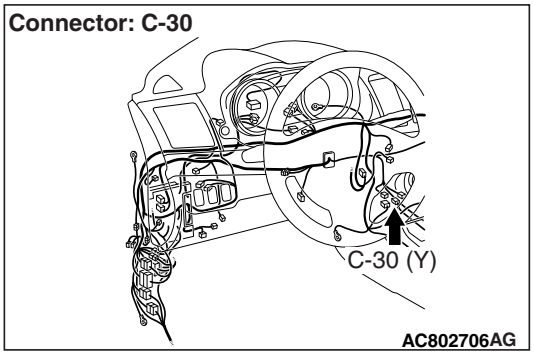
YES : Replace SRS-ECU (Refer to P.52B-416).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-14).

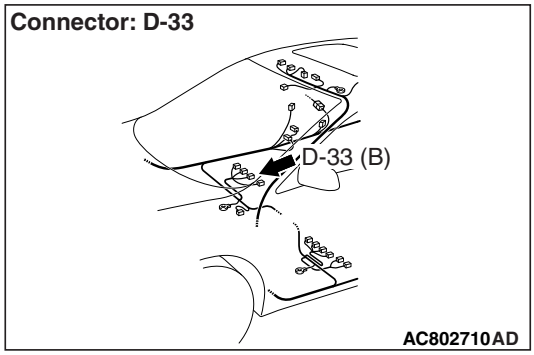
DTC B1B54: Seat Belt Buckle Switch (RH) Circuit (Ground Side) Shorted
DTC B1B55: Seat Belt Buckle Switch (RH) Circuit (Power Supply Side) Shorted
DTC B1B56: Seat Belt Buckle Switch (RH) Circuit Open

Seat Belt Switch Circuit



AC802716 AC





⚠ CAUTION

If DTC B1B54, B1B55 or B1B56 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 buckle switch in the seat buckle.

DTC SET CONDITIONS

The DTC is set when the seat belt buckle switch output current is not within the specified range.

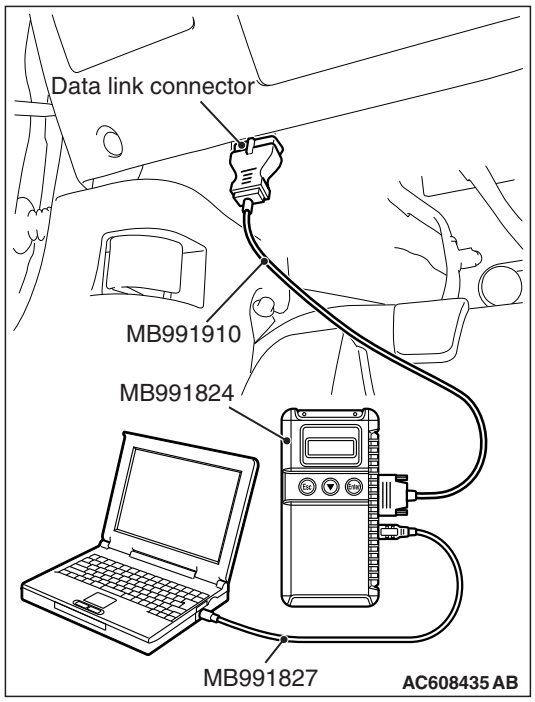
TROUBLESHOOTING HINTS

- Malfunction of the seat belt buckle switch
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991222: Probe
- 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)



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-28."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to the "ON" position.
(4) Diagnose the CAN bus line.
(5) 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-17).

STEP 2. Recheck for diagnostic trouble code.

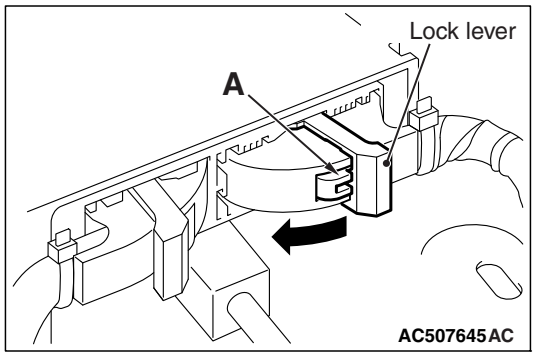
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

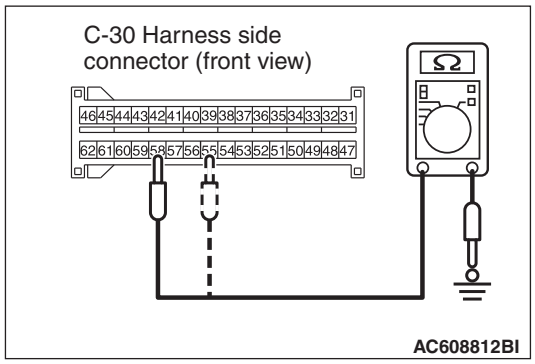
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

STEP 3. Check the harness short circuit between seat belt buckle switch (passenger's side) connector D-33 and the SRS-ECU connector C-30.

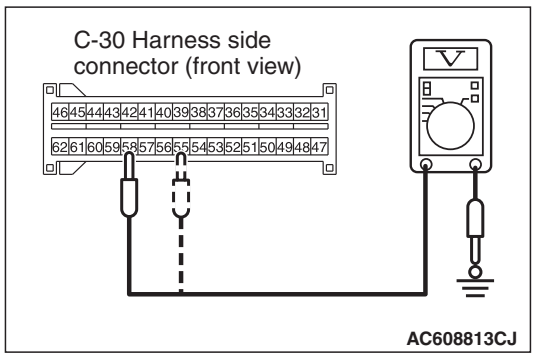
(1) Disconnect the negative battery terminal.
(2) Disconnect the seat belt buckle switch (passenger's side) connector D-33.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(4) Measure the resistance between terminal 55, 58 and body ground (No. B1B54 only).
It should be an open circuit.



(5) Connect the negative battery terminal.
(6) Ignition switch: ON.
(7) Measure the voltage between terminal 55, 58 and body ground (No. B1B55 only).
Voltage should measure 1 volt or less.



Q: Is the check result normal?

YES : Go to Step 5.
NO : Go to Step 4.

STEP 4. Check the harness wires between SRS-ECU connector C-30 (terminal No.55 and 58) and the seat belt buckle switch (passenger's side) connector D-33 (terminal No.1 and 2) (No. B1B56 only).

Q: Is the check result normal?

YES : Go to Step 6.
NO : Repair the harness wires between SRS-ECU connector C-30 and the seat belt buckle switch (passenger's side) connector D-33. Then go to Step 6.

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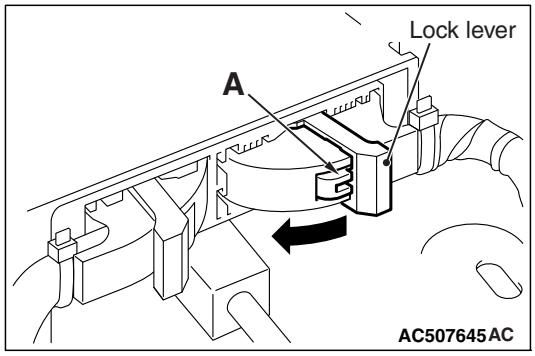
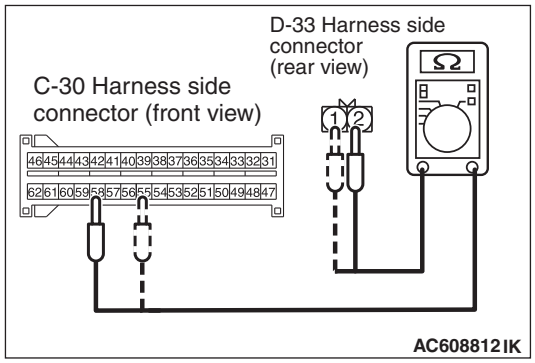




STEP 5. Check the harness wires between SRS-ECU connector C-30 (terminal No.55 and 58) and the seat belt buckle switch (passenger's side) connector D-33 (terminal No.1 and 2).

(1) Disconnect the negative battery terminal.
(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 C-30 SRS-ECU connector.
(3) Disconnect the seat belt buckle switch (passenger's side) connector D-33.

⚠ CAUTION
Do not insert a probe into the terminal from D-33 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.55) and the seat belt buckle switch (passenger's side) connector D-33 (terminal No.1)
- SRS-ECU connector C-30 (terminal No.58) and the seat belt buckle switch (passenger's side) connector D-33 (terminal No.2)

Q: Is the check result normal?

YES : go to Step 6.
NO : Repair harness wires between SRS-ECU connector C-30 and the seat belt buckle switch (passenger's side) connector D-33.

STEP 6. Seat belt buckle switch (passenger's side) check.
Refer to GROUP 52A, Front Seat Belt P.52A-35

Q: Is the check result normal?

YES : Go to Step 7.
NO : Replace the seat belt buckle switch (passenger's side) (Refer to GROUP 52A, Front Seat Belt P.52A-34).

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 B1B54, B1B55 or B1B56 set?

YES : Replace the SRS-ECU (Refer to P.52B-416).
NO : The procedure is complete.

DTC B1B70: Malfunction of G-sensor inside Front Impact Sensor (LH)
DTC B1B71: Malfunction of G-sensor inside Front Impact Sensor (RH)

⚠ CAUTION
If DTC B1B70 or B1B71 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if the following conditions are detected from the analog G-sensor inside the front impact sensor output:

- Analog G-sensor is not operating.
- Analog G-sensor characteristics are abnormal.
- Analog G-sensor output is abnormal.

TROUBLESHOOTING HINTS

Malfunction of front impact sensor (LH) (for DTC B1B70) and front impact sensor (RH) (for DTC B1B71)

DIAGNOSIS

Required Special Tool:

- 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)

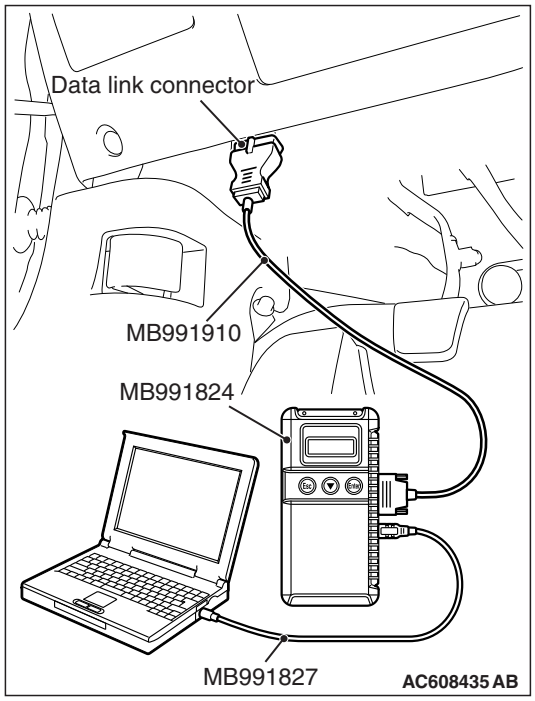
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ 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-28."
(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-17).



STEP 2. Check the front impact sensor.

(1) Disconnect the negative battery terminal.
(2) A front impact sensor is checked in the following way.
- Replace the front impact sensor (LH) {In case of code B1B70 (Regardless of "Active" or "Stored" faults)} with new part.
- Replace the front impact sensor (RH) {In case of code B1B71 (Regardless of "Active" or "Stored" faults)} with new part.

(3) Connect the negative battery terminal.
(4) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q: Is either DTC No. B1B70 or B1B71 set?

YES : Go to Step 3.
NO : The procedure is complete.

STEP 3. Check the SRS-ECU.

(1) Disconnect the negative battery terminal.
(2) Replace the SRS-ECU with a new one (Refer to P.52B-416).
(3) Connect the negative battery terminal.
(4) Check the diagnosis code again.

Q: Is either DTC No. B1B70 or B1B71 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B72: Malfunction of G-sensor Inside Side Impact Sensor (LH)
DTC B1B75: Malfunction of G-sensor Inside Side Impact Sensor (RH)

⚠ CAUTION
If the diagnostic trouble code B1B72 or B1B75 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if the following conditions are detected from the analog G-sensor inside the side impact sensor output:

- Analog G-sensor is not operating.
- Analog G-sensor characteristics are abnormal.
- Analog G-sensor output is abnormal.

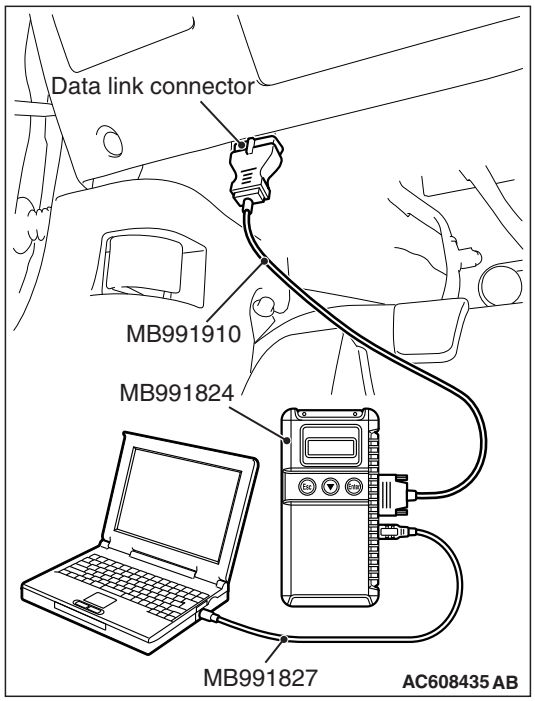
TROUBLESHOOTING HINTS

Malfunction of side impact sensor (LH) (for DTC B1B72) and side impact sensor (RH) (for DTC B1B75)

DIAGNOSTIC PROCEDURE

Required Special Tools:

- 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)



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-28."
(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-17).

STEP 2. Check the side impact sensor.

(1) Disconnect the negative battery terminal.
(2) A side impact sensor is checked in the following way.
- Replace the left side impact sensor {In case of code B1B72 (Regardless of "Active" or "Stored" faults)} with the new part.
- Replace the right side impact sensor {In case of code B1B75 (Regardless of "Active" or "Stored" faults)} with the new part.

(3) Connect the negative battery terminal.
(4) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q: Is either DTC No. B1B72 or B1B75 set?

YES : Go to Step 3.
NO : The procedure is complete.

STEP 3. Check the SRS-ECU.
(1) Disconnect the negative battery terminal.
(2) Replace the SRS-ECU with a new one (Refer to P.52B-443).
(3) Connect the negative battery terminal.
(4) Check the diagnosis code again.

Q: Is either DTC No. B1B72 or B1B75 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1BA3: Driver's Seat Slide Sensor Malfunction (Occupant Classification-ECU)

⚠ CAUTION
If DTC B1BA3 is set in the Occupant classification-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if communication between the occupant classification-ECU and the seat slide sensor is not possible or communication is faulty.

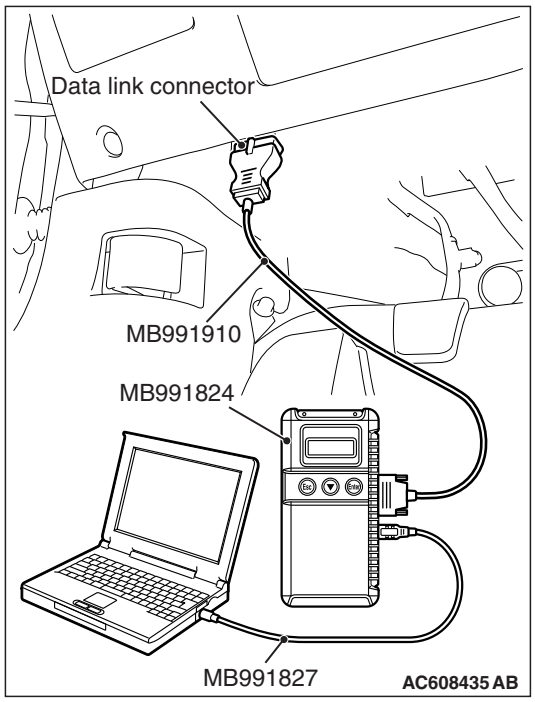
TROUBLESHOOTING HINTS

- Malfunction of the seat slide sensor
- Malfunction of occupant classification-ECU

DIAGNOSIS

Required Special Tools:

- 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)



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-28."
(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-17).

STEP 2. Using scan tool MB991958, read the occupant classification-ECU diagnostic trouble code.
Check if the DTC is set to the occupant classification-ECU.

Q: Is DTC set?

YES : Diagnose the occupant classification-ECU. Then go to Step 3.
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 the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-416).
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.00-14).

DTC B1BA5: SRS-ECU squib count mismatch

⚠ CAUTION
If DTC B1BA5 is set in the SRS-ECU, always diagnose the CAN main bus line.

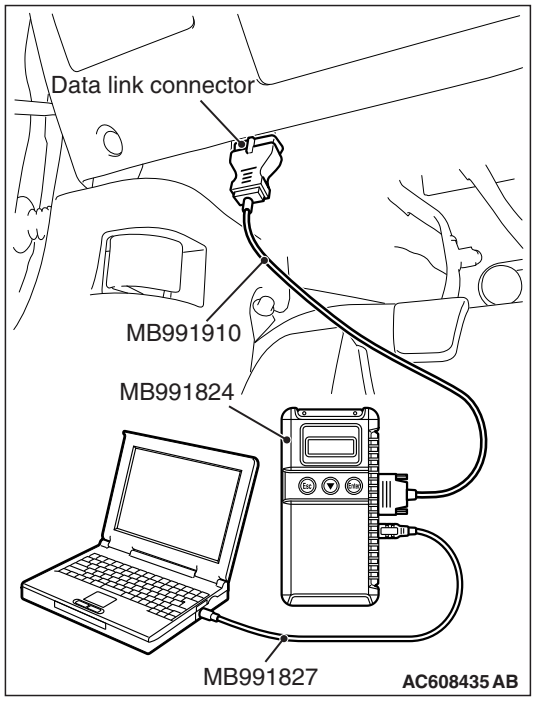
CIRCUIT OPERATION
SRS-ECU monitors the resistance value of each squib circuit on the vehicle. If any of the resistance values is outside the normal range, SRS-ECU sets the DTC.

DTC SET CONDITIONS
If an SRS-ECU different from the unit compatible to vehicle is accidentally installed, this DTC will be set (If SRS-ECU for the vehicles without side-airbag is installed to the vehicles with side-airbag.

TROUBLESHOOTING HINTS
- SRS-ECU incorrect installation
- Squib specification mismatch

DIAGNOSIS

Required Special Tools:
- 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)



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-28."
(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-17).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-416).
YES : If DTC code No.B1BA5 and other codes are set, perform the troubleshooting for the corresponding code.
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.00-14).

DTC B1BAA: Occupant Classification-ECU Configuration Mismatch

⚠ CAUTION

- **If the DTC B1BAA is set, diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the information data and coding data on occupant classification-ECU do not suit. The SRS-ECU sets the DTC B1BAA

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The occupant Classification-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- 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)

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

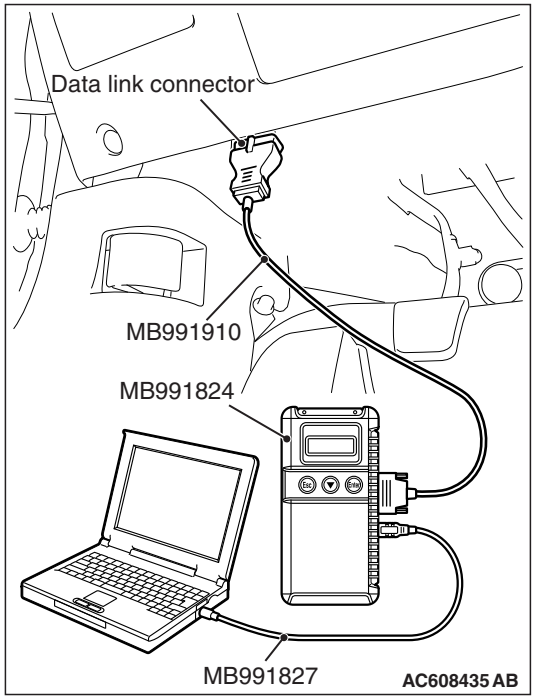
⚠ CAUTION

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-28."
(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-17).



STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check if DTC B1761, B222C, B2206, B2215 or U0331 is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Troubleshoot the ETACS-ECU (Refer to GROUP 54A, Diagnosis P.54A-678). Then go to Step 4.

NO : Go to Step 3.

STEP 3. Using scan tool MB991958, read the occupant classification-ECU diagnostic trouble code

Check if DTC B1B91 is set to the occupant classification-ECU.

Q: Is the DTC set?

YES : Troubleshoot the occupant classification-ECU (Refer to P.52B-319). Then go to Step 4.

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 (Refer to P.52B-416).

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.00-14).

DTC B1BC7: SRS-ECU (Record Data Full) System

⚠ CAUTION
If the diagnostic trouble code B1BC7 is set to SRS-ECU, always diagnose the CAN main bus line.

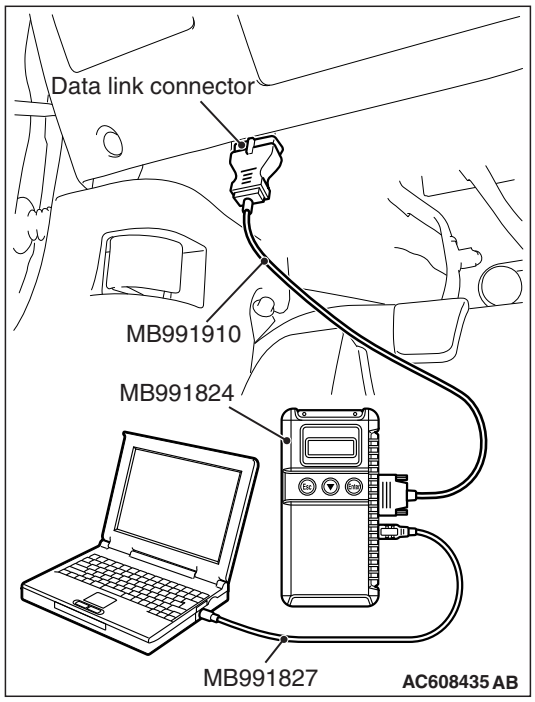
CIRCUIT OPERATION
If SRS-ECU determines that a collision has occurred, it sends the ignition current to deploy the air bag. It stores the deployment status. If this DTC is set, SRS-ECU determines that the air bag has been deployed.

DTC SET CONDITIONS
This DTC is set after the air bag deployment. If this DTC is set before the air bag is deployed, an internal failure may have occurred in SRS-ECU.

TROUBLESHOOTING HINTS
Malfunction of SRS-ECU

DIAGNOSIS

Required Special Tools:
- 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)



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-28."
(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-17).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Turn the ignition switch to the "ON" position.

(2) Check if the DTC is set.

(3) Turn the ignition switch to the "LOCK" (OFF) position.

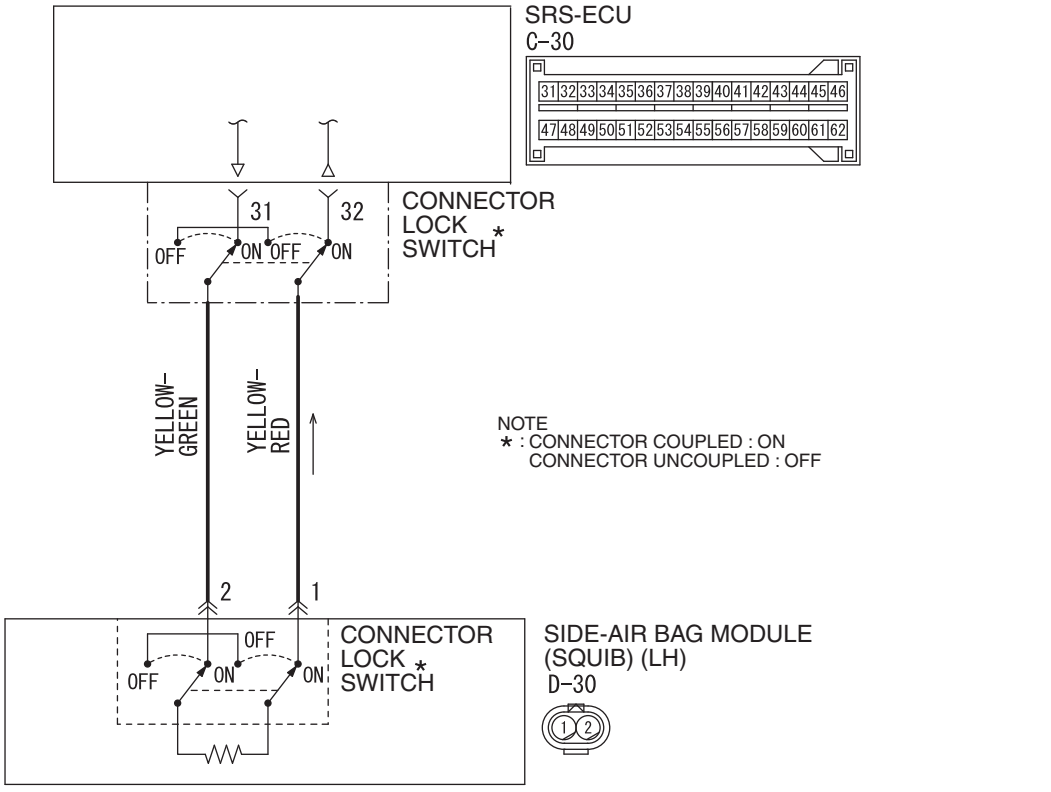
Q: Are any "Stored" or "Active" DTC B1BC7 output?

