GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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⚠ 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***
- ***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.***

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GENERAL DESCRIPTION

M1524000101915

NOTE: In this manual, the part names are changed from the names in owner's manual into the following names.

- *Driver's seat position sensor → Seat slide sensor*
- *Passenger's seat weight sensor → Occupant classification sensor*
- *Seat belt buckle switch → Seat belt switch*
- *Passenger air bag off indicator → Passenger air bag OFF indicator light*
- *Front passenger seat belt warning light → Passenger seat belt warning light*

⚠ ***WARNING***

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

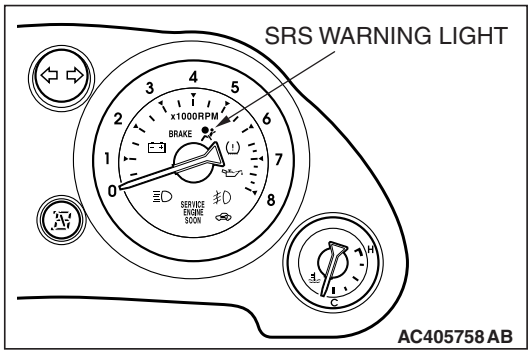
The SRS is designed to supplement the front seat belts. It reduces injury to the driver(s) and the front passenger(s) by deploying air bag(s) in case of a head-on collision.
The SRS front air bags form an advanced air bag system together with sensors at the vehicle and sensors attached to the front seats.

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

The curtain air bag systems are activated when side impacts applied to the vehicle exceed criteria, to protect the heads of the occupants in the front seats. <ECLIPSE>

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 controls the activation and deactivation of the pre-tensioner.

The SRS consists of six air bag modules, SRS air bag control unit (SRS-ECU), two front impact sensors, two side impact sensors, SRS warning light, passenger air bag OFF indicator light, passenger seat belt warning light, clock spring, seat belt pre-tensioner, seat belt switch, seat slide sensor, occupant classification sensor and occupant classification-ECU. Air bag modules are located in the center of the steering wheel and above the glove box. Side-airbags are located inside the front seatback assemblies. 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). <ECLIPSE> 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 radiator support panel 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 occupant classification sensor is installed underneath a rail of the passenger seat to detect the load on the seat. The passenger air bag OFF indicator light is installed to the lower left of the multi-center display, and illuminates when the passenger seat air bag is inactive. The passenger seat belt warning light is installed to the lower right of the multi-center display, 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.



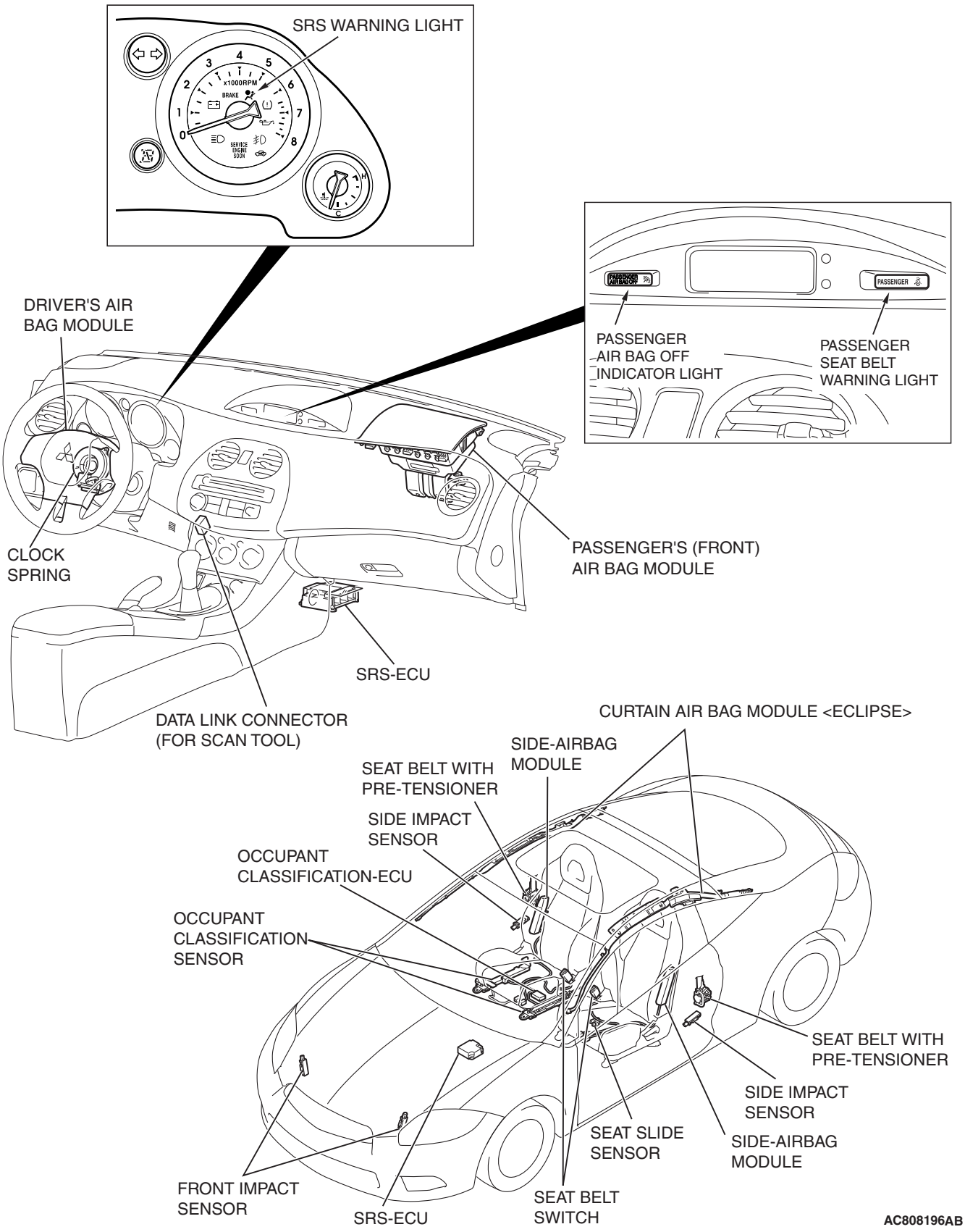
ON-BOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

The diagnosis unit 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 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



NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic(P.52B-9), "Configuration Diagrams(P.52B-12), " and "Circuit Diagram(P.52B-14)".

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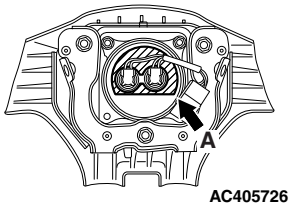
WARNING/CAUTION LABELS

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. If the labels are dirty or damaged, replace them.

DRIVER'S AIR BAG MODULE



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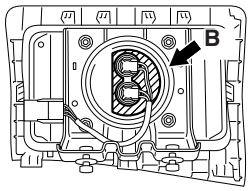
PASSENGER'S AIR BAG MODULE



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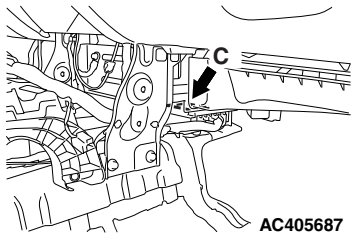
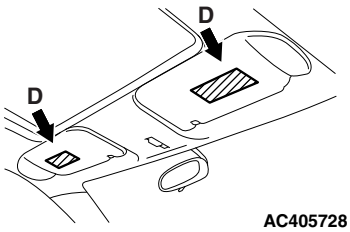
SRS-ECU



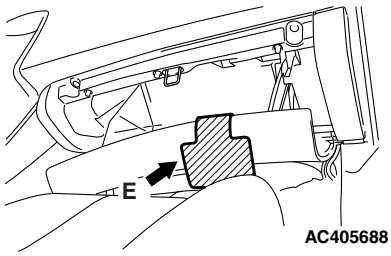
AC405687

SUN VISOR



AC405728

GLOVE BOX



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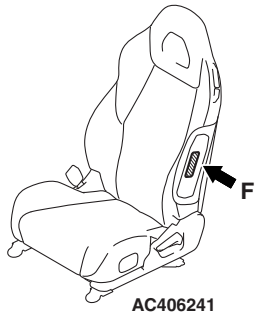
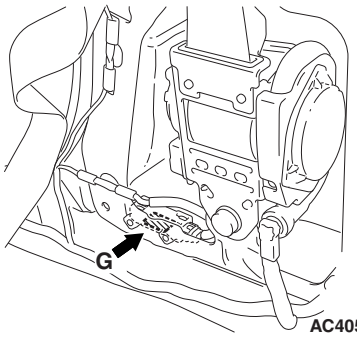
SIDE-AIRBAG MODULE (DRIVER'S AND FRONT PASSENGER'S SEAT)



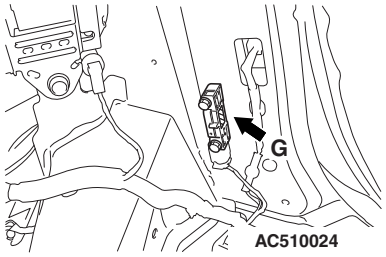
AC406241

SIDE IMPACT SENSORS (RH AND LH) <ECLIPSE>



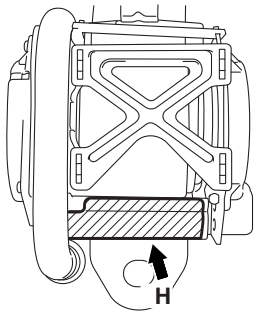
AC405964

SIDE IMPACT SENSORS (RH AND LH) <ECLIPSE SPYDER>

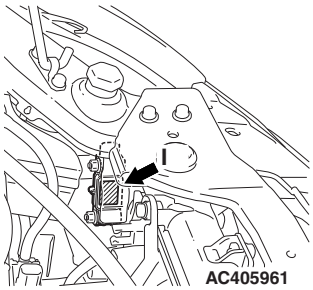


AC510024

SEAT BELT WITH PRE-TENSIONER (DRIVER'S AND FRONT PASSENGER'S SEAT BELT)

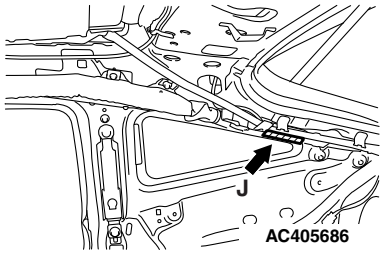


FRONT IMPACT SENSORS (RH AND LH)



AC405961

CURTAIN AIR BAG



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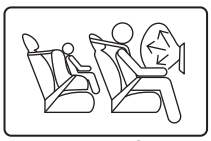
Label contents	
A	DANGER: FLAMMABLE MATERIAL TO PREVENT PERSONAL INJURY, DO NOT DISMANTLE, INCINERATE, OR BRING INTO CONTACT WITH ELECTRICITY. STORE BELOW 200° F(93°C). READ SERVICE MANUAL FOR DETAIL.
B	DANGER FLAMMABLE CAUTION THIS ASSEMBLY CONTAINS AN EXPLOSIVE INITIATOR. DANGER INFLAMMABLE CONTENTS ARE EXTREMELY FLAMMABLE DO NOT PROBE WITH ELECTRICAL DEVICES OR OTHERWISE TAMPER WITH IN ANY WAY.
C	CAUTION: DO NOT DISASSEMBLE OR DROP. IF DEFECT REFER TO SERVICE MANUAL.
D  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	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.
E <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.
F	DANGER FLAMMABLE MATERIAL SRS AIR BAG MODULE • Do not disassemble or impact. • 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). • Do not store the air bag with stud bolts pointing upwards. • For information on handing, replacement, and disposal methods, refer to the service manual.
H	DANGER: SEAT BELT PRETENSIONER CAUTION: THIS ASSEMBLY CONTAINS AN EXPLOSIVE INITIATOR FLAMMABLE MATERIAL TO PREVENT PERSONAL INJURY • DO NOT IMPACT, DISMANTLE OR INSTALL IT INTO ANOTHER VEHICLE. • SERVICE OR DISPOSE OF IT AS DIRECTED IN THE REPAIR MANUAL.
G, I	CAUTION: DO NOT DISASSEMBLE OR DROP.

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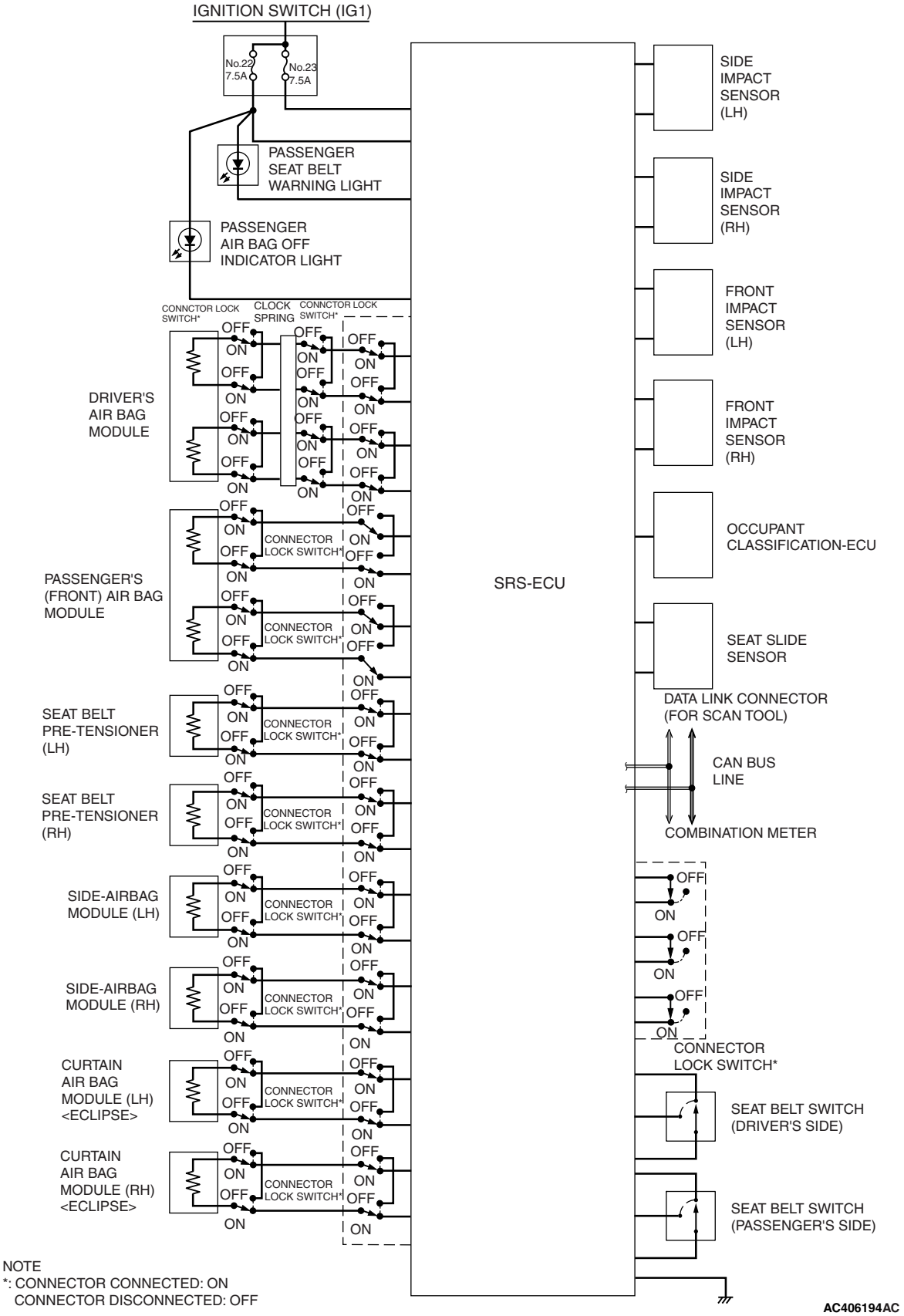
Label contents	
J	DANGER SRS AIRBAG CONTENTS ARE EXTREMELY FLAMMABLE. TO AVOID PERSONAL INJURY DUE TO ACCIDENTAL INFLATION, DO NOT PROBE WITH ELECTRICAL DEVICE OR OTHER-WISE TAMPER WITH IN ANY WAY. FOLLOW SERVICE MANUAL INSTRUCTION CAREFULLY. "CAUTION-THIS ITEM CONTAINS AN EXPLOSIVE IGNITER."

SCHEMATIC



NOTE
*: CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF

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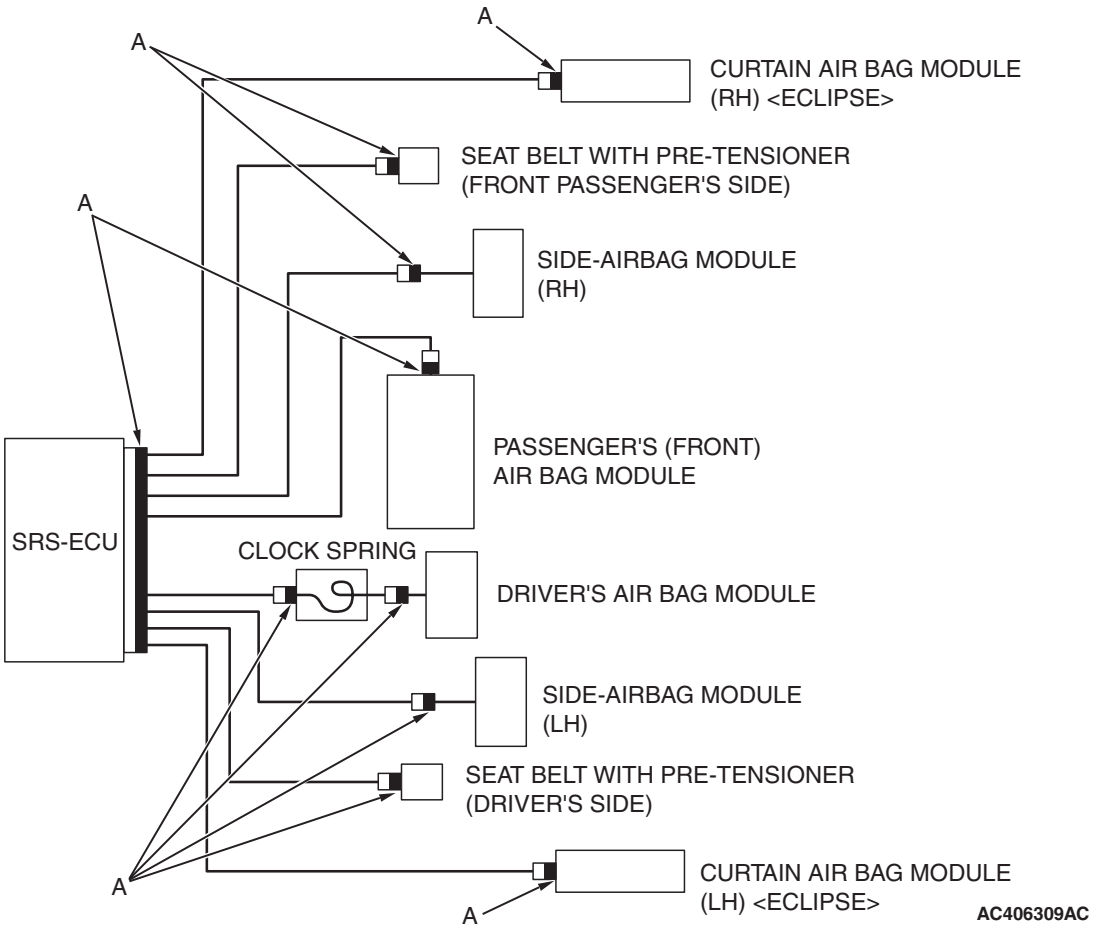
SRS AIR BAG SPECIAL CONNECTOR

To enhance the system reliability, a connector lock switch is integrated in the SRS-ECU connector, the air bag module connectors, the clock spring connector, the seat belt pretensioner connectors (black connector "A" shown in the illustration below).



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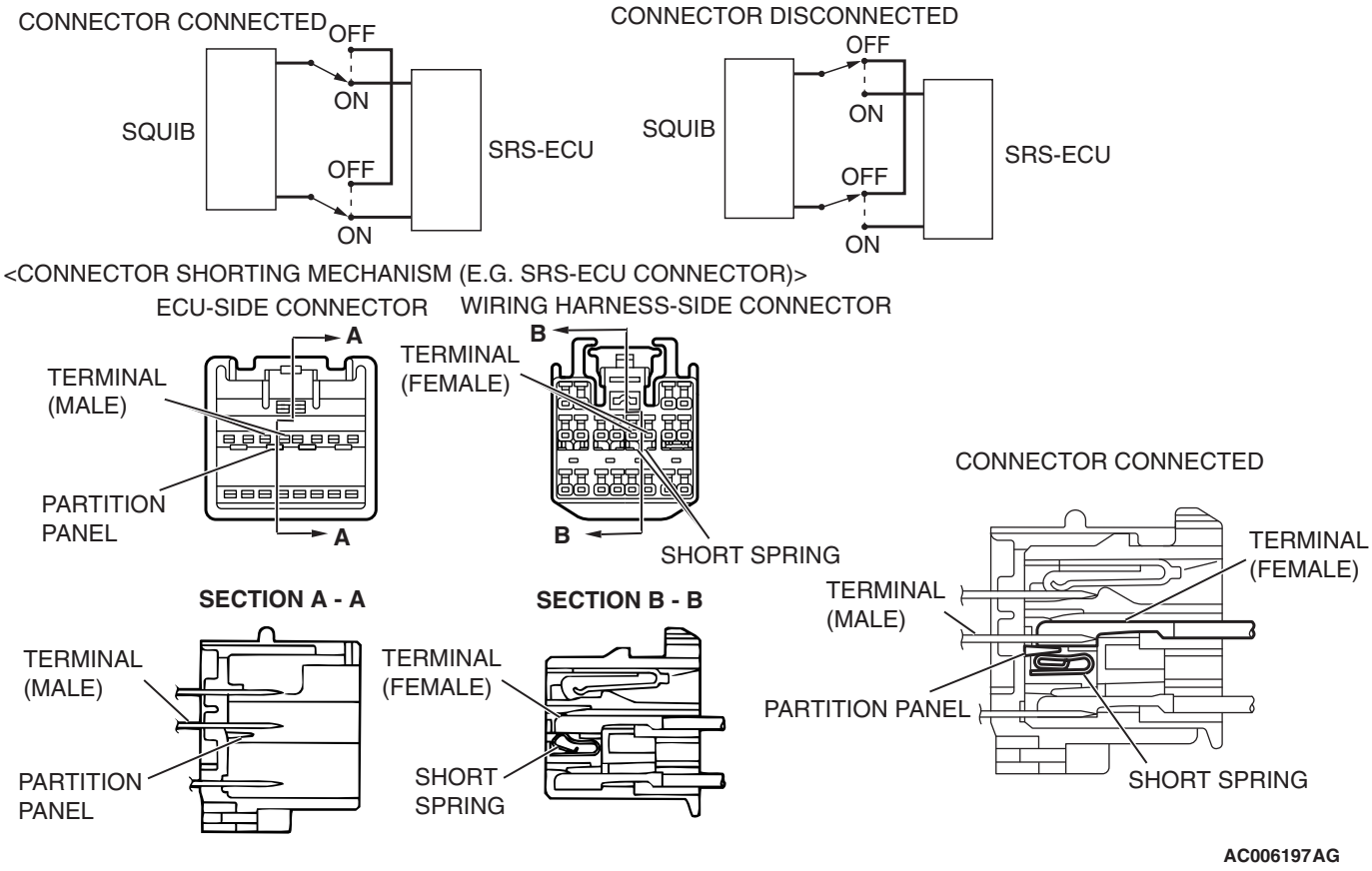
SQUIB CIRCUIT CONNECTOR LOCK SWITCH

The switch is a mechanism that shorts the power supply terminal to the ground terminal automatically in the air bag squib circuit when the connector is disconnected. A "short" spring is integrated inside the connector. This spring prevents static electricity from flowing to the squib by shorting the power supply terminal to the ground terminal (i.e. there is no potential difference between the two terminals).

⚠ CAUTION

When the connector is disconnected, there will be short circuit between the terminals. This is not a fault.



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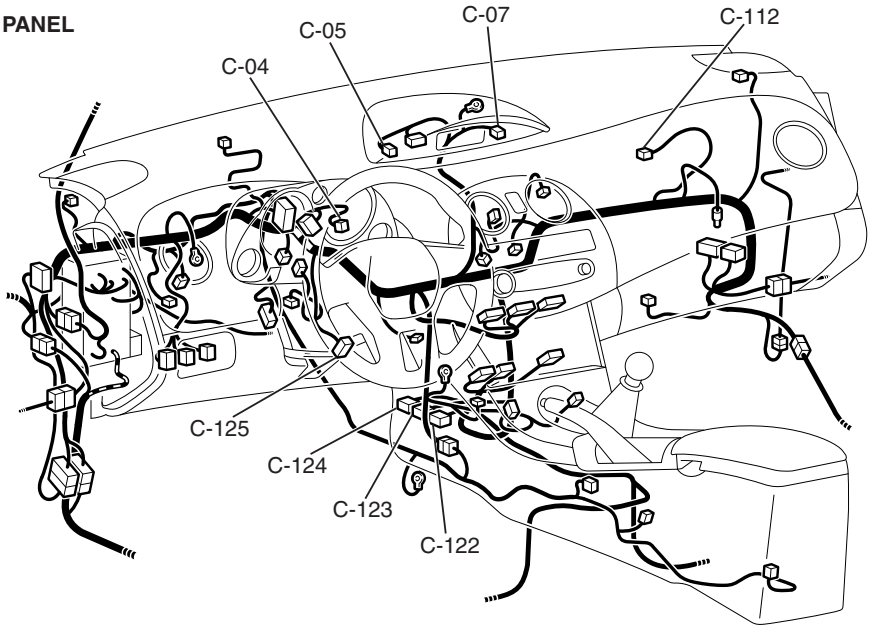
CONFIGURATION DIAGRAMS

DASH PANEL



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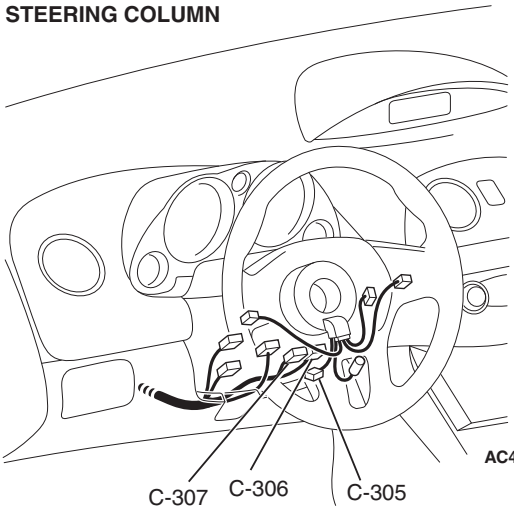
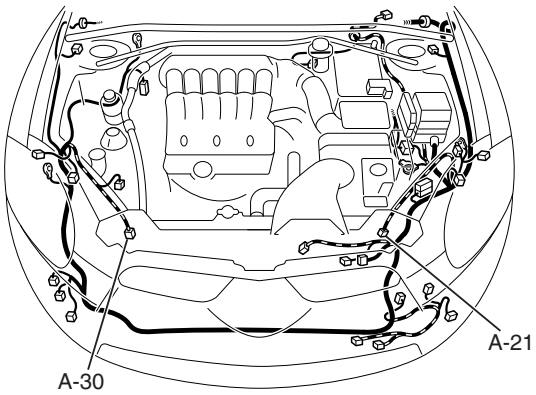
STEERING COLUMN



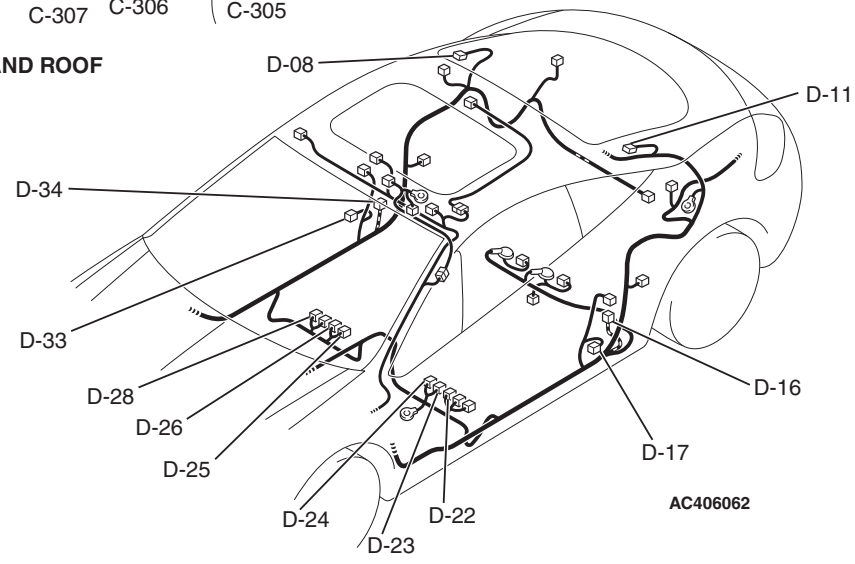
AC406059

ENGINE ROOM



AC406047

FLOOR AND ROOF



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A-21 (Y)	FRONT IMPACT SENSOR (LH)
A-30 (Y)	FRONT IMPACT SENSOR (RH)
C-04	COMBINATION METER (FOR SRS WARNING LIGHT)
C-05	PASSENGER AIR BAG OFF INDICATOR LIGHT
C-07	PASSENGER SEAT BELT WARNING LIGHT
C-112 (Y)	AIR BAG MODULE (PASSENGER'S SIDE)
C-122 (Y)	SRS-ECU
C-123 (Y)	SRS-ECU
C-124 (Y)	SRS-ECU
C-125 (B)	DATA LINK CONNECTOR
C-305 (Y)	AIR BAG MODULE (SQUIB) (DRIVER'S SIDE)
C-306	CLOCK SPRING
C-307 (Y)	CLOCK SPRING
D-08 (B)	CURTAIN AIR BAG MODULE (SQUIB) (RH) <ECLIPSE>
D-11 (B)	CURTAIN AIR BAG MODULE (SQUIB) (LH) <ECLIPSE>
D-16(B)	SEAT BELT PRE-TENSIONER (LH)
D-17	SIDE IMPACT SENSOR (LH)
D-22 (B)	SEAT BELT SWITCH (DRIVER'S SIDE)
D-23 (R)	SIDE-AIRBAG MODULE (SQUIB) (LH)
D-24 (GR)	SEAT SLIDE SENSOR
D-25	SEAT BELT SWITCH (PASSENGER'S SIDE)
D-26 (GR)	OCCUPANT CLASSIFICATION-ECU
D-28 (R)	SIDE-AIRBAG MODULE (SQUIB) (RH)
D-33	SIDE IMPACT SENSOR (RH)
D-34 (B)	SEAT BELT PRE-TENSIONER (RH)

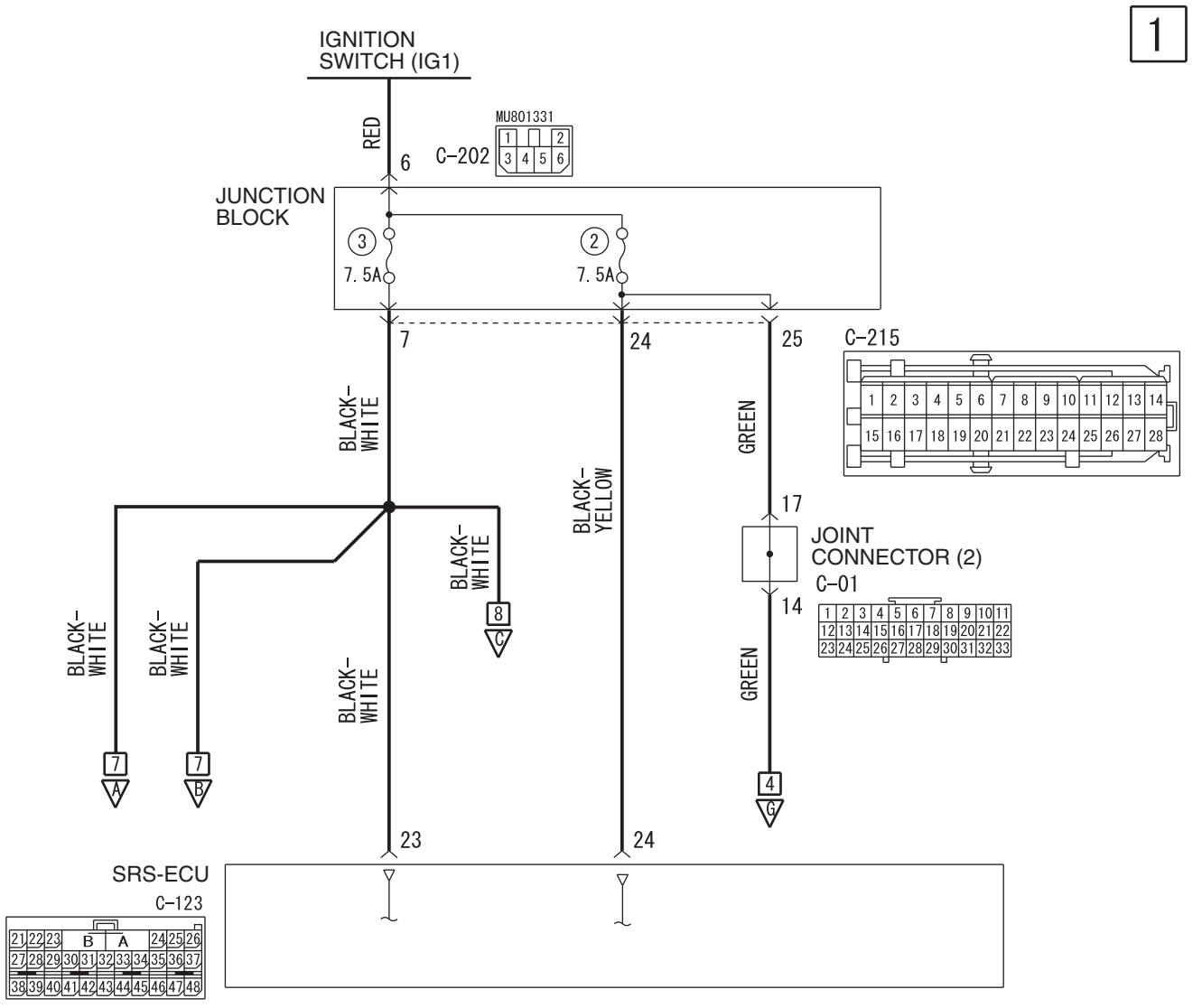
CIRCUIT DIAGRAM

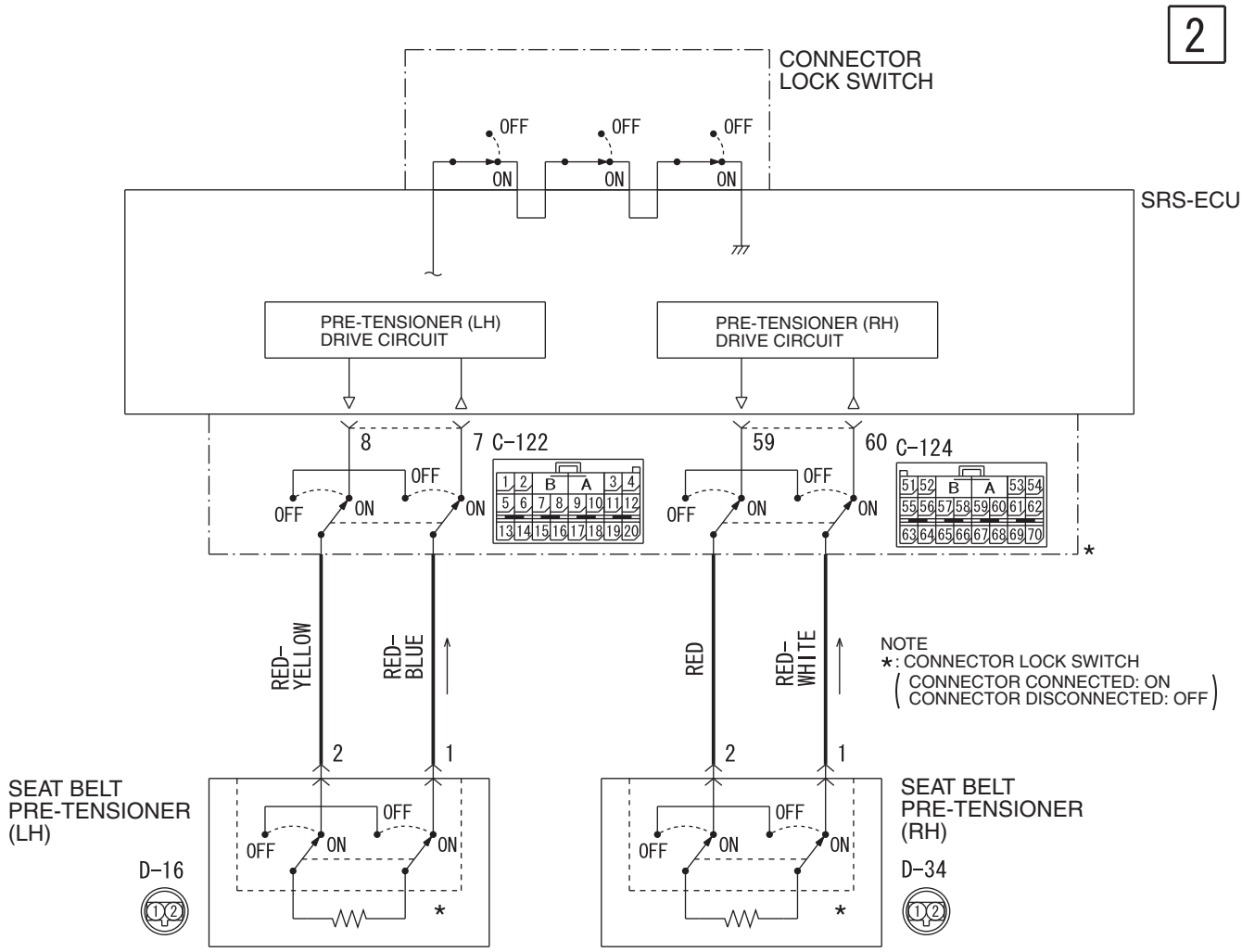
⚠ *WARNING*

- ***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-28): 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-402).***

⚠ CAUTION

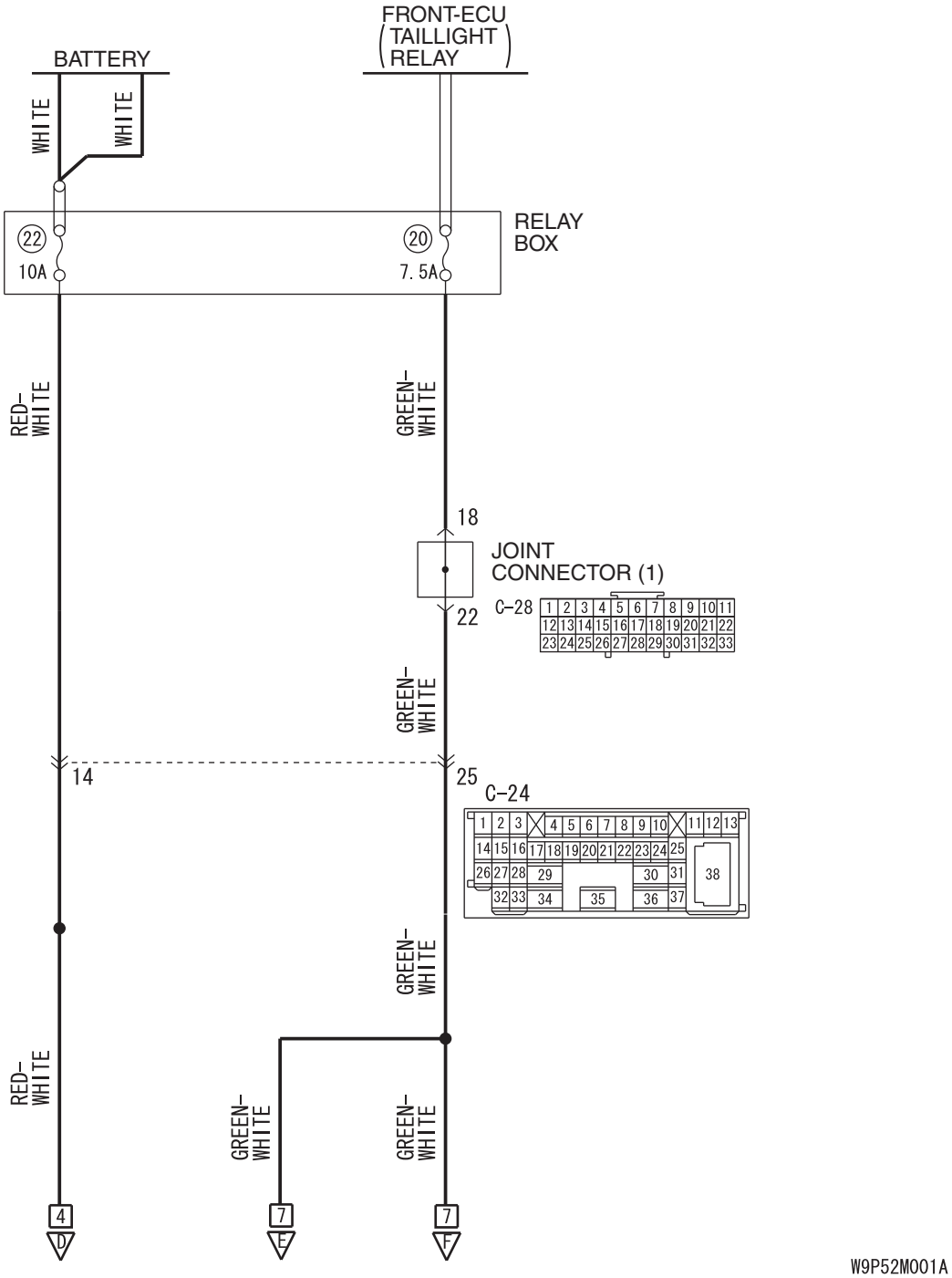
Improper services cause the system to be inoperative. Do not disassemble or tamper with the SRS components to prevent serious injury.




2
CONNECTOR
LOCK SWITCH
OFF
OFF
OFF
ON
ON
ON
SRS-ECU
PRE-TENSIONER (LH)
DRIVE CIRCUIT
PRE-TENSIONER (RH)
DRIVE CIRCUIT
8
7
C-122
59
60
C-124
OFF
ON
ON
OFF
ON
ON
RED-
YELLOW
RED-
BLUE
RED
RED-
WHITE
NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)
2
1
2
1
SEAT BELT
PRE-TENSIONER
(LH)
D-16
SEAT BELT
PRE-TENSIONER
(RH)
D-34
W6P52M023A

<VEHICLES WITH HALOGEN TYPE HEADLIGHT>

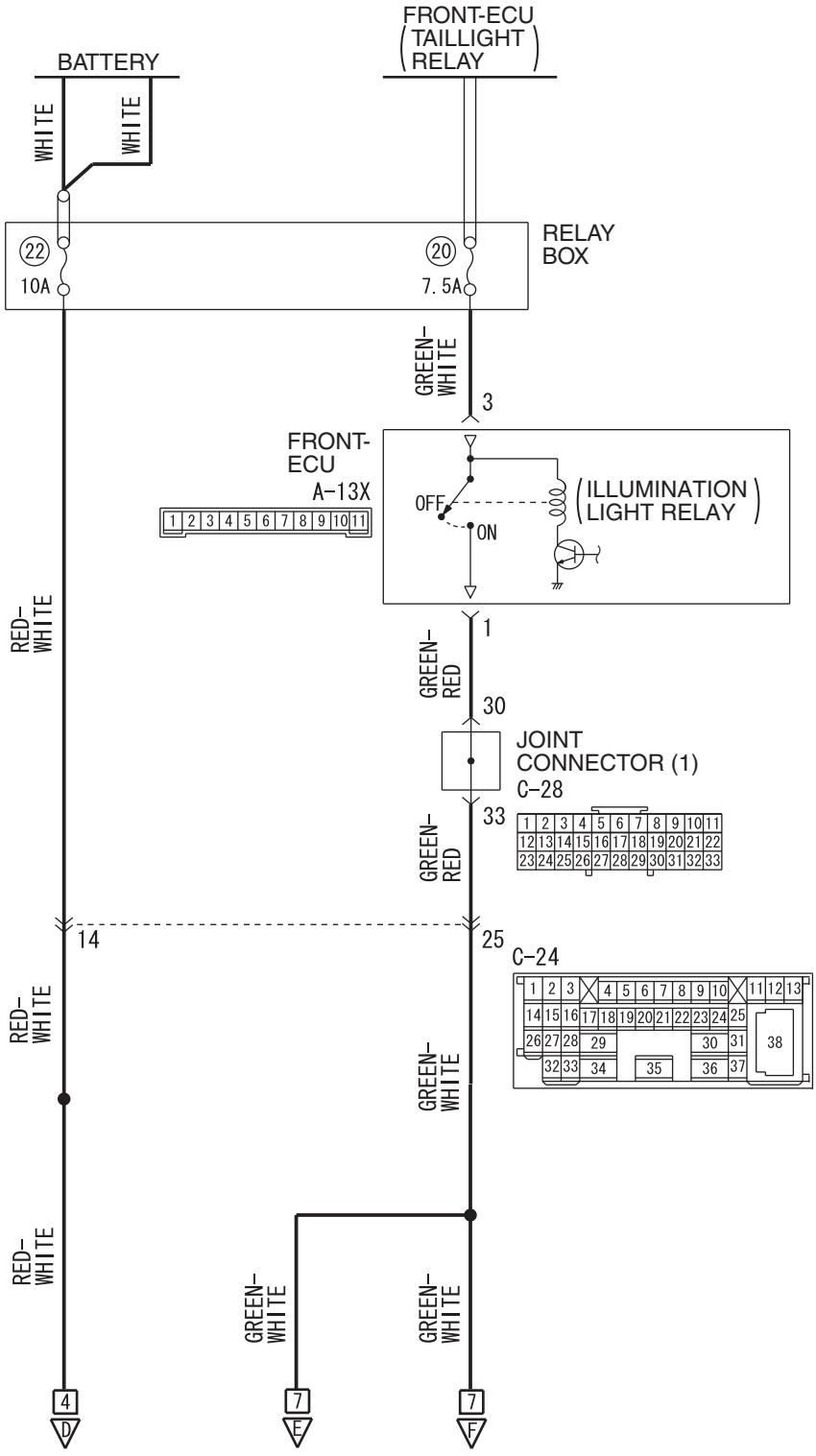
3



TSB Revision

3

<VEHICLES WITH DISCHARGE TYPE HEADLIGHT>



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TSB Revision

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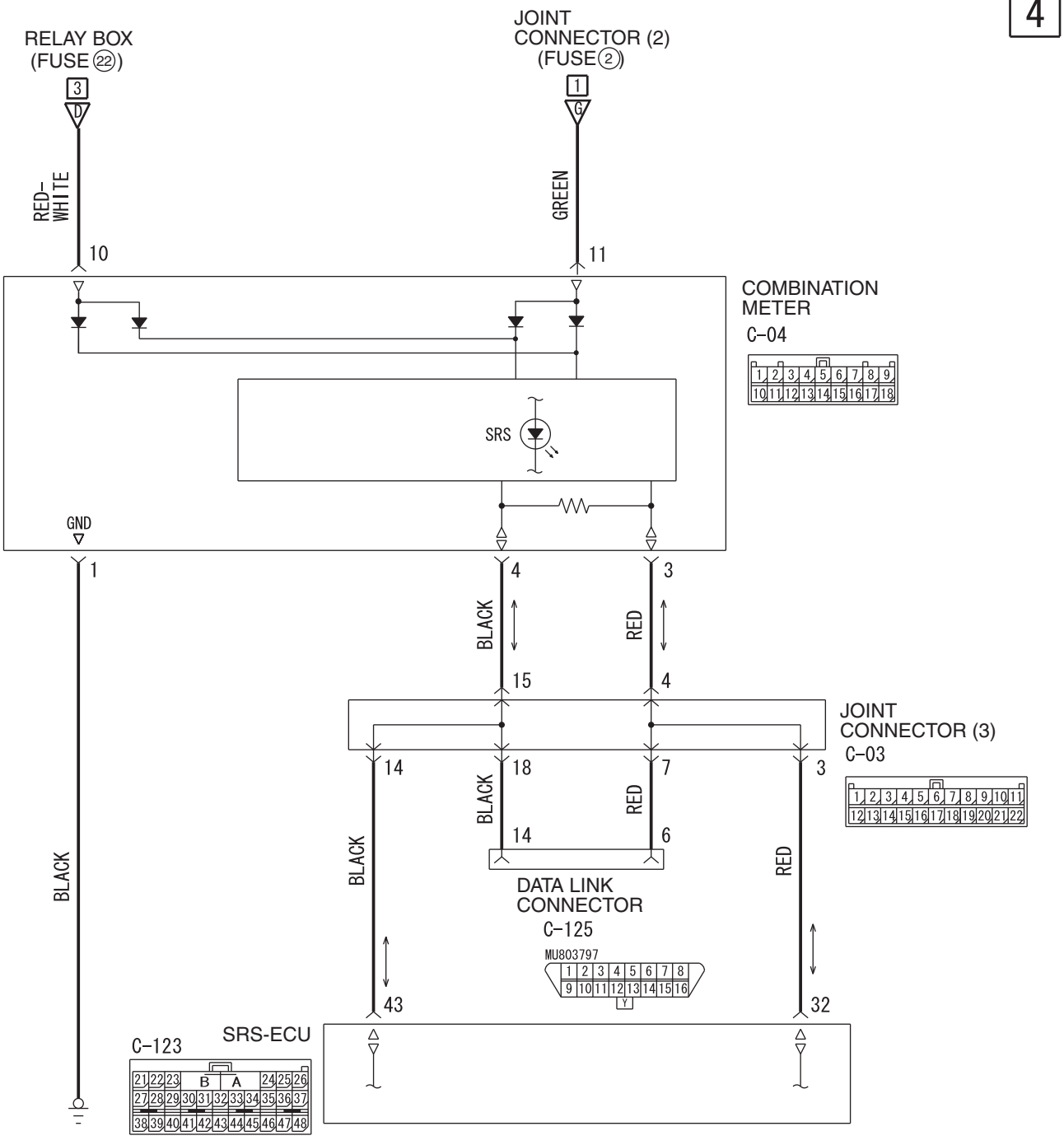

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TSB Revision

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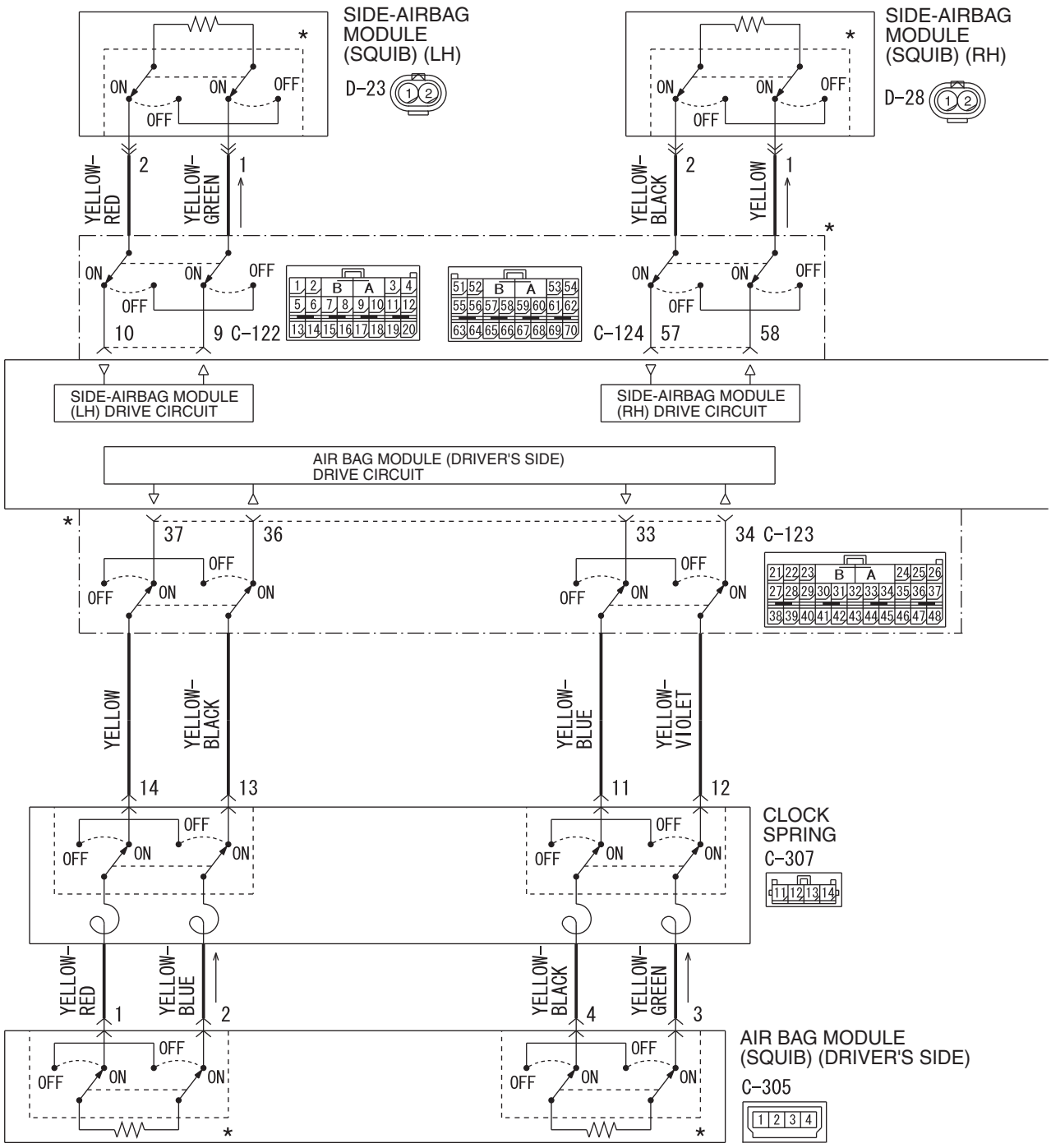
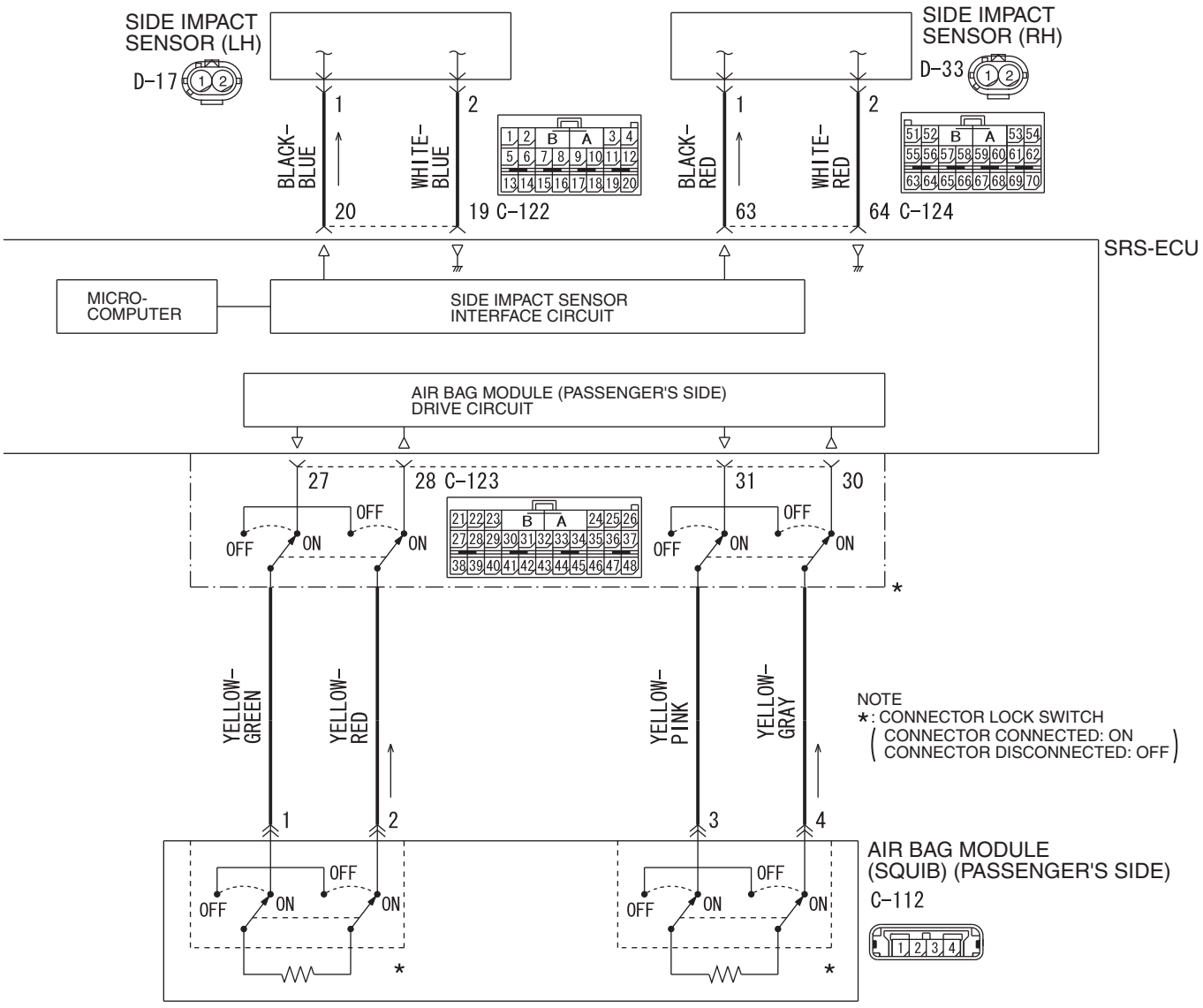


NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

W6P52M025A

TSB Revision

6



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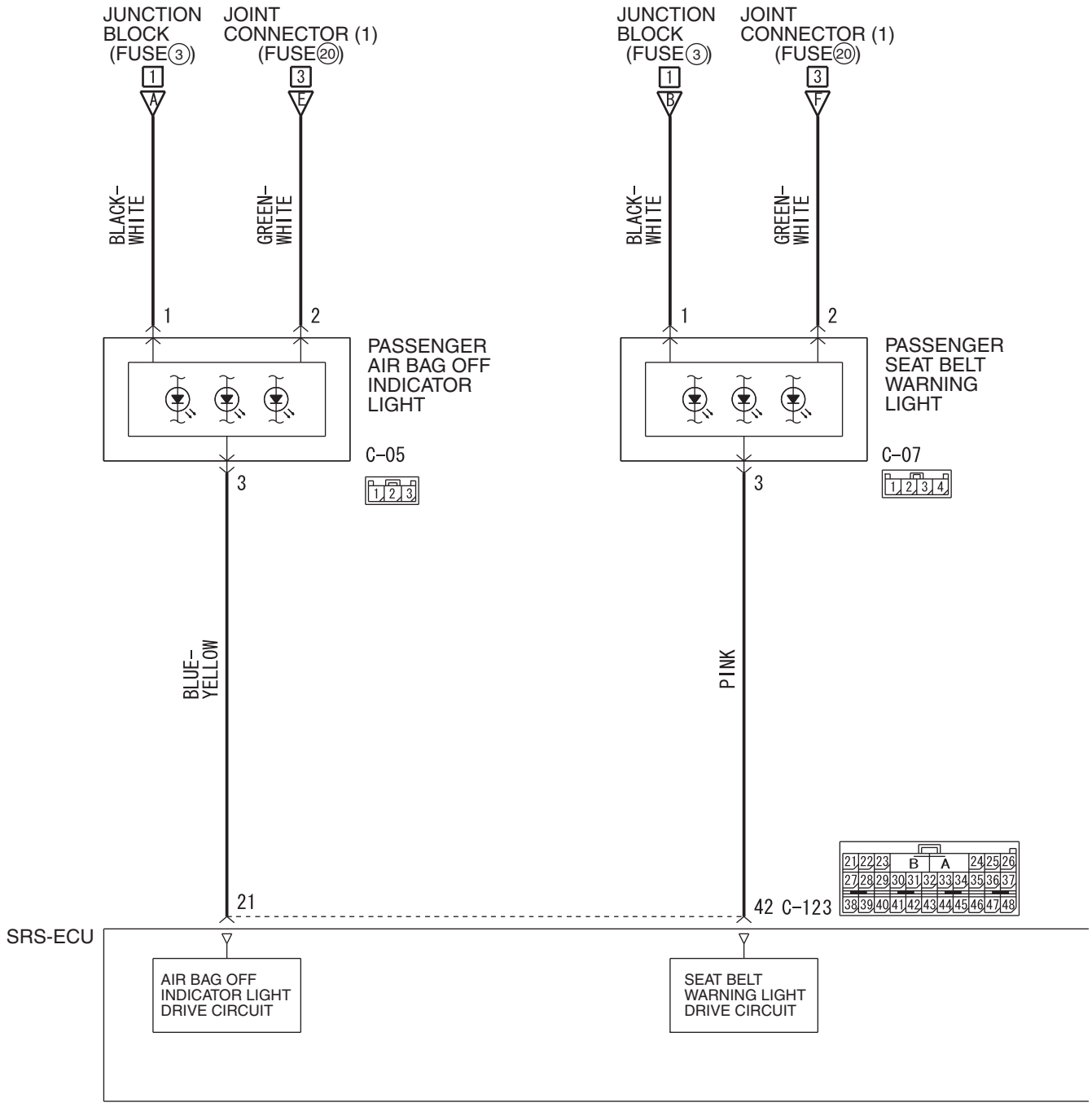
TSB Revision

<VEHICLES WITH HALOGEN TYPE HEADLIGHT>

7



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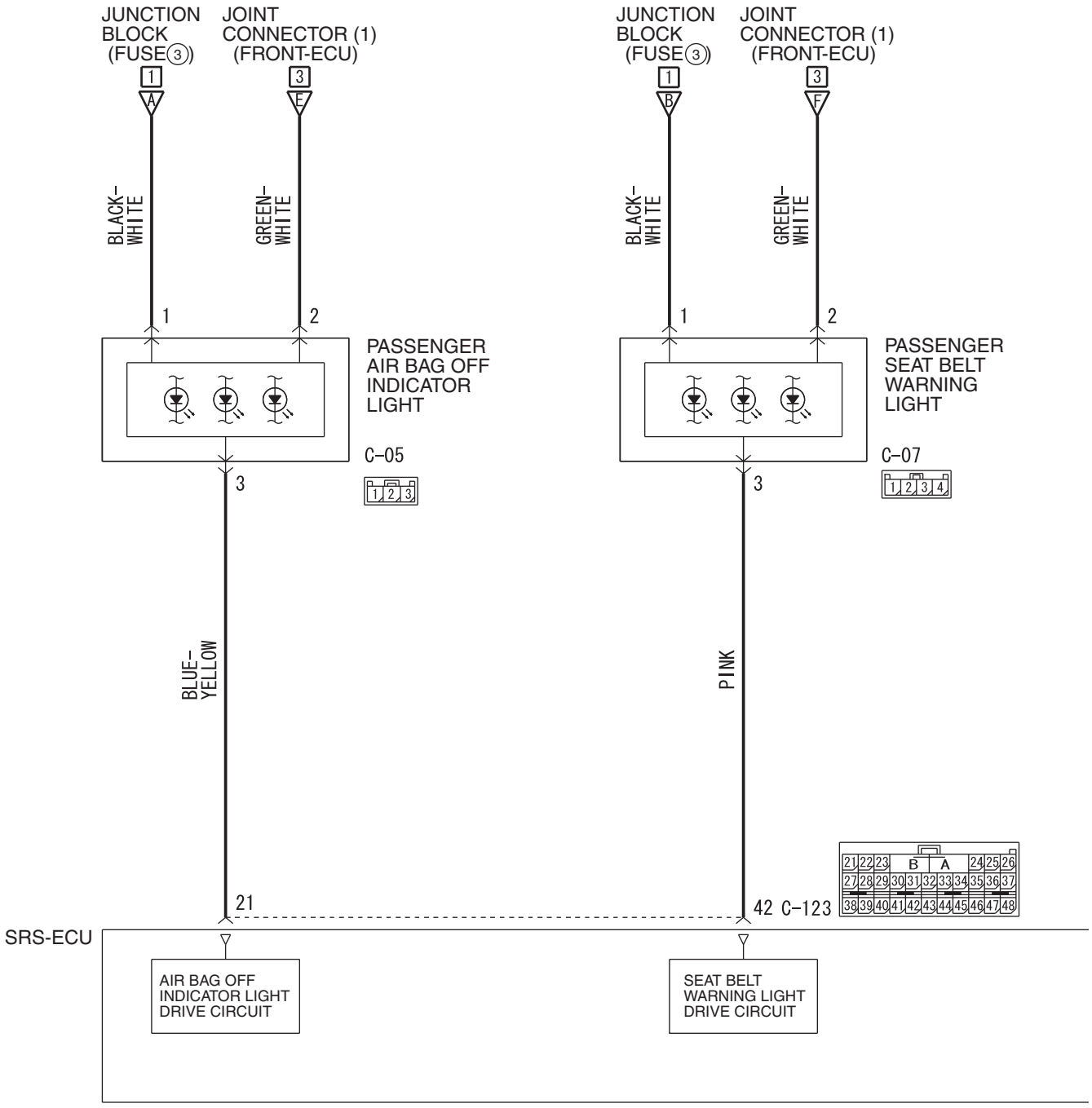
TSB Revision