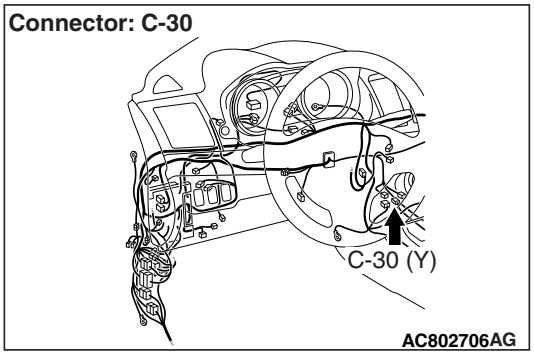
YES : Replace the SRS-ECU (Refer to P.52B-416).

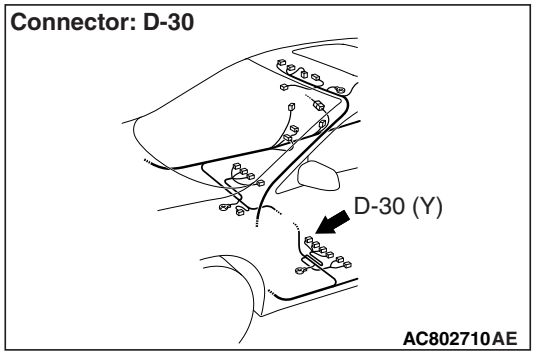
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

DTC B1C27: Side-airbag Module (LH) (Squib) System (Shorted to Squib Circuit Ground)

Side-airbag Module (Squib) (LH) Circuit







⚠ CAUTION

If DTC B1C27 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

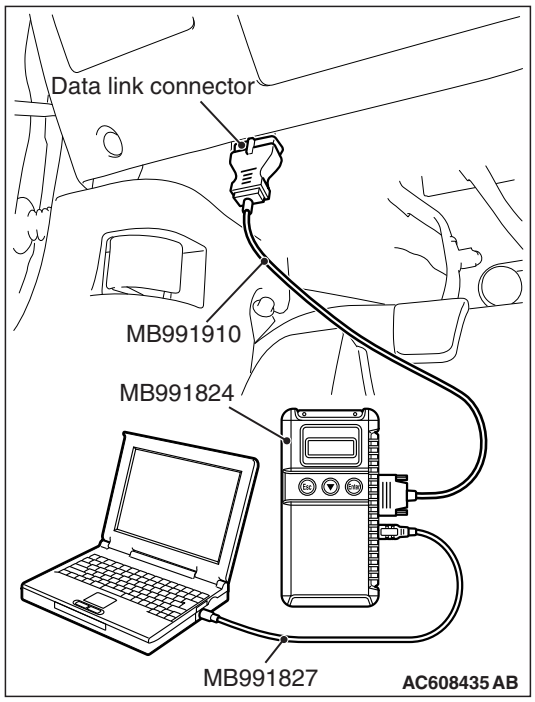
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

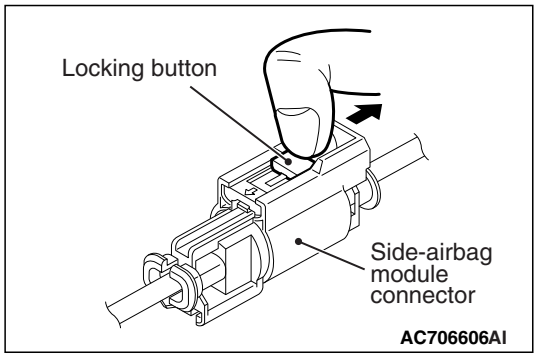
Q: Is the DTC set?

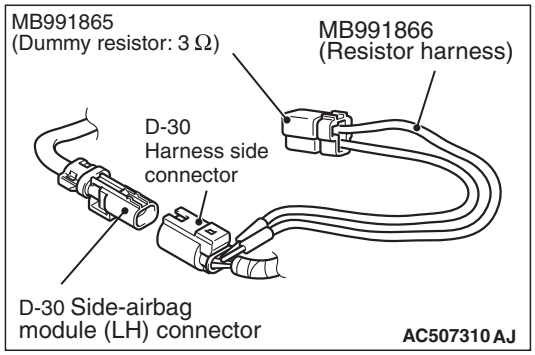
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

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

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-30 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

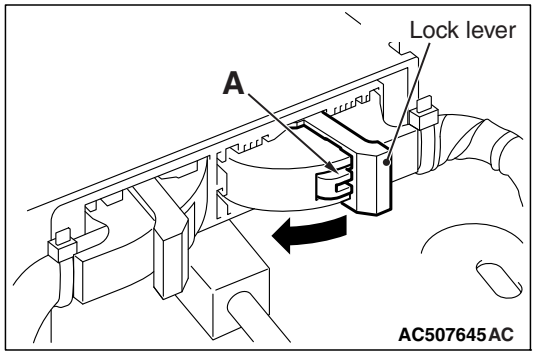
Q: Is DTC B1C27 set?

YES : Go to Step 4.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 6.

STEP 4. Check the side-airbag module (LH) circuit.
Measure the resistance at the SRS-ECU connector C-30.

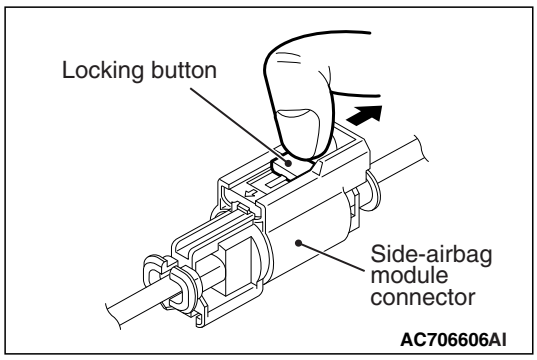
(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-30 to short the squib circuit.

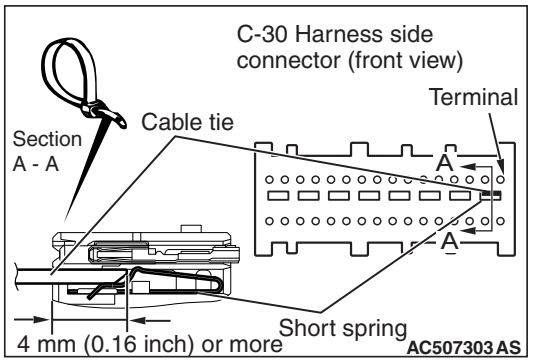
(3) Disconnect the D-30 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



⚠ CAUTION

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.

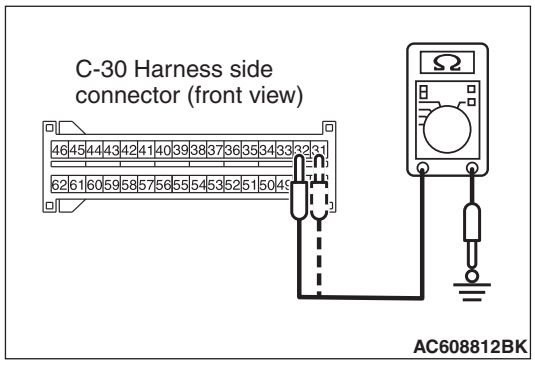
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 31, 32 and the short spring to release the short spring.



(5) Check for continuity between C-30 harness side connector terminals 31, 32 and body ground.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code from memory, and check the diagnostic trouble code. If DTC B1C27 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.
NO : Go to Step 5.



STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.31 and 32) and side-airbag module (LH) connector D-30 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then go to Step 6.

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.

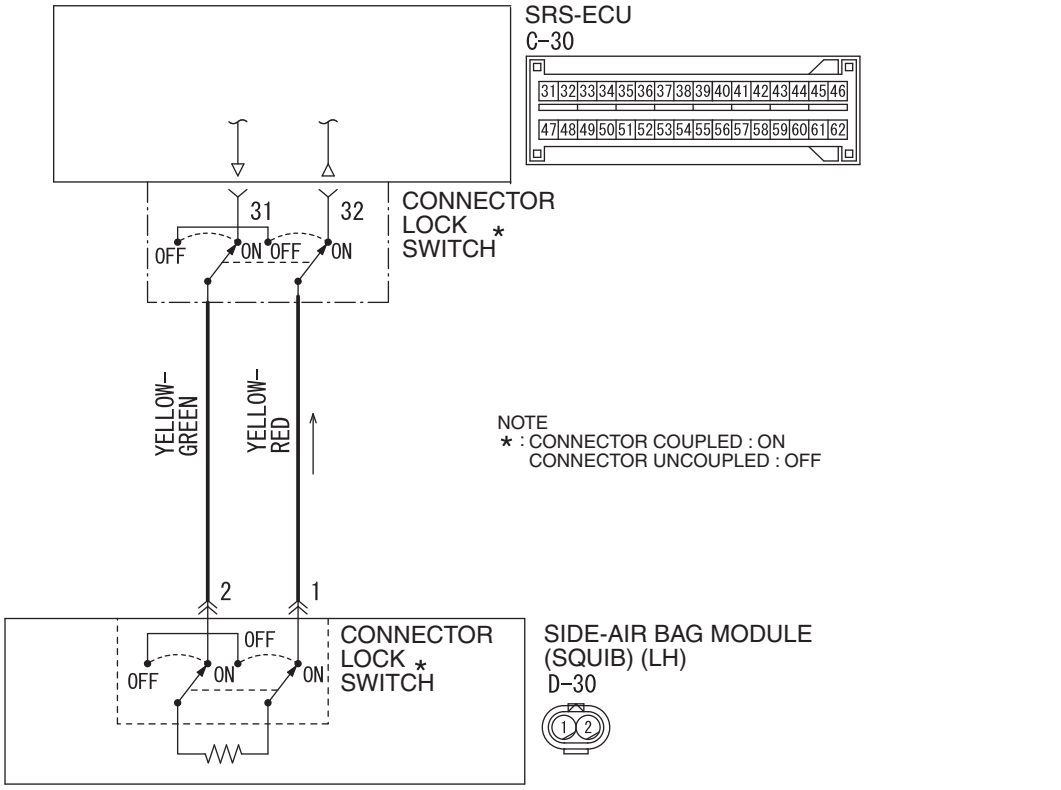
Q: Is DTC B1C27 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C28: Side-airbag Module (LH) (Squib) System (Shorted to Squib Circuit Power Supply)

Side-airbag Module (Squib) (LH) Circuit



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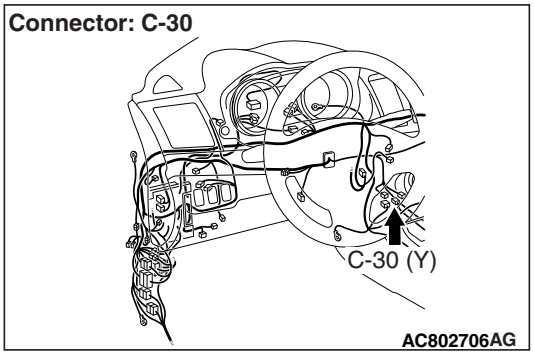
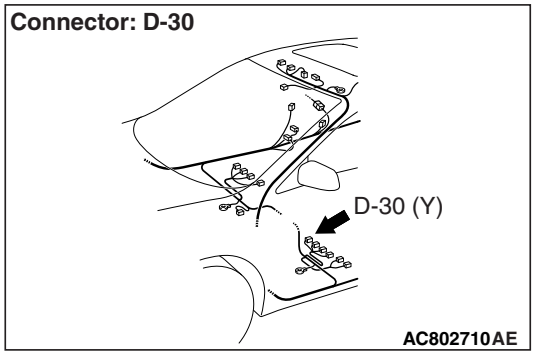




⚠ CAUTION

If DTC B1C28 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

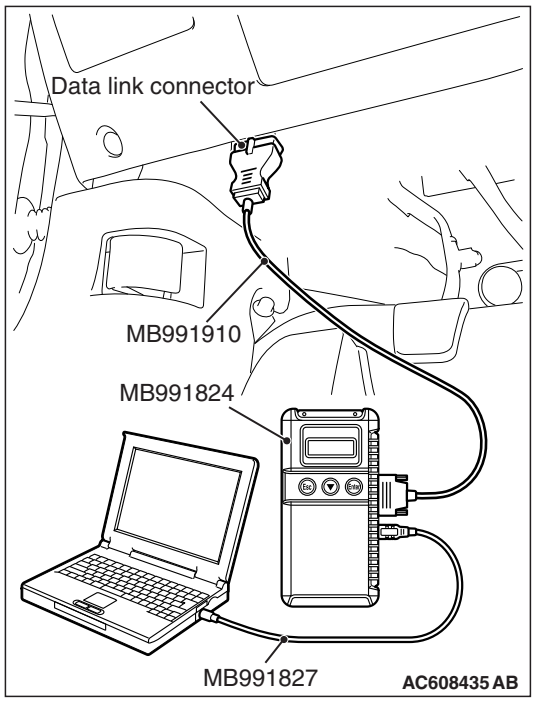
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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-17).

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.

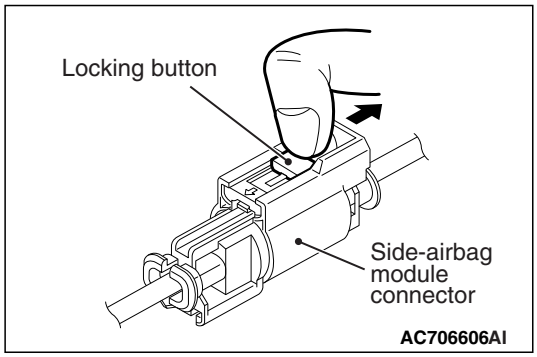
Q: Is the DTC set?

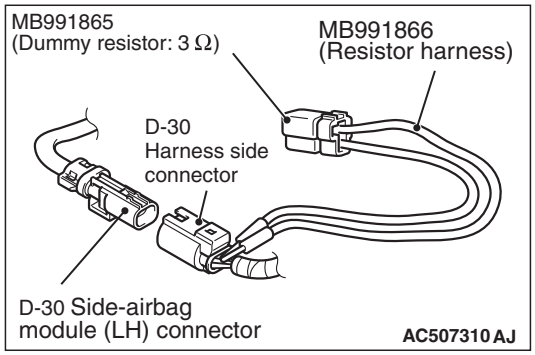
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

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

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-30 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.

(5) Connect the negative battery terminal.

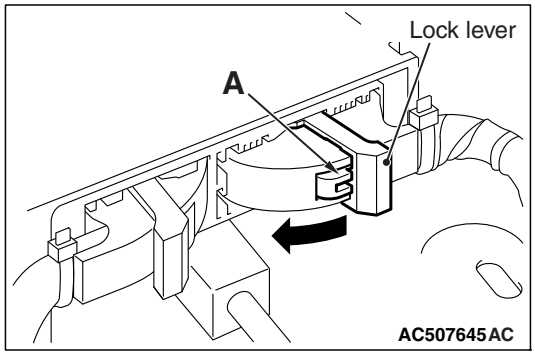
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C28 set?

YES : Go to Step 4.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 6.

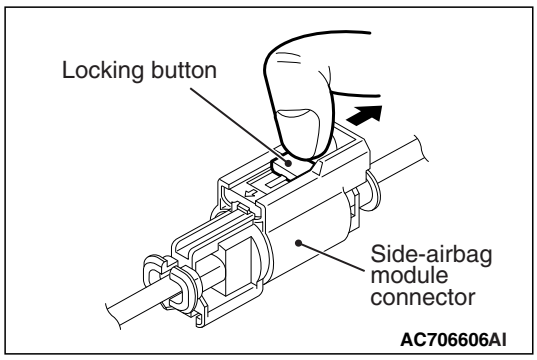
STEP 4. Check the side-airbag module (LH) circuit.
Measure the voltage at the SRS-ECU connector C-30.



(1) Disconnect the negative battery terminal.
(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 C-30 SRS-ECU connector.

⚠ ***DANGER***

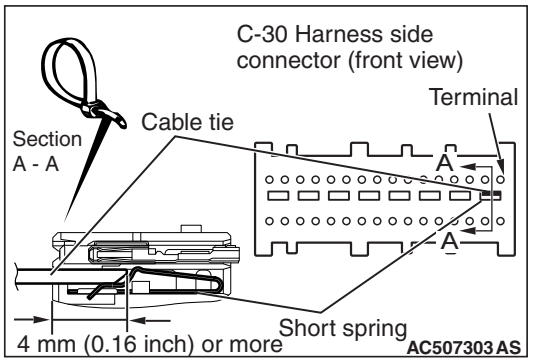
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-30 to short the squib circuit.



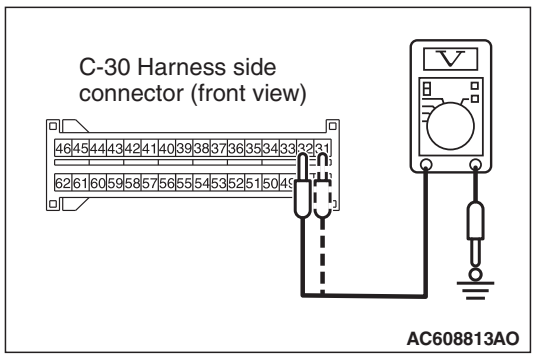
(3) Disconnect the D-30 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ **CAUTION**

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 31, 32 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Ignition switch: "ON".



(7) Measure the voltage between C-30 harness side connector terminals 31, 32 and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C28 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.31 and 32 and side-airbag module (LH) connector D-30 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then go to Step 6.

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.

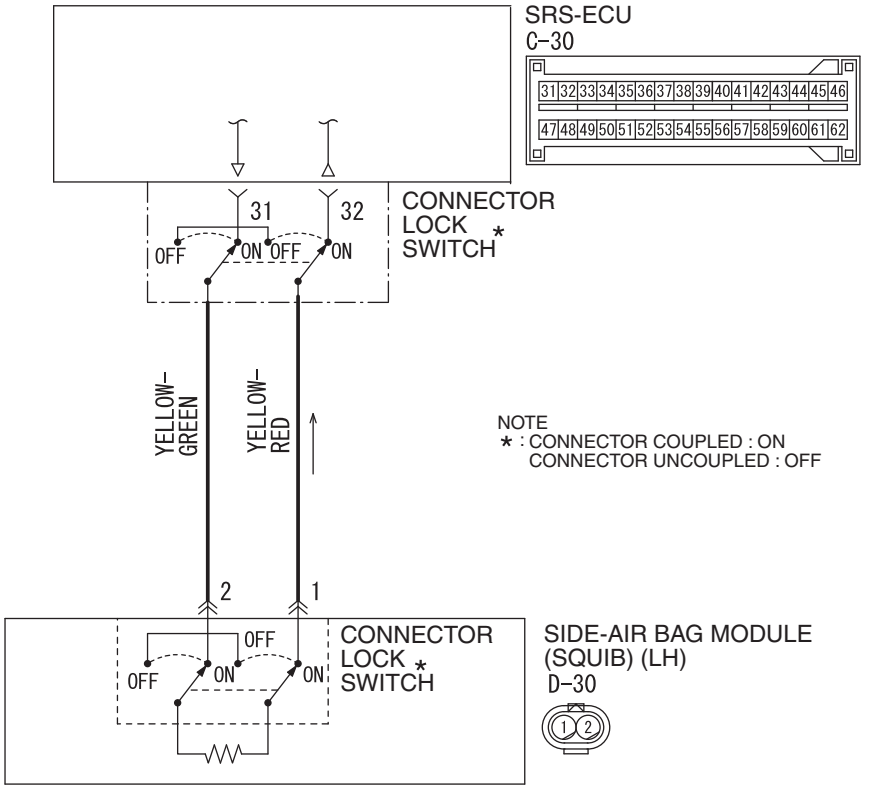
Q: Is DTC B1C28 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C29: Side-airbag Module (LH) (Squib) System (Squib Circuit Open)

Side-airbag Module (Squib) (LH) Circuit



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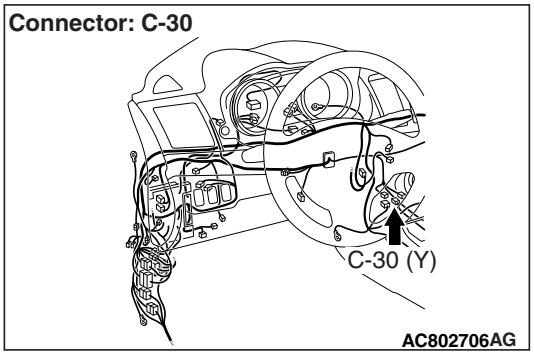
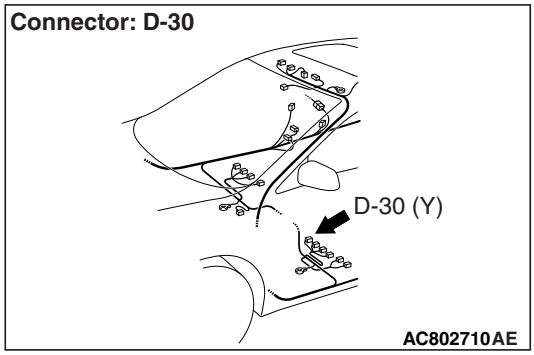




⚠ CAUTION

If DTC B1C29 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

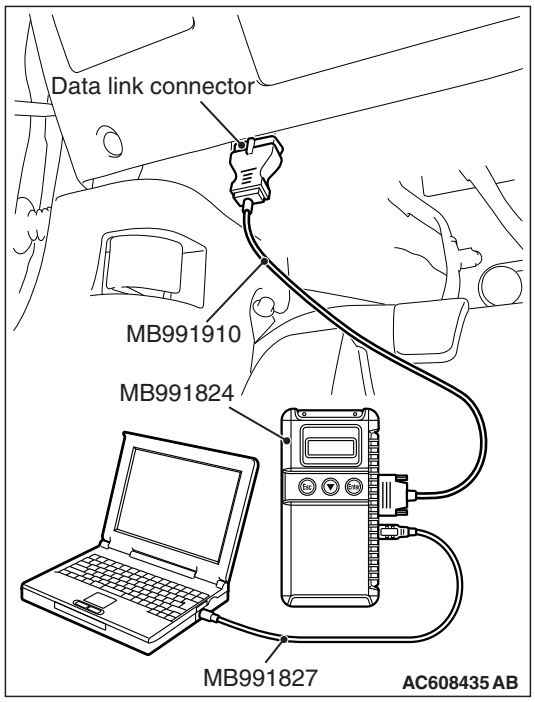
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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?

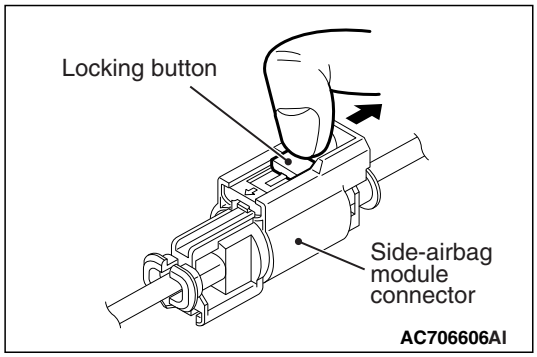
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

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?

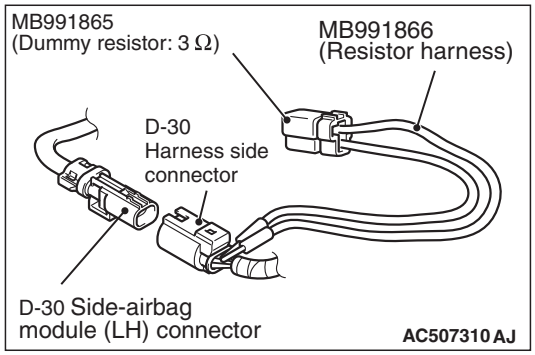
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).



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

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-30 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a test probe into the terminal from D-30 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.

(5) Connect the negative battery terminal.

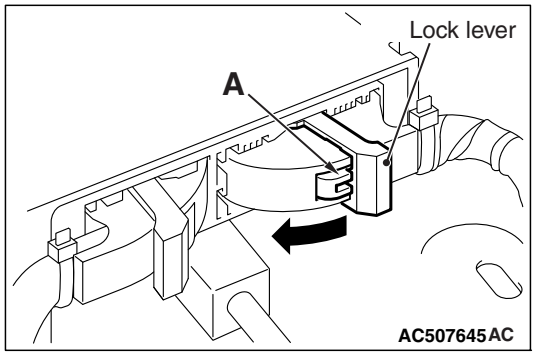
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1C29 set?

YES : Go to Step 4.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 5.

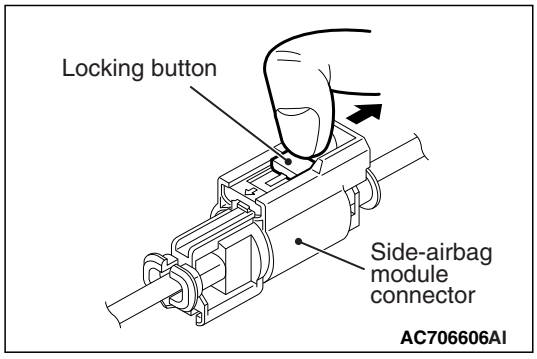
STEP 4. Check the harness for open circuit between the SRS-ECU connector C-30 (terminal No.31 and 32) and the side-airbag module (LH) connector D-30 (terminal No.2 and 1).



(1) Disconnect the negative battery terminal.
(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 C-30 SRS-ECU connector.

⚠ ***DANGER***

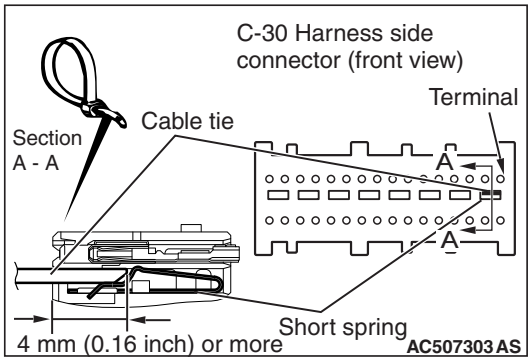
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-30 to short the squib circuit.



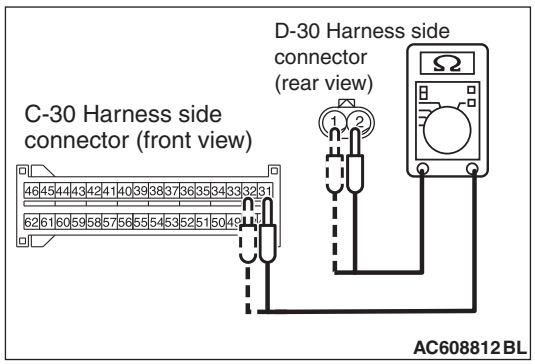
(3) Disconnect the D-30 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

⚠ **CAUTION**

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 31, 32 and the short spring to release the short spring.



⚠ CAUTION

Do not insert a test probe into the terminal from D-30 harness side connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.31) and the side-airbag module (LH) connector D-30 (terminal No.2)
- SRS-ECU connector C-30 (terminal No.32) and the side-airbag module (LH) connector D-30 (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C29 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then 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.

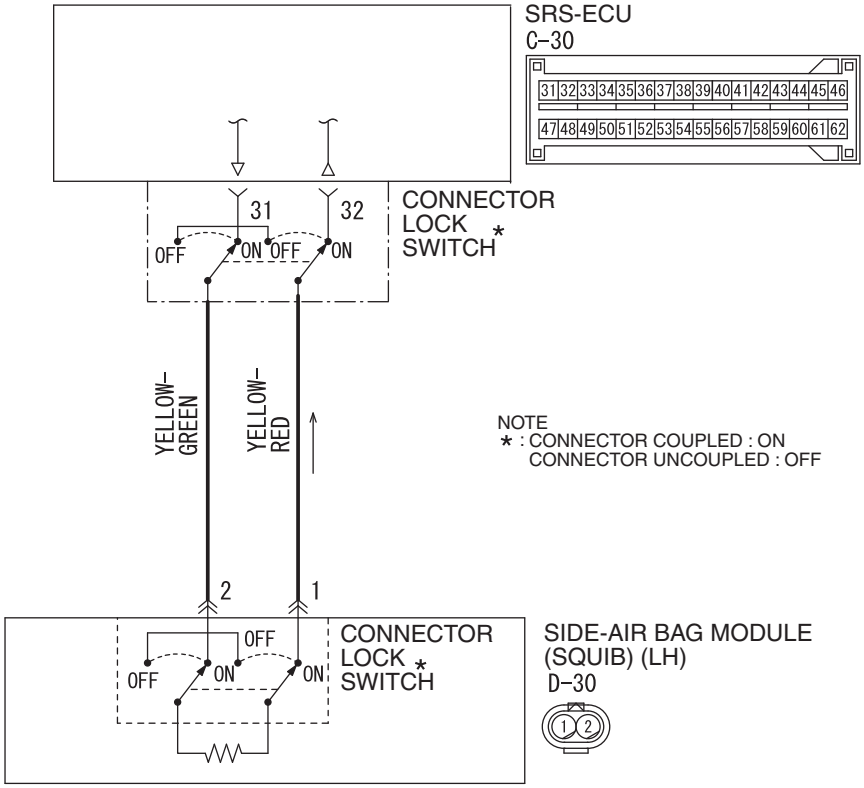
Q: Is DTC B1C29 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C2A: Side-airbag Module (LH) (Squib) System (Short Circuit between Squib Circuit Terminals)

Side-airbag Module (Squib) (LH) Circuit



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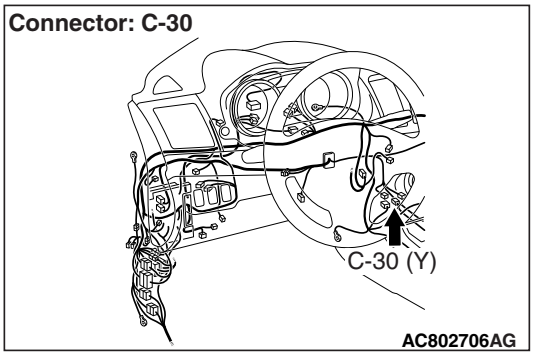

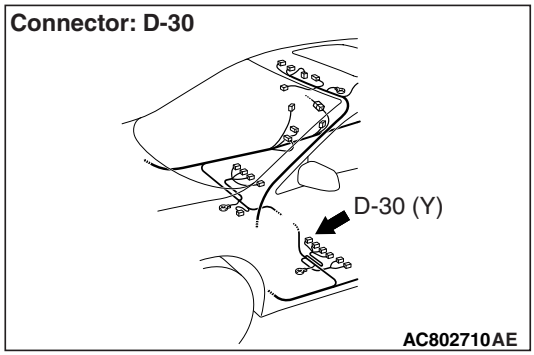

⚠ CAUTION

If DTC B1C2A 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, the SRS air bag will inflate.
- Short circuit between the side-airbag module
- 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

- Improper engaged connector or defective short spring*

  (LH) (squib) circuit terminals

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- 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 C-30 or D-30 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

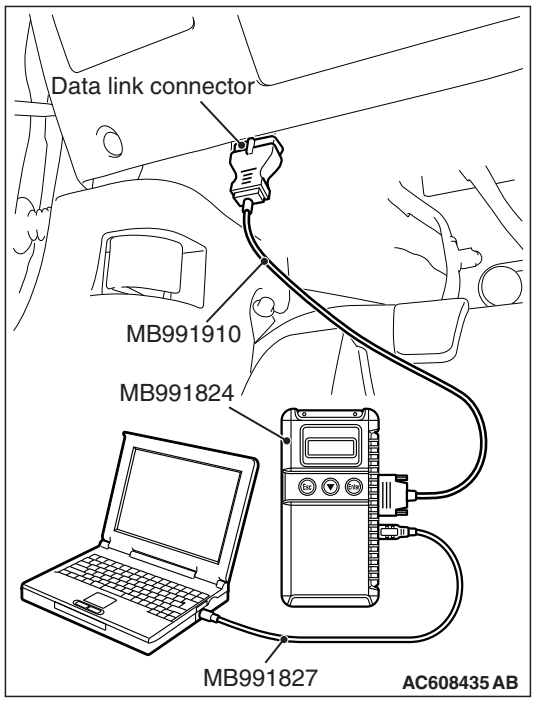
⚠ CAUTION

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-28."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to "ON" position.
(4) Diagnose the CAN bus line.

Q: Is the check result satisfactory?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).



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.

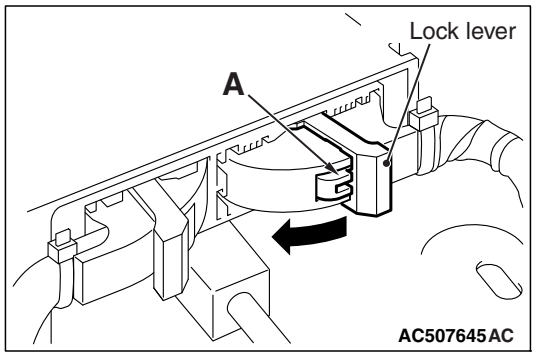
Q: Is the DTC set?

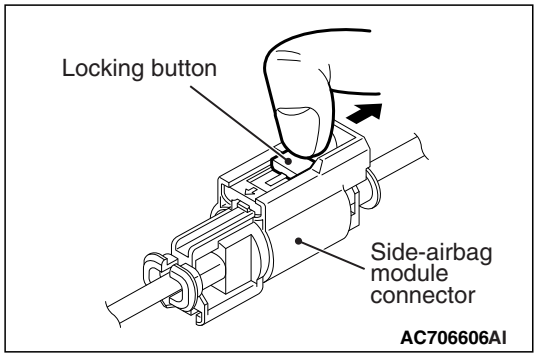
YES : Go to Step 3.

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.00-14).

STEP 3. Check SRS-ECU connector C-30 and side-airbag module (LH) connector D-30.

(1) Disconnect the negative battery terminal.
(2) While pressing the part A in the illustration of the C-30 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.



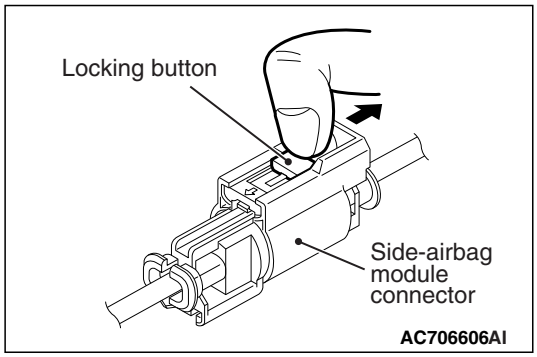


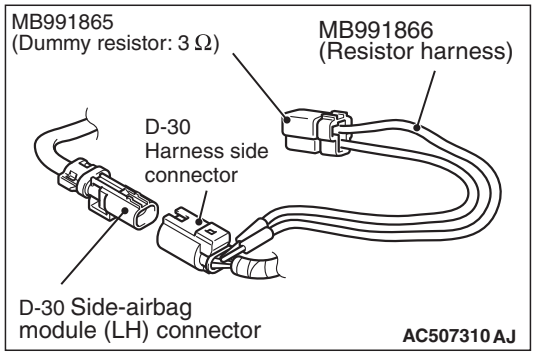
(3) Disconnect the D-30 side-airbag module connector, and then reconnect it, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.
(4) Connect the negative battery terminal.
(5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2A out put?

YES : Go to Step 4.

NO : The procedure is complete. It is assumed that DTC B1C2A set because connector C-30 or D-30 was engaged improperly.





STEP 4. Check the side-airbag module (LH).

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-30 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

Q: Is DTC B1C2A set?

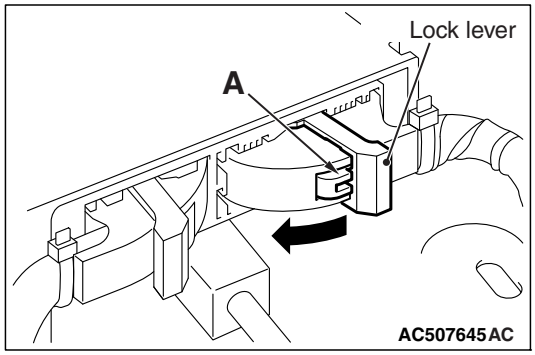
YES : Go to Step 5.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 7.

STEP 5. Check the side-airbag module (LH) circuit.
Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

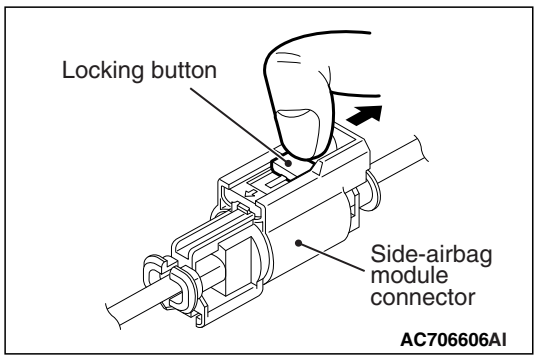
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-30 to short the squib circuit.

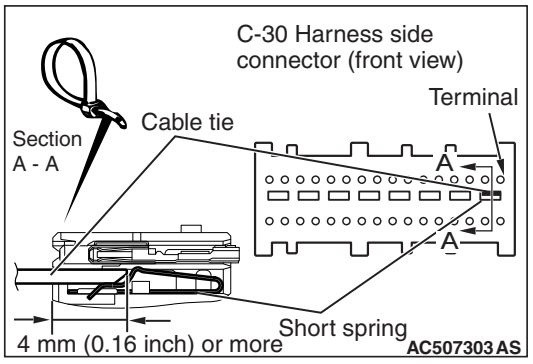
(3) Disconnect the D-30 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 31, 32 and the short spring to release the short spring.

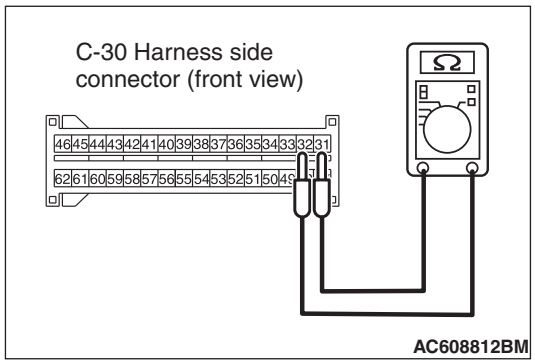


(5) Check for continuity between C-30 harness side connector terminals 31 and 32.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2A sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7.

NO : Go to Step 6.



STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-30 (terminal No.31 and 32) and side-airbag module (LH) connector D-30 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then go to Step 7.

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.

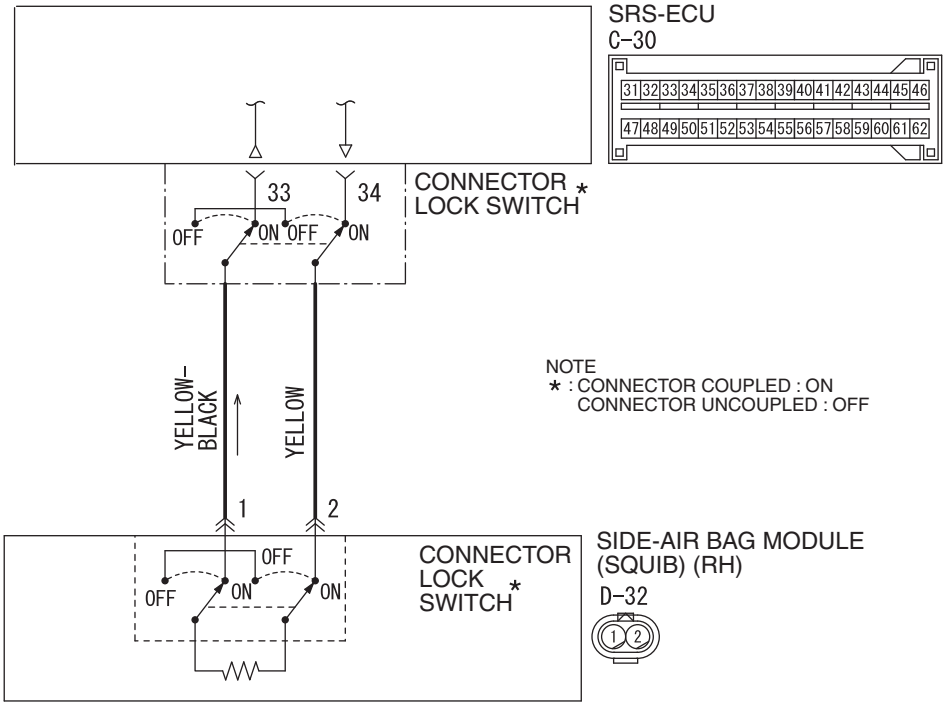
Q: Is DTC B1C2A set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C2B: Side-airbag Module (RH) (Squib) System (Shorted to Squib Circuit Ground)

Side-airbag Module (Squib) (RH) Circuit



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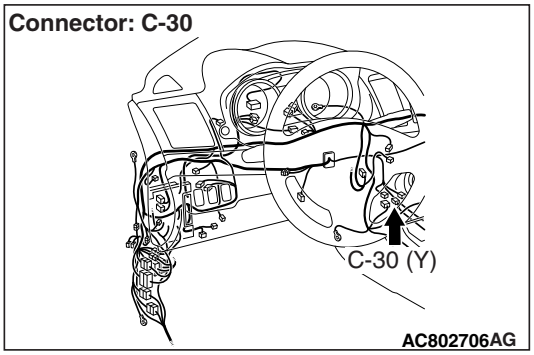
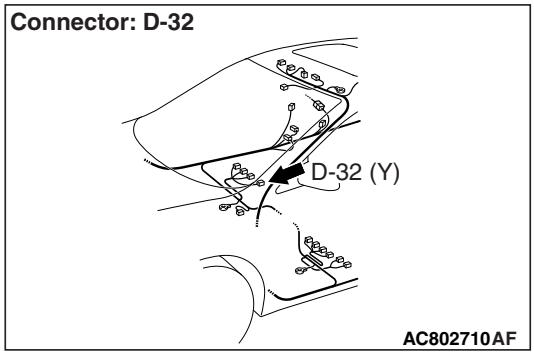




⚠ CAUTION

If DTC B1C2B 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

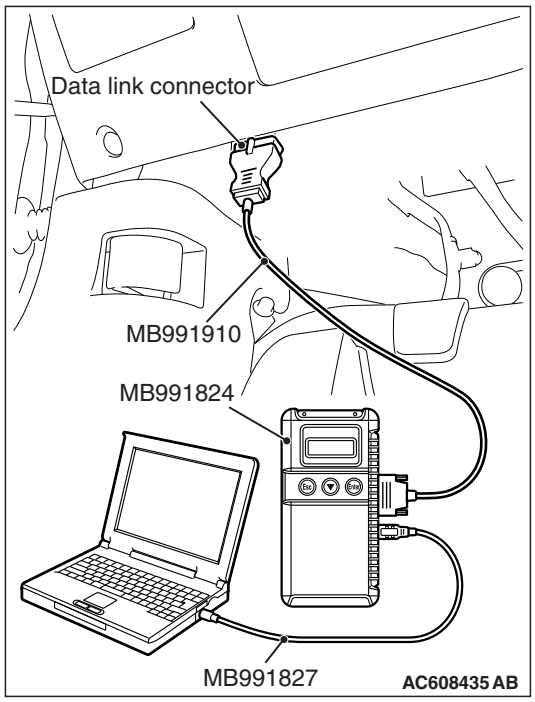
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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?

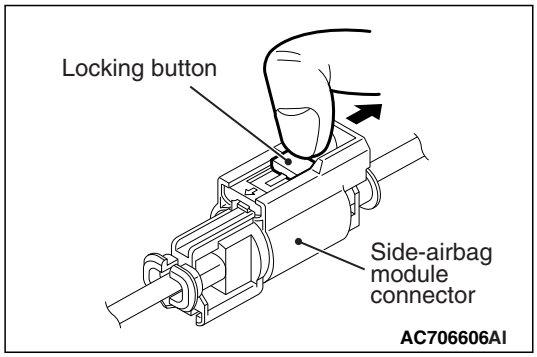
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

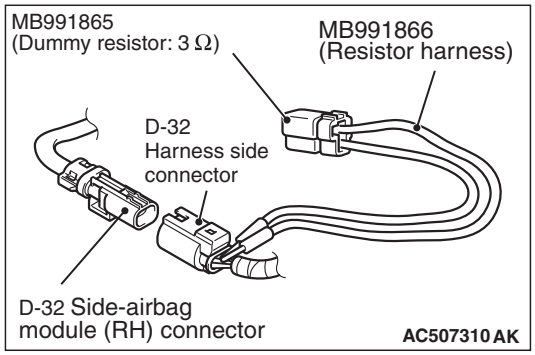
STEP 2. Recheck for diagnostic trouble code.

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.00-14).





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

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-32 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

Q: Is DTC B1C2B set?

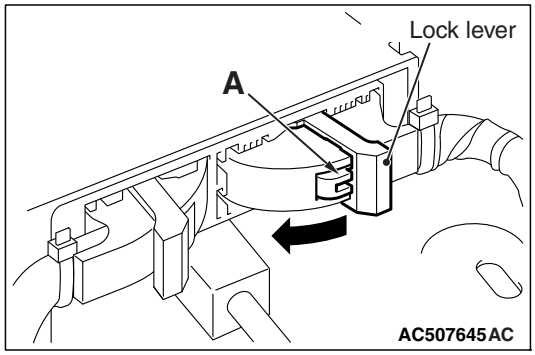
YES : Go to Step 4.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 6.

STEP 4. Check the side-airbag module (RH) circuit.
Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

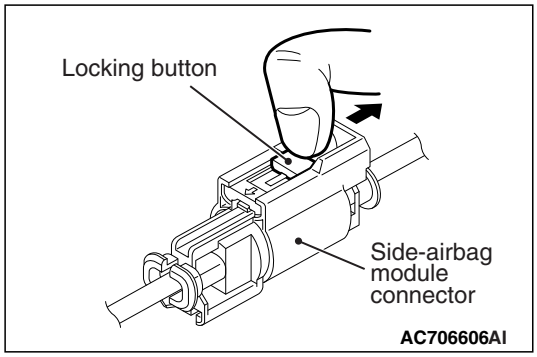
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-32 to short the squib circuit.

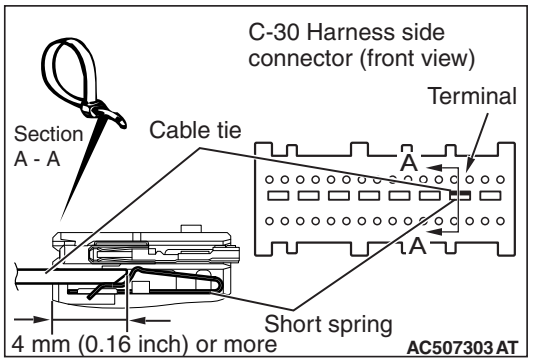
(3) Disconnect the D-32 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 33, 34 and the short spring to release the short spring.

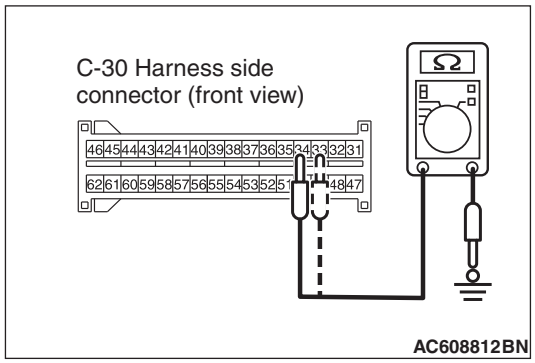


(5) Check for continuity between C-30 harness side connector terminals 33, 34 and body ground.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2B sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.



STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then go to Step 6.

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.