<VEHICLES WITH DISCHARGE TYPE HEADLIGHT>

7



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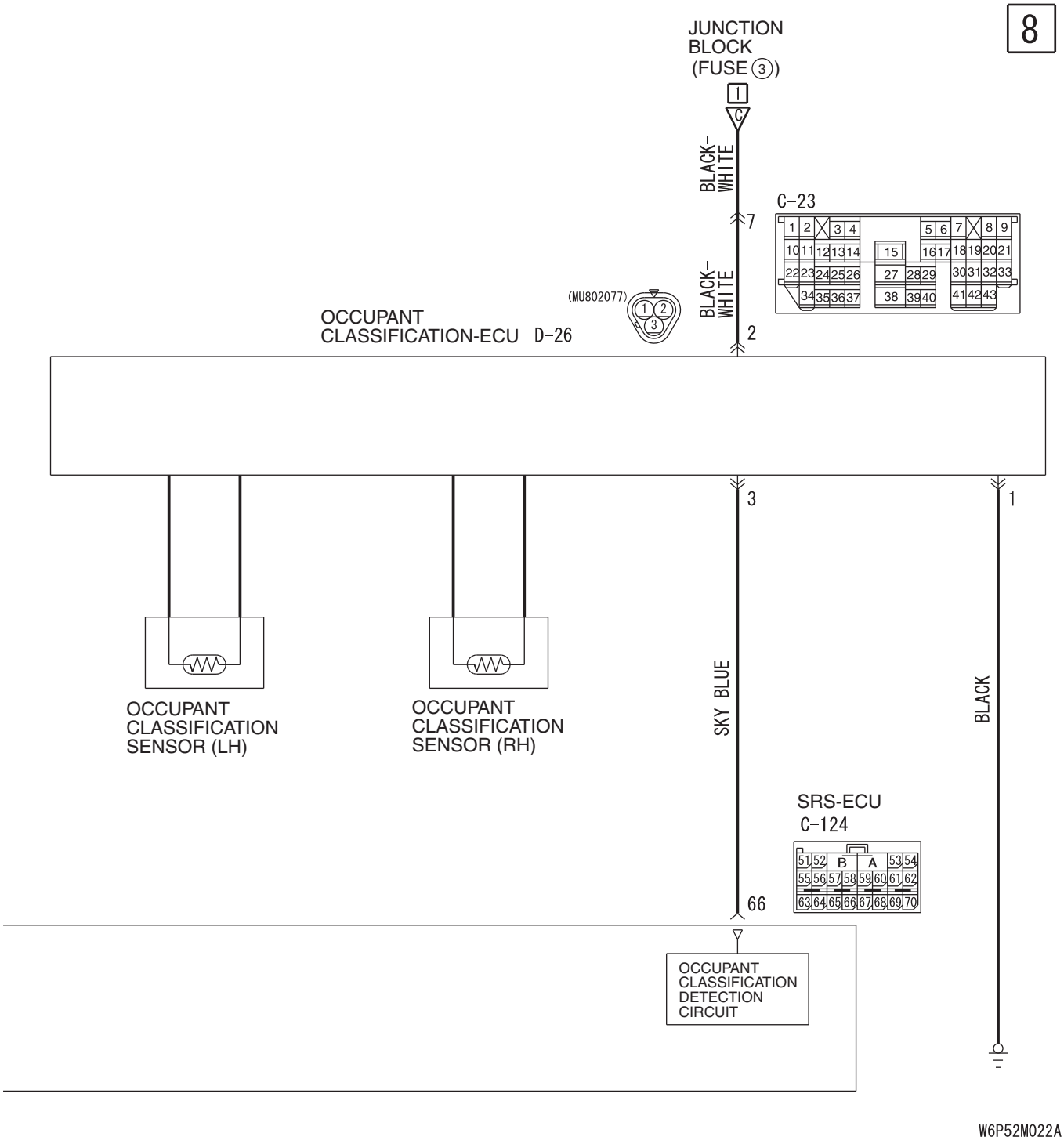
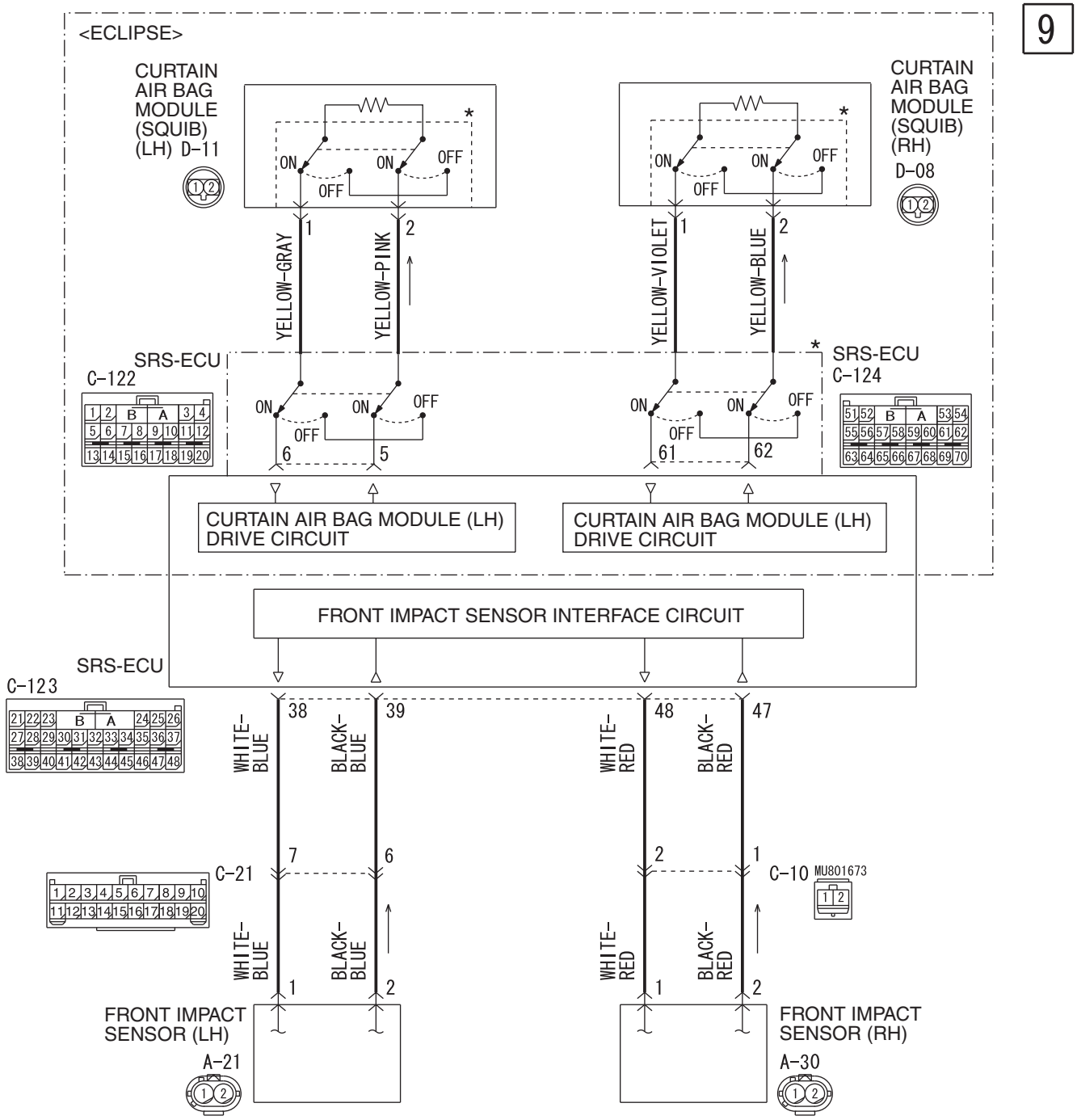

8
JUNCTION BLOCK (FUSE ③)
1
C
BLACK-WHITE
7
C-23
1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16 17 18 19 20 21
22 23 24 25 26 27 28 29 30 31 32 33
34 35 36 37 38 39 40 41 42 43
(MU802077)
1 2 3
BLACK-WHITE
2
OCCUPANT CLASSIFICATION-ECU D-26
3
1
OCCUPANT CLASSIFICATION SENSOR (LH)
OCCUPANT CLASSIFICATION SENSOR (RH)
SKY BLUE
BLACK
SRS-ECU
C-124
51 52 B A 53 54
55 56 57 58 59 60 61 62
63 64 65 66 67 68 69 70
66
OCCUPANT CLASSIFICATION DETECTION CIRCUIT
W6P52M022A

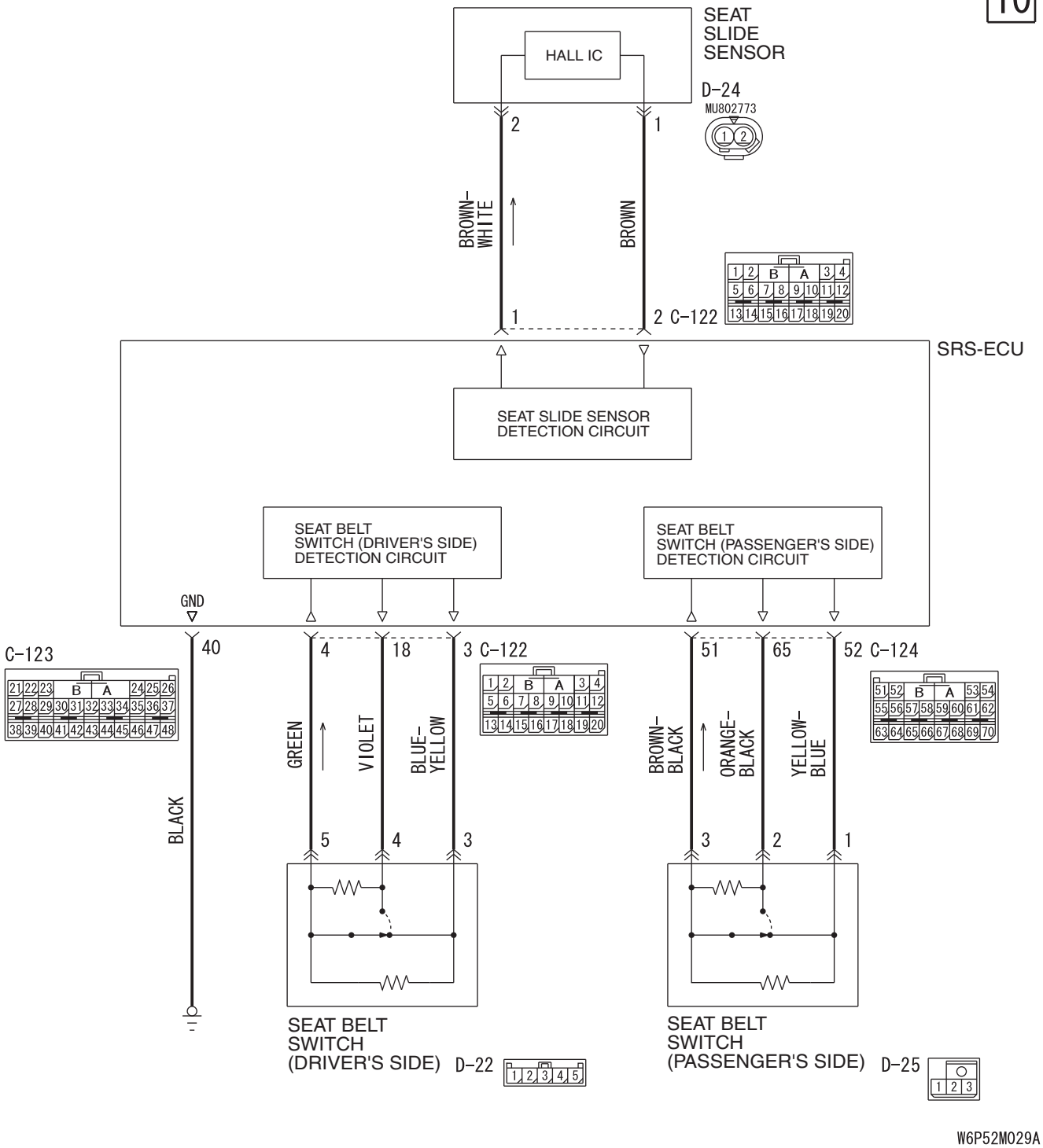
9



NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

WAP52M001A

10



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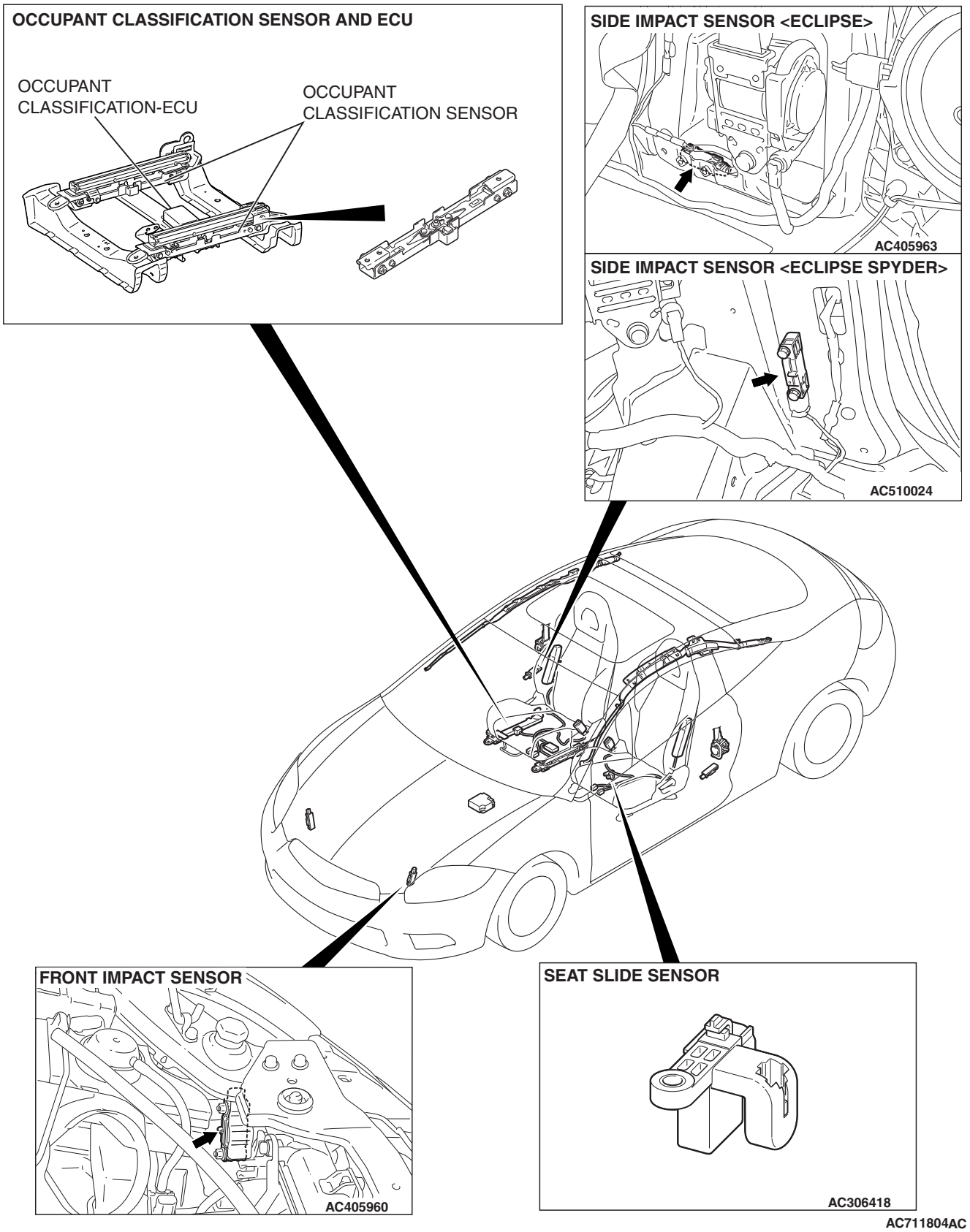
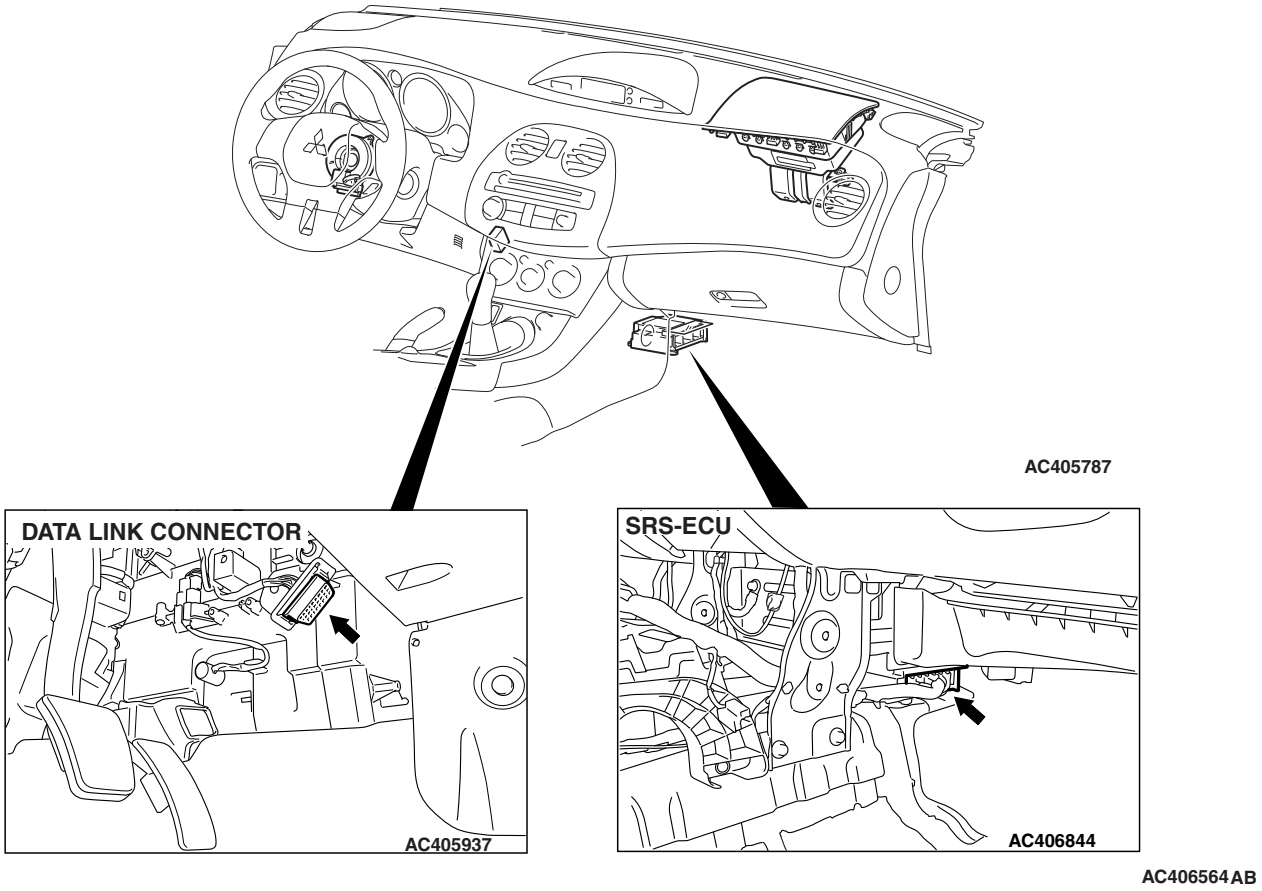
COMPONENT LOCATION



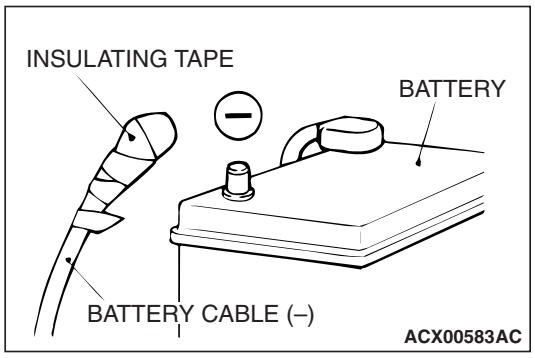
TSB Revision



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

SERVICE PRECAUTIONS

M1524000300789

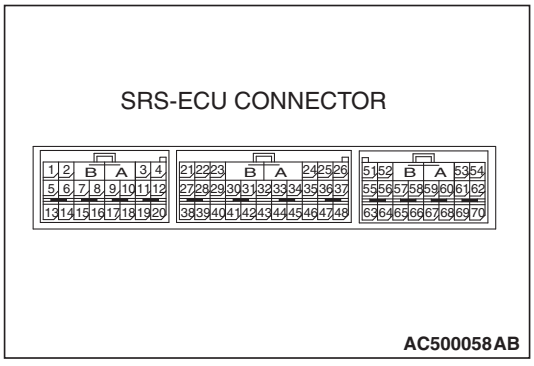


⚠ DANGER

- ***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.***
- ***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 Module, Front impact sensor, Side Impact Sensor, Seat Belt with Pre-tensioner, Seat slide sensor, Front seat assembly. 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	Floor wiring harness → Seat slide sensor	Correct or replace the floor wiring harness.
3	Floor wiring harness → Driver's seat belt switch for Normal/Close terminal	Correct or replace the floor wiring harness.
4	Floor wiring harness → Driver's seat belt switch for COM terminal	Correct or replace the floor wiring harness.
5, 6	Floor wiring harness → Curtain air bag module (LH)	Correct or replace the floor wiring harness.
7, 8	Floor wiring harness → Seat belt pre-tensioner (LH)	Correct or replace the floor wiring harness.
9*, 10*	Floor wiring harness → Side-airbag module (LH)	Correct or replace the floor wiring harness.
18	Floor wiring harness → Driver's seat belt switch for Normal/Open terminal	Correct or replace the floor wiring harness.
19*, 20*	Floor wiring harness → Side impact sensor (LH)	Correct or replace the floor wiring harness.
21	Floor wiring harness → Instrument panel wiring harness → Air bag OFF indicator light	Correct or replace each wiring harness.
23	Floor wiring harness → Instrument panel wiring harness → Junction block (fuse No.22)	Correct or replace each wiring harness.
24	Floor wiring harness → Instrument panel wiring harness → Junction block (fuse No.23)	Correct or replace each wiring harness.
27, 28	Floor wiring harness → Instrument panel wiring harness → Air bag module (Front passenger's side) <1st squib side>	Correct or replace each wiring harness.
30, 31	Floor wiring harness → Instrument panel wiring harness → Air bag module (Front passenger's side) <2nd squib side>	Correct or replace each wiring harness.
32	Can line	Correct or replace can line.
33, 34	Floor wiring harness → Instrument panel wiring harness → Clock spring → Air bag module (Driver's side) <2nd squib side>	Correct or replace each wiring harness. Replace the clock spring.
36, 37	Floor wiring harness → Instrument panel wiring harness → Clock spring → Air bag module (Driver's side) <1st squib side>	Correct or replace each wiring harness. Replace the clock spring.
38, 39	Floor wiring harness → Instrument panel wiring harness → Front wiring harness → Front impact sensor (LH)	Correct or replace each wiring harness.
40	Floor wiring harness → Ground	Correct or replace the floor wiring harness.

SRS-ECU terminal No.	Destination of harness	Corrective action
42	Floor wiring harness → Instrument panel wiring harness → Seat belt warning light	Correct or replace each wiring harness.
43	Can line	Correct or replace can line.
47, 48	Floor wiring harness → Instrument panel wiring harness → Front impact sensor (RH)	Correct or replace each wiring harness.
51	Floor wiring harness → Passenger's seat belt switch for common terminal	Correct or replace the floor wiring harness.
52	Floor wiring harness → Passenger's seat belt switch for Normal/Close terminal	Correct or replace the floor wiring harness.
57, 58	Floor wiring harness → Side-airbag module (RH)	Correct or replace the floor wiring harness.
59, 60	Floor wiring harness → Seat belt pre-tensioner (RH)	Correct or replace the floor wiring harness.
61, 62	Floor wiring harness → Curtain air bag module (RH)	Correct or replace the floor wiring harness.
63, 64	Floor wiring harness → Side impact sensor (RH)	Correct or replace the floor wiring harness.
65	Floor wiring harness → Passenger's seat belt switch for Normal/Open terminal	Correct or replace the floor wiring harness.
66	Floor wiring harness → Occupant classification sensor	Correct or replace the floor wiring harness.

SRS AIR BAG DIAGNOSIS

INTRODUCTION TO DIAGNOSIS

M1524005000493

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.

- 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

M1524003100706

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.

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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.
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.

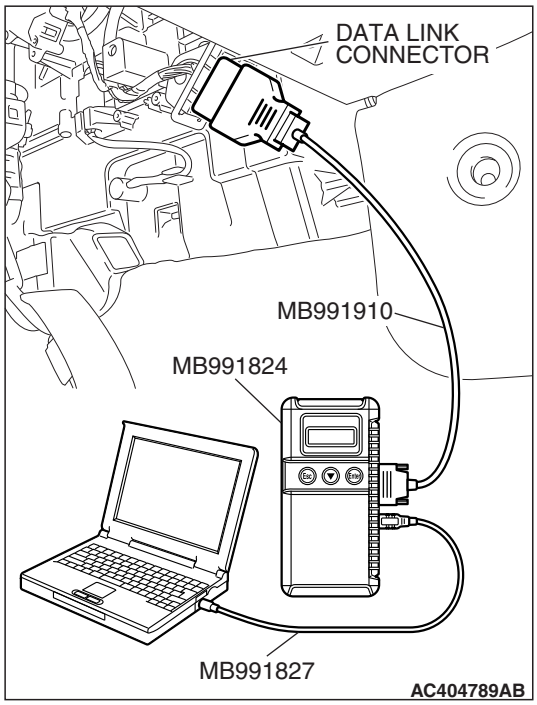
DIAGNOSTIC FUNCTION

M1524013800171

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

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.

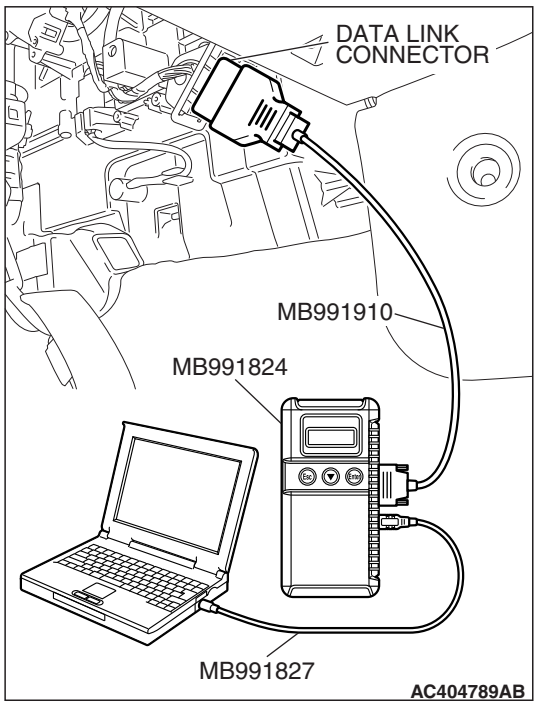
   NOTE: When special tool MB991824 is energized, special tool MB991824 indicator light will be illuminated in a green color.
7. Start the M.U.T.-III system on the personal computer.

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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



⚠ CAUTION

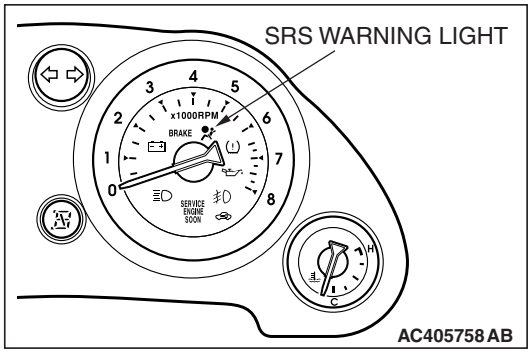
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

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 "Interactive Diagnosis" from the start-up screen.
4. Select "System select."
5. Select "MITSUBISHI."
6. Choose "SRS-AIR BAG" from the "BODY" tab.
7. Select "Diagnostic Trouble Code."
8. If a DTC is set, it is shown.
9. Choose "Erase DTCs" to erase the DTC.