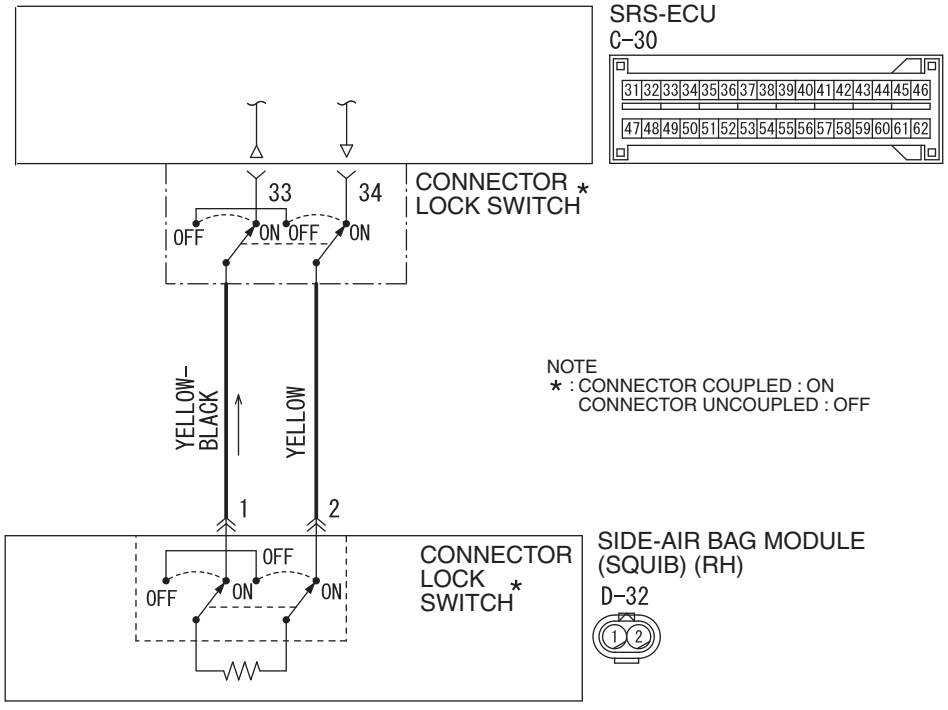
Q: Is DTC B1C2B set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C2C: Side-airbag Module (RH) (Squib) System (Shorted to Squib Circuit Power Supply)

Side-airbag Module (Squib) (RH) Circuit



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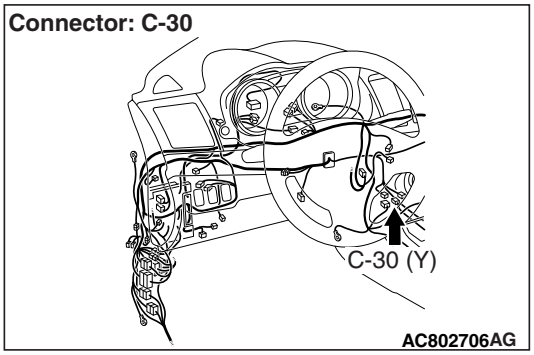
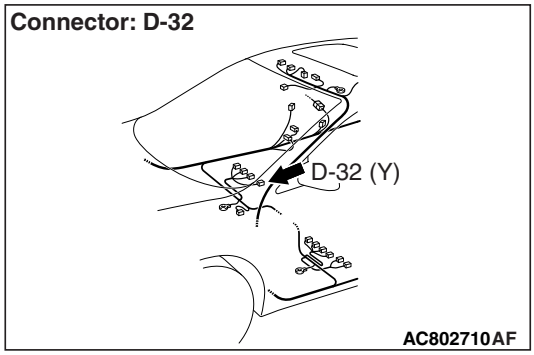




⚠ CAUTION

If DTC B1C2C 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

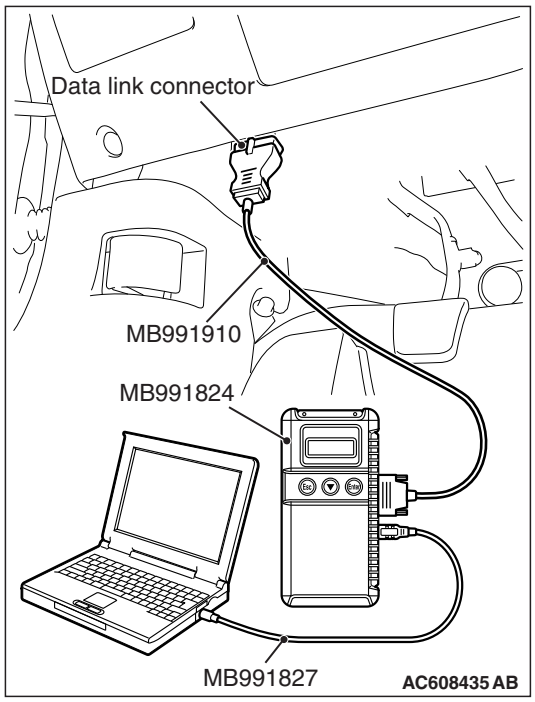
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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?

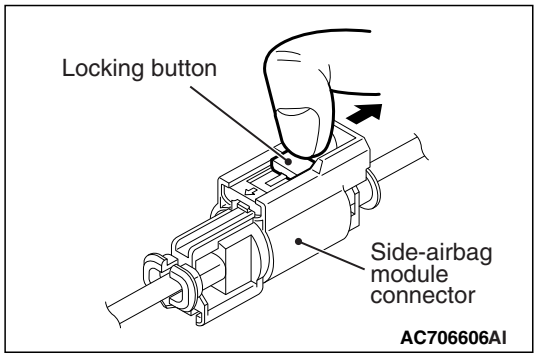
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

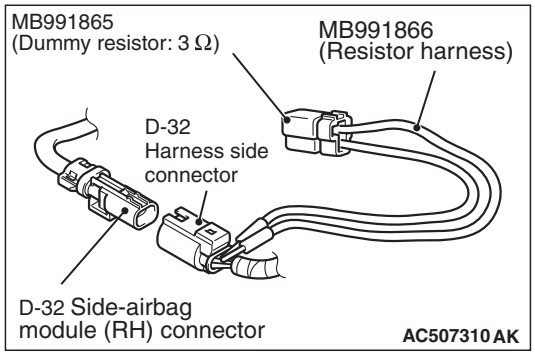
STEP 2. Recheck for diagnostic trouble code.

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.00-14).





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

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-32 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

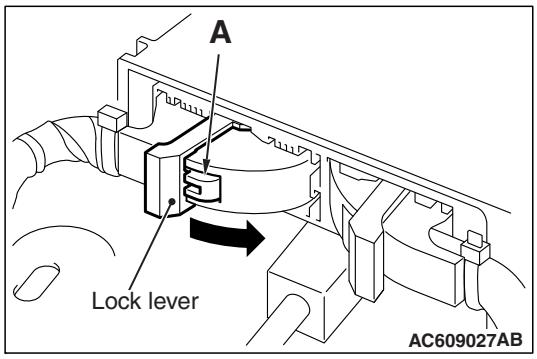
Q: Is DTC B1C2C set?

YES : Go to Step 4.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 5.

STEP 4. Check the side-airbag module (RH) circuit.
Measure the voltage at the SRS-ECU connector C-30.

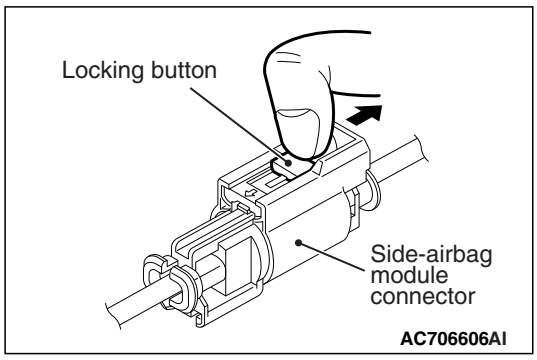
(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-32 to short the squib circuit.

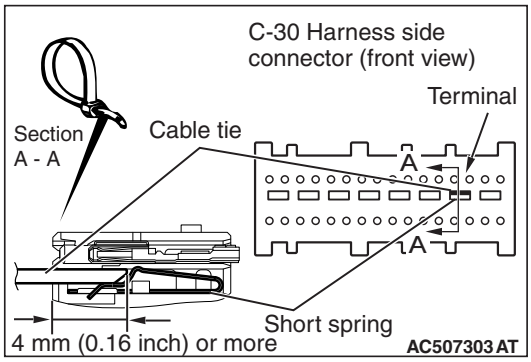
(3) Disconnect the D-32 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



⚠ CAUTION

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.

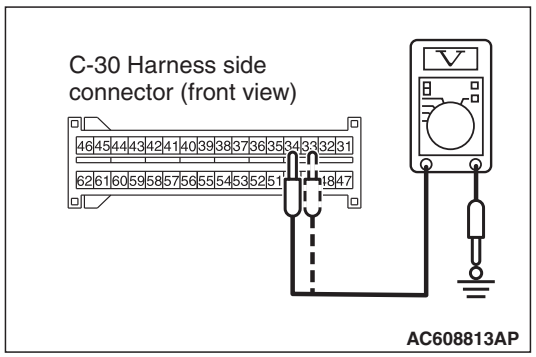
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 33, 34 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Ignition switch: "ON".



(7) Measure the voltage between C-30 harness side connector terminals 33 and 34 and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2C sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.
NO : Go to Step 5.



STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then go to Step 6.

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.

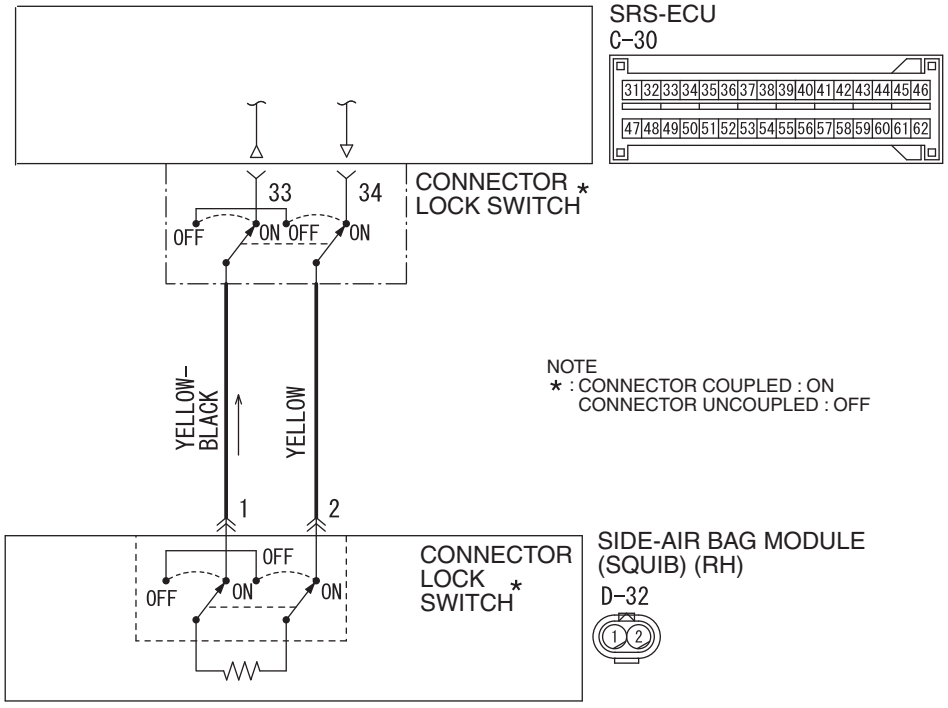
Q: Is DTC B1C2C set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C2D: Side-airbag Module (RH) (Squib) System (Squib Circuit Open)

Side-airbag Module (Squib) (RH) Circuit



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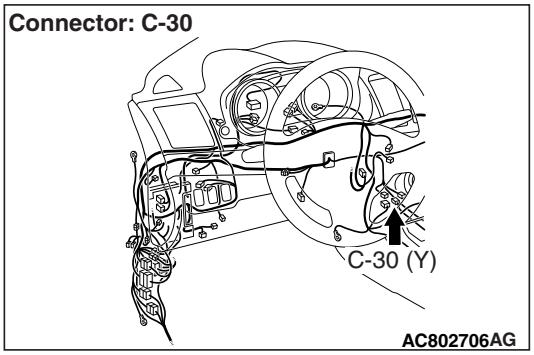
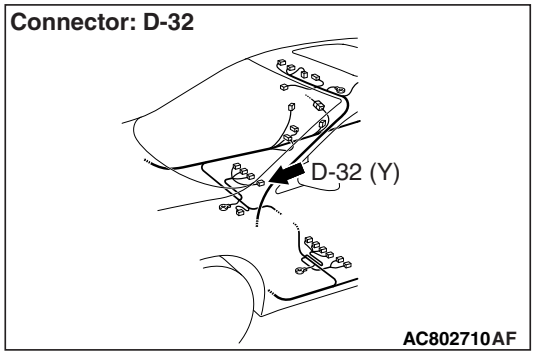




⚠ CAUTION

If DTC B1C2D 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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).

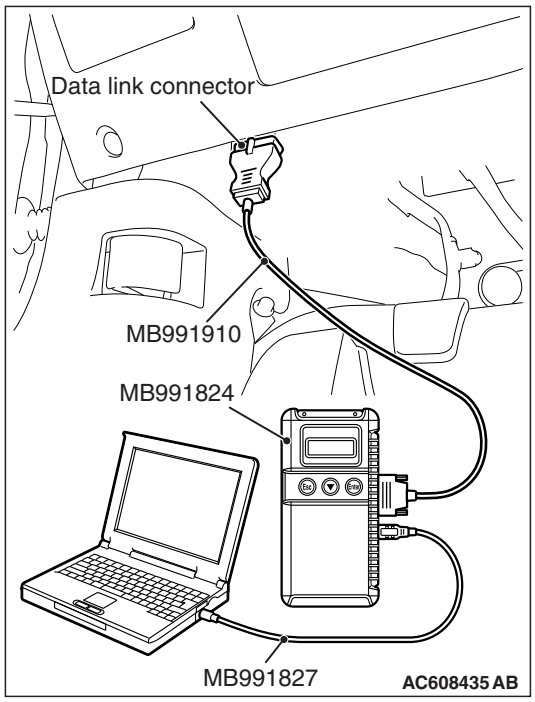
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991866: Resister harness



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-28."
(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?

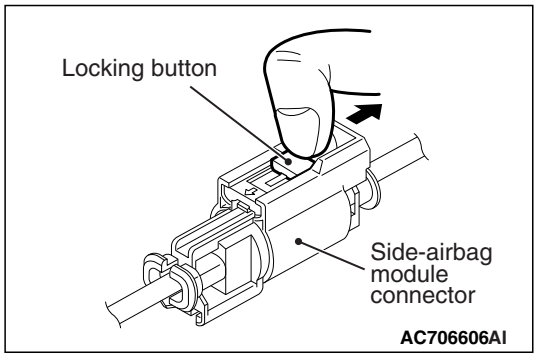
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

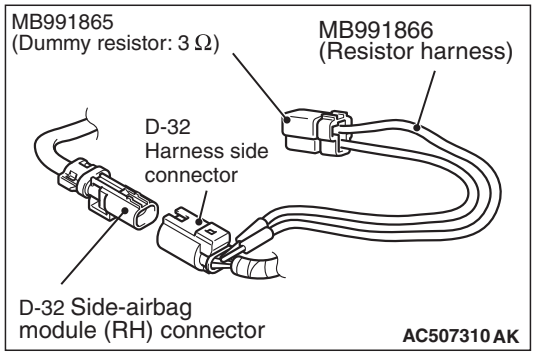
STEP 2. Recheck for diagnostic trouble code.

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.00-14).





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

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-32 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a test probe into the terminal from D-32 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

Q: Is DTC B1C2D set?

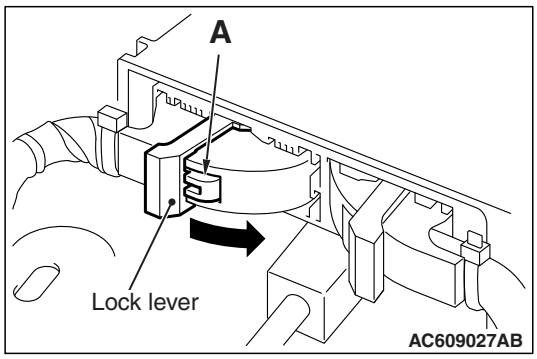
YES : Go to Step 4.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.33 and 34) and the side-airbag module (RH) connector D-32 (terminal No.1 and 2).

(1) Disconnect the negative battery terminal.

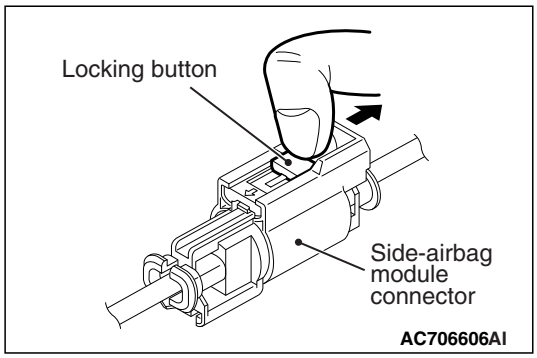
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-32 to short the squib circuit.

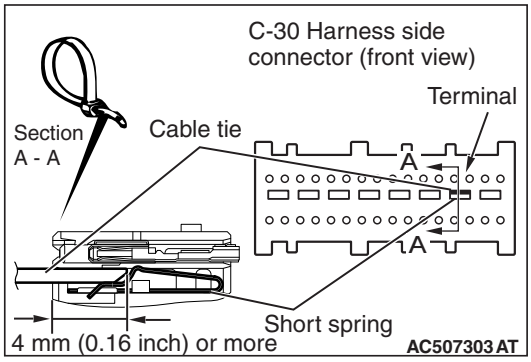
(3) Disconnect the D-32 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.

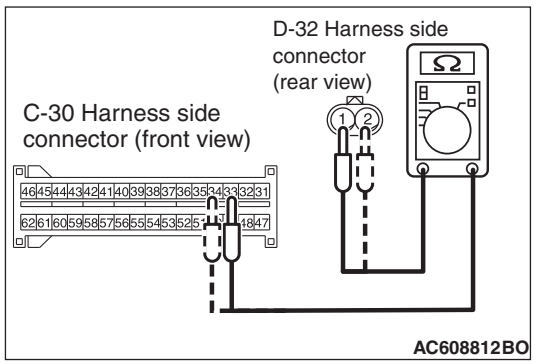


⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 33, 34 and the short spring to release the short spring.





⚠ CAUTION

Do not insert a test probe into the terminal from D-32 harness side connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.33) and the side-airbag module (RH) connector D-32 (terminal No.1)
- SRS-ECU connector C-30 (terminal No.34) and the side-airbag module (RH) connector D-32 (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2D sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then 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.

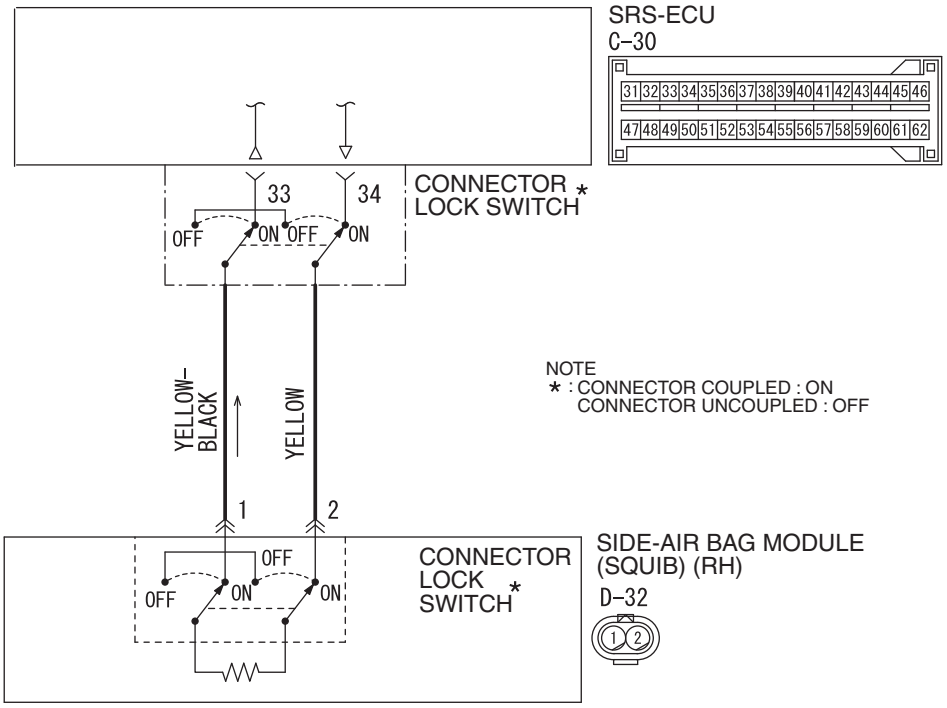
Q: Is DTC B1C2D set?

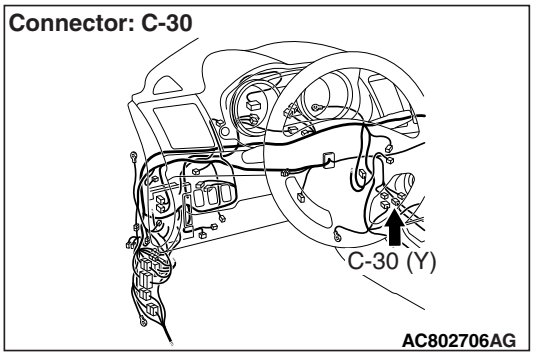
YES : Return to Step 1.

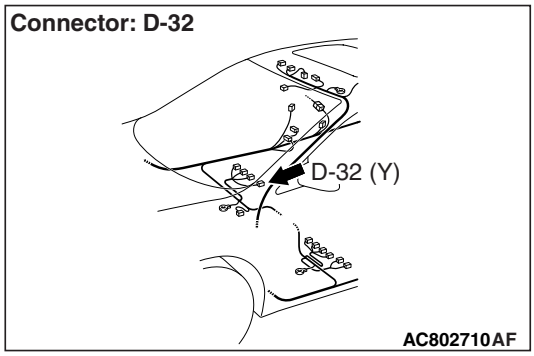
NO : The procedure is complete.

DTC B1C2E: Side-airbag Module (RH) (Squib) System (Short Circuit between Squib Circuit Terminals)

Side-airbag Module (Squib) (RH) Circuit







⚠ CAUTION
If DTC B1C2E 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. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side collision safing G-sensor is on, 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

- 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

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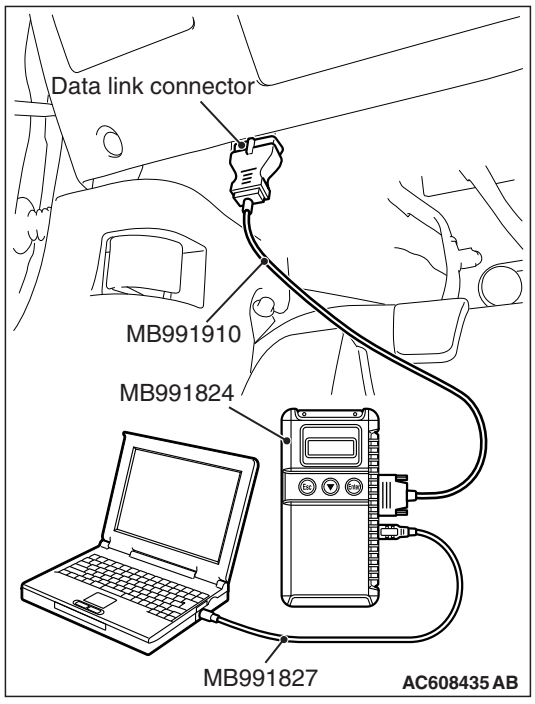
*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-30 or D-32 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991934, diagnose the CAN bus line.



⚠ CAUTION

To prevent damage to scan tool MB991934, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991934.

(1) Connect scan tool MB991934. Refer to "How to connect the scan tool P.52B-28."
(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-17).

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.

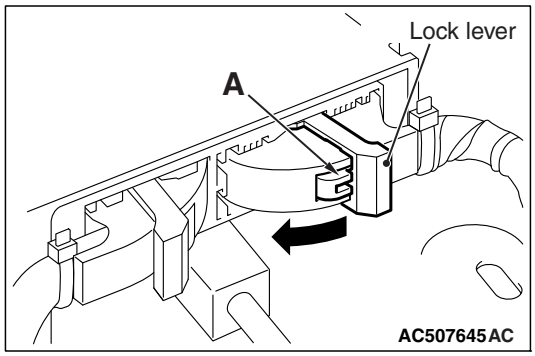
Q: Is the DTC set?

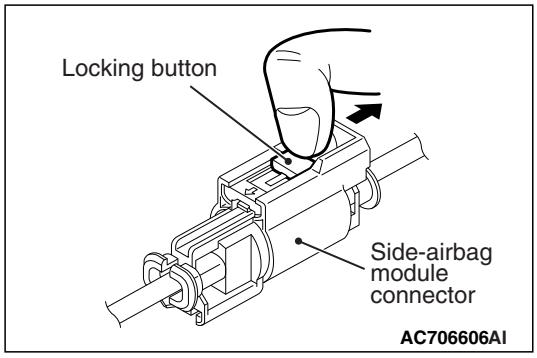
YES : Go to Step 3.

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.00-14).

STEP 3. Check SRS-ECU connector C-30 and side-airbag module (RH) connector D-32.

(1) Disconnect the negative battery terminal.
(2) While pressing the part A in the illustration of the C-30 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.





(3) Disconnect the D-32 side-airbag module connector, and then reconnect it. 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) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2E out put?

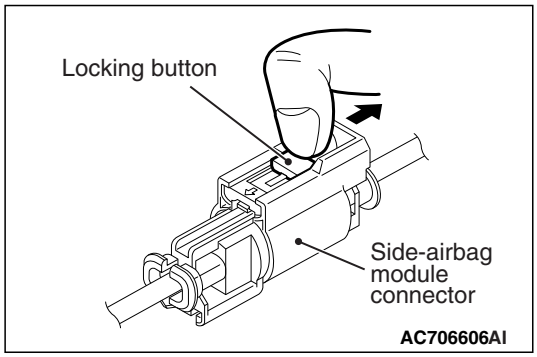
YES : Go to Step 4.

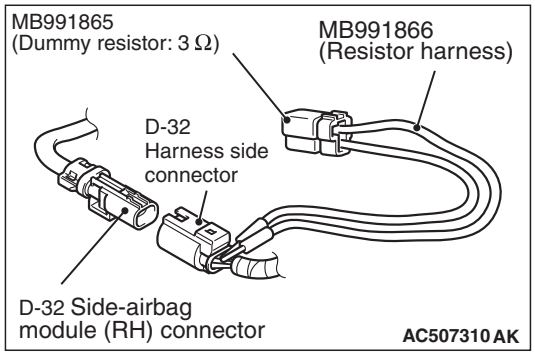
NO : The procedure is complete. It is assumed that DTC B1C2E set because connector C-30 or D-32 was engaged improperly.

STEP 4. Check the side-airbag module (RH).

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-32 side-airbag module 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 MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

Q: Is DTC B1C2E set?

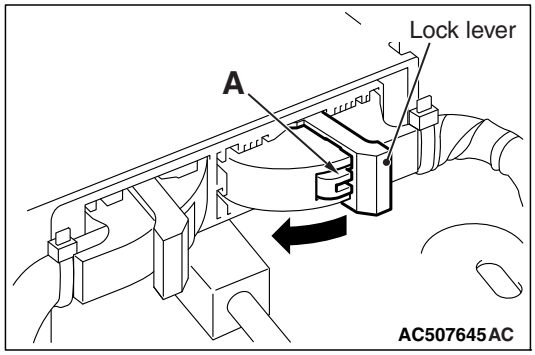
YES : Go to Step 5.

NO : Replace the front seatback assembly (Refer to P.52A-25) <Except RALLIART>, or replace the front seatback (Refer to P.52A-25) <RALLIART>. Then go to Step 7.

STEP 5. Check the side-airbag module (RH) circuit.
Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

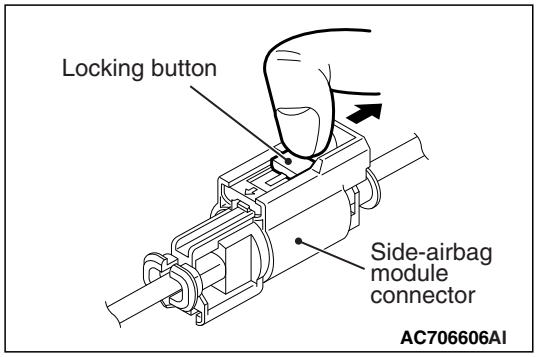
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-32 to short the squib circuit.

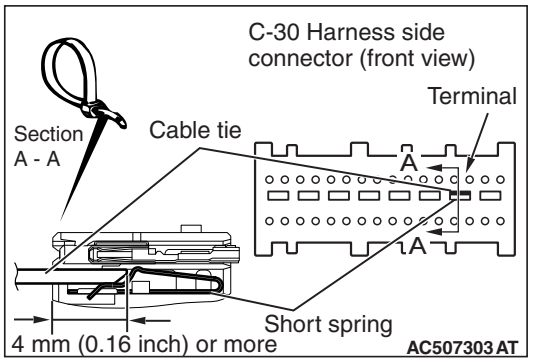
(3) Disconnect the D-32 side-airbag module connector, unlock the connector by sliding the locking button to the direction of the arrow as shown in the figure, and then disconnect the connector.



⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 33, 34 and the short spring to release the short spring.

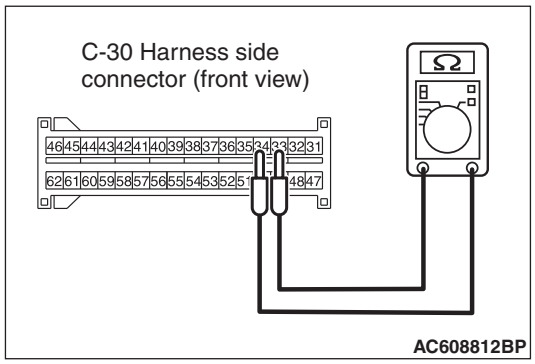


(5) Check for continuity between C-30 harness side connector terminals 33 and 34.
It should be open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2E sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7.

NO : Go to Step 6.



STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then go to Step 7.

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.

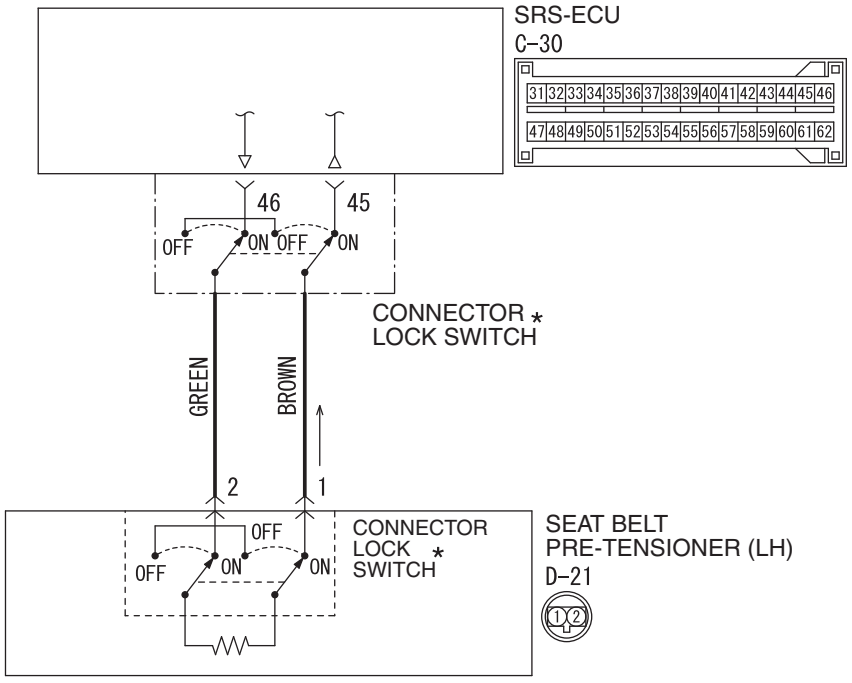
Q: Is DTC B1C2E set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C38: Driver's Seat belt Pre-tensioner (Squib) System (Shorted to Squib Circuit Ground)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



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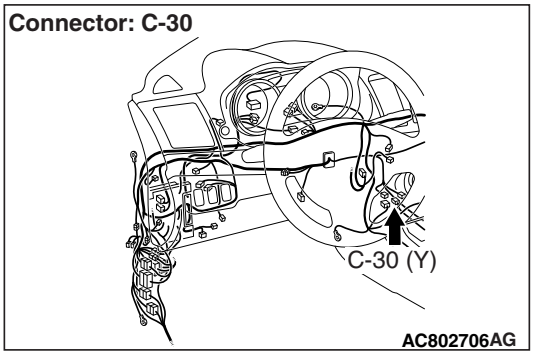
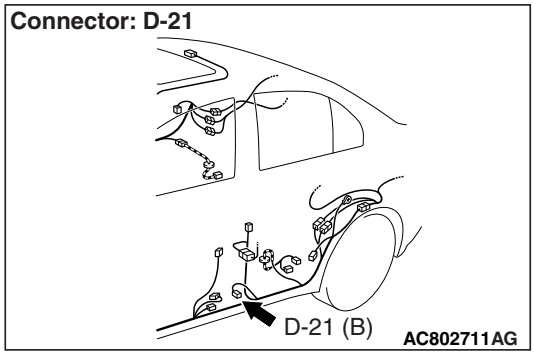




⚠ CAUTION

If DTC B1C38 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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).

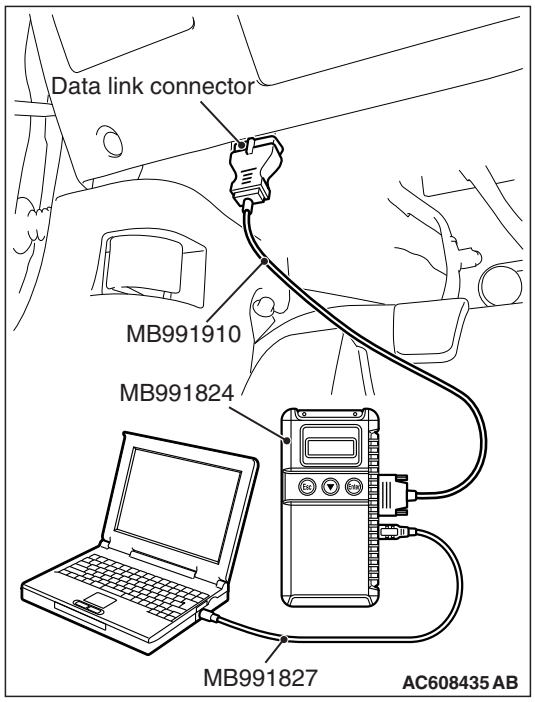
TROUBLESHOOTING HITS

- 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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness



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-28."
(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-17).

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.

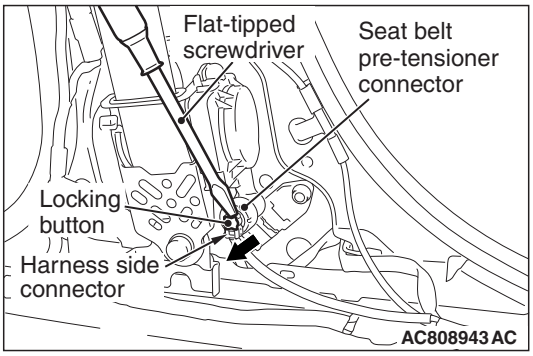
Q: Is the DTC set?

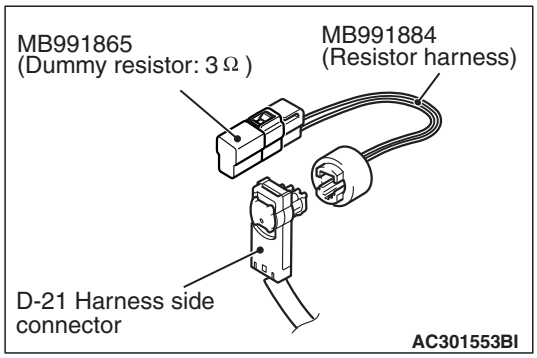
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-14).

STEP 3. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.

(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-21 harness side connector.

(5) Connect the negative battery terminal.

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

Q: Is DTC B1C38 set?

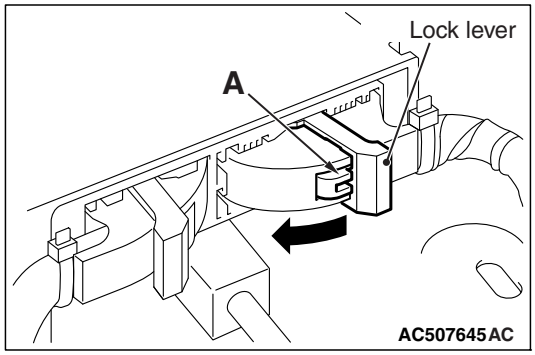
YES : Go to Step 4.

NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-458). Then go to Step 6.

STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

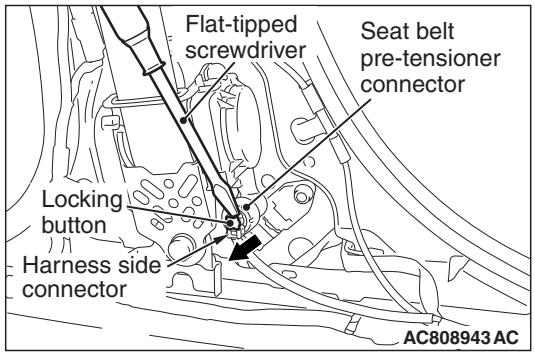
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-21 to short the squib circuit.

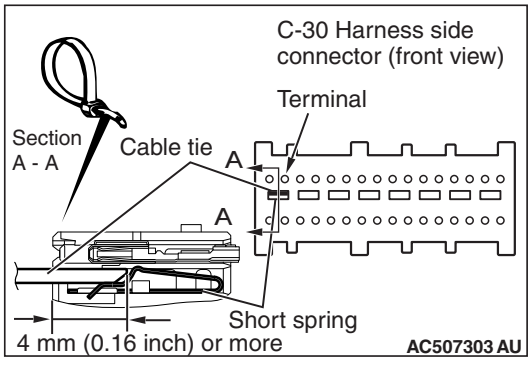
(3) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

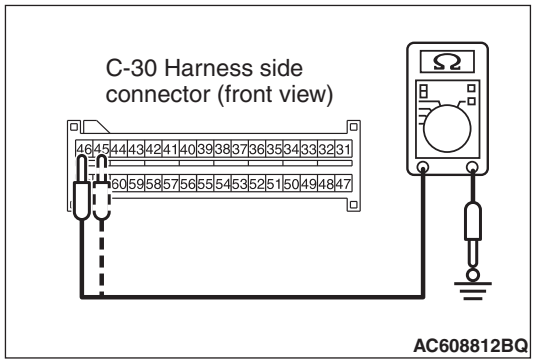


⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 45, 46 and the short spring to release the short spring.





(5) Check for continuity between C-30 harness side connector terminals 45, 46 and body ground.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C38 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 6.

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.

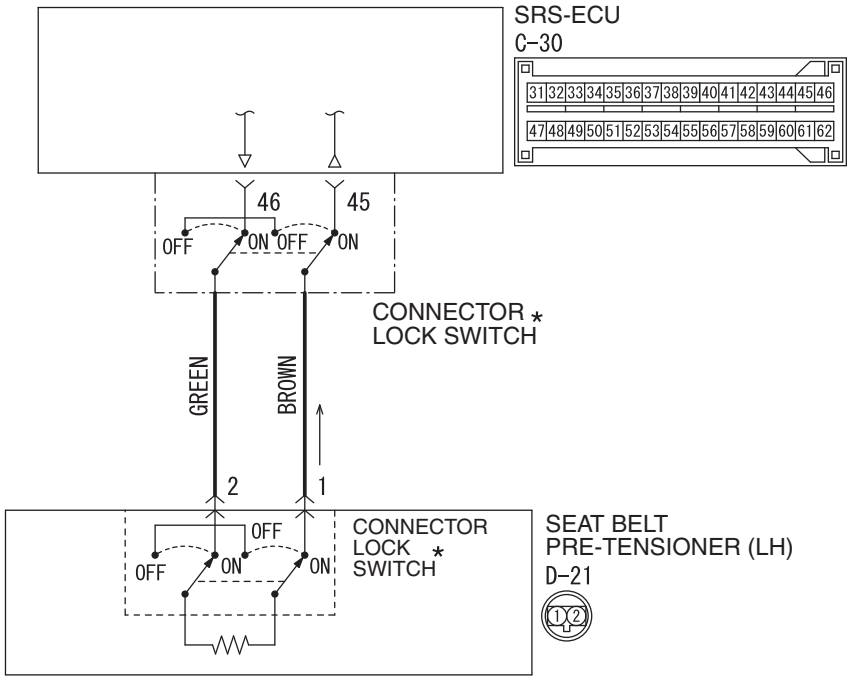
Q: Is DTC B1C38 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C39: Driver's Seat belt Pre-tensioner (Squib) System (Shorted to Squib Circuit Power Supply)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



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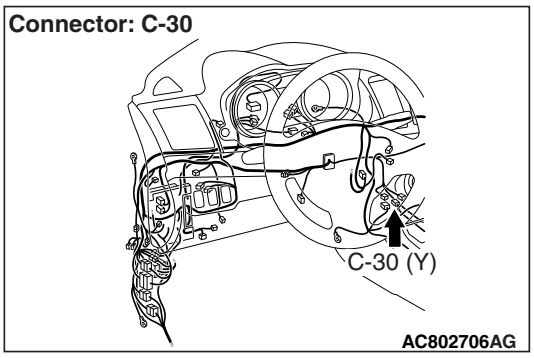

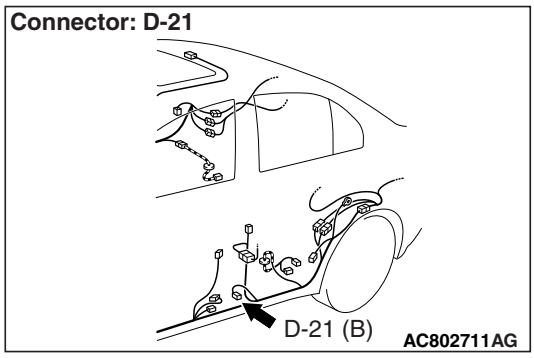

⚠ CAUTION

If DTC B1C39 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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

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DIAGNOSIS

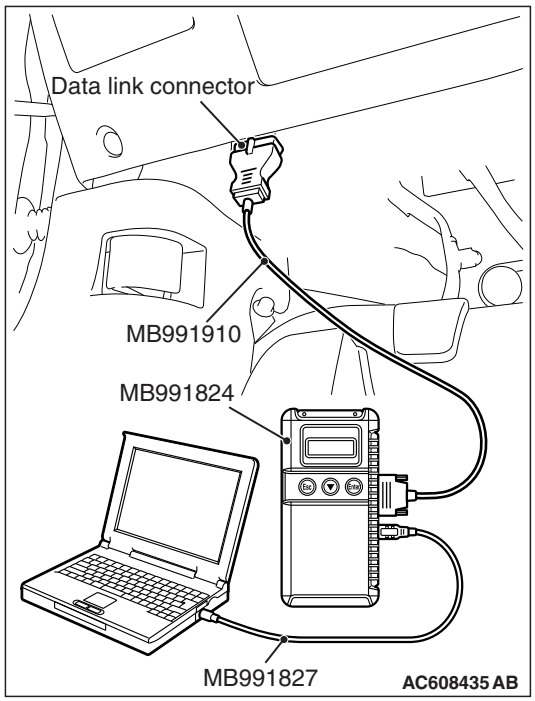
Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness

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-28."
(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?

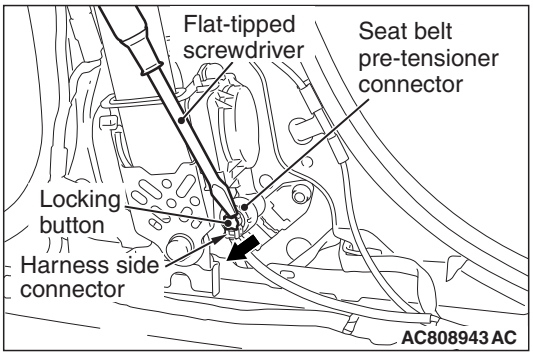
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

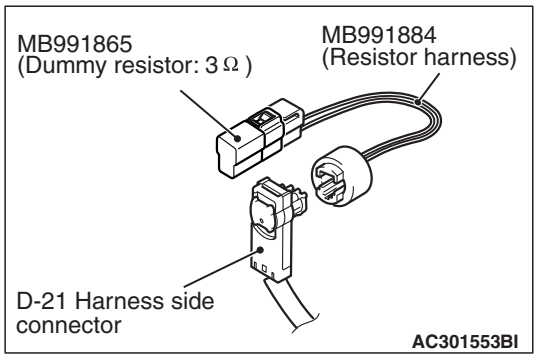
STEP 2. Recheck for diagnostic trouble code.

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 : Go to Step 6.





STEP 3. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-21 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

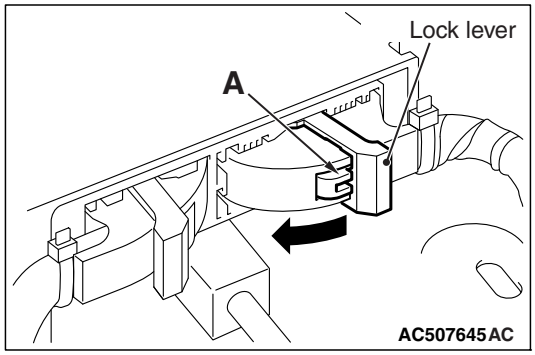
Q: Is DTC B1C39 set?

YES : Go to Step 4.
NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-458). Then go to Step 6.

STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

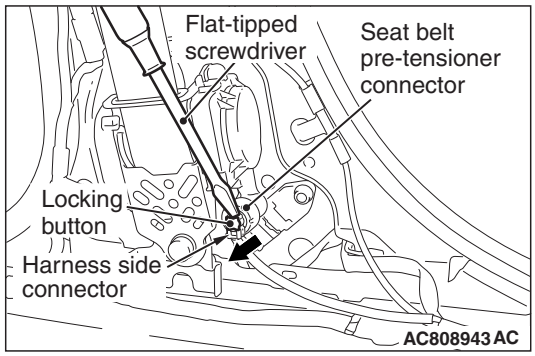
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ CAUTION

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-21 to short the squib circuit.

(3) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



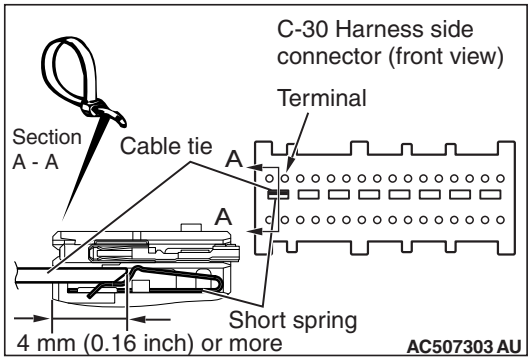
⚠ CAUTION

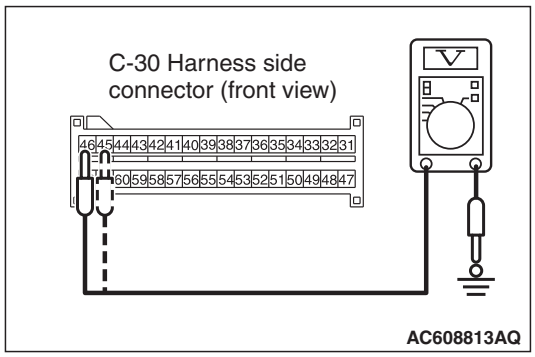
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 45, 46 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: "ON".





(7) Measure the voltage between C-30 harness side connector terminals 45, 46 and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C39 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 6.

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.