SRS WARNING LIGHT CHECK

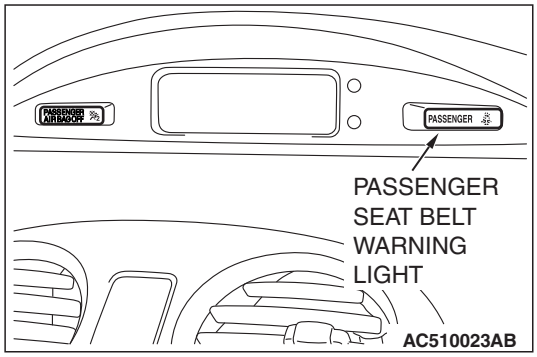
M1524004300587



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 SEAT BELT WARNING LIGHT CHECK

M1524026200094



1. Check that the passenger seat belt 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 AIR BAG OFF INDICATOR LIGHT CHECK

M1524026300132

1. Check that the passenger air bag OFF indicator 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.

DIAGNOSTIC TROUBLE CODE CHART

M1524003300926

⚠ 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
B1400*3	Driver's air bag module (1st squib) system fault 1 (short circuit between terminals of the squib circuit)	P.52B-39
B1401*3	Driver's air bag module (1st squib) system fault 2 (open in the squib circuit)	P.52B-49
B1402*3	Driver's air bag module (1st squib) system fault for ground circuit (short-circuited to ground)	P.52B-56
B1403*3	Driver's air bag module (1st squib) system fault for power supply circuit (short-circuited to power supply)	P.52B-64
B1404*4	Driver's air bag module (1st squib ignition drive circuit) system detected short circuit	P.52B-72
B1405*4	Driver's air bag module (1st squib ignition drive circuit) system detected open circuit	P.52B-72
B1406*4	Front impact sensor (RH) system for fault 1	P.52B-75
B1407*3	Front impact sensor (RH) power supply circuit system	P.52B-77
B1408*3	Front impact sensor (RH) (squib) for power supply circuit	P.52B-81
B1409*3	Front impact sensor (RH) (squib) for communication system	P.52B-81
B1410*3	Passenger's (front) air bag module (1st squib) system fault 1 (short circuit between terminals of the squib circuit)	P.52B-86
B1411*3	Passenger's (front) air bag module (1st squib) system fault 2 (open in the squib circuit)	P.52B-95
B1412*3	Passenger's (front) air bag module (1st squib) system fault for ground circuit (short-circuited to ground)	P.52B-102

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Diagnostic trouble code No.	Inspection item	Reference page
B1413*3	Passenger's (front) air bag module (1st squib) system fault for power supply circuit (short-circuited to power supply)	P.52B-109
B1414*4	Passenger's (front) air bag module (1st squib ignition drive circuit) system detected short circuit	P.52B-72
B1415*4	Passenger's (front) air bag module (1st squib ignition drive circuit) system detected open circuit	P.52B-72
B1416*4	Front impact sensor (LH) system for fault 1	P.52B-75
B1417*3	Front impact sensor (LH) power supply circuit system	P.52B-116
B1418*3	Front impact sensor (LH) (squib) for power supply circuit	P.52B-120
B1419*3	Front impact sensor (LH) (squib) for communication system	P.52B-120
B1420*3	Side-airbag module (RH) (squib) system fault 1 (short circuit between terminals of the squib circuit)	P.52B-126
B1421*3	Side-airbag module (RH) (squib) system fault 2 (open in the squib circuit)	P.52B-133
B1422*3	Side-airbag module (RH) (squib) system fault ground circuit (short-circuited to ground)	P.52B-138
B1423*3	Side-airbag module (RH) (squib) system fault power supply circuit (short-circuited to power supply)	P.52B-143
B1424*4	Side-airbag module (RH) (squib) system detected short circuit	P.52B-72
B1425*4	Side-airbag module (RH) (squib) system detected open circuit	P.52B-72
B1426*4	Side impact sensor (RH) system for fault 1	P.52B-148
B1427*3	Side impact sensor (RH) power supply circuit system	P.52B-149
B1428*3	Side impact sensor (RH) (squib) for power supply circuit	P.52B-154
B1429*3	Side impact sensor (RH) (squib) for communication system	P.52B-154
B1430*3	Side-airbag module (LH) (squib) system fault 1 (short circuit between terminals of the squib circuit)	P.52B-159
B1431*3	Side-airbag module (LH) (squib) system fault 2 (open in the squib circuit)	P.52B-167
B1432*3	Side-airbag module (LH) (squib) system fault ground circuit (short-circuited to ground)	P.52B-171
B1433*3	Side-airbag module (LH) (squib) system fault power supply circuit (short-circuited to power supply)	P.52B-177
B1434*4	Side-airbag module (LH) (squib) system fault 3 for ignition drive circuit	P.52B-72
B1435*4	Side-airbag module (LH) (squib) system fault 4 for ignition drive circuit	P.52B-72
B1436*4	Side impact sensor (LH) system for fault 1	P.52B-148
B1437*3	Side impact sensor (LH) power supply circuit system	P.52B-182
B1438*3	Side impact sensor (LH) (squib) for power supply circuit	P.52B-187
B1439*3	Side impact sensor (LH) (squib) for communication system	P.52B-187

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Diagnostic trouble code No.	Inspection item	Reference page
B1440*3	Curtain air bag module (RH) (squib) system fault 1 (short circuit between terminals of the squib circuit)	P.52B-192
B1441*3	Curtain air bag module (RH) (squib) system fault 2 (open in the squib circuit)	P.52B-200
B1442*3	Curtain air bag module (RH) (squib) system fault ground circuit (short-circuited to ground)	P.52B-206
B1443*3	Curtain air bag module (RH) (squib) system fault power supply circuit (short-circuited to power supply)	P.52B-212
B1444*4	Curtain air bag module (RH) (squib) system detected short circuit	P.52B-72
B1445*4	Curtain air bag module (RH) (squib) system detected open circuit	P.52B-72
B1450*3	Curtain air bag module (LH) (squib) system fault 1 (short circuit between terminals of the squib circuit)	P.52B-212
B1451*3	Curtain air bag module (LH) (squib) system fault 2 (open in the squib circuit)	P.52B-226
B1452*3	Curtain air bag module (LH) (squib) system fault ground circuit (short-circuited to ground)	P.52B-232
B1453*3	Curtain air bag module (LH) (squib) system fault power supply circuit (short-circuited to power supply)	P.52B-238
B1454*4	Curtain air bag module (LH) (squib) system detected short circuit	P.52B-72
B1455*4	Curtain air bag module (LH) (squib) system detected open circuit	P.52B-72
B1460*3	Seat belt pre-tensioner (RH) (squib) system fault 1 (short circuit between terminals of the squib circuit)	P.52B-245
B1461*3	Seat belt pre-tensioner (RH) (squib) system fault 2 (open in the squib circuit)	P.52B-252
B1462*3	Seat belt pre-tensioner (RH) (squib) system fault for ground circuit (short-circuit to ground)	P.52B-258
B1463*3	Seat belt pre-tensioner (RH) (squib) system fault for power supply circuit (short-circuited to power supply)	P.52B-264
B1464*4	Seat belt pre-tensioner (RH) (squib ignition drive circuit) system detected short circuit	P.52B-72
B1465*4	Seat belt pre-tensioner (RH) (squib ignition drive circuit) system detected open circuit	P.52B-72
B1466*4	Analog G-sensor system in the SRS-ECU	P.52B-72
B1467*4	Safing G-sensor open circuit	P.52B-72
B1468*4	Safing G-sensor short circuit	P.52B-72
B1469*4	Safing G-sensor for side air bag faults	P.52B-72
B1470*3	Seat belt pre-tensioner (LH) (squib) system fault1 (short circuit between terminals of the squib circuit)	P.52B-270
B1471*3	Seat belt pre-tensioner (LH) (squib) system fault 2 (open in the squib circuit)	P.52B-278
B1472*3	Seat belt pre-tensioner (LH) (squib) system fault for ground circuit (short-circuit to ground)	P.52B-284

Diagnostic trouble code No.	Inspection item		Reference page
B1473*3	Seat belt pre-tensioner (LH) (squib) system fault for power supply circuit (short-circuited to power supply)		P.52B-290
B1474*4	Seat belt pre-tensioner (LH) (squib ignition drive circuit) system detected short circuit		P.52B-72
B1475*4	Seat belt pre-tensioner (LH) (squib ignition drive circuit) system detected open circuit		P.52B-72
B1476*2	IG1 power supply circuit system (fuse No.3 circuit)		P.52B-297
B1477*2	IG1 power supply circuit system (fuse No.2 circuit)		P.52B-297
B1478*4	SRS-ECU capacitor circuit voltage too high		P.52B-72
B1479*4	SRS-ECU capacitor circuit voltage too low		P.52B-72
B1480*3	Driver's air bag module (2nd squib) system fault 1 (short circuit between terminals of the squib circuit)		P.52B-39
B1481*3	Driver's air bag module (2nd squib) system fault 2 (open in the squib circuit)		P.52B-49
B1482*3	Driver's air bag module (2nd squib) system fault for ground circuit (short-circuited to ground)		P.52B-56
B1483*3	Driver's air bag module (2nd squib) system fault for power supply circuit (Short-circuited to power supply)		P.52B-64
B1484*4	Driver's air bag module (2nd squib ignition drive circuit) system detected short circuit		P.52B-72
B1485*4	Driver's air bag module (2nd squib ignition drive circuit) system detected open circuit		P.52B-72
B1486*4	Passenger seat belt warning light drive circuit system fault 2		P.52B-304
B1487	Passenger seat belt warning light drive circuit system fault 1	Light does not illuminate*2	P.52B-306
		Light does not switch off*3	P.52B-315
B1488*4	Passenger air bag OFF indicator light drive circuit system fault 2		P.52B-321
B1489	Passenger air bag OFF indicator light drive circuit system fault 1	Light does not illuminate*2	P.52B-323
		Light does not switch off*3	P.52B-332
B1490*3	Passenger's (front) air bag module (2nd squib) system fault 1 (short circuit between terminals of the squib circuit)		P.52B-86
B1491*3	Passenger's (front) air bag module (2nd squib) system fault 2 (open in the squib circuit)		P.52B-95
B1492*3	Passenger's (front) air bag module (2nd squib) system fault for ground circuit (short-circuited to ground)		P.52B-102
B1493*3	Passenger's (front) air bag module (2nd squib) system fault for power supply circuit (short-circuited to power supply)		P.52B-109
B1494*4	Passenger's (front) fir bag module (2nd squib ignition drive circuit) system detected short circuit		P.52B-72
B1495*4	Passenger's (front) air bag module (2nd squib ignition drive circuit) system detected open circuit		P.52B-72
B1496*4	SRS-ECU non-volatile memory (EEPROM*1)		P.52B-72

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Diagnostic trouble code No.	Inspection item	Reference page
B1497*4	SRS-ECU application specific integrated circuit (for frontal activation)	P.52B-72
B1498*4	SRS-ECU ROM or RAM	P.52B-72
B1499*4	SRS-ECU air bag condition monitor detects deployed air bag	P.52B-338
B1506*3	Seat slide sensor system fault 1 (open in the seat slide sensor circuit)	P.52B-339
B1507*3	Seat slide sensor system fault ground circuit (short-circuited to ground)	P.52B-343
B1508*3	Seat slide sensor system fault power supply circuit (short-circuited to power supply)	P.52B-348
B1509*2	Improper installation of SRS-ECU	P.52B-353
B1519*3	Connector lock system detects connector unlocked	P.52B-354
B1520*3	Seat belt switch (LH) malfunction	P.52B-359
B1521*3	Seat belt switch (LH) circuit open (for Normal/Close terminal)	P.52B-359
B1522*3	Seat belt switch (LH) circuit (ground side) shorted (for Normal/Close terminal)	P.52B-359
B1523*3	Seat belt switch (LH) circuit (power supply side) shorted (for Normal/Close terminal)	P.52B-359
B1524*3	Seat belt switch (LH) circuit open (for Normal/Open terminal)	P.52B-359
B1525*3	Seat belt switch (LH) circuit (ground side) shorted (for Normal/Open terminal)	P.52B-359
B1526*3	Seat belt switch (LH) circuit (power supply side) shorted (for Normal/Open terminal)	P.52B-359
B1527*3	Seat belt switch (LH) circuit open (for common terminal)	P.52B-359
B1528*3	Seat belt switch (LH) circuit (ground side) shorted (for common terminal)	P.52B-359
B1529*3	Seat belt switch (LH) circuit (power supply side) shorted (for common terminal)	P.52B-359
B1530*3	Seat belt switch (RH) malfunction	P.52B-368
B1531*3	Seat belt switch (RH) circuit open (for Normal/Close terminal)	P.52B-368
B1532*3	Seat belt switch (RH) circuit (ground side) shorted (for Normal/Close terminal)	P.52B-368
B1533*3	Seat belt switch (RH) circuit (power supply side) shorted (for Normal/Close terminal)	P.52B-368
B1534*3	Seat belt switch (RH) circuit open (for Normal/Open terminal)	P.52B-368
B1535*3	Seat belt switch (RH) circuit (ground side) shorted (for Normal/Open terminal)	P.52B-368
B1536*3	Seat belt switch (RH) circuit (power supply side) shorted (for Normal/Open terminal)	P.52B-368
B1537*3	Seat belt switch (RH) circuit open (for common terminal)	P.52B-368

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Diagnostic trouble code No.	Inspection item	Reference page
B1538*3	Seat belt switch (RH) circuit (ground side) shorted (for common terminal)	P.52B-368
B1539*3	Seat belt switch (RH) circuit (power supply side) shorted (for common terminal)	P.52B-368
B1540*3	Occupant classification-ECU malfunction	P.52B-377
B1541*3	Occupant classification-ECU calibration malfunction	P.52B-377
B1542*3	Occupant classification sensor (S1) malfunction	P.52B-377
B1543*3	Occupant classification sensor (S2) malfunction	P.52B-377
B1545*3	Occupant classification-ECU for power supply circuit	P.52B-379
B1546*3	Occupant classification-ECU for communication system	P.52B-379
B1548*3	CAN communication impossible	P.52B-385
B1549*3	CAN communication error	P.52B-385
B1552*4	Changing circuit shorted	P.52B-72
B1553*4	Changing circuit open	P.52B-72
B1554*4	SG BY-PASS circuit malfunction	P.52B-72
B1555*4	SG BY-PASS circuit (field effect transistor) open	P.52B-72
B1556*3	Seat slide sensor system for fault 2 (malfunction of seat slide sensor)	P.52B-386
B1557*4	SRS-ECU application specific integrated circuit	P.52B-72
B1558*3	Occupant classification-ECU ID-cord malfunction	P.52B-377
U1073*2	Bus-off	P.52B-388

*NOTE: *1: Electrically Erasable Programmable ROM*

**2: This DTC will remain in memory and the SRS warning light will be switched off when the system returns to normal condition.*

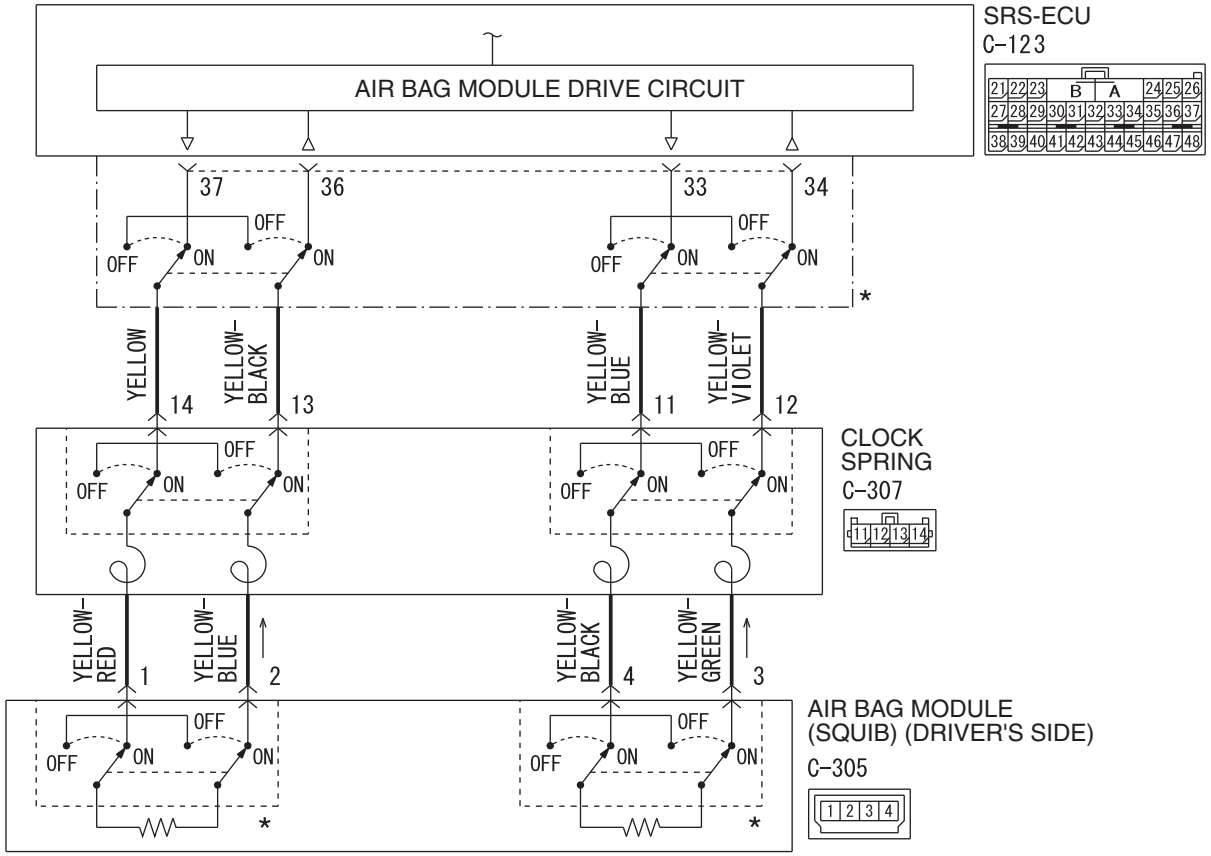
**3: This DTC will remain in memory and the SRS warning light will be switched on even if the system returns to normal condition.*

**4: This DTC cannot be erased by "Erase DTCs" function.*

DIAGNOSTIC TROUBLE CODE PROCEDURES

DTC B1400: Driver's Air Bag Module (1st Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)
DTC B1480: Driver's Air Bag Module (2nd Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Driver's Air Bag Module (1st and 2nd Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

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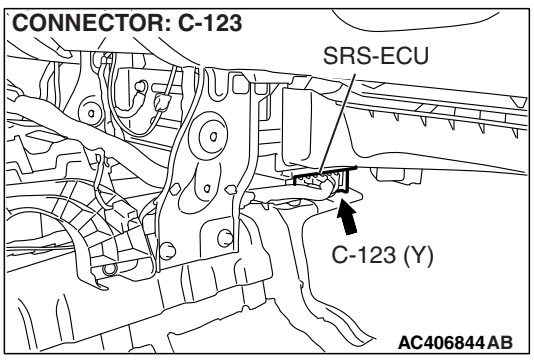
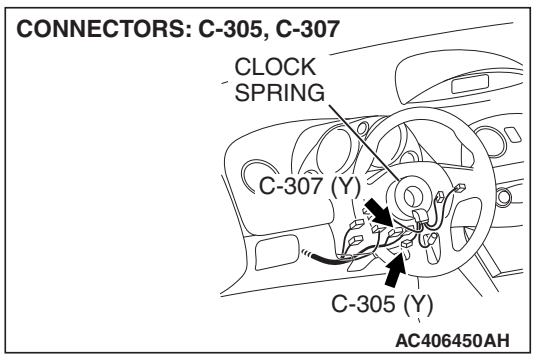




TSB Revision

⚠ CAUTION
If DTC B1400 <1st squib> or B1480 <2nd squib> is set in the combination meter, always diagnose the CAN bus lines.

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 side 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

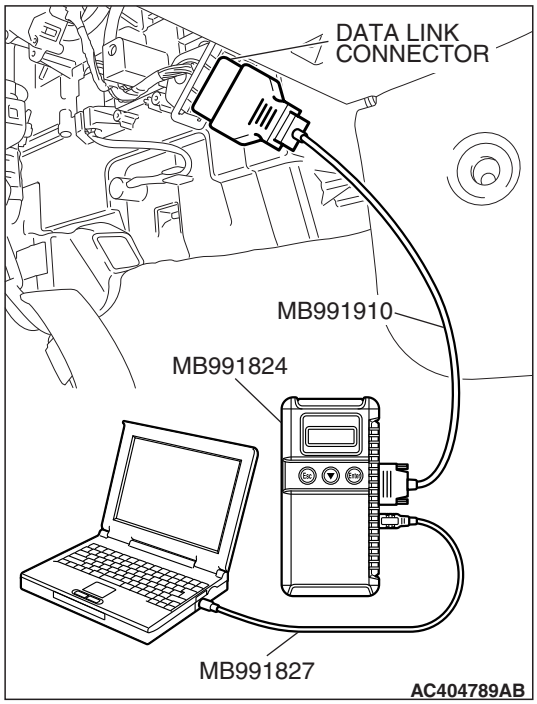
- Improper engaged connector or defective short spring*
- Short circuit in the clock spring
- Short circuit between the driver's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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-123, C-305 or C-307 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness



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

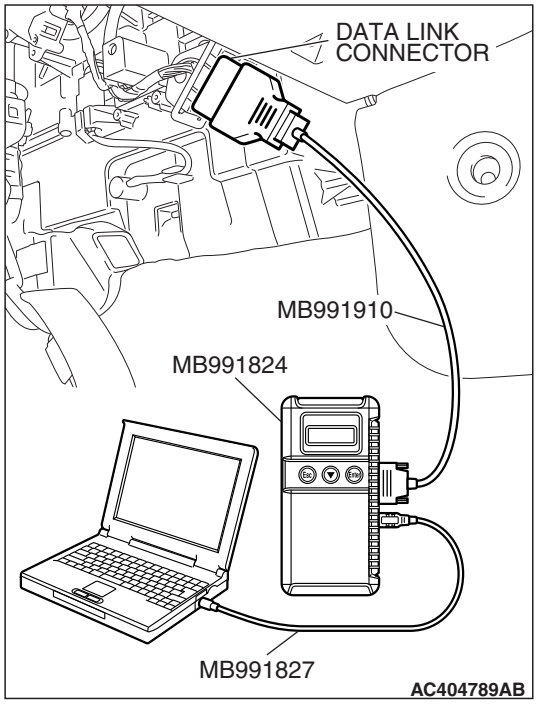
⚠ CAUTION

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-31."
(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).

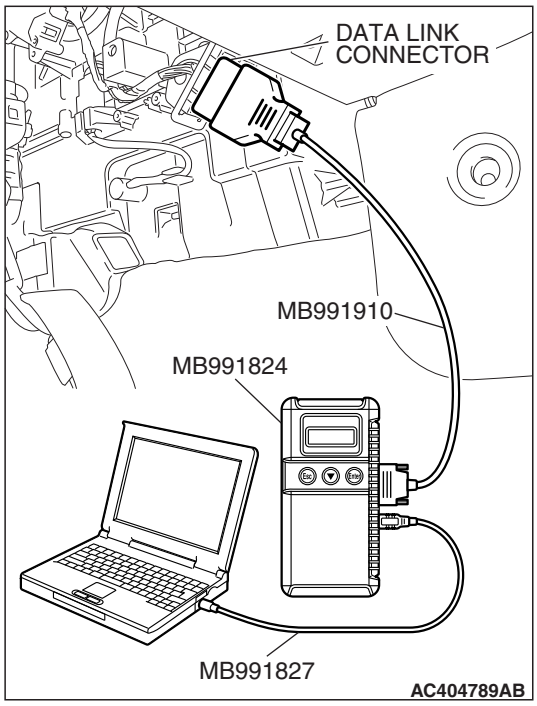


STEP 2. Recheck for diagnostic trouble code.

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).

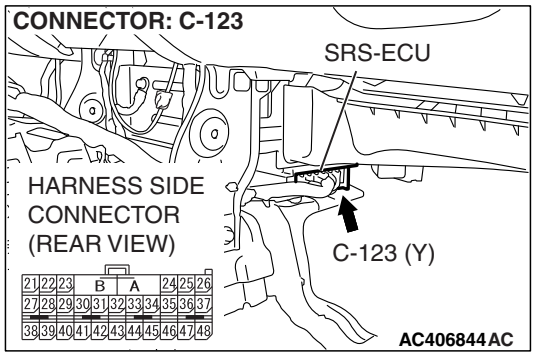


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(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 DTC B1519 set?

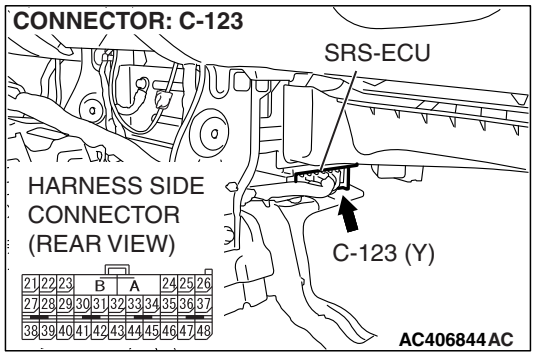
YES : Go to Step 4.
NO : Go to Step 5.

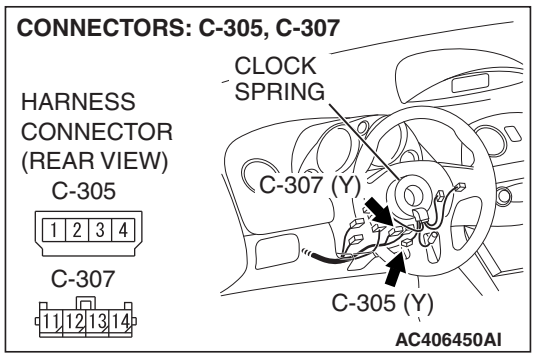


STEP 4. Check SRS-ECU connector C-123.

Q: Is the connector correctly engaged?

YES : Go to Step 5.
NO : Engage the connector correctly. Then go to Step 10.





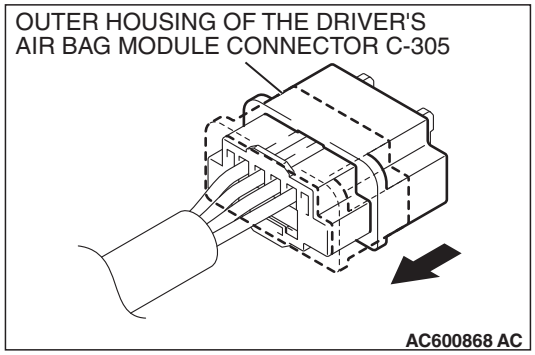
STEP 5. Check SRS-ECU connector C-123, clock spring connector C-307 and driver's air bag module connector C-305. (Using scan tool MB991958, read the diagnostic trouble code.)

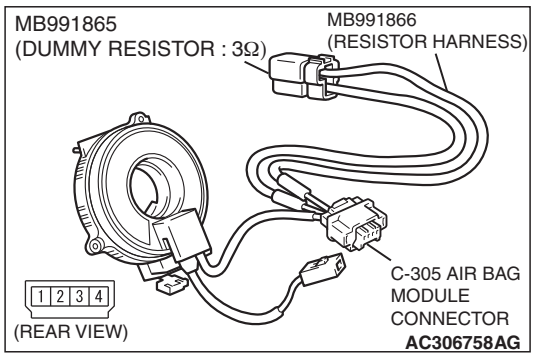
(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-123, C-307 and C-305, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

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

YES : Go to Step 6.

NO : The procedure is complete. It is assumed that DTC B1400 <1st squib> or B1480 <2nd squib> set because connector C-123, C-307 or C-305 was engaged improperly.





STEP 6. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the clock spring side of driver's air bag module connector C-305 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-305 (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 B1481 is set when checking DTC B1400. This is because the second side terminal is isolated when checking it, DTC B1481 is set but this is not a fault. In addition, always DTC B1401 is set when checking DTC B1480 because the first side terminal is isolated.

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

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

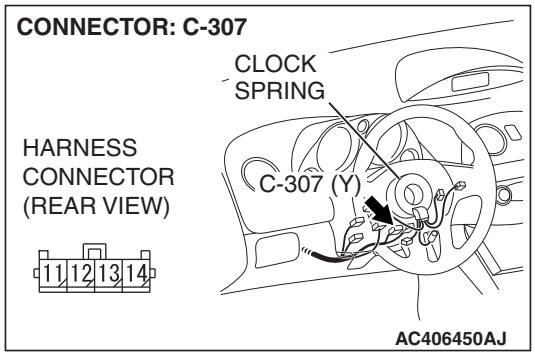
YES : Go to Step 7.

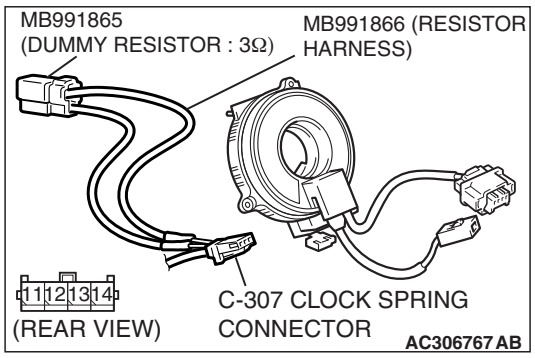
NO : Replace the driver's air bag module (Refer to P.52B-423). Then go to Step 10.

STEP 7. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect the clock spring connector C-307.





(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-307 (terminal No.13 and 14 <1st squib> or No.11 and 12 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1481 is set when checking DTC B1400. This is because the second side terminal is isolated when checking it, DTC B1481 is set but this is not a fault. In addition, always DTC B1401 is set when checking DTC B1480 because the first side terminal is isolated.

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

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

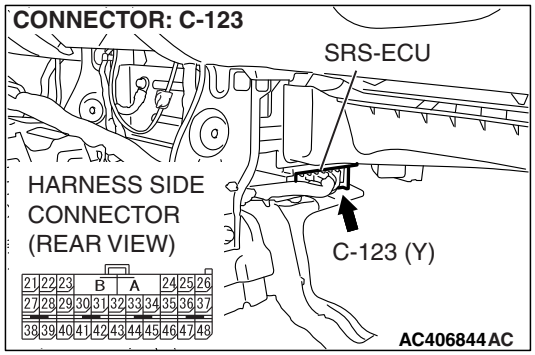
YES : Go to Step 8.

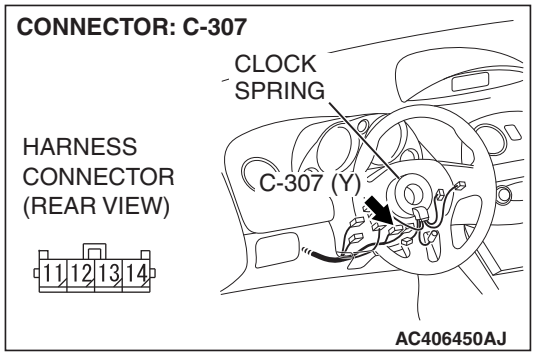
NO : Replace the clock spring (Refer to P.52B-423). Then go to Step 10.

STEP 8. Check the driver's air bag module circuit. Measure the resistance at SRS-ECU connector C-123.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-123.

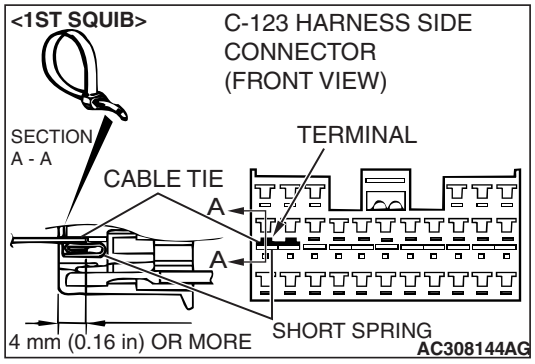




⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect clock spring connector C-307 to short the squib circuit.

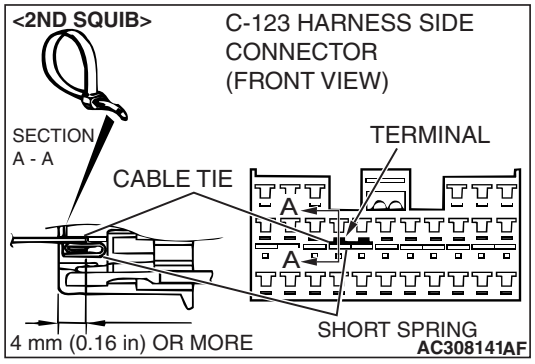
(3) Disconnect clock spring connector C-307.



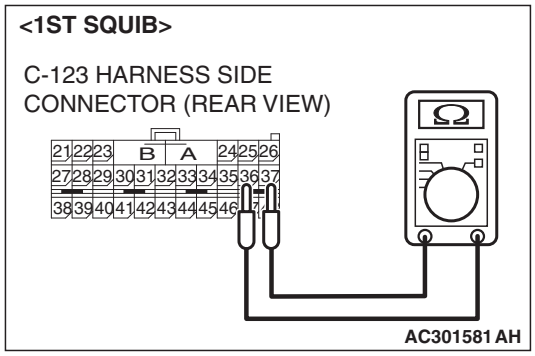
⚠ CAUTION

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.

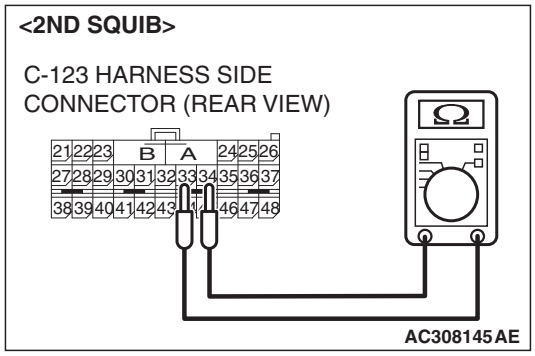
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 36, 37 <1st squib> or 33, 34 <2nd squib> and the short spring to release the short spring.



<1ST SQUIB>



<2ND SQUIB>



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

(5) Check for continuity between C-123 harness side connector terminals 36 and 37 <1st squib> or 33 and 34 <2nd squib>. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 9.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1400 <1st squib> or B1480 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 10.

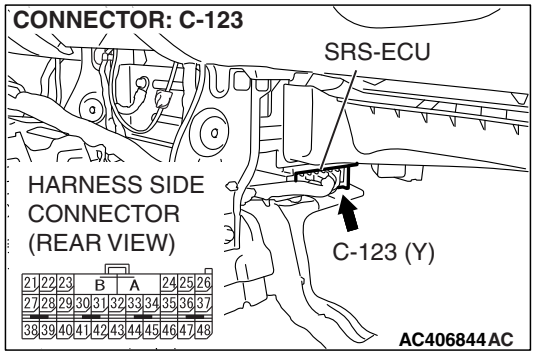
STEP 9. Check the harness for short circuit between SRS-ECU connector C-123 (terminal No.36 and 37 <1st squib> or No.33 and 34 <2nd squib>) and clock spring connector C-307 (terminal No.13 and 14 <1st squib> or No.11 and 12 <2nd squib>).

Q: Are harness wires between SRS-ECU connector C-123 (terminal No.36 and 37 <1st squib> or No.33 and 34 <2nd squib>) and clock spring connector C-307 (terminal No.13 and 14 <1st squib> or No.11 and 12 <2nd squib>) in good condition?

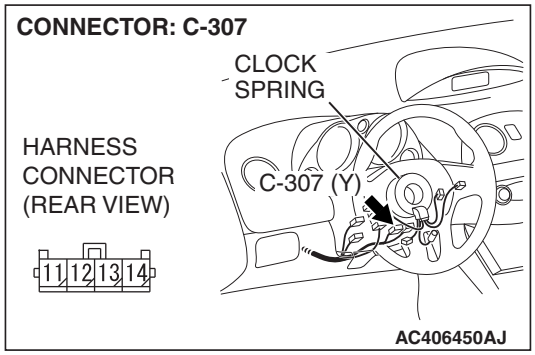
YES : Go to Step 10.

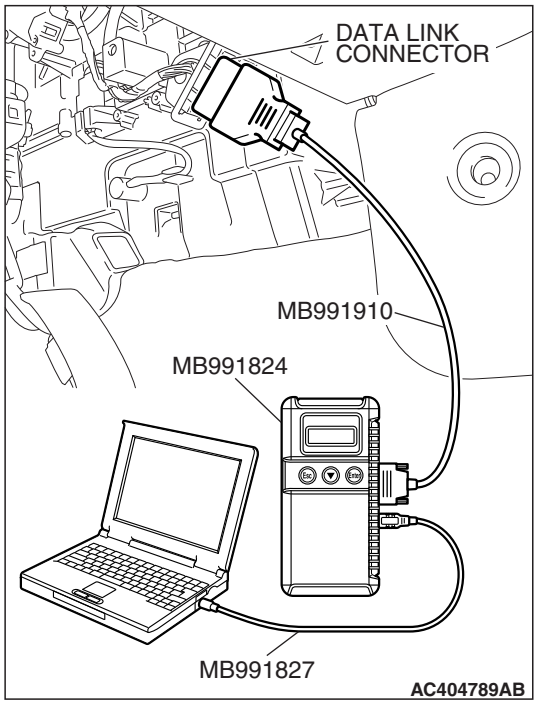
NO : Repair the harness wires between SRS-ECU connector C-123 and clock spring connector C-307. Then go to Step 10.