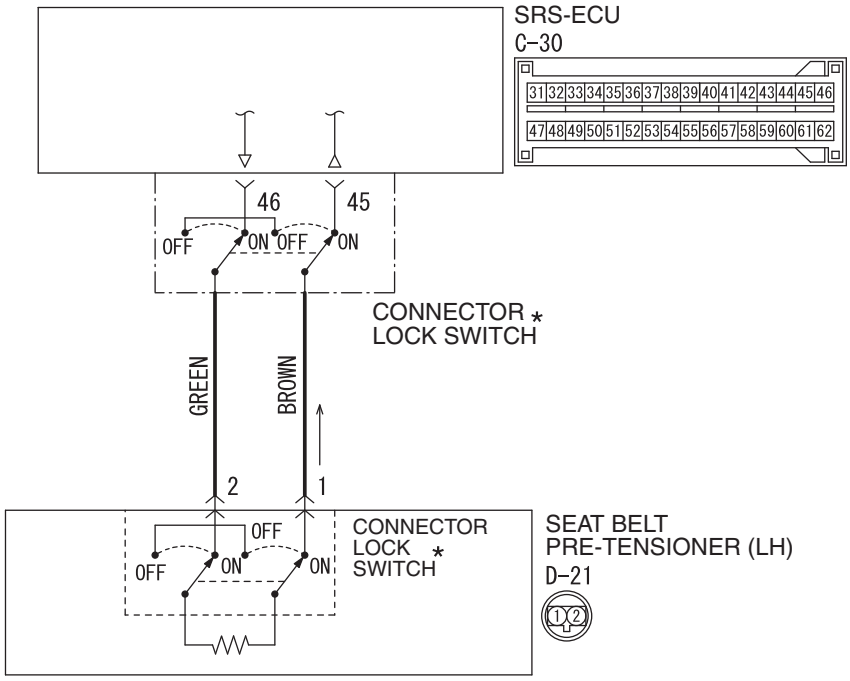
Q: Is DTC B1C39 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C3A: Driver's Seat belt Pre-tensioner (Squib) System (Squib Circuit Open)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



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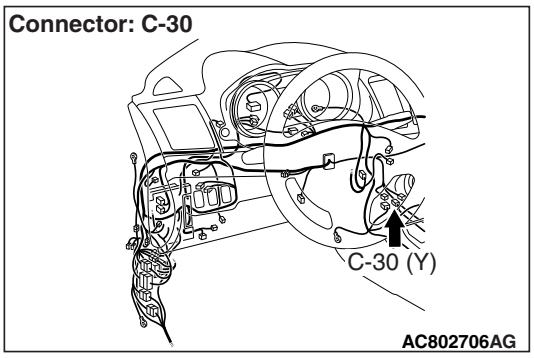

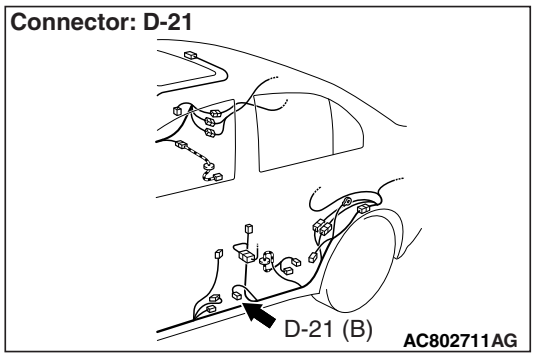

⚠ CAUTION

If DTC B1C3A 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)

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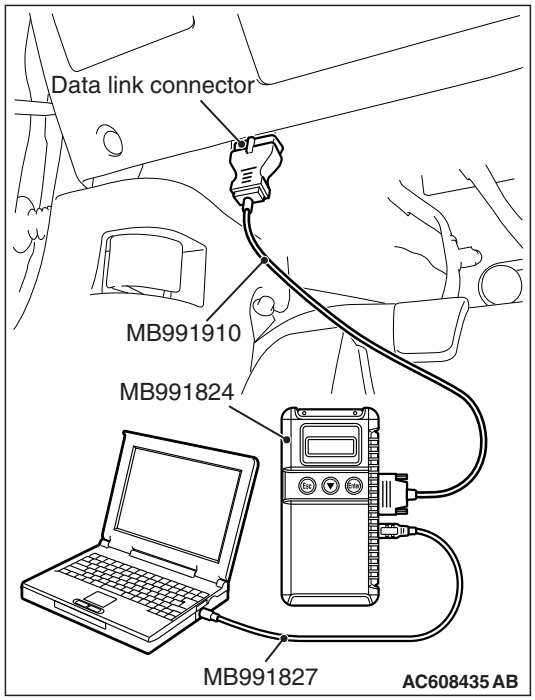
- MB991824: Vehicle Communication Interface (V.C.I.)
- MB991827: M.U.T.-III USB Cable
- MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

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-28."
(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-17).

STEP 2. Recheck for diagnostic trouble code.

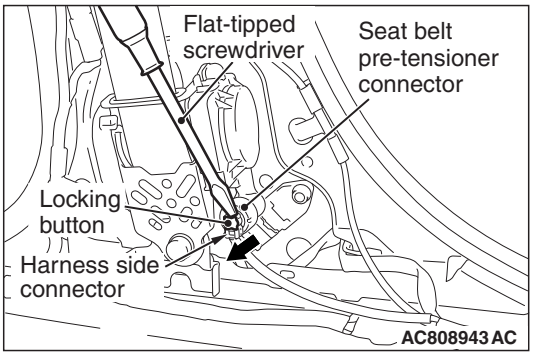
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

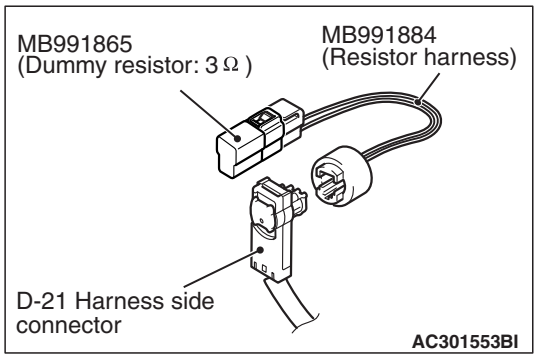
Q: Is the DTC set?

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.00-14).

STEP 3. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





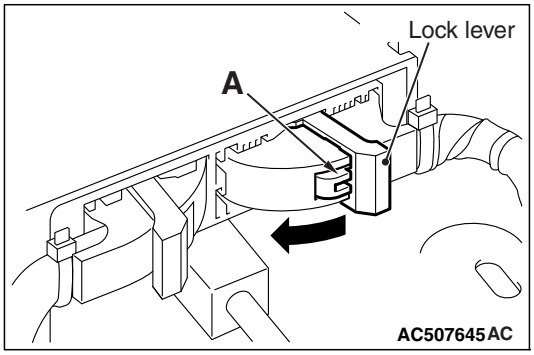
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-21 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

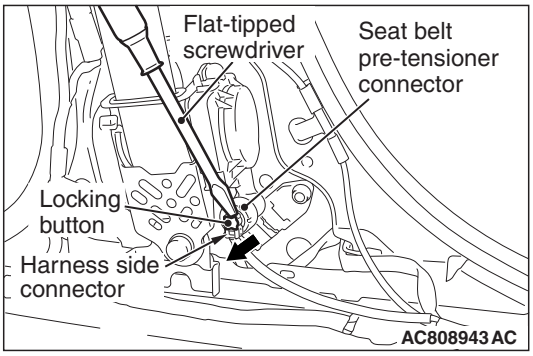
Q: Is DTC B1C3A set?

YES : Go to Step 4.
NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-458). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.45 and 46) and the driver's seat belt pre-tensioner D-21 (terminal No.1 and 2).

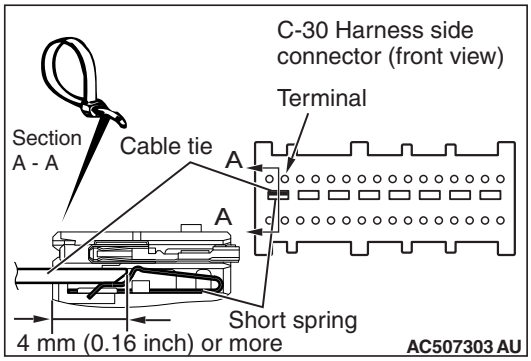
(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



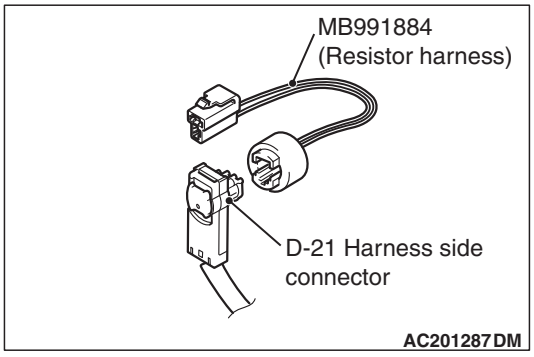


(3) Disconnect SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21, and measure at the wiring harness side. For connector D-21, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

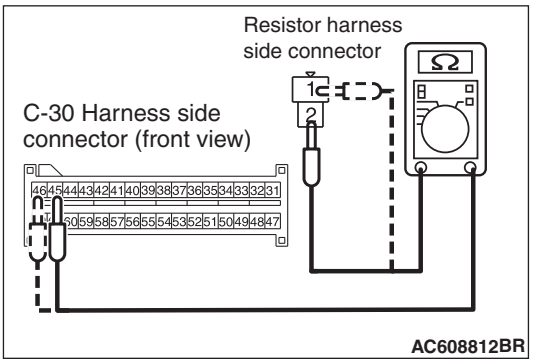
⚠ CAUTION
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.



(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 45, 46 and the short spring to release the short spring.



(5) Connect D-21 harness side connector to special tool MB991884.



(6) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.45) and the special tool (terminal No.2)
- SRS-ECU connector C-30 (terminal No.46) and the special tool (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1C3A set, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 5.

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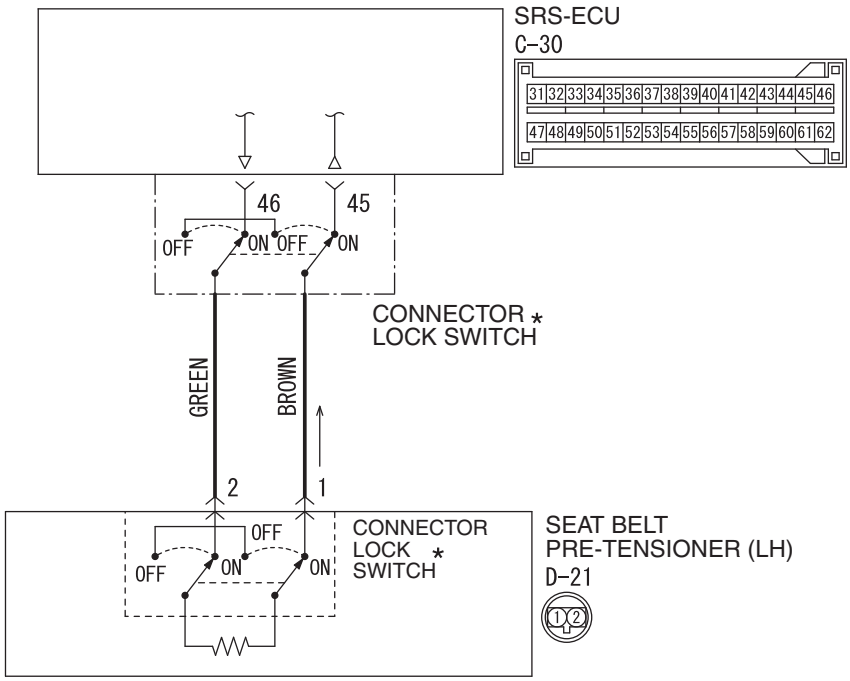
STEP 5. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C3A set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C3B: Driver's Seat belt Pre-tensioner (Squib) System (Short Circuit Between Squib Circuit Terminals)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



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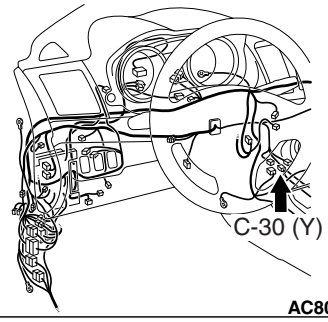
Connector: C-30



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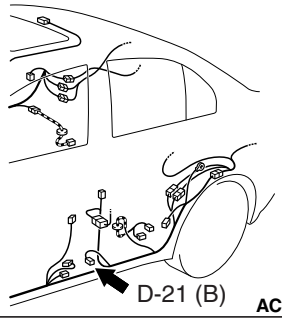
Connector: D-21



AC802711AG

⚠ CAUTION
If DTC B1C3B is set in the SRS-ECU, always diagnose the CAN main bus line.

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CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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 side seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

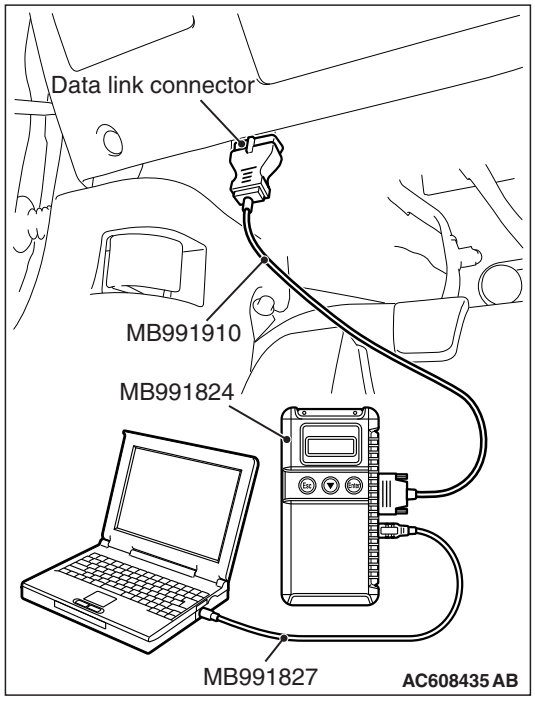
- Improper engaged connector or defective short spring*
- Short circuit between the driver's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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 C-30 or D-21 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness



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-28."
(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-17).

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.

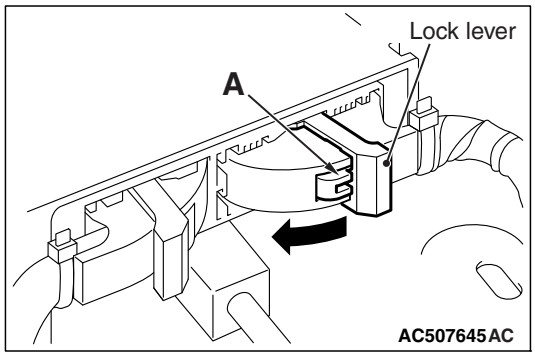
Q: Is the DTC set?

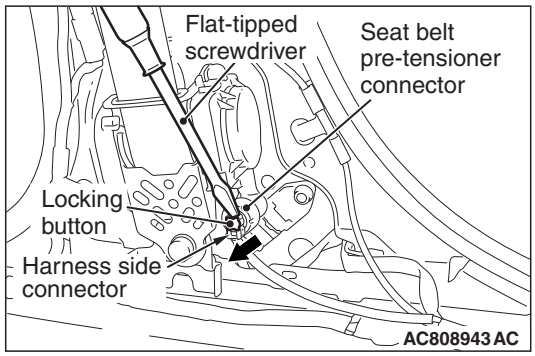
YES : Go to Step 3 .

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.00-14).

STEP 3. Check SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21.

(1) Disconnect the negative battery terminal.
(2) While pressing the part A in the illustration of the C-30 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.





(3) Disconnect D-21 driver's pretensioner harness side connector, and then reconnect it. Use a flat-tipped (–) screwdriver to pull out the connector locking button toward the arrow direction, release the lock, and then disconnect the connector.
(4) Connector the negative battery terminal.
(5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C3B set?

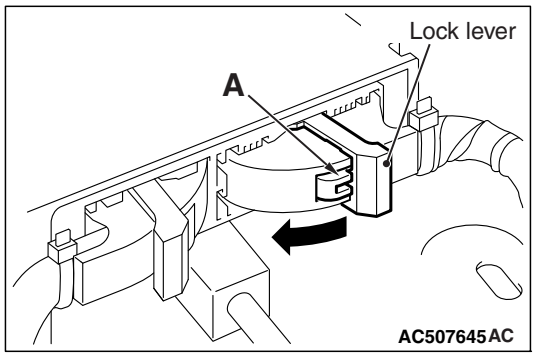
YES : Go to Step 4.

NO : The procedure is complete. It is assumed that DTC B1C3B set because connector C-30 or D-21 was engaged improperly.

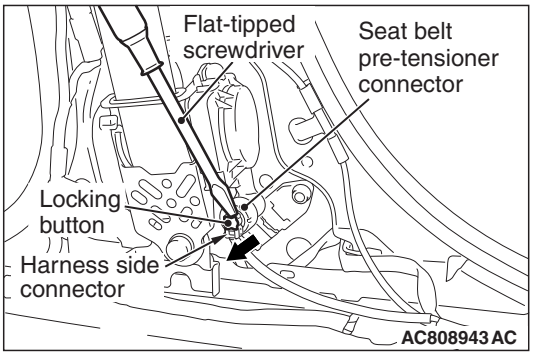
STEP 4. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.

(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 C-30 SRS-ECU connector.



(3) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

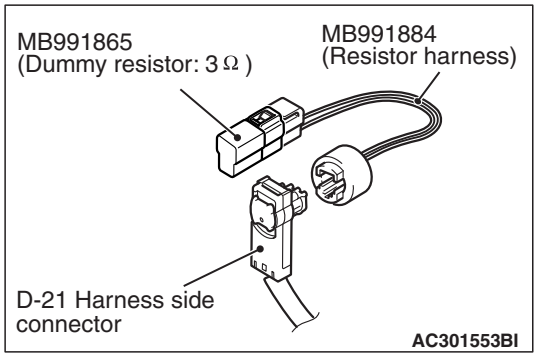


(4) Connect special tool MB991865 to special tool MB991884.

(5) Connect special tool MB991884 to the D-21 harness side connector.

(6) Connect the negative battery terminal.

(7) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.



Q: Is DTC B1C3B set?

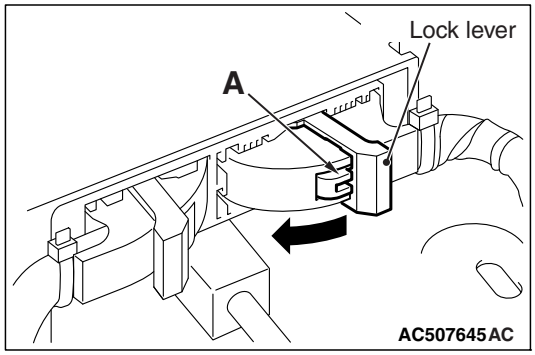
YES : Go to Step 5.

NO : Replace the driver's seat with belt pre-tensioner (Refer to P.52B-458). Then go to Step 7.

STEP 5. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

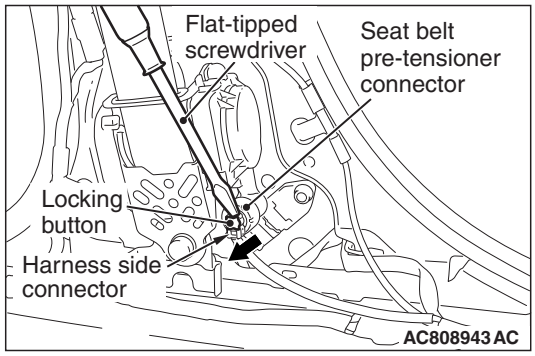
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-21 to short the squib circuit.

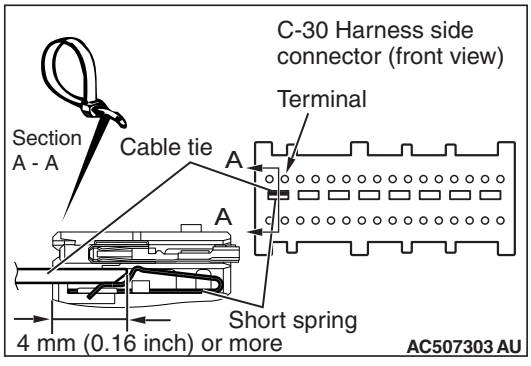
(3) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

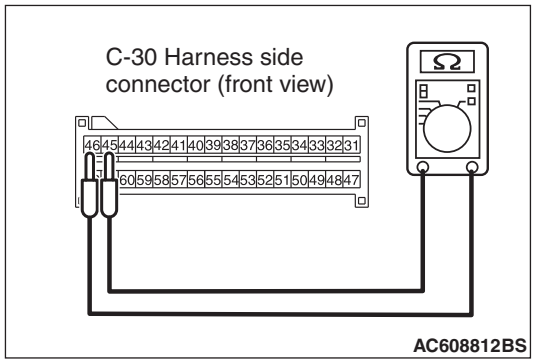


⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 45, 46 and the short spring to release the short spring.





(5) Check for continuity between C-30 harness side connector terminals 45 and 46.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C3B sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7.

NO : Go to Step 6.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 7.

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.

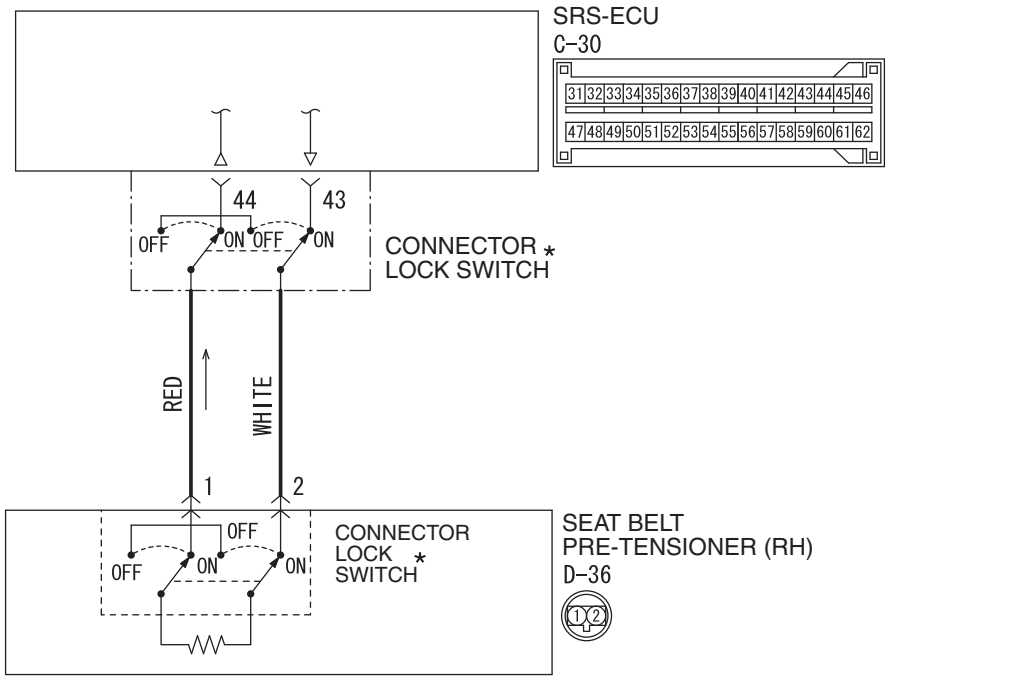
Q: Is DTC B1C3B set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C47: Front Seat belt Passenger's pre-tensioner (squib) system (shorted to squib circuit Ground)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



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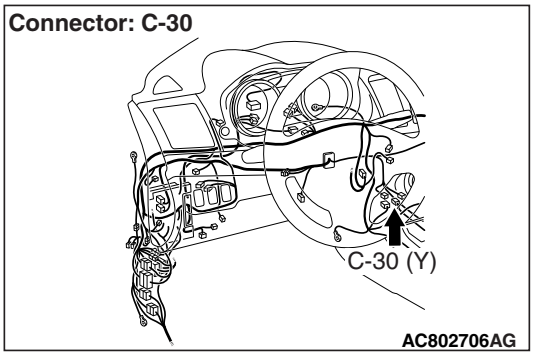
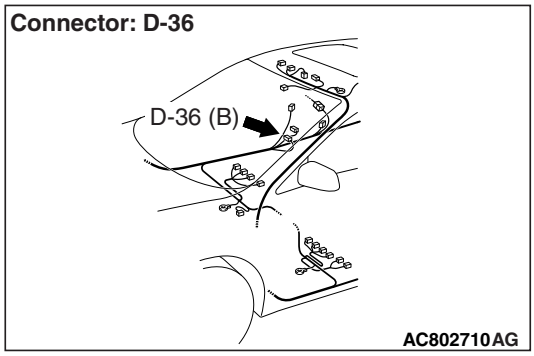




⚠ CAUTION

If DTC B1C47 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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

TSB Revision

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness

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

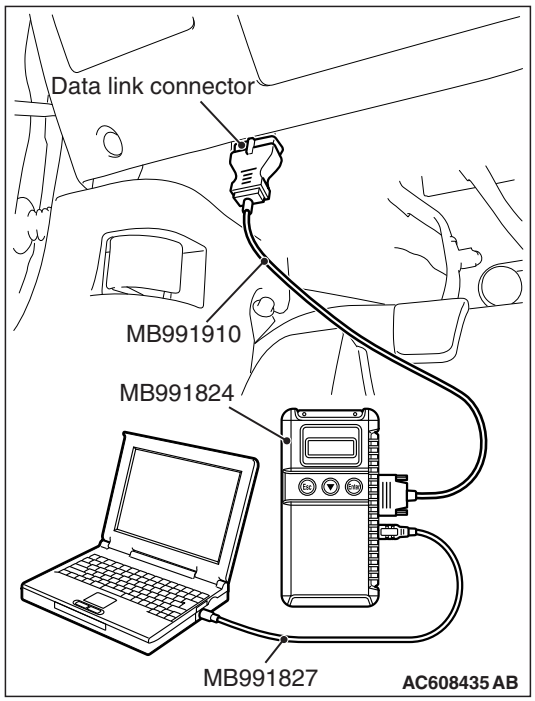
⚠ CAUTION

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-28."
(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-17).



STEP 2. Recheck for diagnostic trouble code.

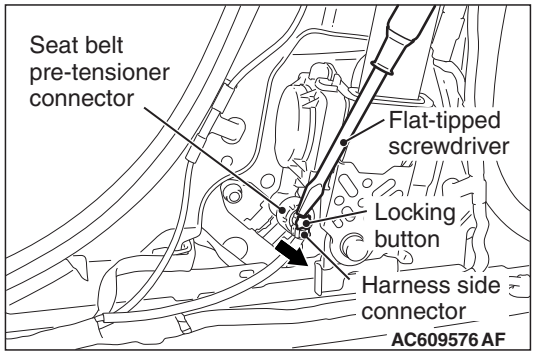
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

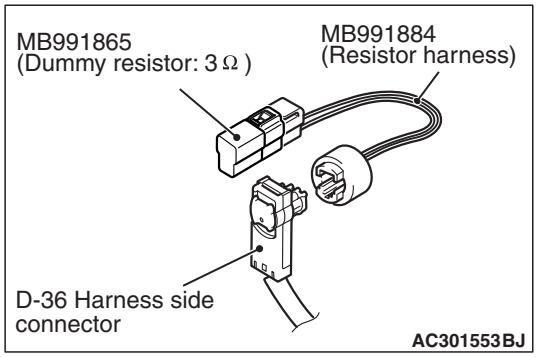
Q: Is the DTC set?

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.00-14).

STEP 3. Check the passenger's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

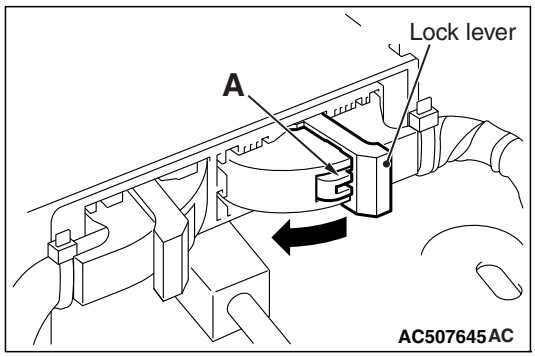
Q: Is DTC B1C47 set?

YES : Go to Step 4.
NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-458). Then go to Step 6.

STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

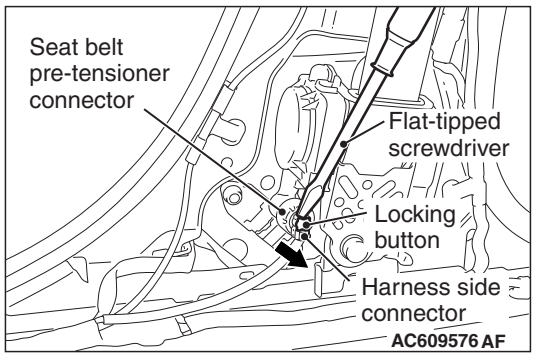
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ ***DANGER***

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-36 to short the squib circuit.

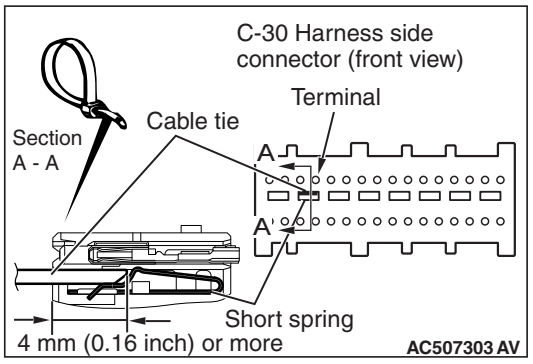
(3) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ **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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 43, 44 and the short spring to release the short spring.

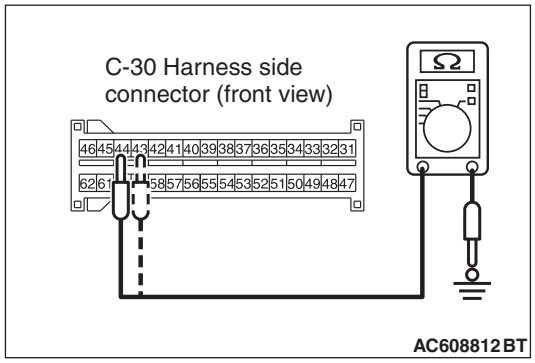


(5) Check for continuity between C-30 harness side connector terminals 43, 44 and body ground.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C47 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.



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STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. Then go to Step 6.

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.

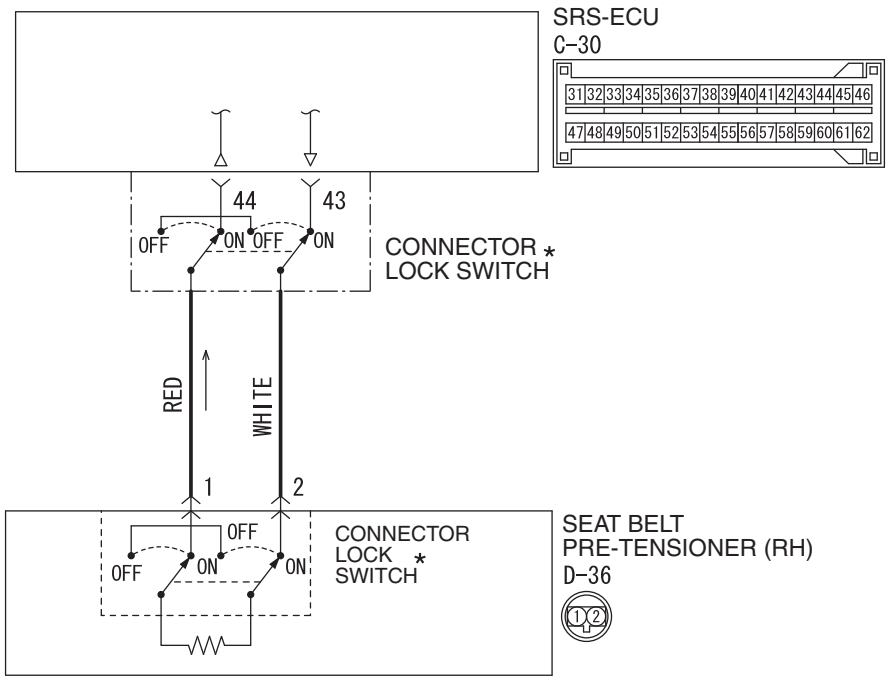
Q: Is DTC B1C47 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C48: Front Seat belt Passenger's Pre-tensioner (Squib) System (Shorted to Squib Circuit Power Supply)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



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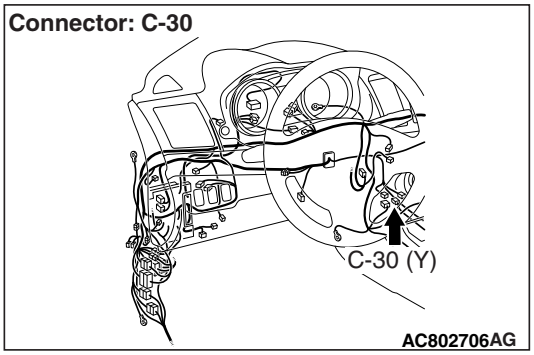
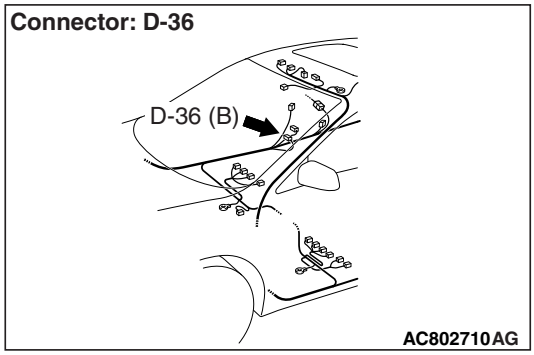




⚠ CAUTION

If DTC B1C48 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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).

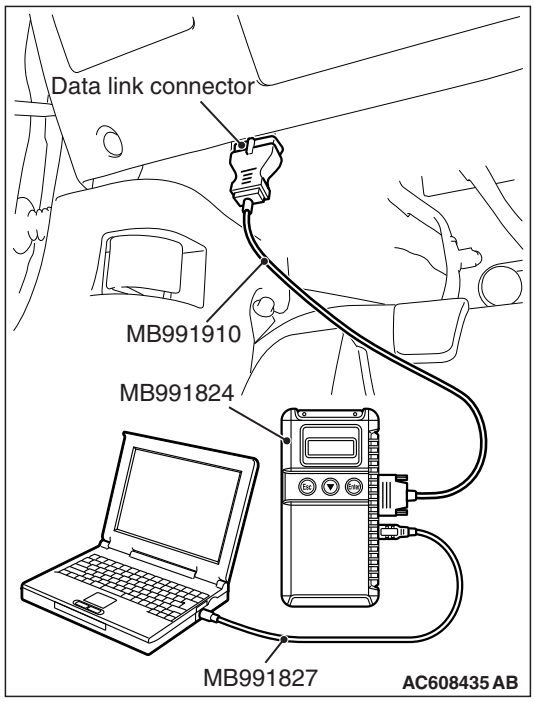
TROUBLESHOOTING HITS

- 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

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness



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-28."
(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?

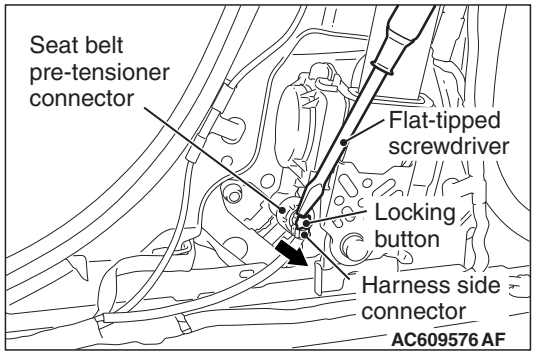
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

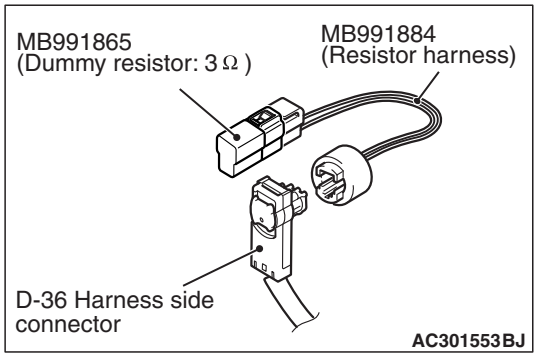
STEP 2. Recheck for diagnostic trouble code.

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.00-14).





STEP 3. Check the passenger's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

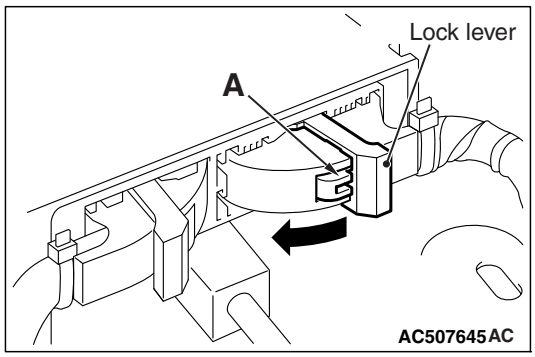
Q: Is DTC B1C48 set?

YES : Go to Step 4.
NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-458). Then go to Step 6.

STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

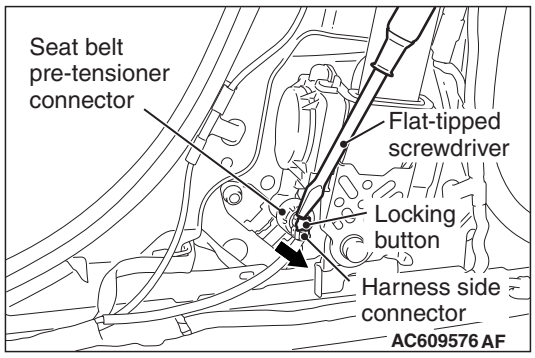
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-36 to short the squib circuit.

(3) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



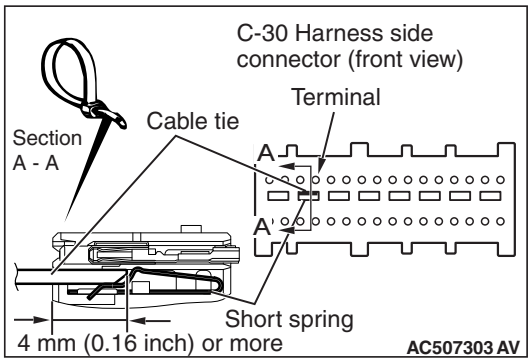
⚠ CAUTION

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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 43, 44 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: "ON".

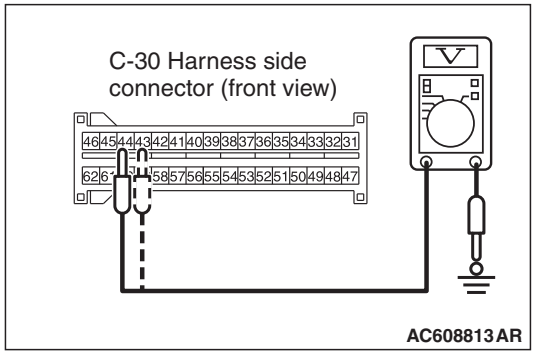


(7) Measure the voltage between C-30 harness side connector terminals 43, 44 and body ground.
Voltage should measure 1 volt or less.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C48 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 6.

NO : Go to Step 5.



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STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. Then go to Step 6.

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.

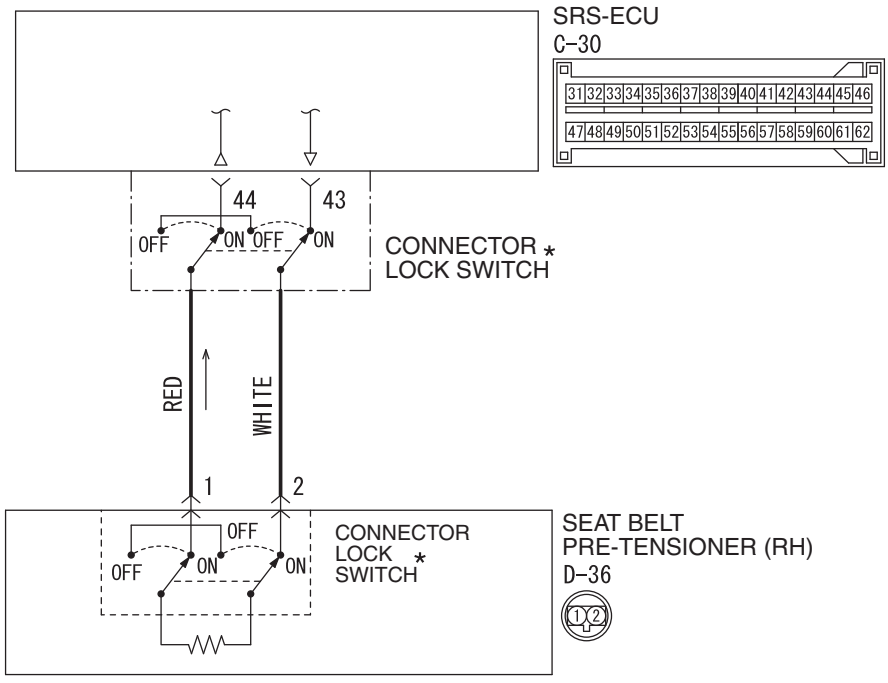
Q: Is DTC B1C48 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C49: Front Seat belt Passenger's Pre-tensioner (Squib) System (Squib Circuit Open)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



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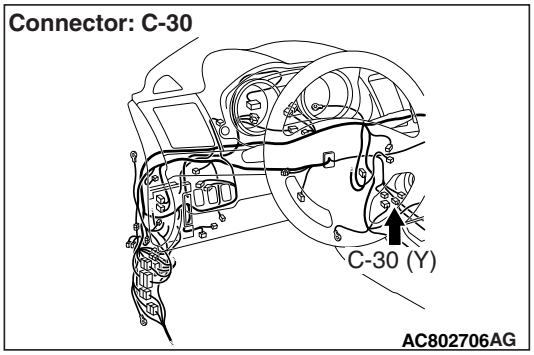

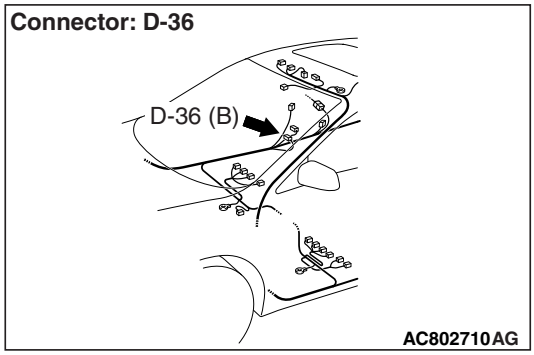

⚠ CAUTION

If DTC B1C49 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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

- Open circuit in the passenger's seat belt pre-tensioner (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
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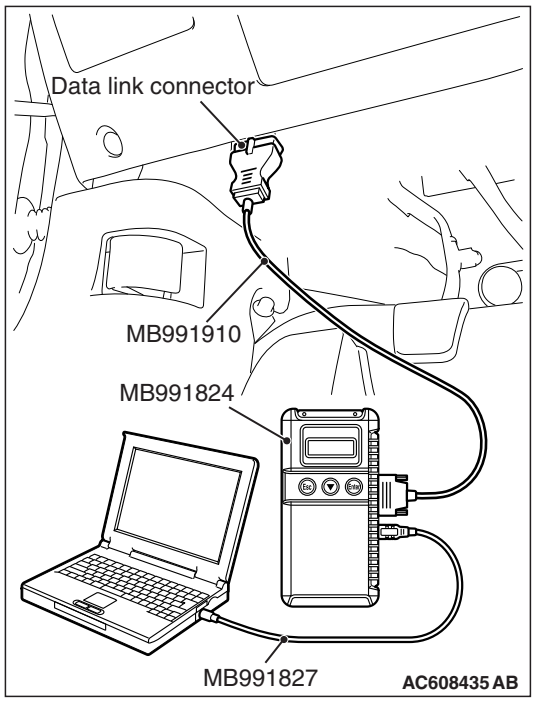


STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ 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-28."
(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-17).

STEP 2. Recheck for diagnostic trouble code.

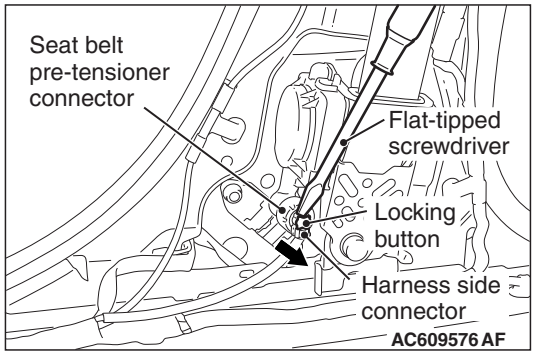
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

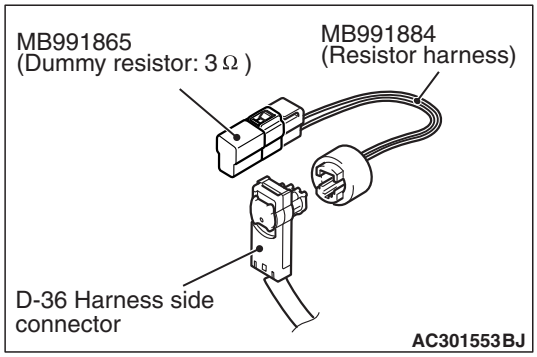
Q: Is the DTC set?

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.00-14).

STEP 3. Check the passenger's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

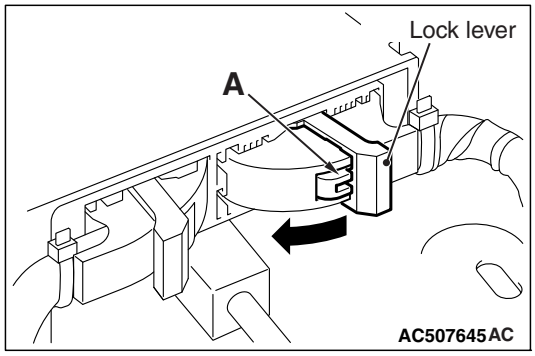
Q: Is DTC B1C49 set?

YES : Go to Step 4.
NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-458). Then go to Step 5.

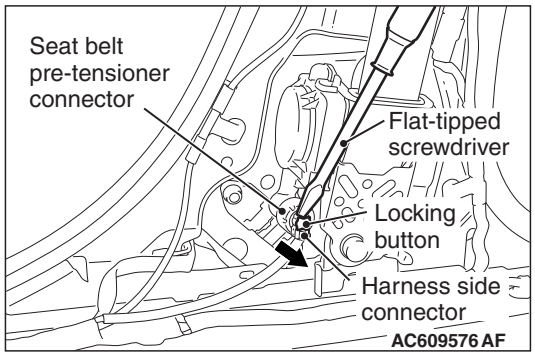
STEP 4. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.43 and 44) and the passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).

(1) Disconnect the negative battery terminal.

(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 C-30 SRS-ECU connector.



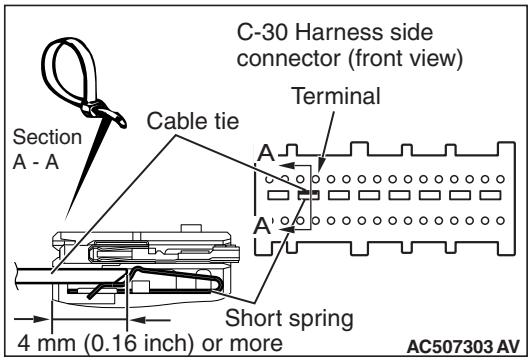
(3) Disconnect SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. For connector D-36, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



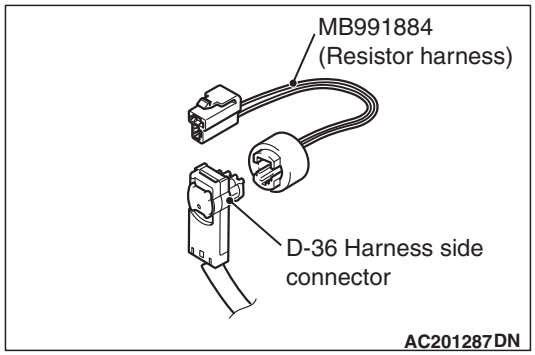
⚠ CAUTION

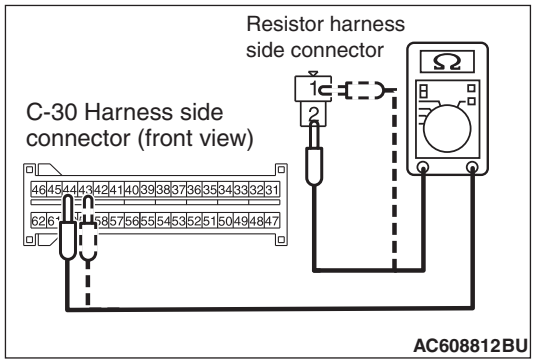
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 43, 44 and the short spring to release the short spring.



(5) Connect D-36 harness side connector to special tool MB991884.





(6) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.43) and the special tool (terminal No.1)
- SRS-ECU connector C-30 (terminal No.44) and the special tool (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C49 sets, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-30 passenger's seat belt pre-tensioner connector D-36. Then 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.