CONNECTOR: C-123



CONNECTOR: C-307





STEP 10. Recheck for diagnostic trouble code.

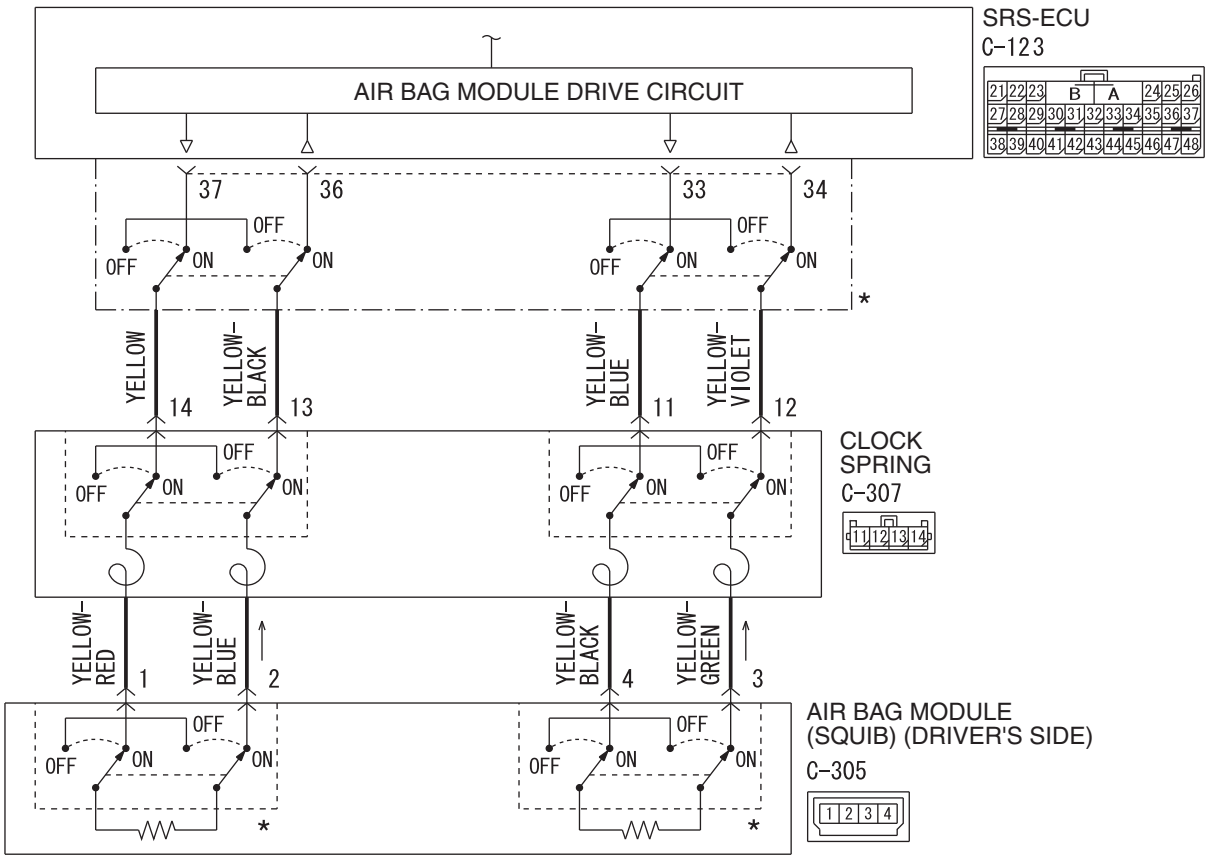
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

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

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

DTC B1401: Driver's Air Bag Module (1st Squib) System Fault 2 (Open in the Squib Circuit)
DTC B1481: Driver's Air Bag Module (2nd Squib) System Fault 2 (Open in the Squib Circuit)

Driver's Air Bag Module (1st and 2nd Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

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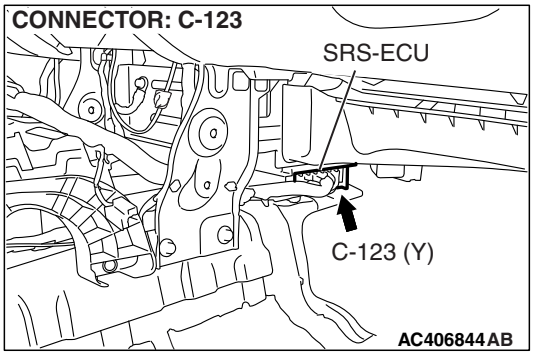

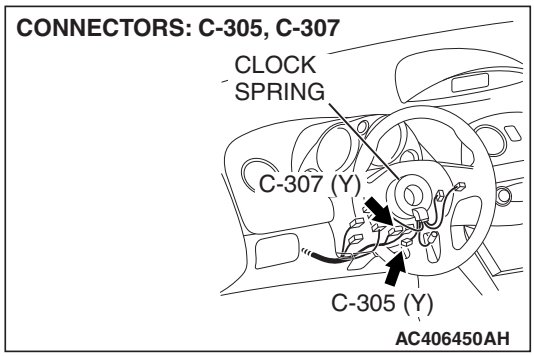

⚠ CAUTION
If DTC B1401 <1st squib> or B1481 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

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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 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 side 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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

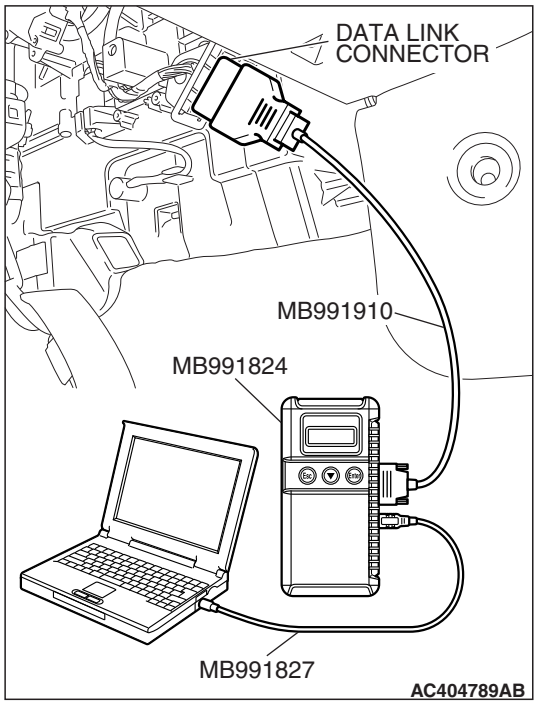
⚠ CAUTION

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-31."
(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).



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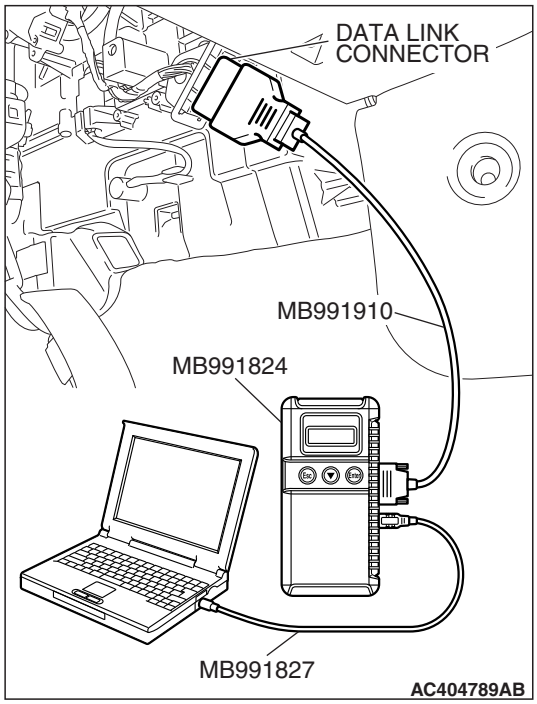


STEP 2. Recheck for diagnostic trouble code.

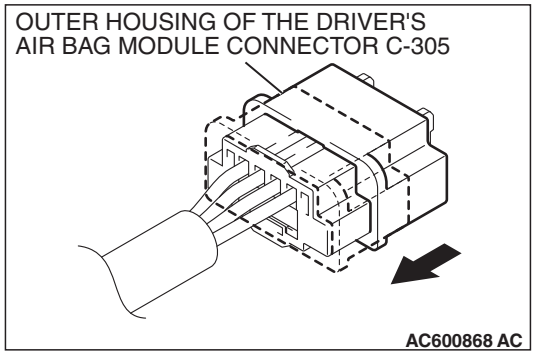
Check again if the DTC is set.

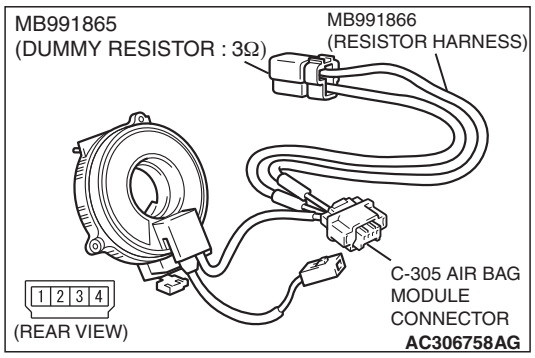
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

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





STEP 3. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-305 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-305 (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 B1481 is set when checking DTC B1401. This is because the second side terminal is isolated when checking it, DTC B1481 is set but this is not a fault. In addition, always DTC B1401 is set when checking DTC B1481 because the first side terminal is isolated.

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

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

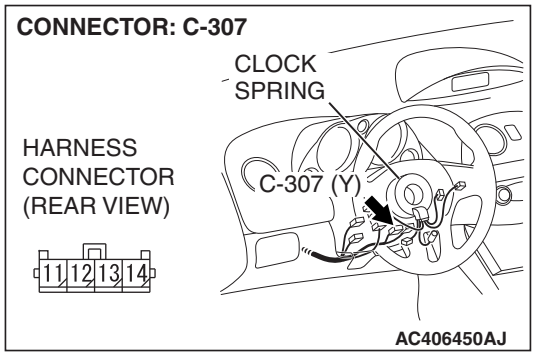
YES : Go to Step 4.

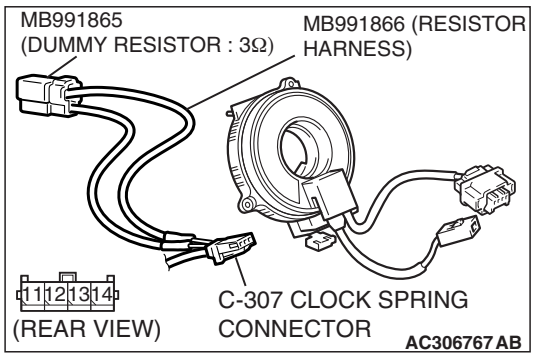
NO : Replace the driver's air bag module (Refer to P.52B-423). Then go to Step 6.

STEP 4. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect the clock spring connector C-307.





(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 harness side of clock spring connector C-307 (terminal No.13 and 14 <1st squib> or terminal No.11 and 12 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

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

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

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

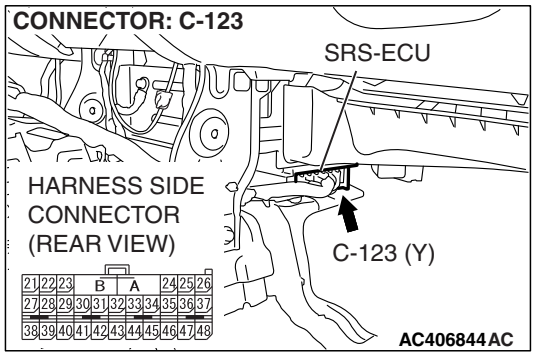
YES : Go to Step 5.

NO : Replace the clock spring (Refer to P.52B-423). Then go to Step 6.

STEP 5. Check the harness between the SRS-ECU connector C-123 (terminal No.11 and 12) and the clock spring connector C-307 (terminal No.3 and 4) for open circuit.

(1) Disconnect the negative battery terminal.

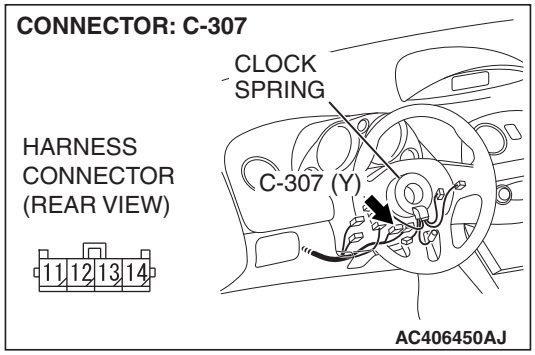
(2) Disconnect SRS-ECU connector C-123.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect clock spring connector C-307 to short the squib circuit.

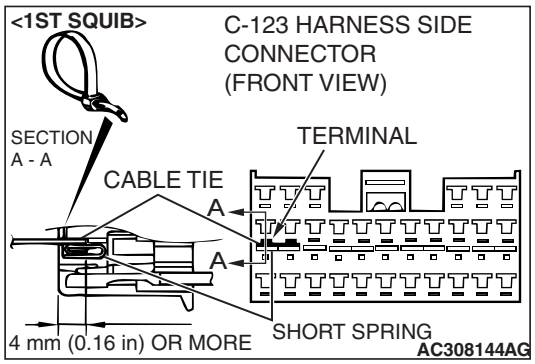
(3) Disconnect clock spring connector C-307.

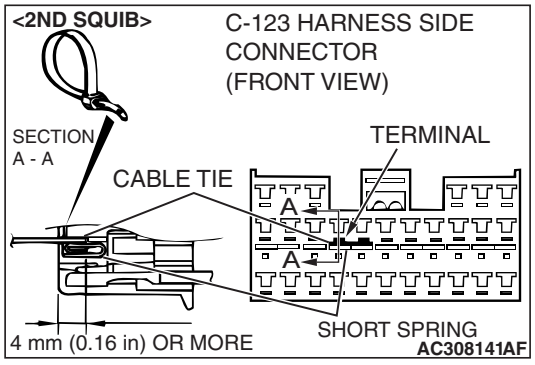


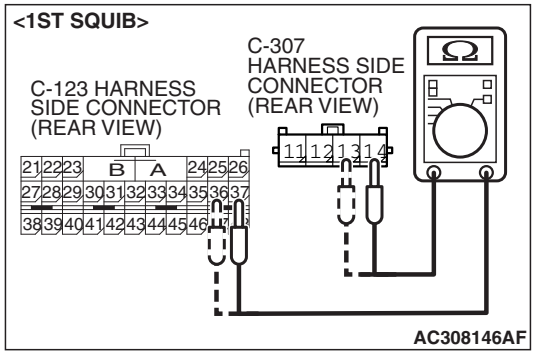
⚠ CAUTION

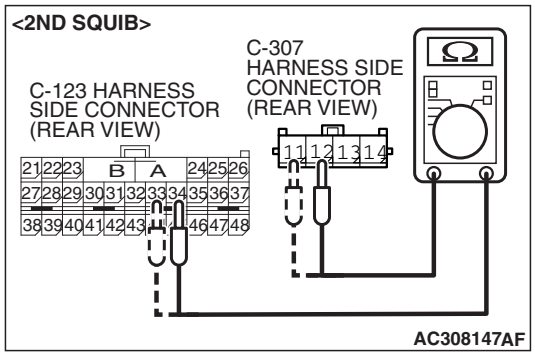
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 36, 37 <1st squib> or 33, 34 <2nd squib> and the short spring to release the short spring.









⚠ CAUTION

Do not insert a test probe into the terminal from its 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.

<1st squib>

- SRS-ECU connector C-123 (terminal No.36) and the clock spring connector C-307 (terminal No.13)
- SRS-ECU connector C-123 (terminal No.37) and the clock spring connector C-307 (terminal No.14)

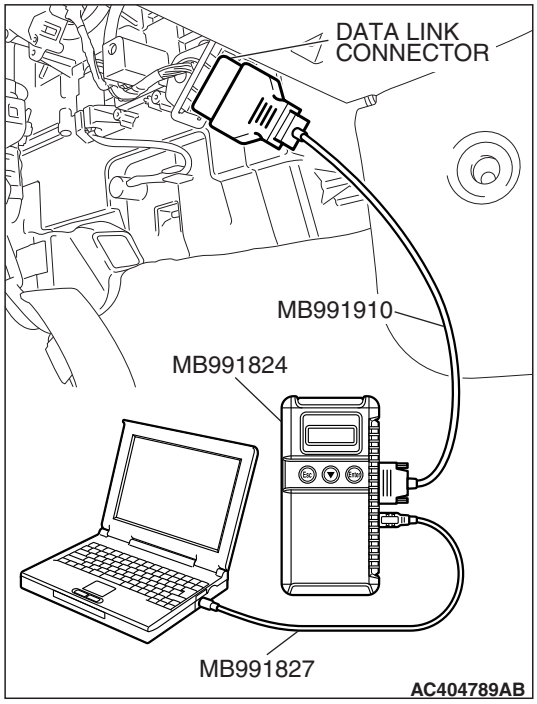
<2nd squib>

- SRS-ECU connector C-123 (terminal No.33) and the clock spring connector C-307 (terminal No.11)
- SRS-ECU connector C-123 (terminal No.34) and the clock spring connector C-307 (terminal No.12)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1401 <1st squib> or B1481 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-123 and clock spring connector C-307. 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.

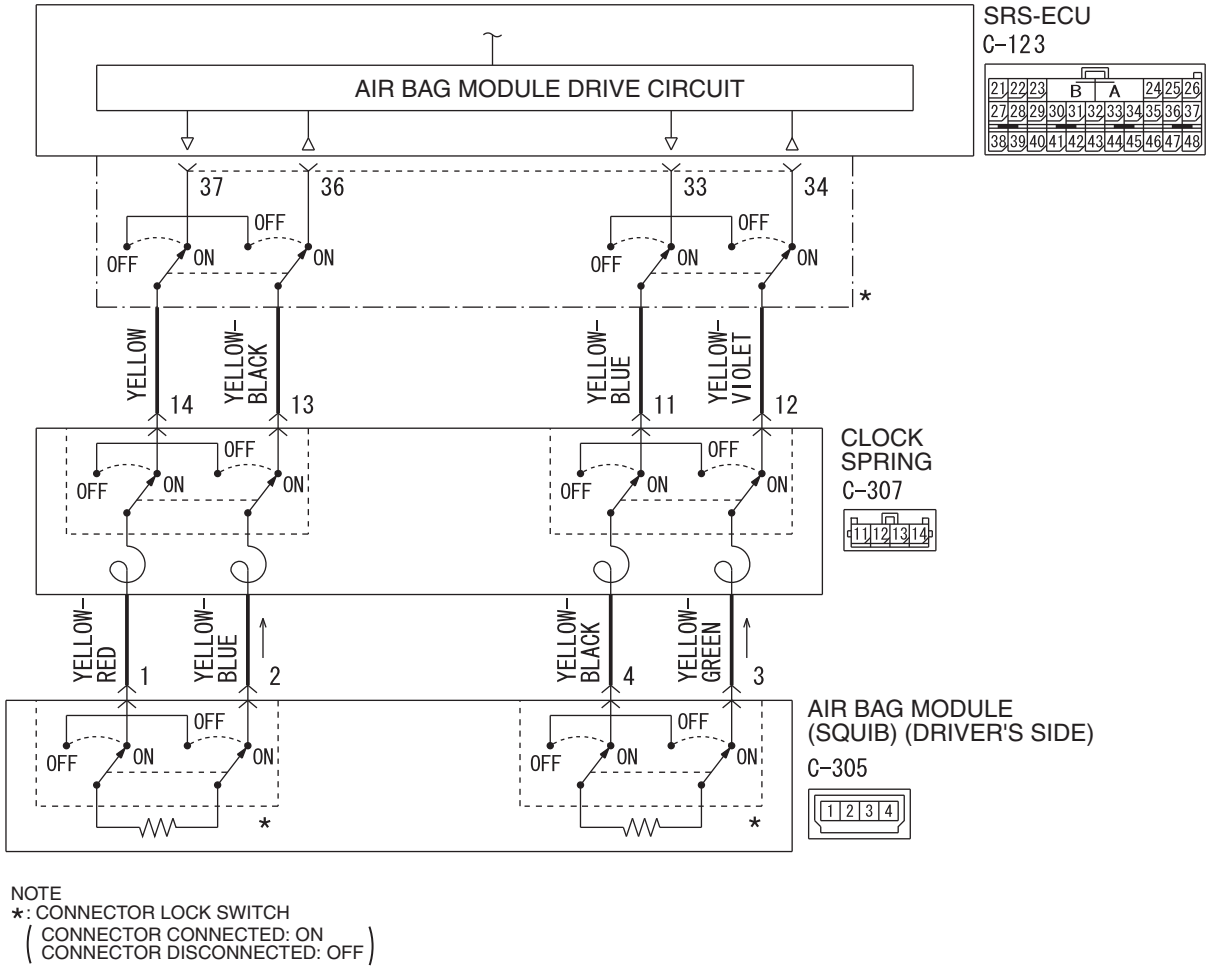
Q: Is DTC B1401 <1st squib> or B1481 <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

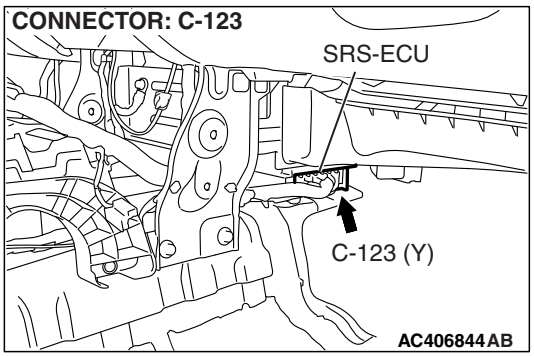
DTC 1402: Driver's Air Bag Module (1st Squib) System Fault for Ground Circuit (Short-Circuited to Ground)
DTC 1482: Driver's Air Bag Module (2nd Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

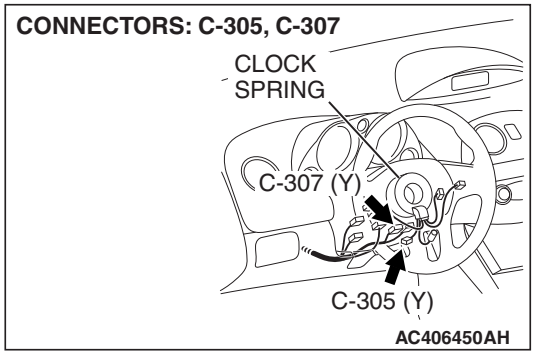
Driver's Air Bag Module (1st and 2nd Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

W6P52M002A





⚠ CAUTION
If DTC B1402 <1st squib> or B1482 <2nd squib> 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 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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

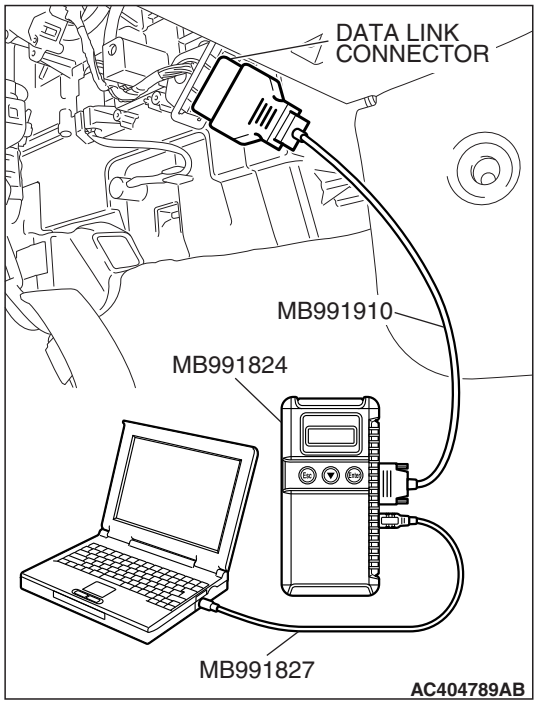
⚠ CAUTION

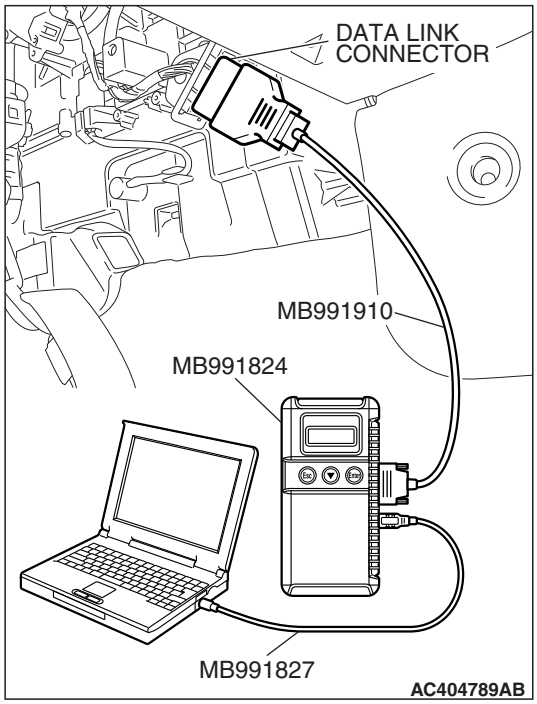
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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?

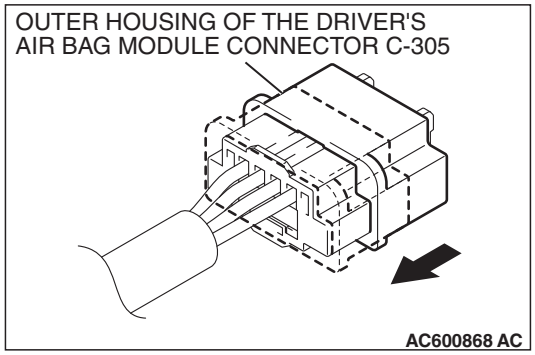
YES : Go to Step 3.

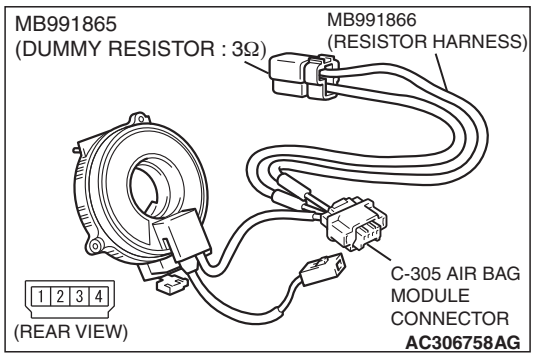
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-305 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 air bag module connector C-305 (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 B1481 is set when checking DTC B1402. This is because the second side terminal is isolated when checking it, DTC B1481 is set but this is not a fault. In addition, always DTC B1401 is set when checking DTC B1482 because the first side terminal is isolated.

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

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

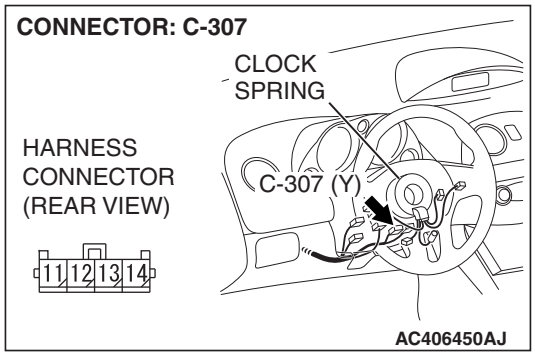
YES : Go to Step 4.

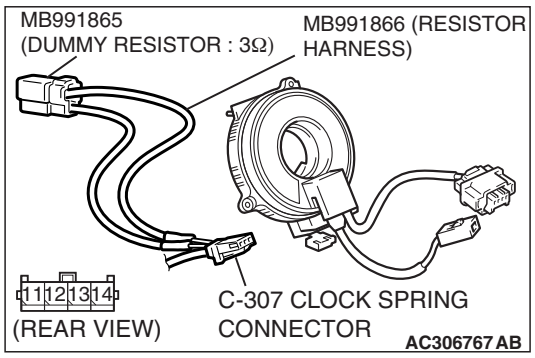
NO : Replace the driver's air bag module (Refer to P.52B-423). Then go to Step 7.

STEP 4. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect the clock spring connector C-307.





(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-307 (terminal No.13 and 14 <1st squib> or terminal No. 11 and 12 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1481 is set when checking DTC B1402. This is because the second side terminal is isolated when checking it, DTC B1481 is set but this is not a fault. In addition, always DTC B1401 is set when checking DTC B1482 because the first side terminal is isolated.

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

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

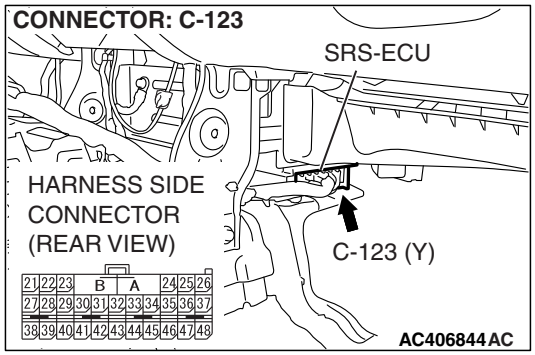
YES : Go to Step 5.

NO : Replace the clock spring (Refer to P.52B-423). Then go to Step 7.

STEP 5. Check the driver's air bag module circuit. Measure the resistance at the SRS-ECU connector C-123.

(1) Disconnect the negative battery terminal.

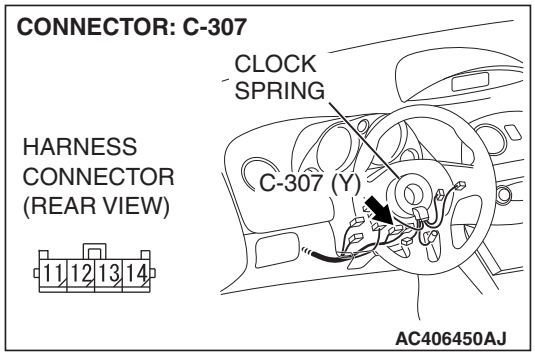
(2) Disconnect SRS-ECU connector C-123.



⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-307 to short the squib circuit.

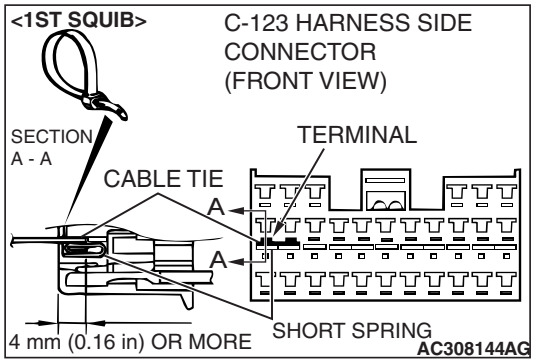
(3) Disconnect the clock spring connector C-307.

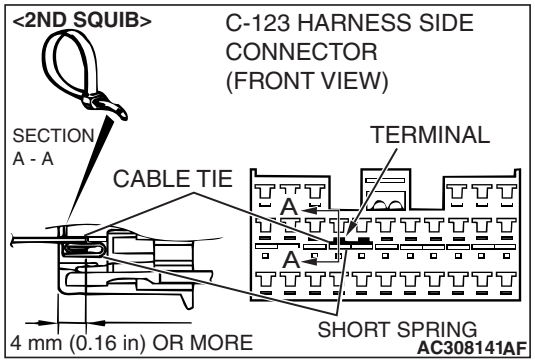


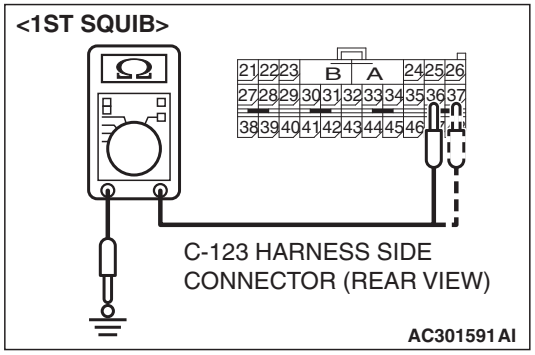
⚠ CAUTION

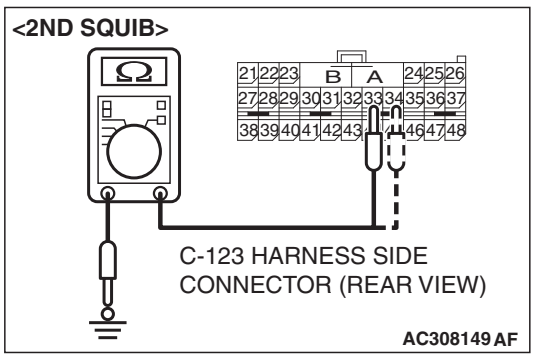
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 36, 37 <1st squib> or 33, 34 <2nd squib> and the short spring to release the short spring.