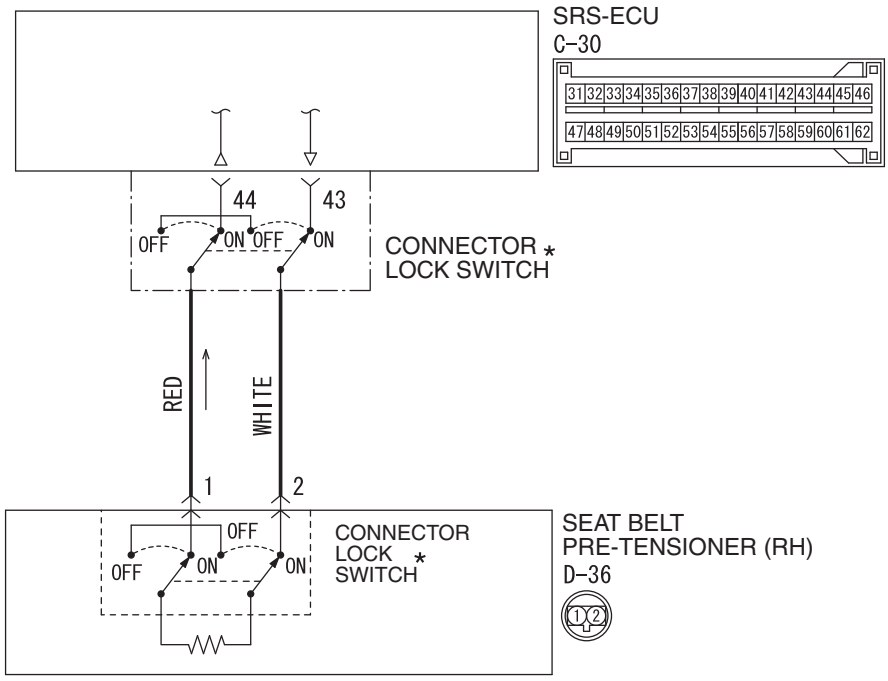
Q: Is DTC B1C49 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C4A: Front Seat belt Passenger's Pre-tensioner (Squib) System (Short Circuit between Squib Circuit Terminals)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



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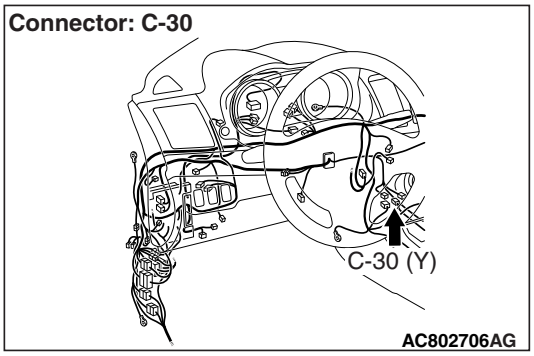

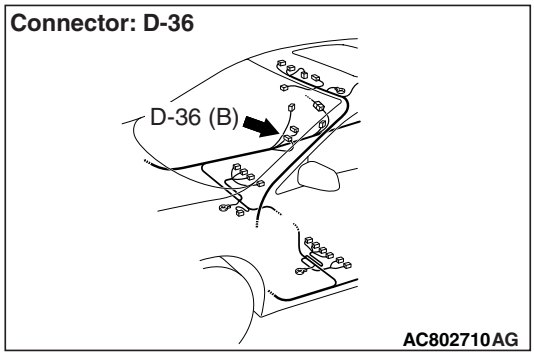

⚠ CAUTION

If DTC B1C4A 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 front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, 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 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

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*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 C-30 or D-36 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- 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)
- MB991865: Dummy resistor
- MB991884: Resister harness

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

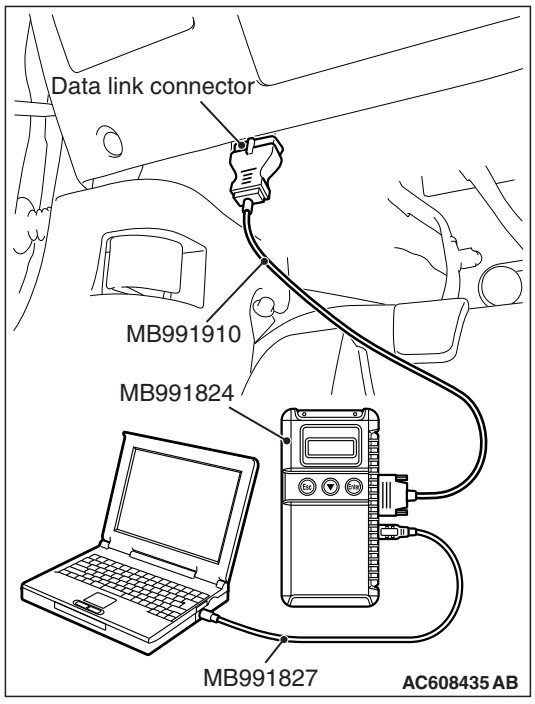
⚠ CAUTION

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-28."
(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-17).



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.

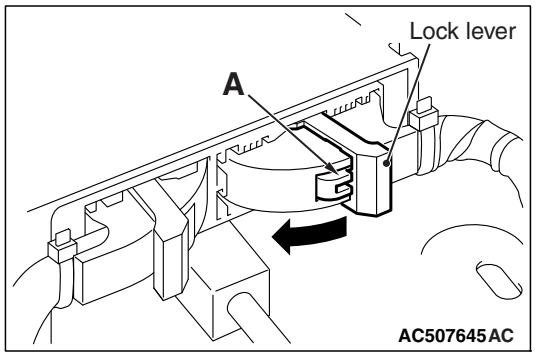
Q: Is the DTC set?

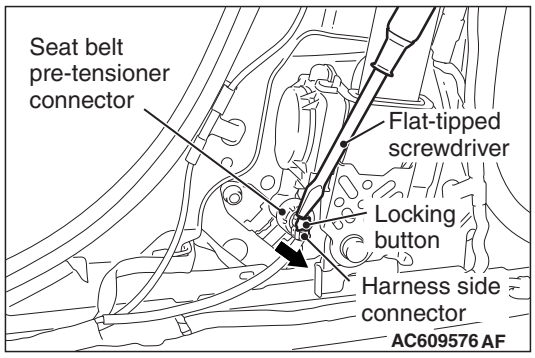
YES : Go to Step 3.

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.00-14).

STEP 3. Check SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36.

(1) Disconnect the negative battery terminal.
(2) While pressing the part A in the illustration of the C-30 SRS-ECU harness side connector, turn the lock lever toward the arrow direction to release the lock lever. Then, disconnect the connector and reconnect it.





(3) Disconnect D-36 passenger's (front) pretensioner harness side connector, and then reconnect it. Use a flat-tipped (–) screwdriver to pull out the connector locking button toward the arrow direction, release the lock, and then disconnect the connector.
(4) Connector the negative battery terminal.
(5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C4A set?

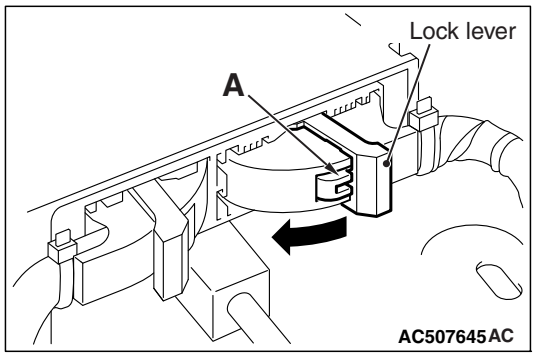
YES : Go to Step 4.

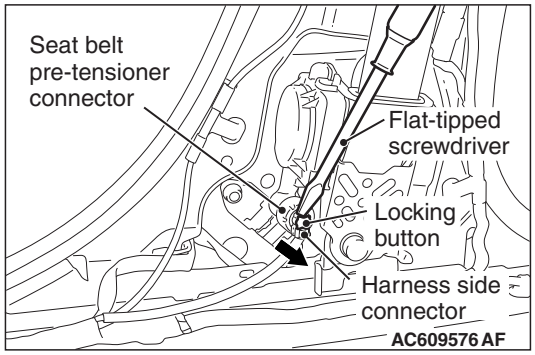
NO : The procedure is complete. It is assumed that DTC B1C4A set because connector C-30 or D-36 was engaged improperly.

STEP 4. Check the passenger's seat belt pre-tensioner.

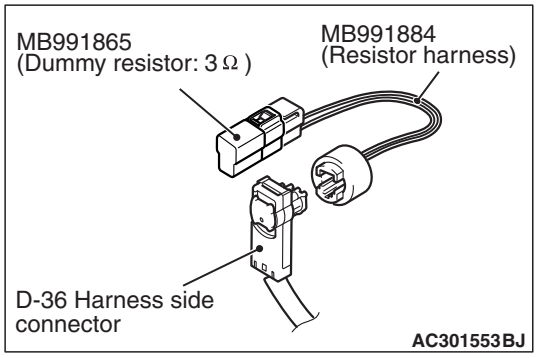
(1) Disconnect the negative battery terminal.

(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 C-30 SRS-ECU connector.





(3) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(4) Connect special tool MB991865 to special tool MB991884.

(5) Connect special tool MB991884 to the D-36 harness side connector.

(6) Connect the negative battery terminal.

(7) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1C4A set?

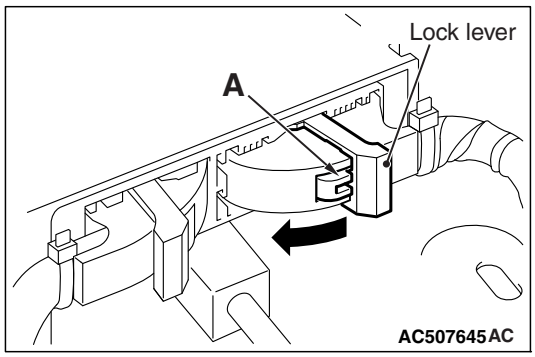
YES : Go to Step 5.

NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-458). Then go to Step 7.

STEP 5. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.

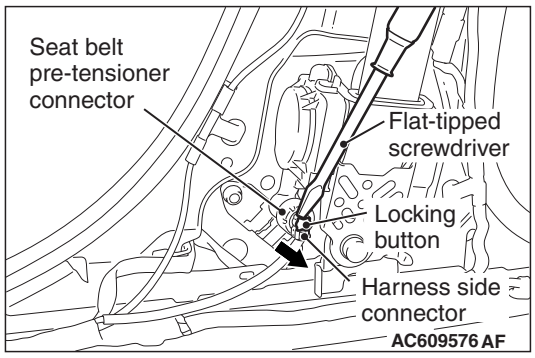
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-36 to short the squib circuit.

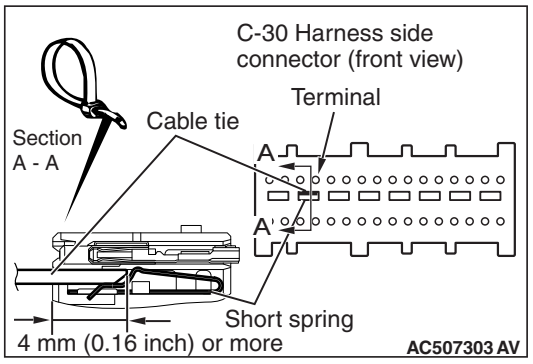
(3) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ 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 a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 43, 44 and the short spring to release the short spring.

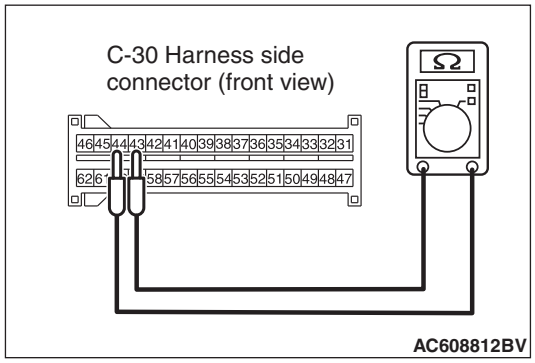


(5) Check for continuity between C-30 harness side connector terminals 43 and 44.
It should be an open circuit.

Q: Is it open circuit?

YES : Erase the diagnostic trouble code memory, and check diagnostic trouble code. If DTC B1C4A set, replace the SRS-ECU (Refer to P.52B-416). Then go to Step 7 .

NO : Go to Step 6.



STEP 6. Check the harness for short circuit between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. Then go to Step 7.

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.

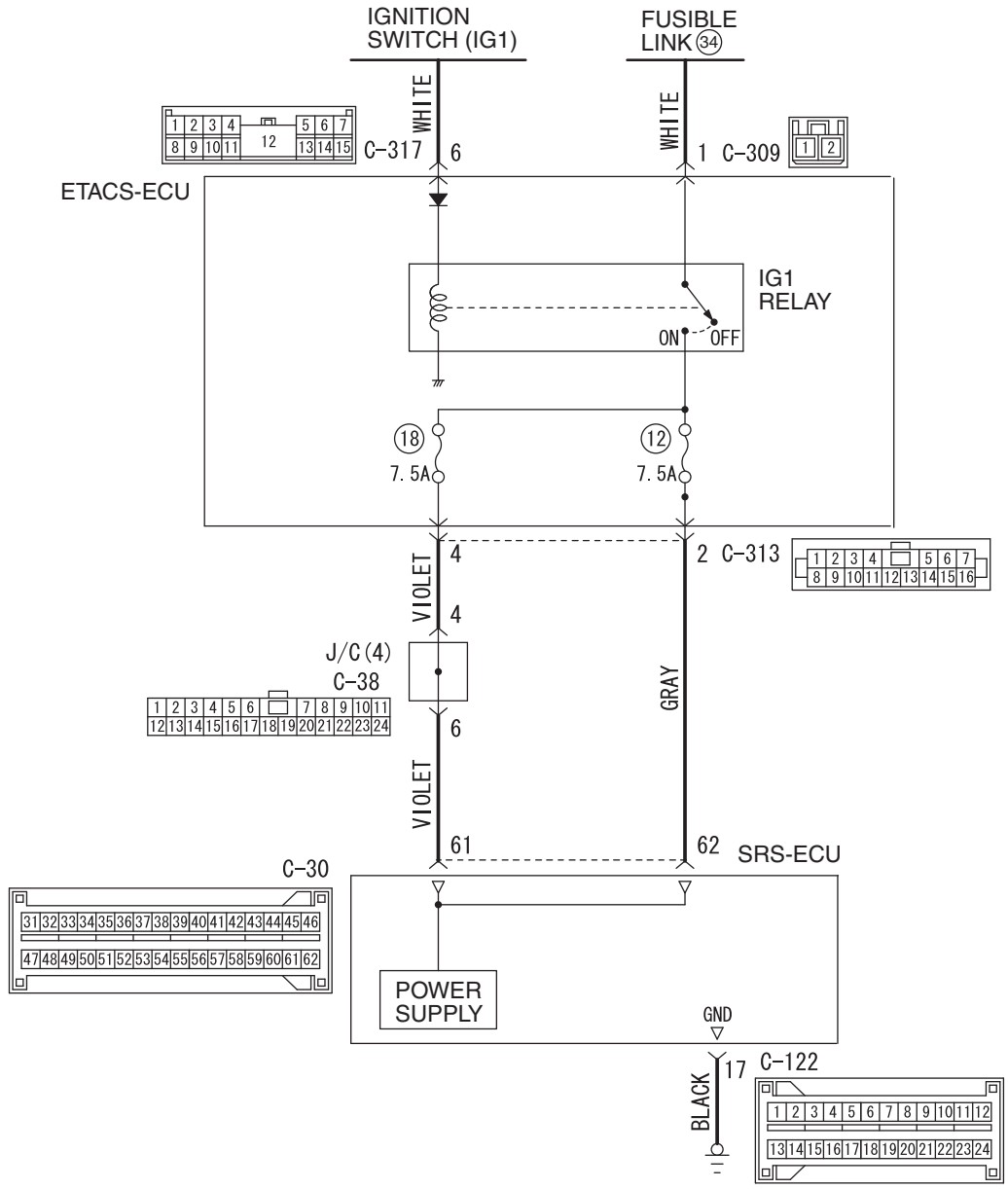
Q: Is DTC B1C4A set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B210D: Battery Abnormal Low Voltage

IG1 Power Supply Circuit



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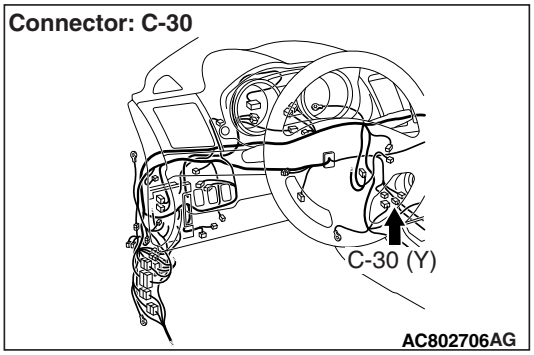

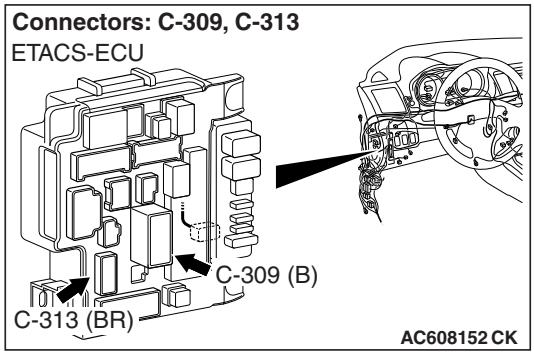

⚠ CAUTION

If the diagnostic trouble code B210D is set in the SRS-ECU, always diagnose the CAN main bus line.

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CIRCUIT OPERATION

- The SRS-ECU is powered from the fusible link (34).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.

DTC SET CONDITIONS

The code is set when the battery voltage becomes low or when the open circuit occurs to the power supply circuit.

TROUBLESHOOTING HINTS

- Battery voltage low voltage
- Open circuit to power supply circuit
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of ETACS-ECU

DIAGNOSIS

Required Special Tools:

- 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)

STEP 1. Power supply fuse number 12,18 check.

Q: Is the fuse in good condition?

YES : Go to Step 3.
NO : Go to Step 2.

STEP 2. Wiring harness check between the C-313 ETACS-ECU connector terminal No. 4/2 and the C-30 SRS-ECU connector terminal No. 61/62.

- Short circuit check for SRS-ECU power supply wire

Q: Is the check result normal?

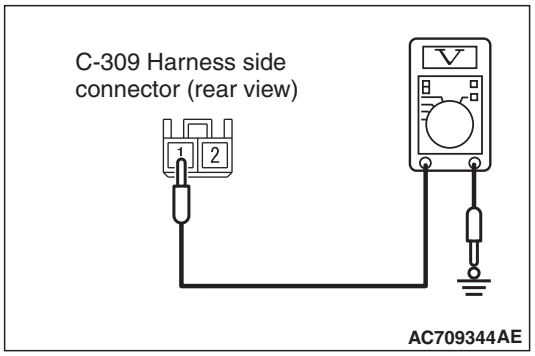
YES : Replace the power supply fuse.
NO : Repair the wiring harness. And than replace the power supply fuse.

STEP 3. Battery check.

Refer to GROUP 54A, Battery Test P.54A-8.

Q: Is the check result normal?

YES : Go to Step 4.
NO : Charge or replace the battery.



STEP 4. Measure the voltage at the ETACS-ECU connector.

(1) Disconnect the C-309 ETACS-ECU connector.
(2) Measure the voltage between the C-309 harness side connector terminal No. 1 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 6.
NO : Go to Step 5.

STEP 5. Wiring harness check between the fusible link (34) and the C-309 ETACS-ECU connector terminal No. 1.

- Open circuit check for ETACS-ECU power supply wire

Q: Is the check result normal?

YES : Go to Step 11.
NO : Repair the wiring harness.

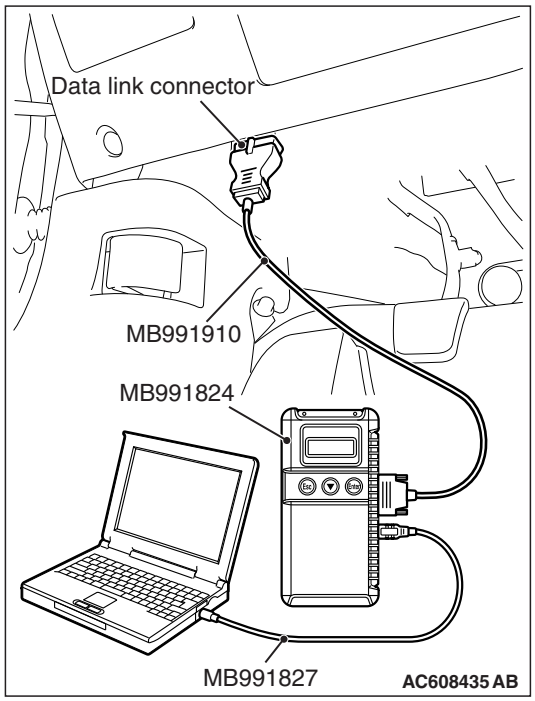
STEP 6. Using scan tool MB991958, diagnose the ETACS.

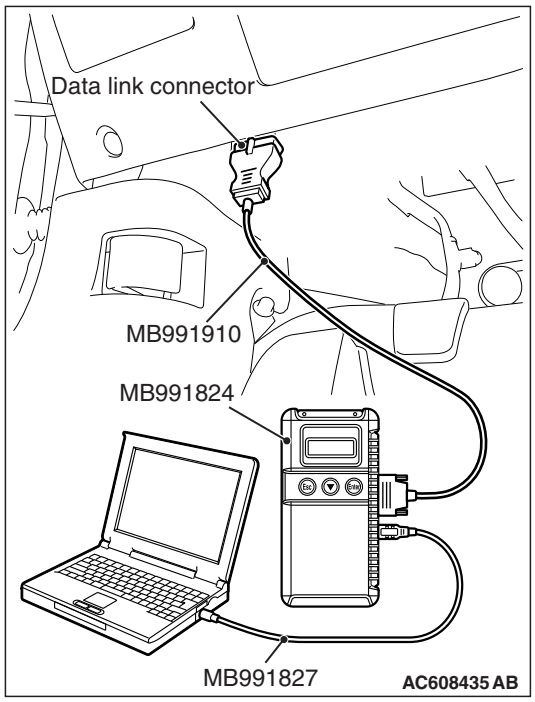
⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Erase the DTC.
(3) Turn the ignition switch to the "ON" position.
(4) Check if the DTC is set.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Diagnose the ETACS (Refer to GROUP 54A, ETACS, Diagnosis P.54A-678). Then go to Step 11.
NO : Check the input signal of ETACS-ECU ignition switch (IG1) (Refer to GROUP 54A, ETACS, Symptom procedures P.54A-738). Then go to step 7.





STEP 7. 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-28."
(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 8.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-17).

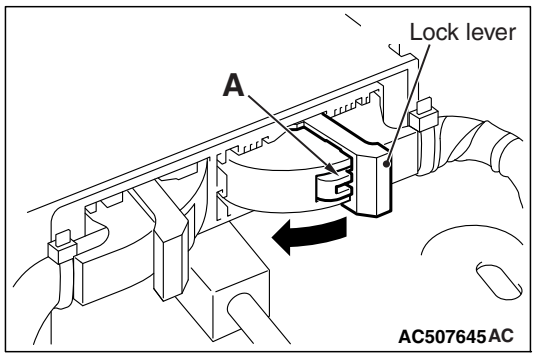
STEP 8. Recheck for diagnostic trouble code.

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.

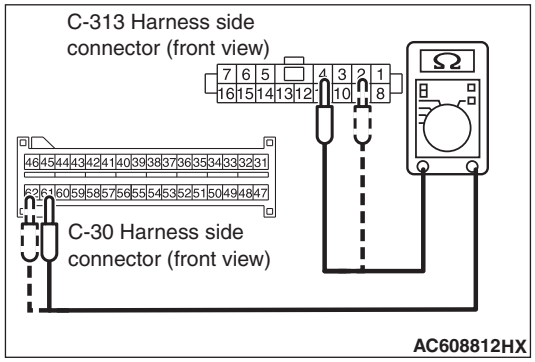
Q: Is the DTC set?

YES : Go to Step 9.
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.00-14).

STEP 9. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.61 and 62) and the ETACS-ECU connector C-313 (terminal No.4 and 2).



(1) Disconnect the negative battery terminal.
(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 C-30 SRS-ECU connector.
(3) Disconnect the ETACS-ECU connector C-313.



(4) Check for continuity between the following terminals. It should be less than 2 ohms.

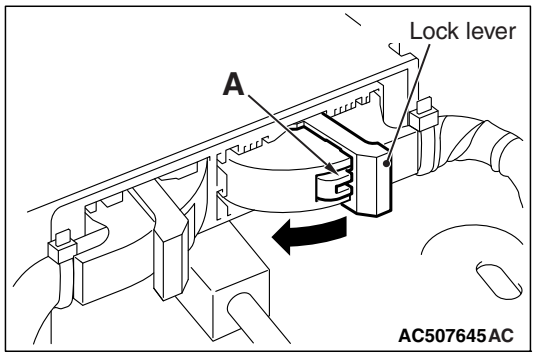
<Fuse No.12>
- SRS-ECU connector C-30 (terminal No.62) and the ETACS-ECU connector C-313 (terminal No.2)

<Fuse No.18>
- SRS-ECU connector C-30 (terminal No.61) and the ETACS-ECU connector C-313 (terminal No.4)

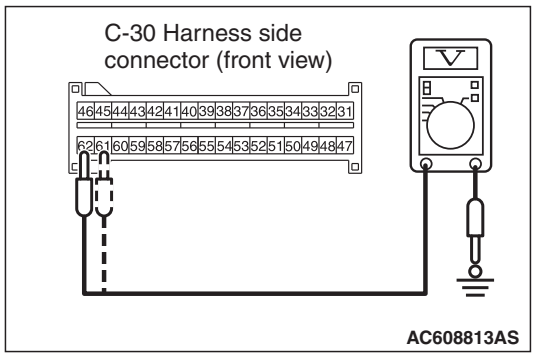
Q: Does continuity exist?

YES : Go to Step 10.
NO : Repair the harness wire between SRS-ECU connector C-30 and the ETACS-ECU connector C-313.

STEP 10. Measure the voltage at the C-30 SRS-ECU connector.



(1) Disconnect the negative battery terminal.
(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 C-30 SRS-ECU connector.
(3) Connect the negative battery terminal.
(4) Ignition switch: ON



(5) Take the measurements below at the C-30 harness side connector.
- Voltage between terminal No. 61/62 and body ground

OK: 9 V or more

Q: Is the measured voltage within the specified range?

YES : Go to Step 11.

NO : Replace the ETACS-ECU (Refer to GROUP 54A, ETACS-ECU P.54A-772).

STEP 11. 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 set?

YES : Replace the SRS-ECU (Refer to P.52B-416).

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.00-14).