⚠ CAUTION

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

(5) Check for continuity between C-123 harness side connector terminals 36 and 37 <1st squib> or 33 and 34 <2nd squib> and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

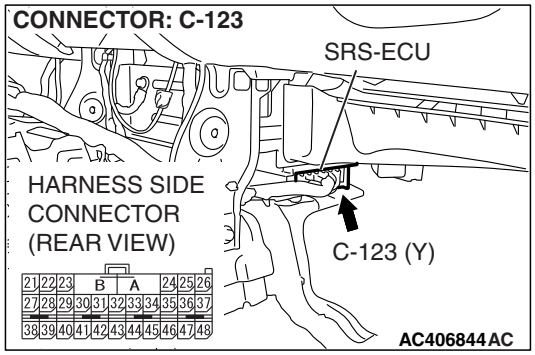
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1402 <1st squib> or B1482<2nd squib> sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 7.

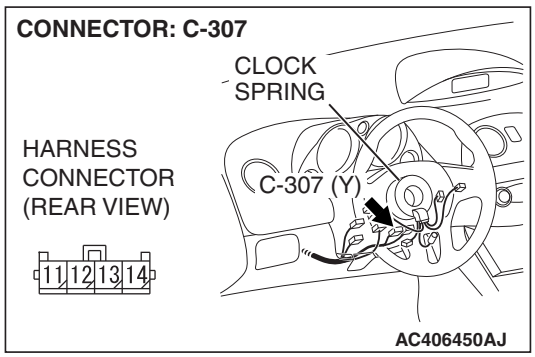
STEP 6. Check the harness for short circuit to ground between SRS-ECU connector C-123 (terminal No.36 and 37 <1st squib> or terminal No.33 and 34 <2nd squib>) and clock spring connector C-307 (terminal No.13 and 14 or terminal No. 11 and 12 <2nd squib>).

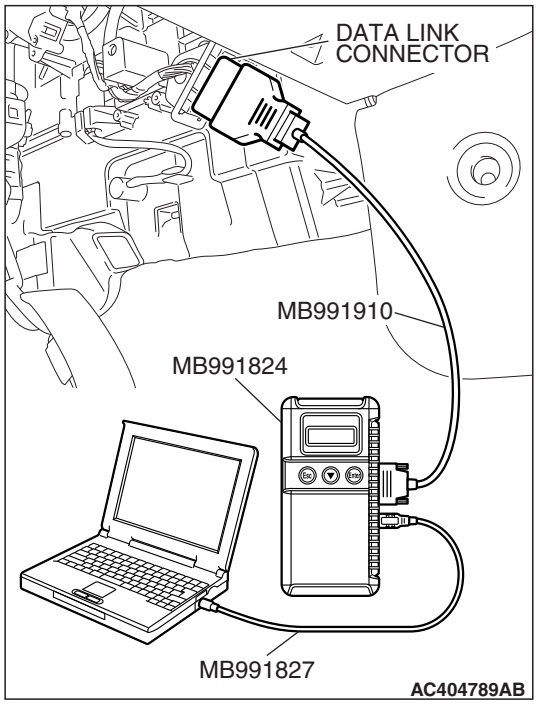
Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.36 and 37 <1st squib> or terminal No.33 and 34 <2nd squib>) and clock spring connector C-307 (terminal No.13 and 14 or terminal No. 11 and 12 <2nd squib>) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-123 and clock spring connector C-307. Then go to Step 7.







STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

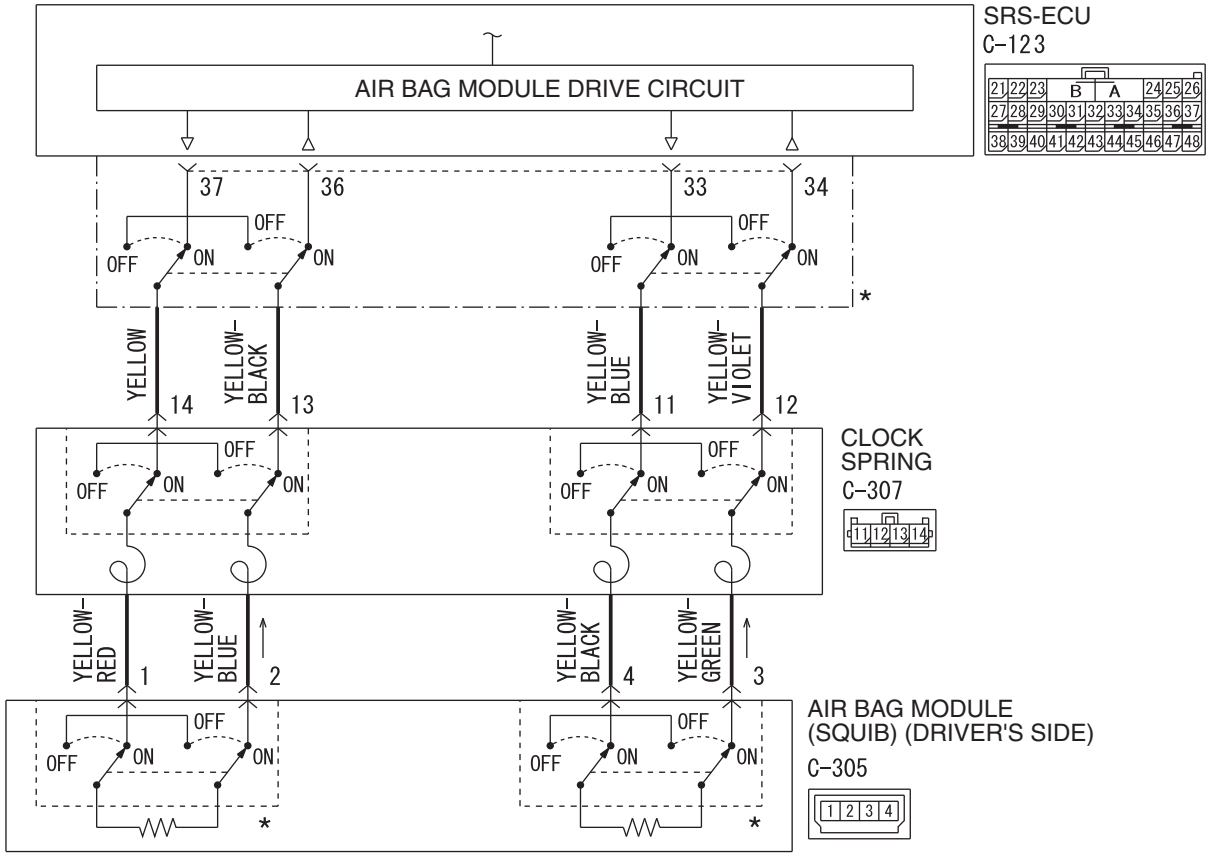
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

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

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

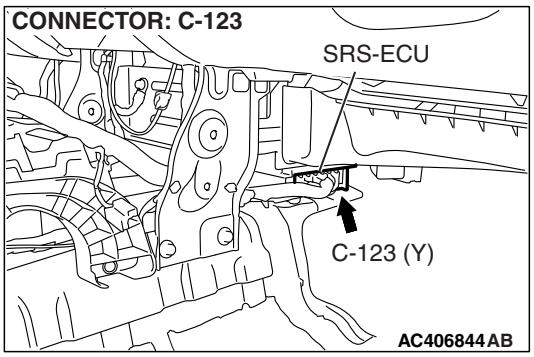
DTC B1403: Driver's Air Bag Module (1st Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)
DTC B1483: Driver's Air Bag Module (2nd Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)

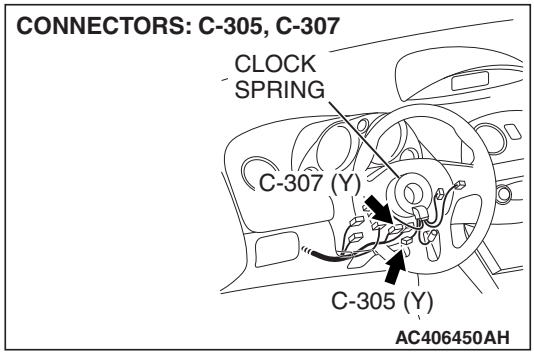
Driver's Air Bag Module (1st and 2nd Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

W6P52M002A





⚠ CAUTION
If DTC B1403<1st squib> or B1483 <2nd squib> 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 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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

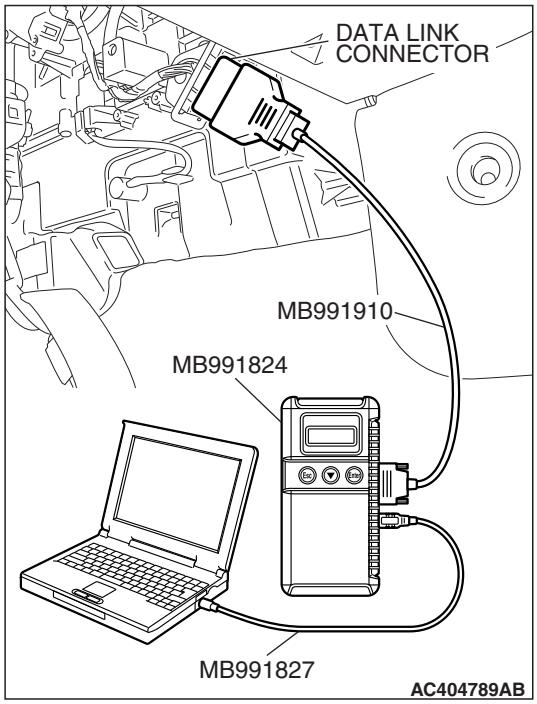
⚠ CAUTION

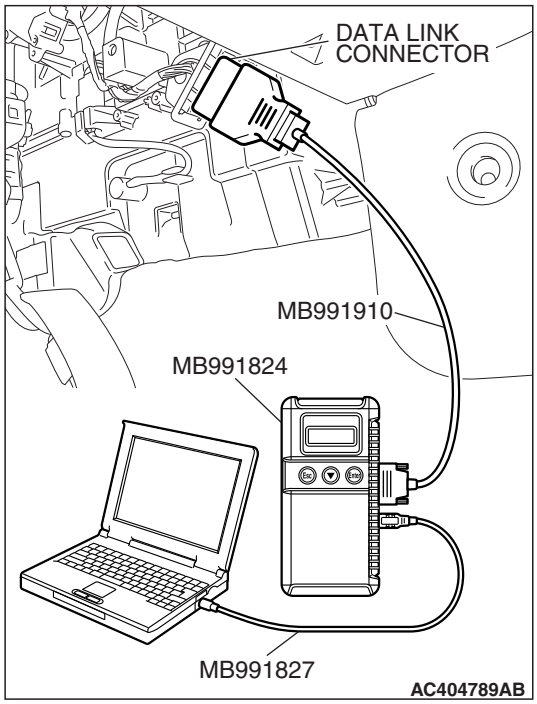
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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?

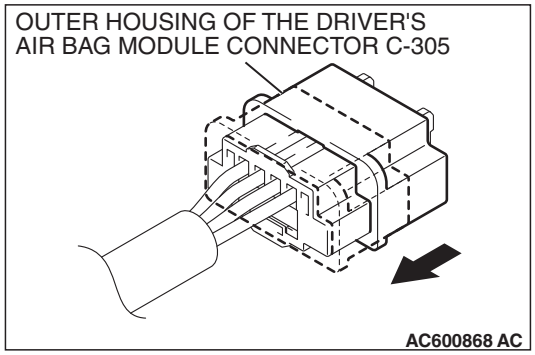
YES : Go to Step 3.

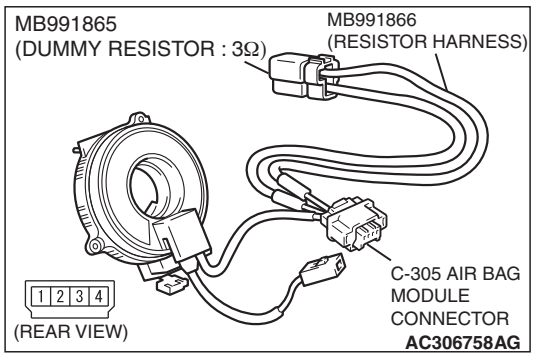
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-305 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 air bag module connector C-305 (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 B1481 is set when checking DTC B1403. This is because the second side terminal is isolated when checking it, DTC B1481 is set but this is not a fault. In addition, always DTC B1401 is set when checking DTC B1483 because the first side terminal is isolated.

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

Q: Is DTC B1403 <1st squib> or B1483 <2nd squib> set?

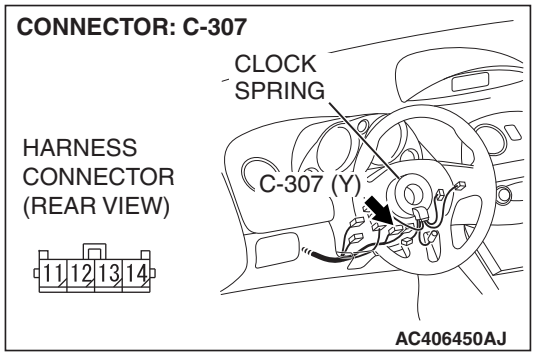
YES : Go to Step 4.

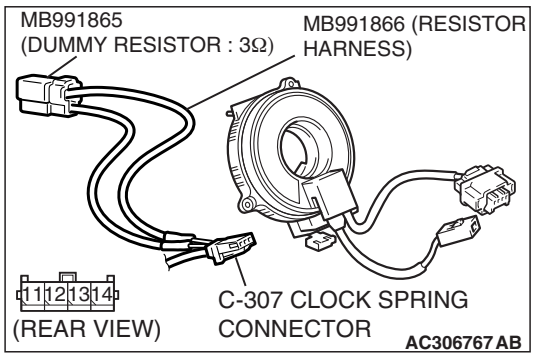
NO : Replace the driver's air bag module (Refer to P.52B-423). Then go to Step 7.

STEP 4. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect the clock spring connector C-307.





(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-307 (terminal No.13 and 14 <1st squib> or terminal No. 11 and 12 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1481 is set when checking DTC B1403. This is because the second side terminal is isolated when checking it, DTC B1481 is set but this is not a fault. In addition, always DTC B1401 is set when checking DTC B1483 because the first side terminal is isolated.

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

Q: Is DTC B1403 <1st squib> or B1483 <2nd squib> set?

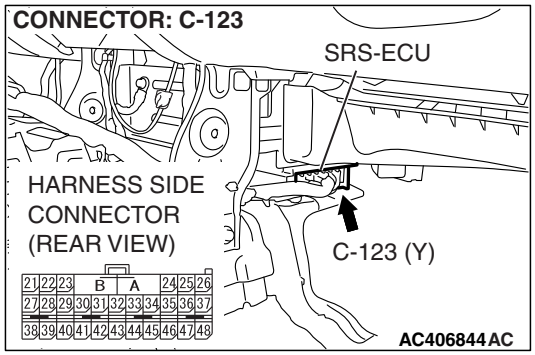
YES : Go to Step 5.

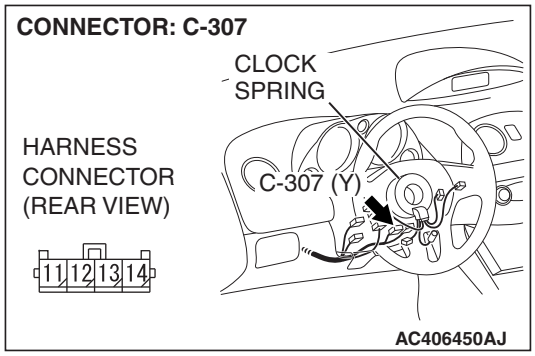
NO : Replace the clock spring (Refer to P.52B-423). Then go to Step 7.

STEP 5. Check the driver's air bag module circuit. Measure the voltage at the SRS-ECU connector C-123.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-123.

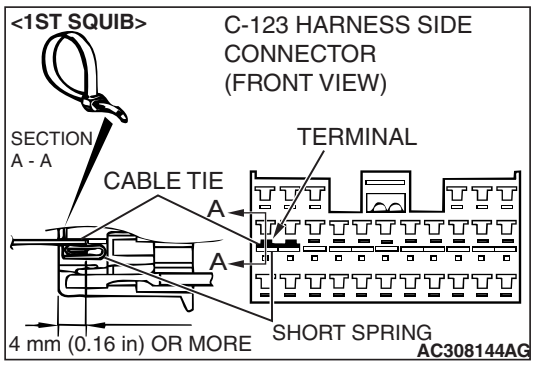


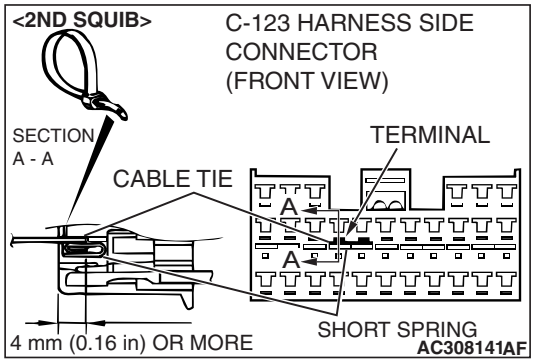


⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-307 to short the squib circuit.

(3) Disconnect the clock spring connector C-307.





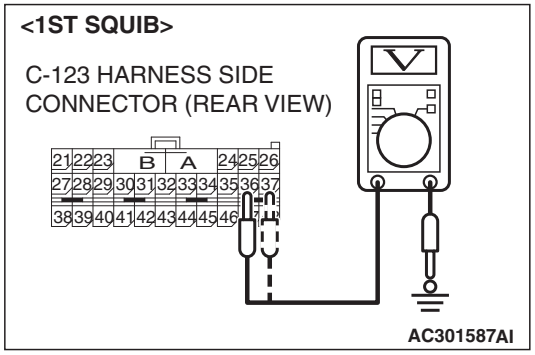
⚠ **CAUTION**

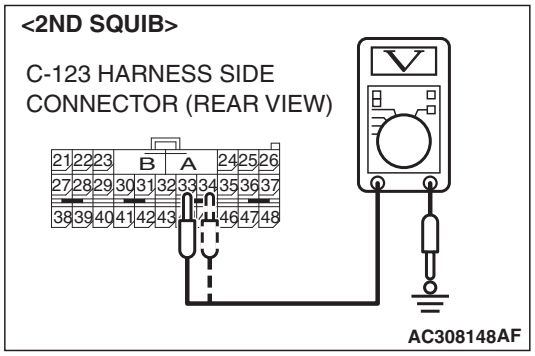
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 36, 37 <1st squib> or 33, 34 <2nd squib> and the short spring to release the short spring.

(5) Connect the negative battery terminal.

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





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

(7) Measure the voltage between C-123 harness side connector terminals 36 and 37 <1st squib> or 33 and 34 <2nd squib> and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1403 <1st squib> or B1483 <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 7.

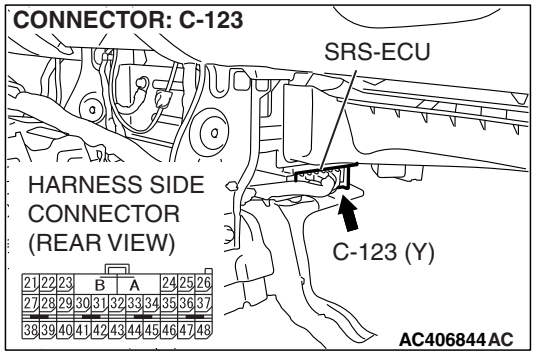
NO : Go to Step 6.

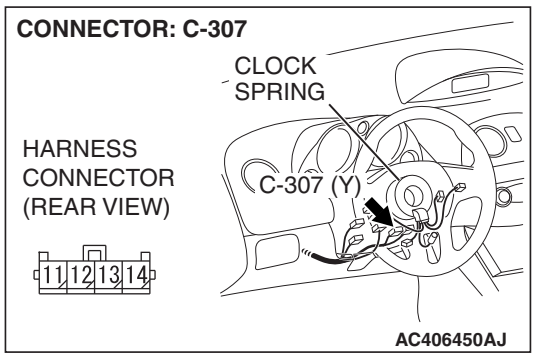
STEP 6. Check the harness for short circuit to power supply between SRS-ECU connector C-123 (terminal No.36 and 37 <1st squib> or terminal No.33 and 34 <2nd squib>) and clock spring connector C-307 (terminal No.13 and 14 or terminal No. 11 and 12 <2nd squib>).

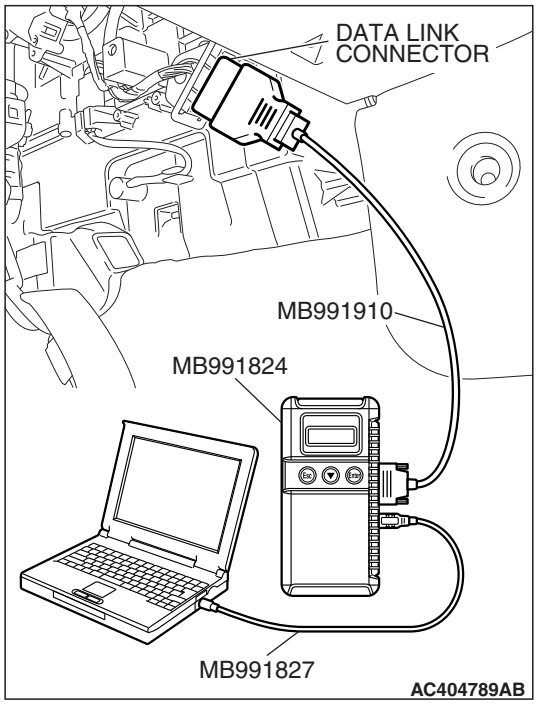
Q: Are harness wires between the SRS-ECU connector C-123 (terminal No.36 and 37 <1st squib> or terminal No.33 and 34 <2nd squib>) and clock spring connector C-307 (terminal No.13 and 14 or terminal No. 11 and 12 <2nd squib>) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-123 and clock spring connector C-307. 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 B1403 <1st squib> or B1483 <2nd squib> set?

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

DTC B1404: Driver's Air Bag Module (1st Squib Ignition Drive Circuit) System Detected Short Circuit
DTC B1405: Driver's Air Bag Module (1st Squib Ignition Drive Circuit) System Detected Open Circuit
DTC B1414: Passenger's (Front) Air Bag Module (1st Squib Ignition Drive Circuit) System Detected Short Circuit
DTC B1415: Passenger's (Front) Air Bag Module (1st Squib Ignition Drive Circuit) System Detected Open Circuit
DTC B1424: Side-Airbag Module (RH) (Squib) System Detected Short Circuit
DTC B1425: Side-Airbag Module (RH) (Squib) System Detected Open Circuit
DTC B1434: Side-Airbag Module (LH) (Squib) System Fault 3 for Ignition Drive Circuit
DTC B1435: Side-Airbag Module (LH) (Squib) System Fault 4 for Ignition Drive Circuit
DTC B1444: Curtain air bag module (RH) (squib) system detected short circuit
DTC B1445: Curtain air bag module (RH) (squib) system detected open circuit
DTC B1454: Curtain air bag module (LH) (squib) system detected short circuit
DTC B1455: Curtain air bag module (LH) (squib) system detected open circuit
DTC B1464: Seat Belt Pre-tensioner (RH) (Squib Ignition Drive Circuit) System Detected Short Circuit
DTC B1465: Seat Belt Pre-tensioner (RH) (Squib Ignition Drive Circuit) System Detected Open Circuit
DTC B1466: Analog G-Sensor System in the SRS-ECU
DTC B1467: Safing G-Sensor Open Circuit
DTC B1468: Safing G-Sensor Short Circuit
DTC B1469: Safing G-Sensor for Side Air Bag Faults
DTC B1474: Seat Belt Pre-tensioner (LH) (Squib Ignition Drive Circuit) System Detected Short Circuit
DTC B1475: Seat Belt Pre-tensioner (LH) (Squib Ignition Drive Circuit) System Detected Open Circuit
DTC B1478: SRS-ECU Capacitor Circuit Voltage too High
DTC B1479: SRS-ECU Capacitor Circuit Voltage too Low
DTC B1484: Driver's Air Bag Module (2nd Squib Ignition Drive Circuit) System Detected Short Circuit
DTC B1485: Driver's Air Bag Module (2nd Squib Ignition Drive Circuit) System Detected Open Circuit
DTC B1494: Passenger's (Front) Air Bag Module (2nd Squib Ignition Drive Circuit) System Detected Short Circuit
DTC B1495: Passenger's (Front) Air Bag Module (2nd Squib Ignition Drive Circuit) System Detected Open Circuit
DTC B1496: SRS-ECU Non-Volatile Memory (EEPROM)
DTC B1497: SRS-ECU Application Specific Integrated Circuit (for frontal activation)
DTC B1498: SRS-ECU ROM or RAM
DTC B1552: Changing Circuit Shorted
DTC B1553: Changing Circuit Open
DTC B1554: SG BY-PASS Circuit Malfunction
DTC B1555: SG BY-PASS Circuit (Field Effect Transistor) Open
DTC B1557: SRS-ECU Application Specific Integrated Circuit

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

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

TROUBLESHOOTING HINTS
- Malfunction of the SRS-ECU

Code No.	Part/circuit integral to SRS-ECU	Symptom
B1404	Driver's air bag module (1st squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1405		Open circuit in the squib ignition drive circuit

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Code No.	Part/circuit integral to SRS-ECU	Symptom
B1414	Front passenger's air bag module (1st squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1415		Open circuit in the squib ignition drive circuit
B1424	Side-airbag module (RH) (squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1425		Open circuit in the squib ignition drive circuit
B1434	Side-airbag module (LH) (squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1435		Open circuit in the squib ignition drive circuit
B1444	Curtain air bag module (RH) (squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1445		Open circuit in the squib ignition drive circuit
B1454	Curtain air bag module (LH) (squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1455		Open circuit in the squib ignition drive circuit
B1464	Seat belt pre-tensioner (RH) (squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1465		Open circuit in the squib ignition drive circuit
B1466	Analog G-sensor	• When the analog G-sensor is not operating • When the characteristics of the analog G-sensor are abnormal • When the output from the analog G-sensor is abnormal
B1467	Safing G-sensor (front air bag)	Open circuit in the safing G-sensor
B1468		Short circuit in the safing G-sensor
B1469	Safing G-sensor (side-airbag)	• When the safing G-sensor is not operating • When the characteristics of the safing G-sensor are abnormal • When the output from the safing G-sensor is abnormal
B1474	Seat belt pre-tensioner (LH) (squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1475		Open circuit in the squib ignition drive circuit
B1478	Capacitor	Voltage at the capacitor terminal is higher than the specified value for five seconds or more
B1479		Voltage at the capacitor terminal is lower than the specified value for five seconds or more (This is not detected if DTC No.41 or 42 indicating battery positive voltage drop has been set).
B1484	Driver's air bag module (2nd squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1485		Open circuit in the squib ignition drive circuit
B1494	Front passenger's air bag module (2nd squib ignition drive circuit)	Short circuit in the squib ignition drive circuit
B1495		Open circuit in the squib ignition drive circuit
B1496	Non-volatile memory (EEPROM)	When the non-volatile memory (EEPROM) are abnormal
B1497	Application specific integrated circuit (for frontal activation)	When the application specific integrated circuit (frontal activation) are abnormal
B1498	ROM or RAM	When the ROM or RAM are abnormal
B1552	Changing of Power Supply	Short circuit in the changing circuit
B1553		Open circuit in the changing circuit

Code No.	Part/circuit integral to SRS-ECU	Symptom
B1554	SG-BYPASS	When the application specific integrated circuit (frontal activation) are abnormal
B1555		When the ROM or RAM are abnormal
B1557	Application specific integrated circuit	When the application specific integrated circuit are abnormal

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

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

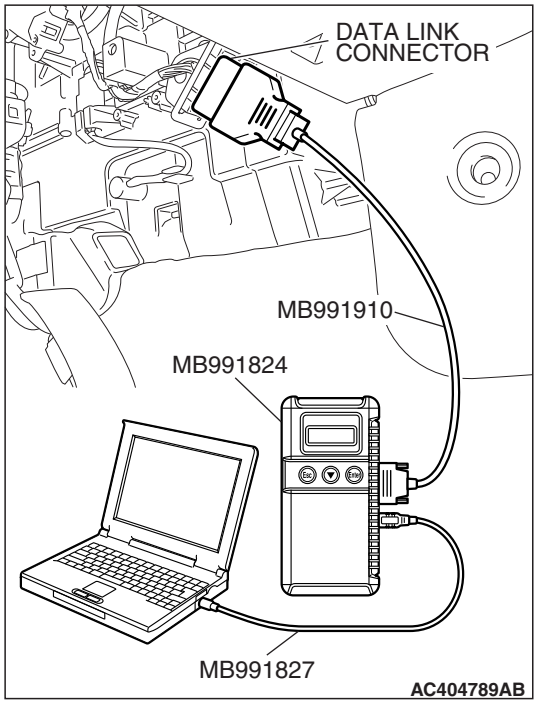
⚠ CAUTION

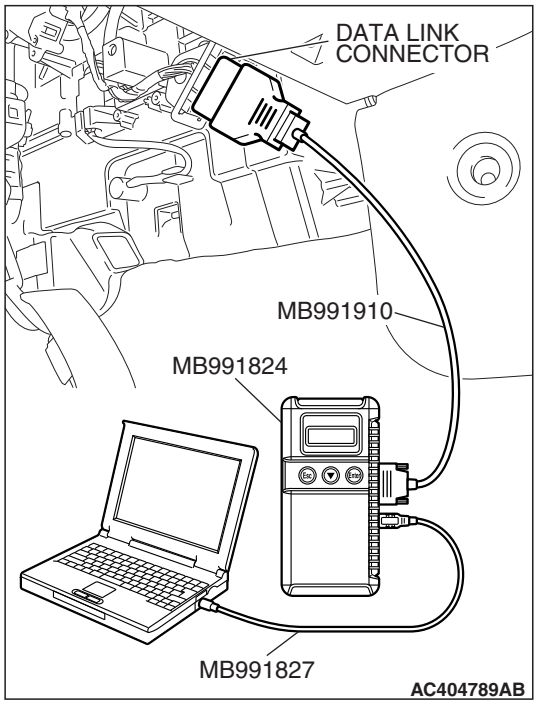
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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: Are the DTCs set?

YES : Replace the SRS-ECU (Refer to P.52B-420).

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).

DTC B1406: Front Impact Sensor (RH) System for Fault 1
DTC B1416: Front Impact Sensor (LH) System for Fault 1

⚠ CAUTION
If DTC B1406 or B1416 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.

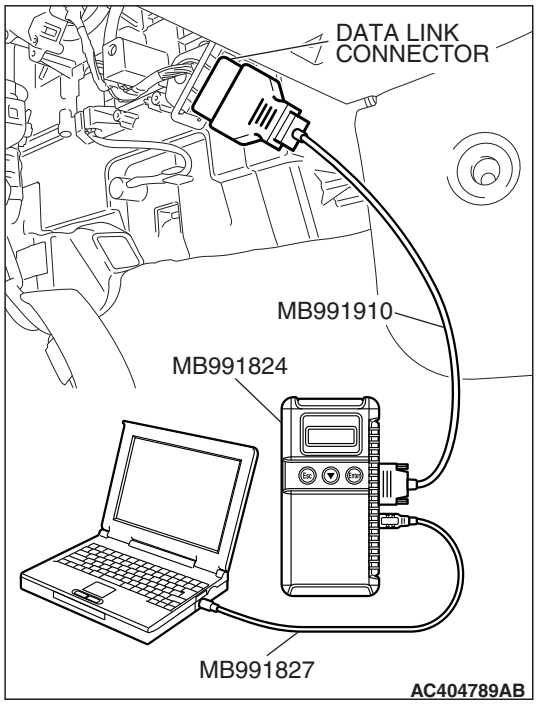
TROUBLESHOOTING HINTS

Malfunction of front impact sensor (RH) (for DTC B1406) and front impact sensor (LH) (for DTC B1416)

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



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

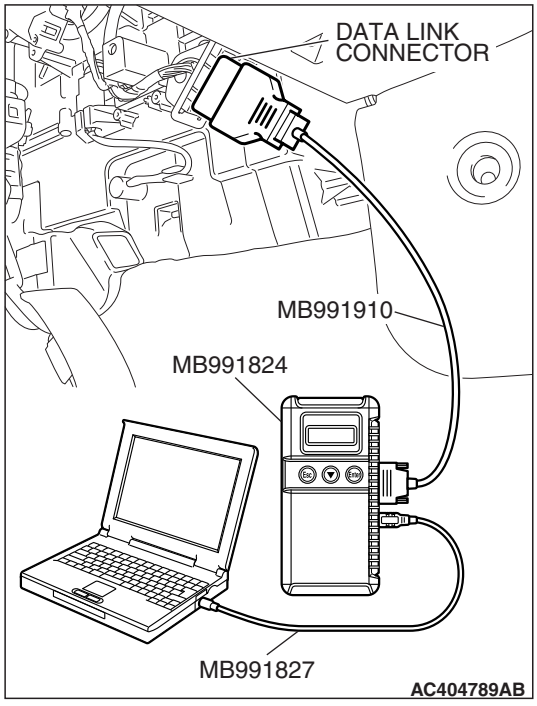
⚠ CAUTION

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-31."
(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.

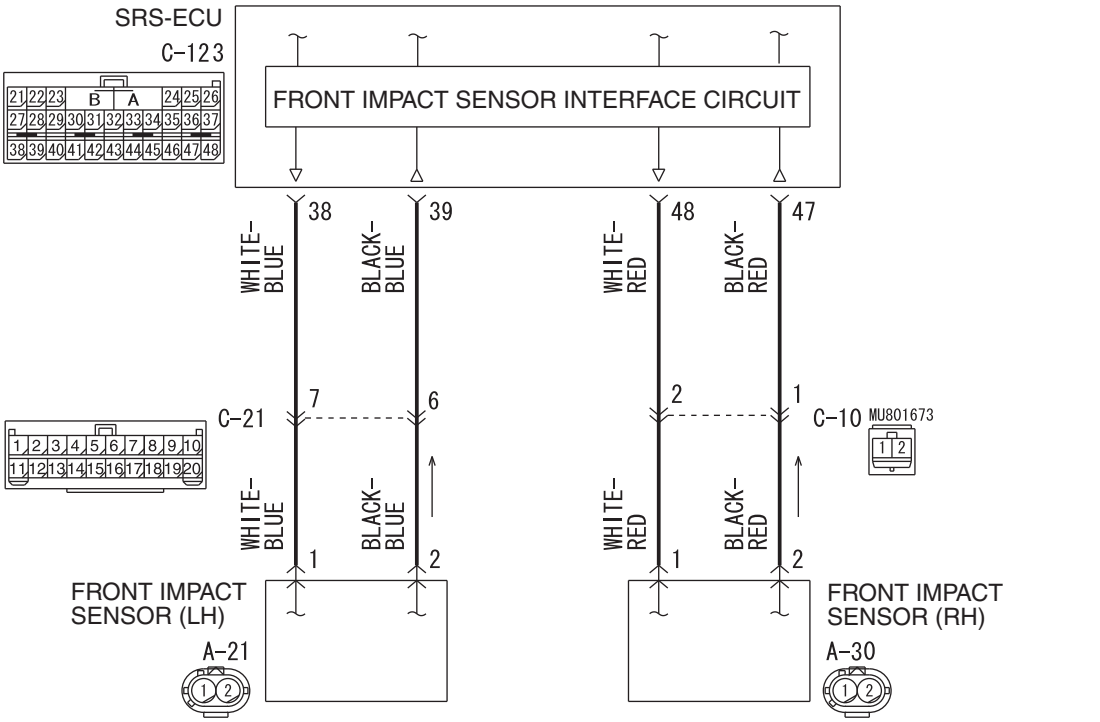
Q: Is the DTC set?

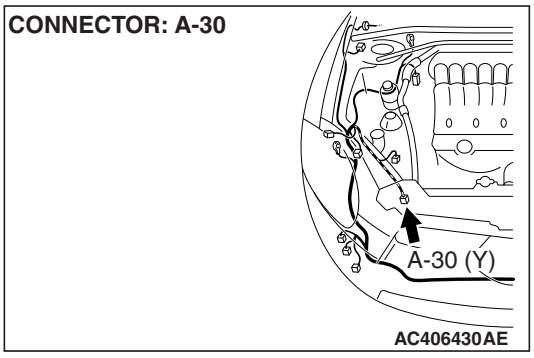
YES : Replace the SRS-ECU and front impact sensor (RH) (for DTC B1406) or replace the SRS-ECU and front impact sensor (LH) (for DTC B1416).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

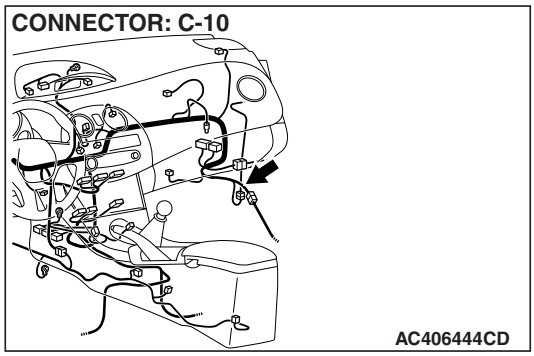
TSB Revision

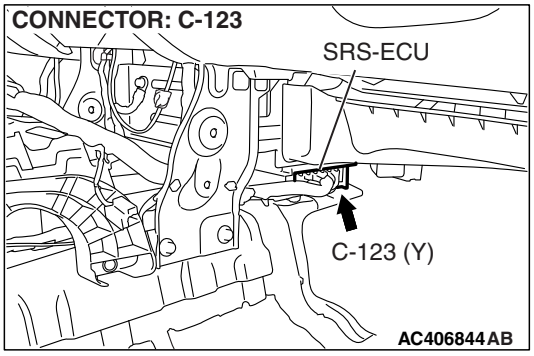
DTC B1407: Front Impact Sensor (RH) Power Supply Circuit System

Front Impact Sensor Circuit









⚠ CAUTION

If DTC B1407 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The front impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the front air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the front air bags. In addition, the CPU diagnoses the internal components of the front impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

DTC SET CONDITIONS

This DTC will set when the power supply voltage to the front impact sensor (RH) remains less than a predetermined value for five seconds.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

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

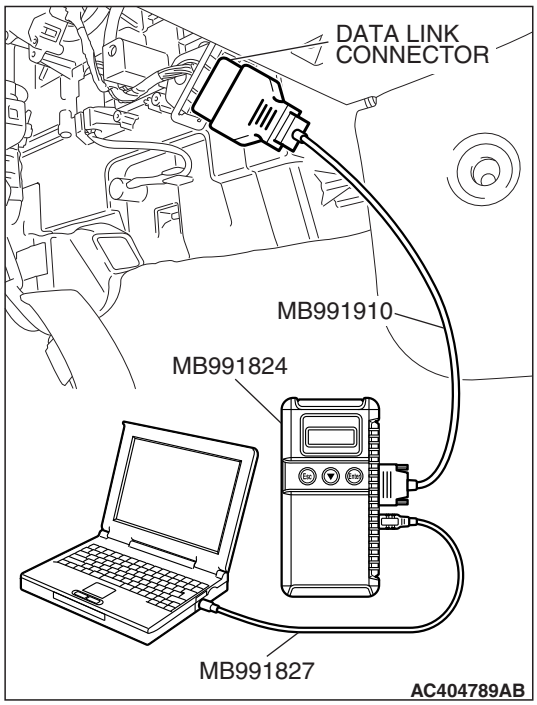
⚠ CAUTION

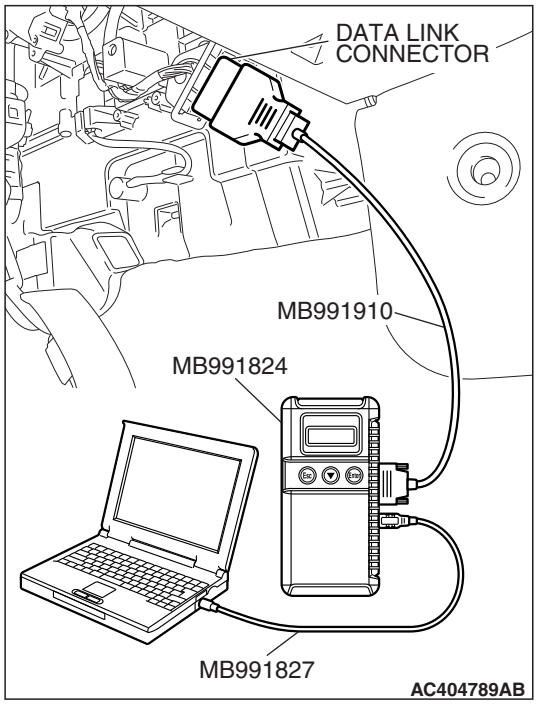
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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).



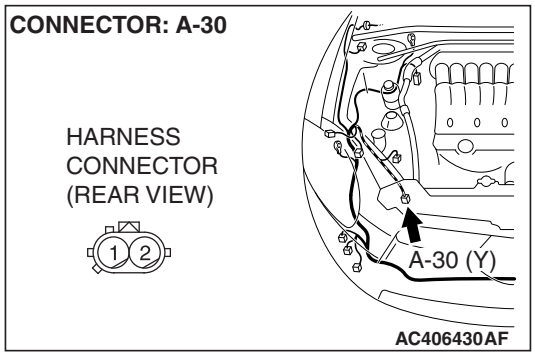


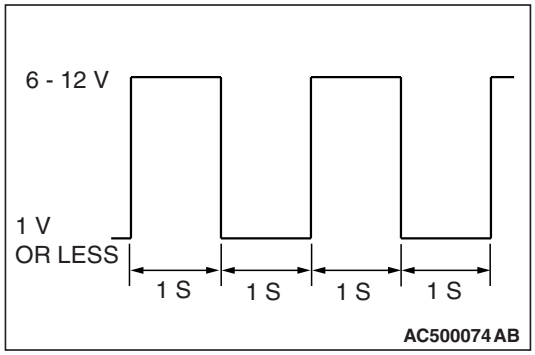
STEP 2. Recheck for diagnostic trouble code.

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





STEP 3. Check the front impact sensor (RH) power supply circuit. Measure the voltage at the front impact sensor (RH) connector A-30.

(1) Connect the negative battery terminal.
(2) Turn the ignition switch to the "ON" position.

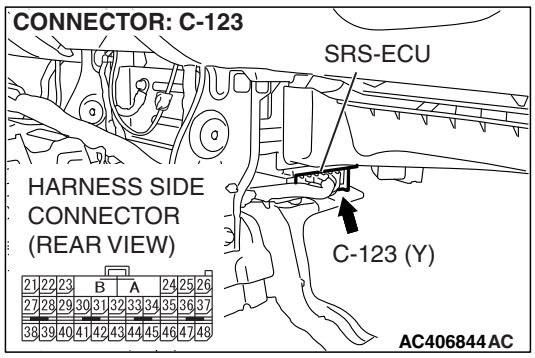
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

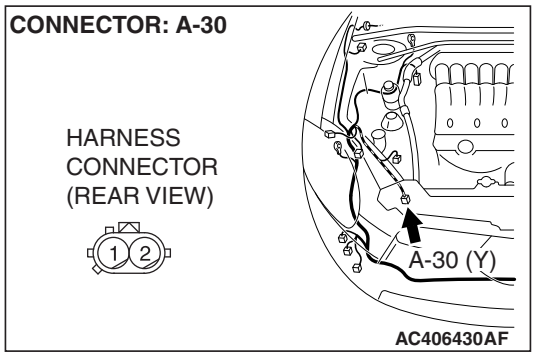
(3) Measure the voltage between A-30 harness side connector terminal 1 and ground.
A wave pattern of oscilloscope iterates an amplitude of 6 – 12 volts.

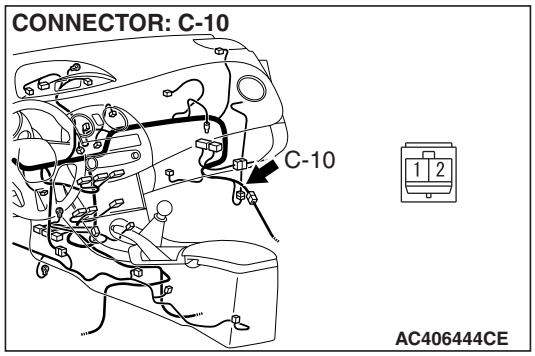
Q: Is the check result normal?

YES : Replace the front impact sensor (RH) (Refer to P.52B-417). Then go to Step 5.
NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-123 (terminal No.47 and 48) and front impact sensor (RH) connector A-30 (terminal No.2 and 1).





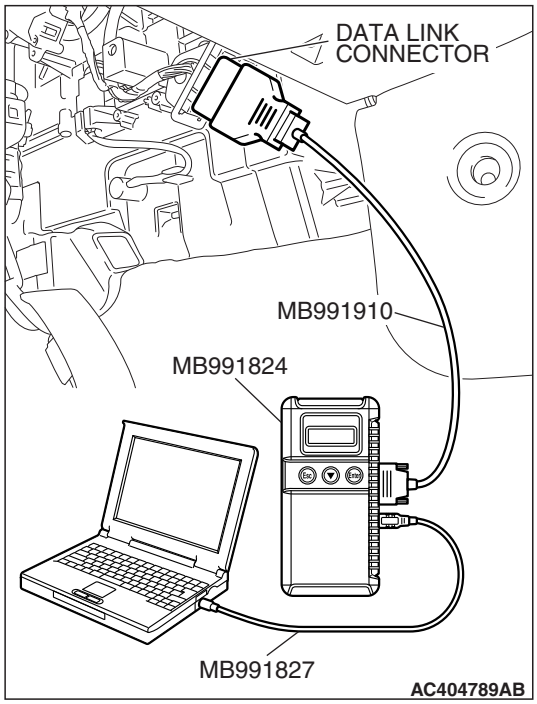


NOTE: After inspecting intermediate connector C-10 inspect the wiring harness. If the intermediate connector C-10 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.47 and 48) and front impact sensor (RH) connector A-30 (terminal No.2 and 1) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1407 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-123 and front impact sensor (RH) connector A-30. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

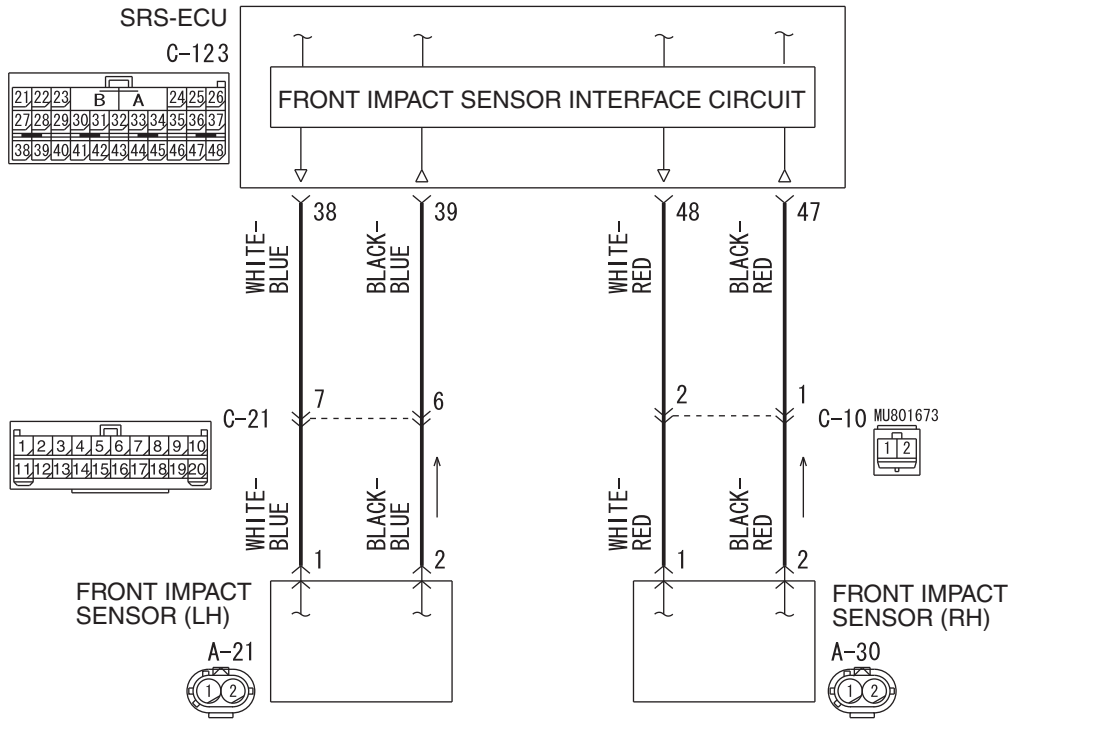
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1407 set?

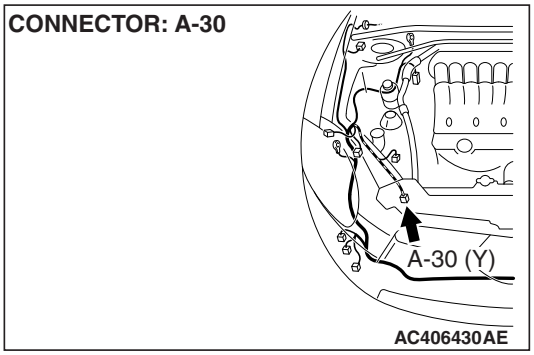
YES : Return to Step 1.
NO : The procedure is complete.

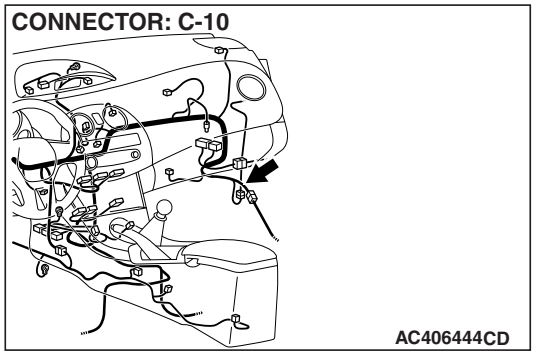
DTC B1408: Front Impact Sensor (RH) (Squib) for Power Supply Circuit
DTC B1409: Front Impact Sensor (RH) (Squib) for Communication System

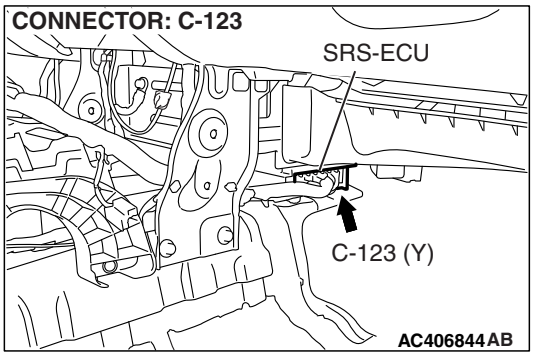
Front Impact Sensor Circuit



TSB Revision







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

CIRCUIT OPERATION

The front impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the front air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the front air bags. In addition, the CPU diagnoses the internal components of the front impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

DTC SET CONDITIONS

These DTCs are set if communication between the front impact sensor (RH) and the SRS-ECU is not possible or faulty.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

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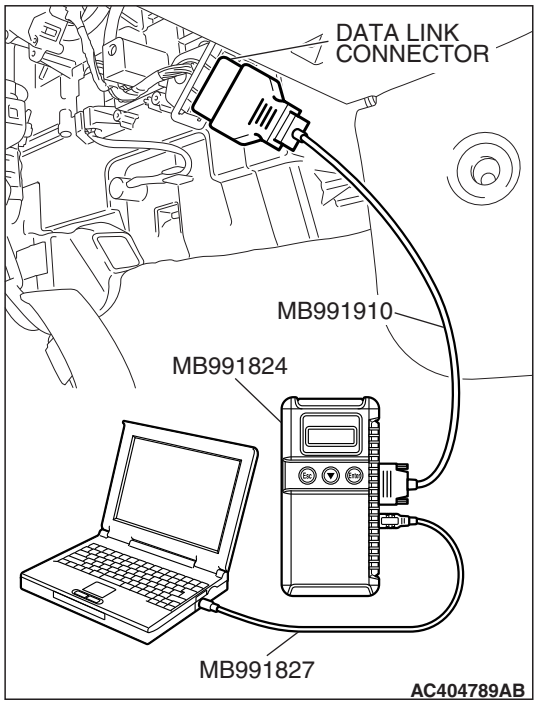


STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

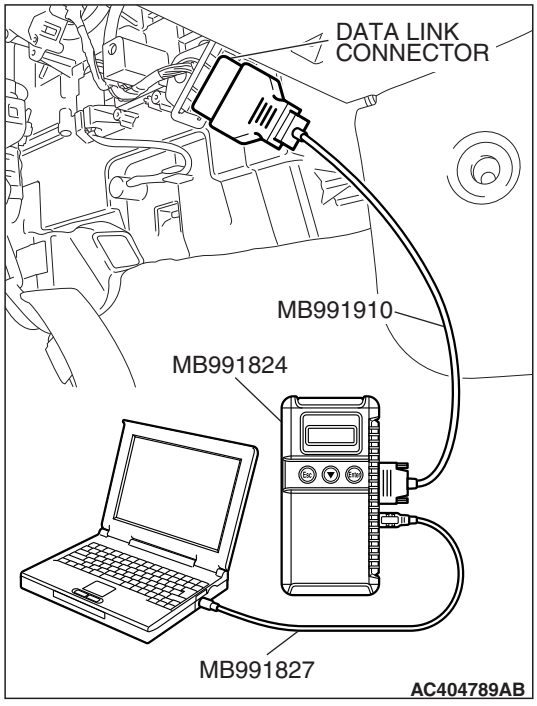
⚠ CAUTION

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-31."
(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).

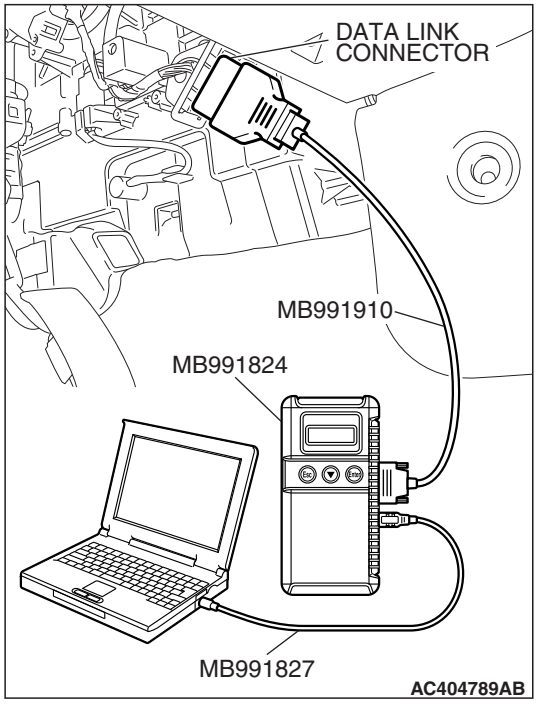


STEP 2. Recheck for diagnostic trouble code.

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



STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the front impact sensor (RH).

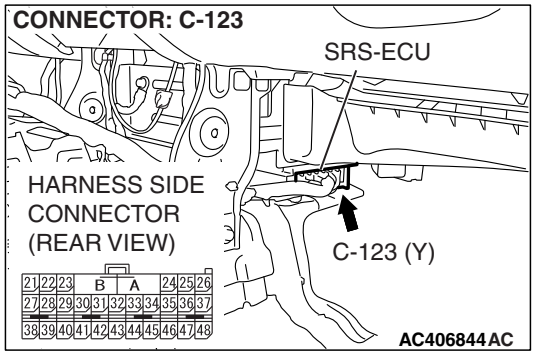
(1) Disconnect the negative battery terminal.
(2) Temporarily replace the front impact sensor (RH) with the front impact sensor (LH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

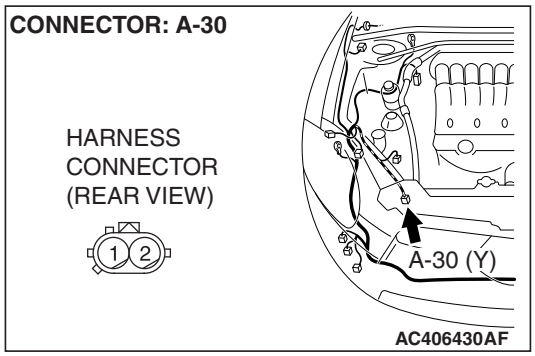
Q: Is DTC B1418 or B1419 set?

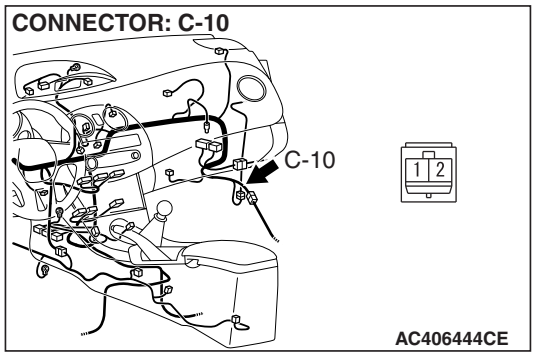
YES : Replace the front impact sensor (RH) with a new one (Refer to P.52B-432). Then go to Step 5.

NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-123 (terminal No.47 and 48) and front impact sensor (RH) connector A-30 (terminal No.2 and 1).





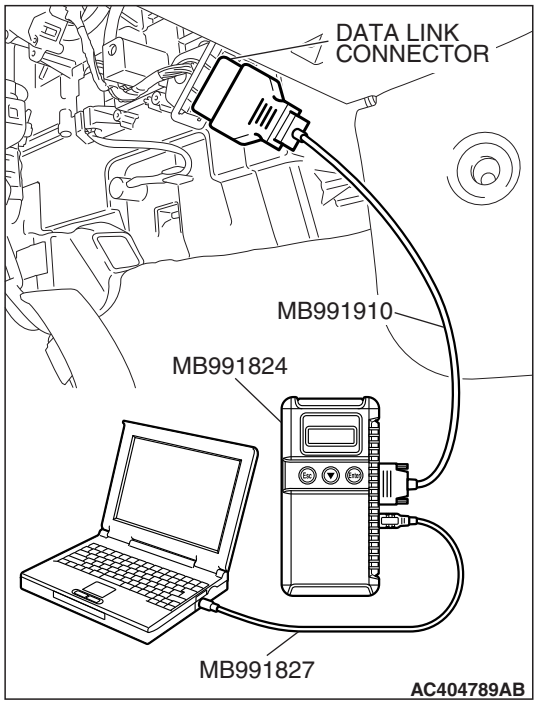


NOTE: After inspecting intermediate connector C-10 inspect the wiring harness. If the intermediate connector C-10 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.47 and 48) and front impact sensor (RH) connector A-30 (terminal No.2 and 1) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1408 or B1409 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-123 and front impact sensor (RH) connector A-30. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

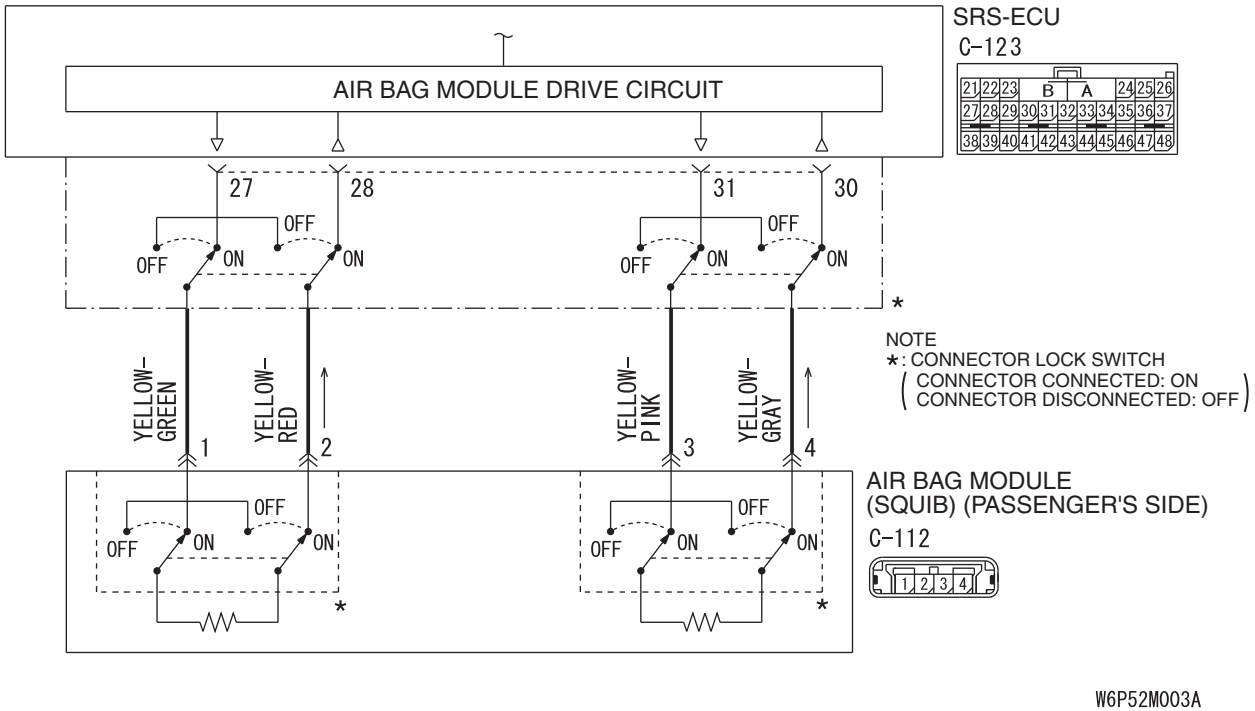
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1408 or B1409 set?

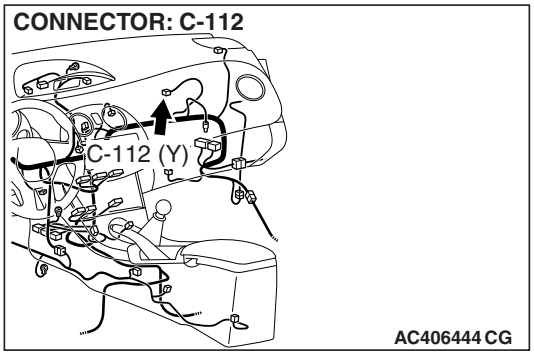
YES : Return to Step 1.
NO : The procedure is complete.

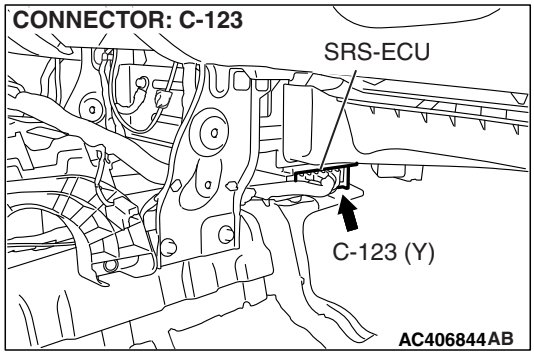
DTC B1410: Passenger's (Front) Air Bag Module (1st Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)
DTC B1490: Passenger's (Front) Air Bag Module (2nd Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Passenger's (Front) Air Bag Module (1st Squid and 2nd Squib) Circuit



TSB Revision





⚠ CAUTION
If DTC B1410 <1st squib> or B1490 <2nd squib> 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 SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-112, C-123 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resister
- MB991866: Resister harness

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

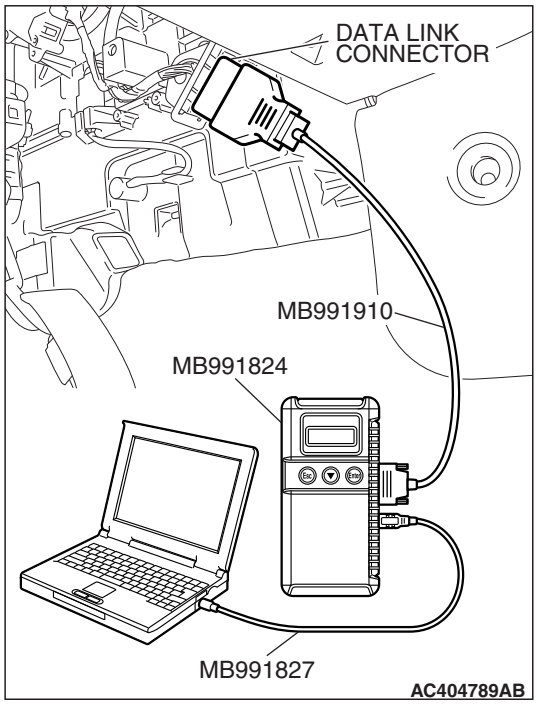
⚠ CAUTION

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-31."
(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).

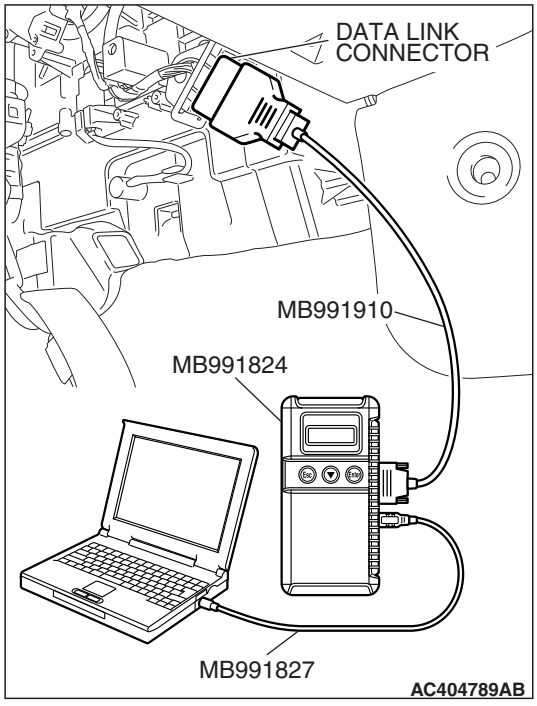


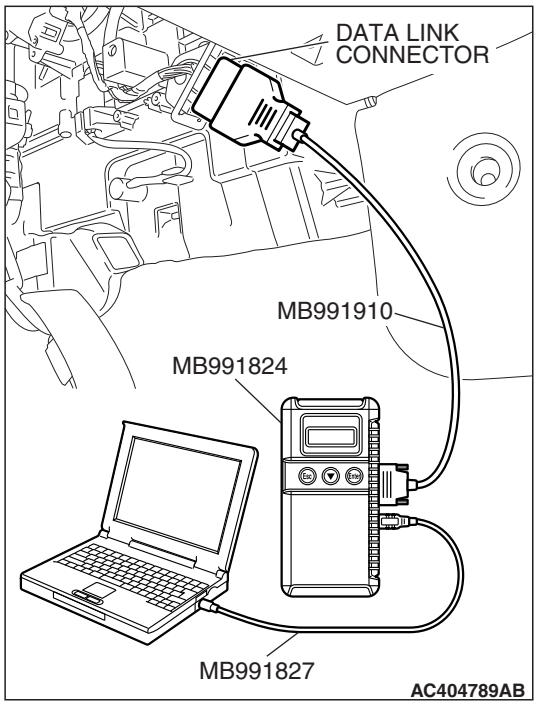
STEP 2. Recheck for diagnostic trouble code.

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



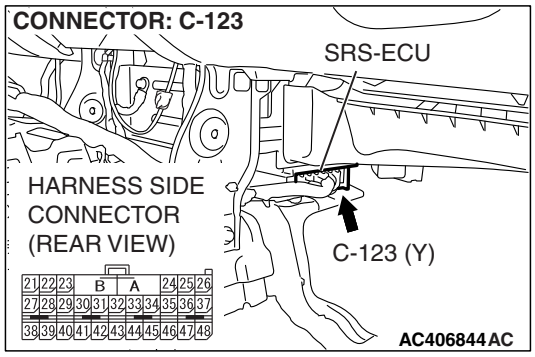


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(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 DTC B1519 set?

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



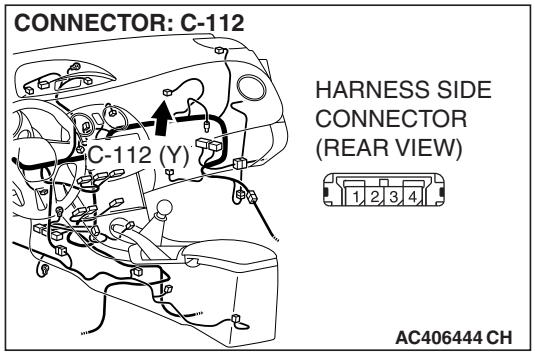
STEP 4. Check SRS-ECU connector C-123.

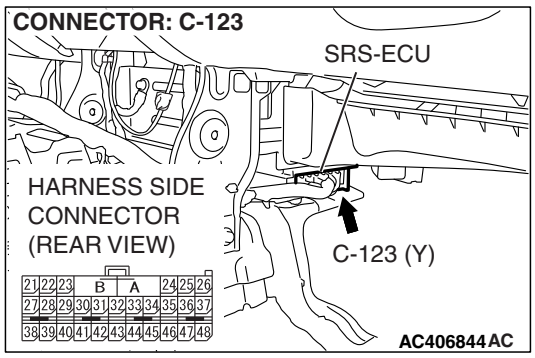
Q: Is the connector correctly engaged?

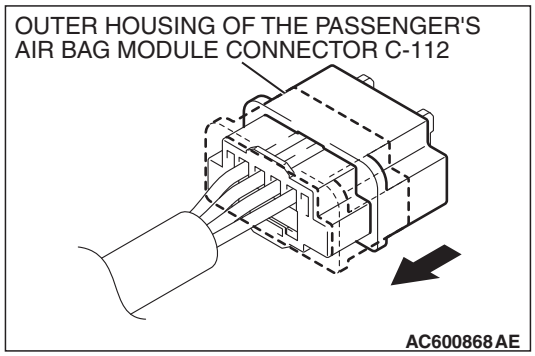
YES : Go to Step 5.
NO : Engage the connector correctly. Then go to Step 9.

STEP 5. Check SRS-ECU connector C-123 and passenger's air bag module connector C-112. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-123 and C-112, and then reconnect them.







(3) Slide the outer housing of passenger's air bag module connector C-112 in the arrow direction shown, and 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 B1410 <1st squib> or B1490 <2nd squib> set?

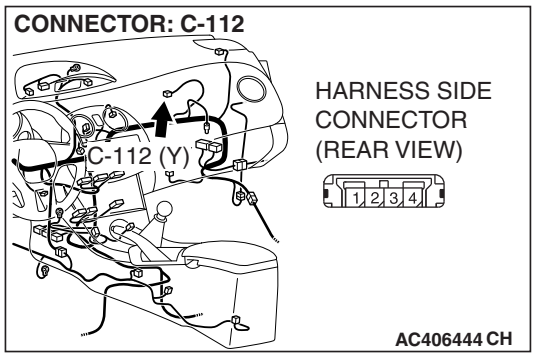
YES : Go to Step 6.

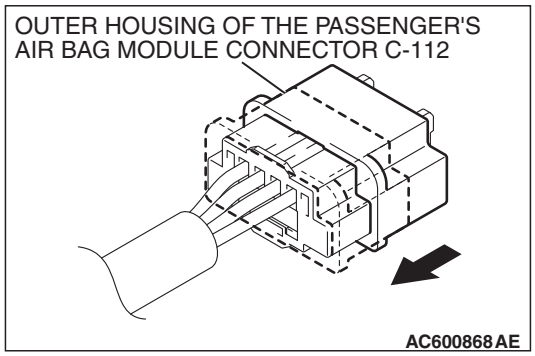
NO : The procedure is complete. It is assumed that DTC B1410 <1st squib> or B1490 <2nd squib> set as connector C-123 or C-112 was engaged improperly.

STEP 6. Check the passenger's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

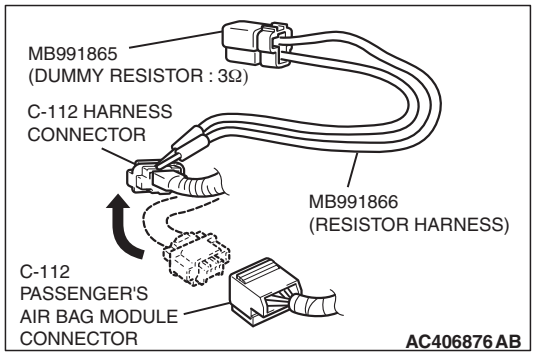
(1) Disconnect the negative battery terminal.

(2) Disconnect the passenger's air bag module connector C-112.





(3) Slide the outer housing of passenger's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.



(4) 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.

(5) Insert special tool MB991866 into the harness side connector C-112 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1491 is set when checking DTC B1410. This is because the second side terminal is isolated when checking it, DTC B1491 is set but this is not a fault. In addition, always DTC B1411 is set when checking DTC B1490 because the first side terminal is isolated.

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

Q: Is DTC B1410 <1st squib> or B1490 <2nd squib> set?

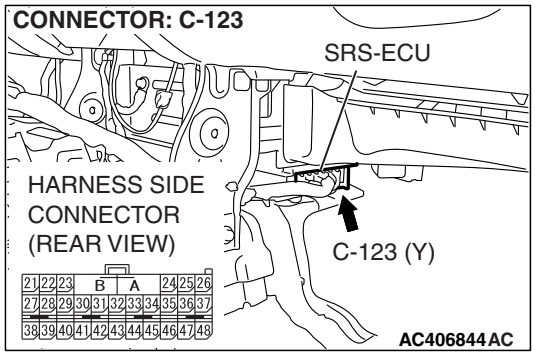
YES : Go to Step 7.

NO : Replace the passenger's air bag module (Refer to P.52B-423). Then go to Step 9.

STEP 7. Check the passenger's air bag module circuit at SRS-ECU connector C-123.

(1) Disconnect the negative battery terminal.

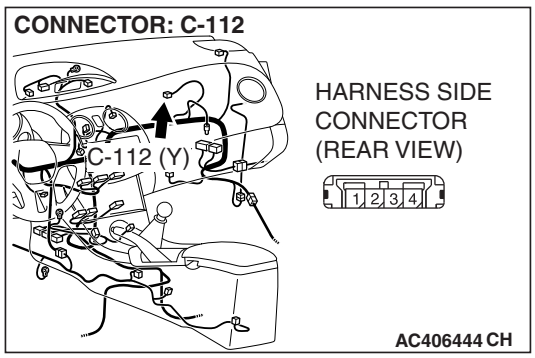
(2) Disconnect SRS-ECU connector C-123.



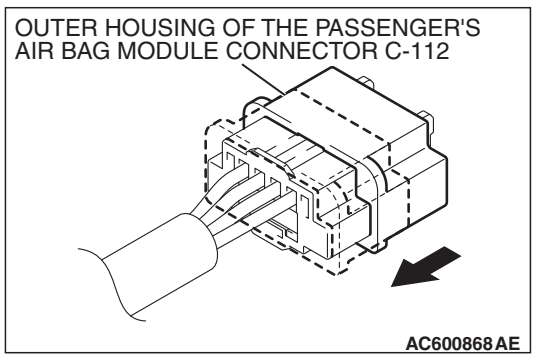
⚠ ***DANGER***

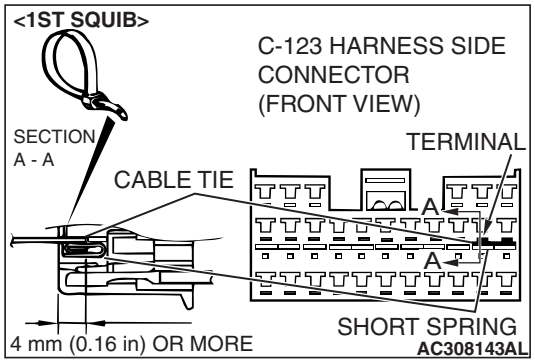
To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-112 to short the squib circuit.

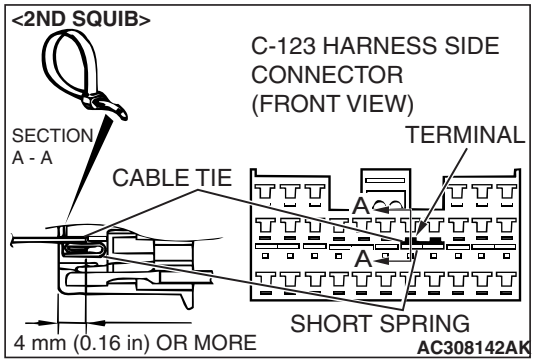
(3) Disconnect the passenger's air bag module connector C-112.

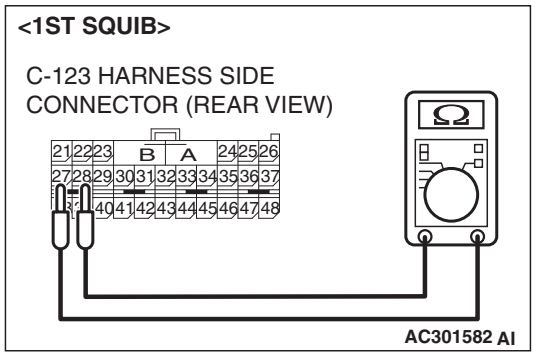


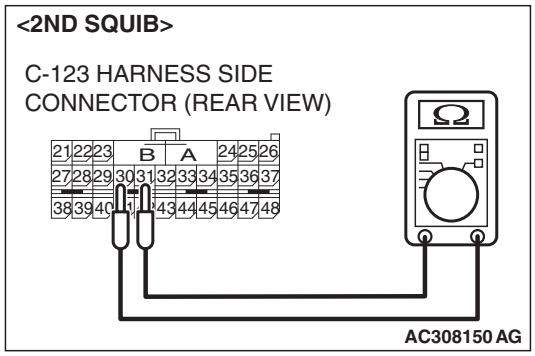
(4) Slide the outer housing of driver's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.











⚠ 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.

(5) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>, and the short spring to release the short spring.

⚠ CAUTION

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

(6) Check for continuity between C-123 harness side connector terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.

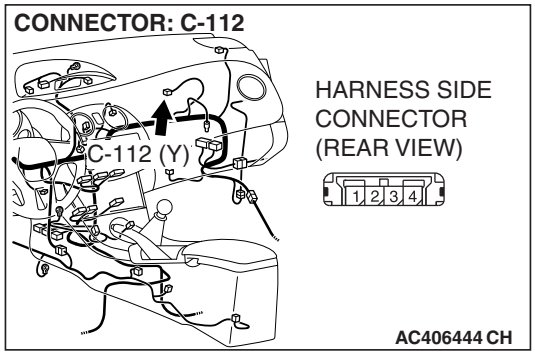
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1410 <1st squib> or B1490 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9.

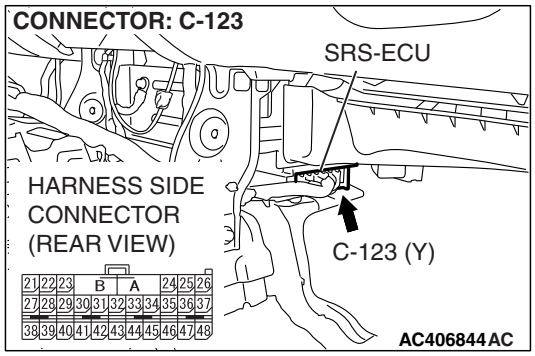
STEP 8. Check the harness for short circuit between SRS-ECU connector C-123 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-112 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>).

Q: Are harness wires between SRS-ECU connector C-123 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-112 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-123 and passenger's air bag module connector C-112. Then go to Step 9.





STEP 9. 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.

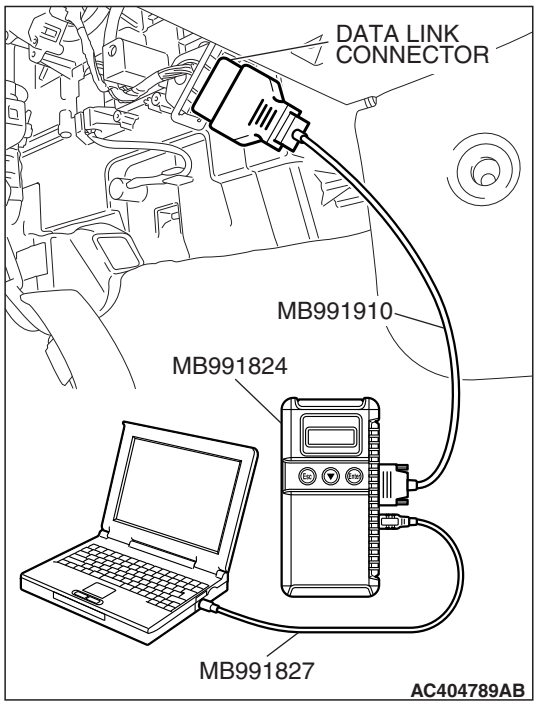
(3) Check if the DTC is set.

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

Q: Is DTC B1410 <1st squib> or B1490 <2nd squib> set?

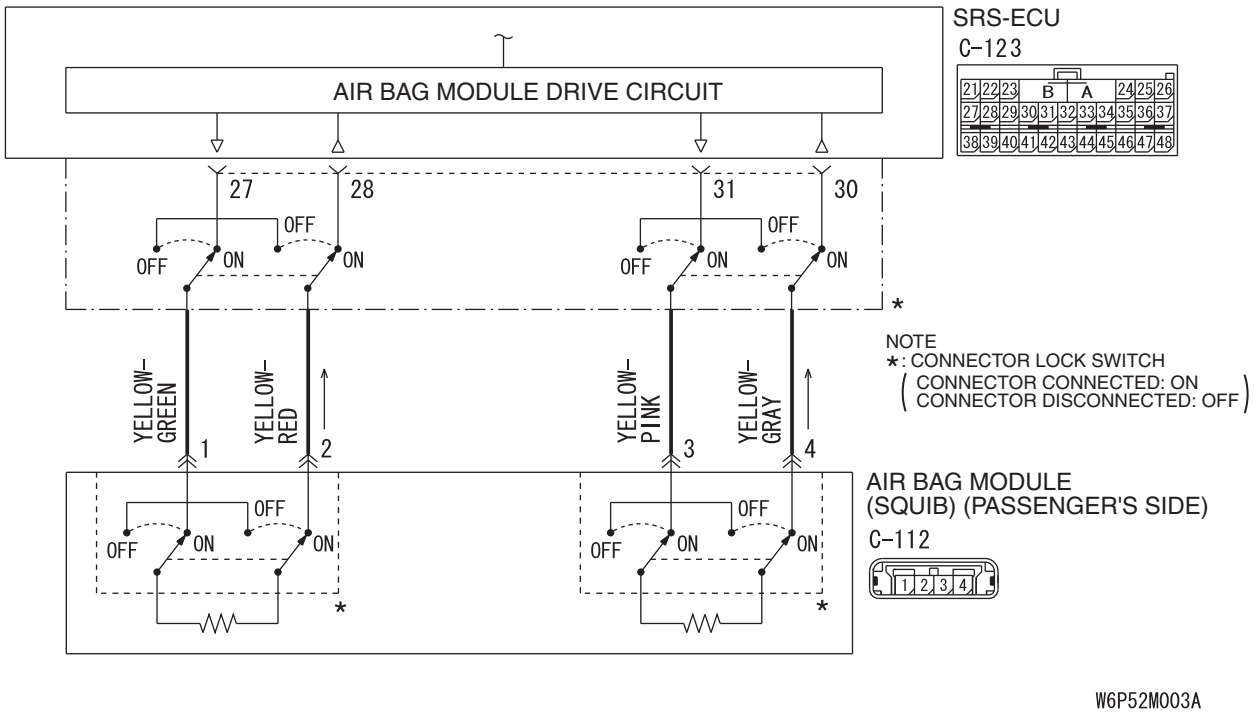
YES : Return to Step 1.

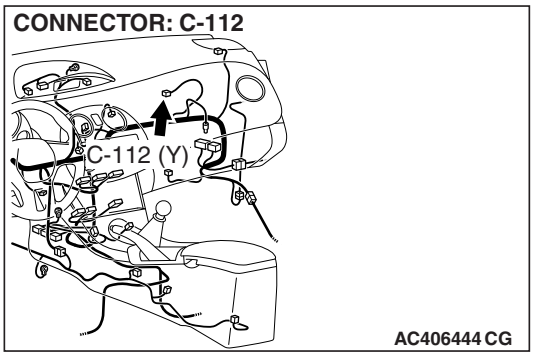
NO : The procedure is complete.

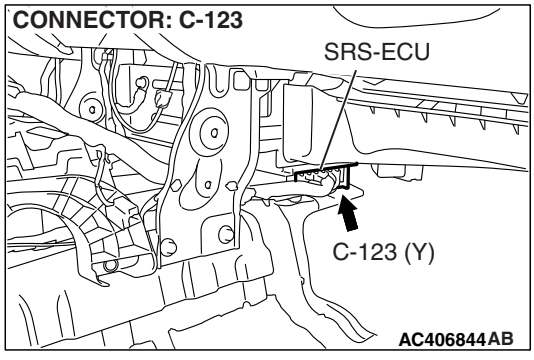


DTC B1411: Passenger's (Front) Air Bag Module (1st Squib) System Fault 2 (Open in the Squib Circuit)
DTC B1491: Passenger's (Front) Air Bag Module (2nd Squib) System Fault 2 (Open in the Squib Circuit)

Passenger's (Front) Air Bag Module (1st Squid and 2nd Squib) Circuit







⚠ CAUTION
If DTC B1411 <1st squib> or B1491 <2nd squib> 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 SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

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DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resister
- MB991866: Resister harness

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

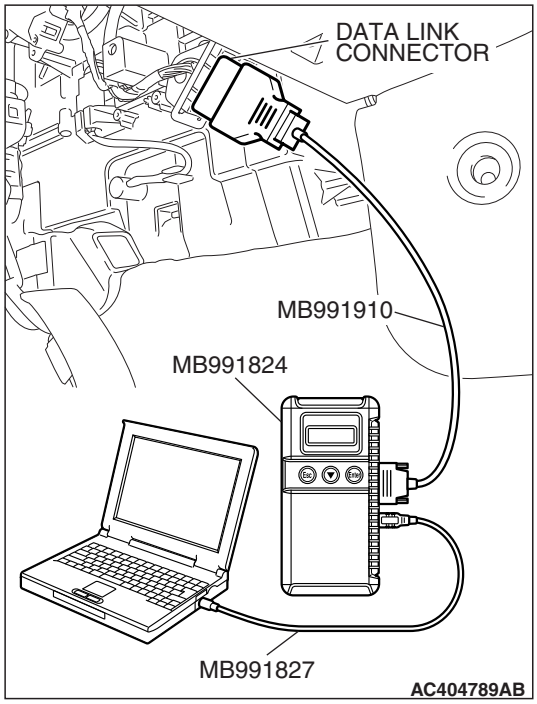
⚠ CAUTION

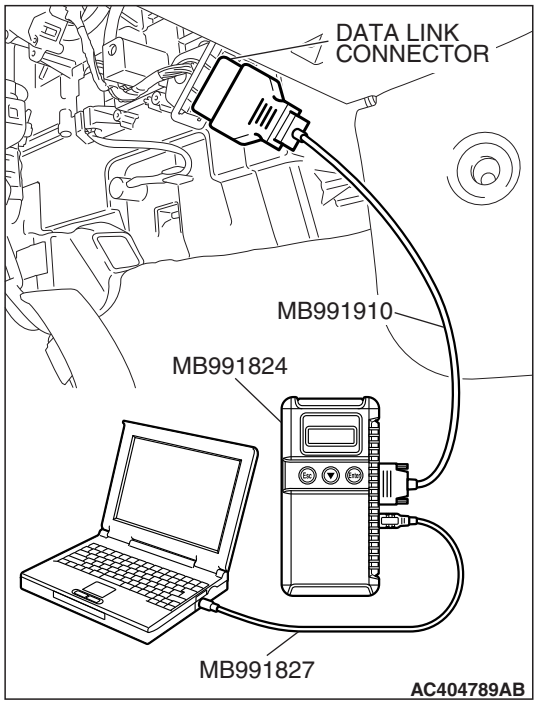
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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?

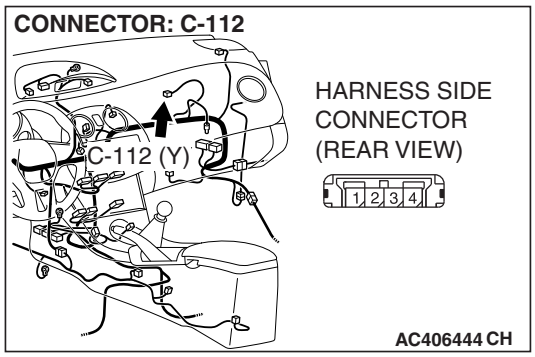
YES : Go to Step 3.

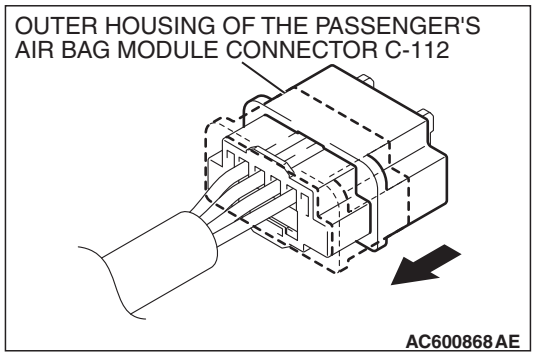
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the passenger's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

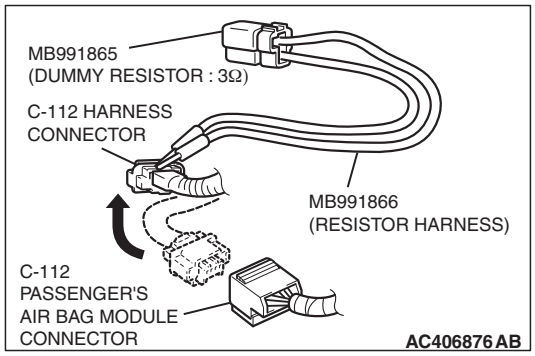
(1) Disconnect the negative battery terminal.

(2) Disconnect the passenger's air bag module connector C-112.





(3) Slide the outer housing of passenger's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.



(4) 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.

(5) Insert special tool MB991866 into the harness side connector C-112 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(6) Connect the negative battery terminal.

⚠ CAUTION

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

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

Q: Is DTC B1411 <1st squib> or B1491 <2nd squib> set?

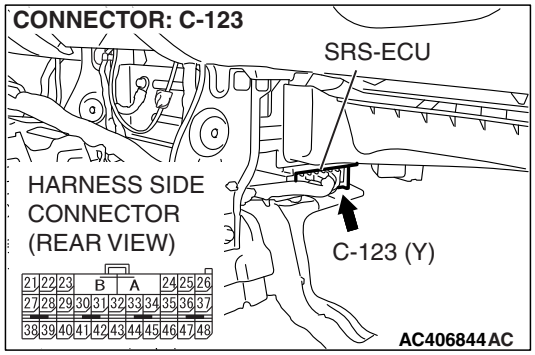
YES : Go to Step 4.

NO : Replace the passenger's air bag module (Refer to P.52B-423). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-123 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and the passenger's air bag module connector C-112 (terminal No.1 and 2 <1st squib> or terminal No.4 and 3 <2nd squib>).

(1) Disconnect the negative battery terminal.

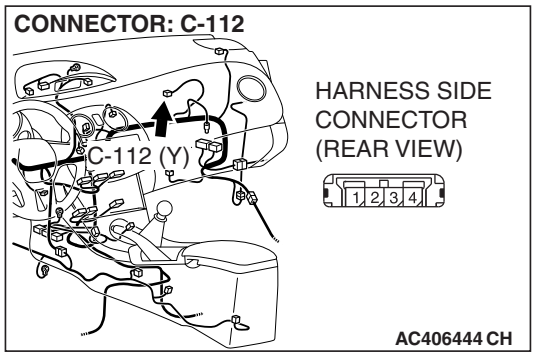
(2) Disconnect SRS-ECU connector C-123.



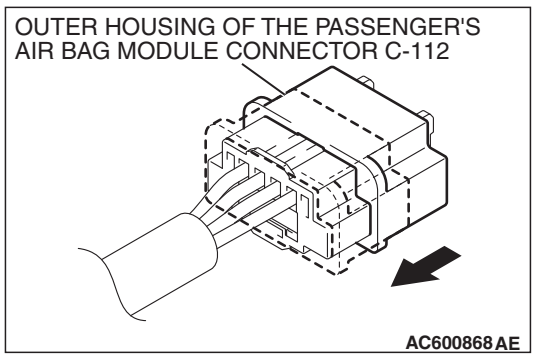
⚠ DANGER

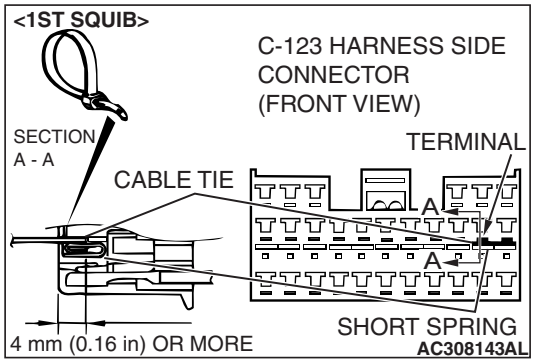
To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-112 to short the squib circuit.

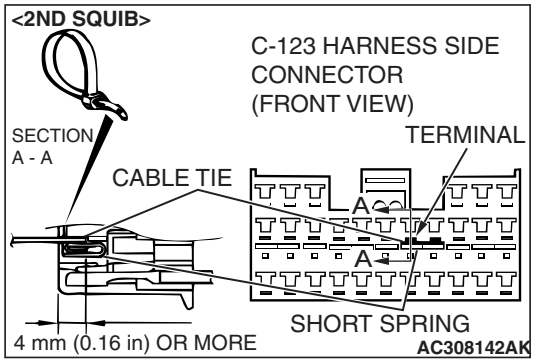
(3) Disconnect the passenger's air bag module connector C-112.

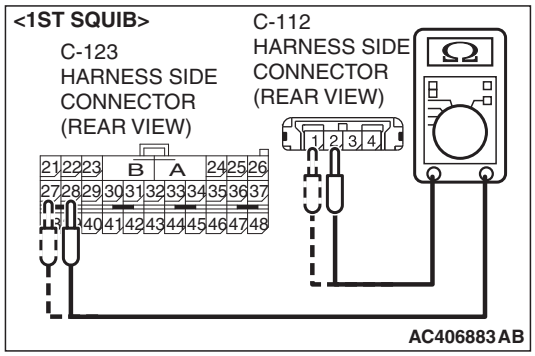


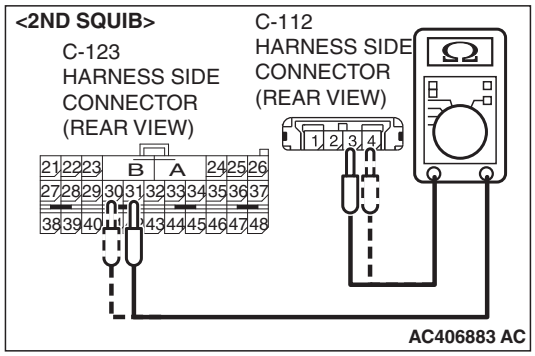
(4) Slide the outer housing of driver's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.











⚠ 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.

(5) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>, and the short spring to release the short spring.

⚠ CAUTION

Do not insert a test probe into the terminal from its 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.

<1st squib>

- SRS-ECU connector C-123 (terminal No.27) and the passenger's air bag module connector C-112 (terminal No.1)
- SRS-ECU connector C-123 (terminal No.28) and the passenger's air bag module connector C-112 (terminal No.2)

<2nd squib>

- SRS-ECU connector C-123 (terminal No.30) and the passenger's air bag module connector C-112 (terminal No.4)
- SRS-ECU connector C-123 (terminal No.31) and the passenger's air bag module connector C-112 (terminal No.3)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1411 <1st squib> or B1491 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-123 and passenger's air bag module connector C-112. Then go to Step 5.

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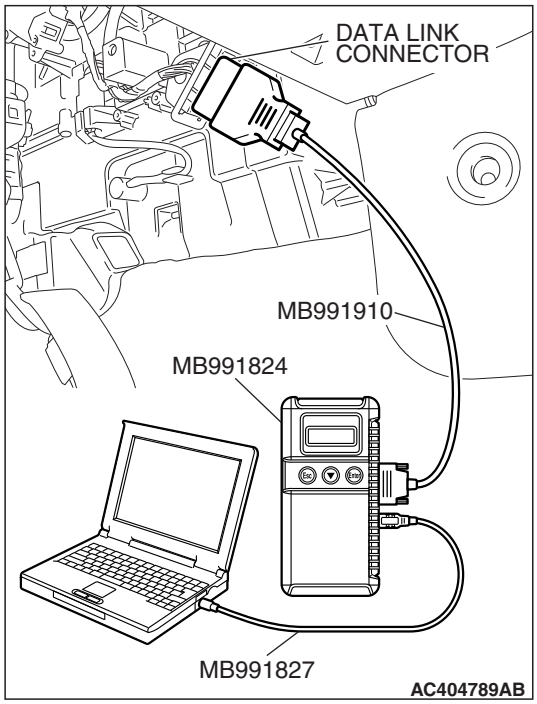


STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

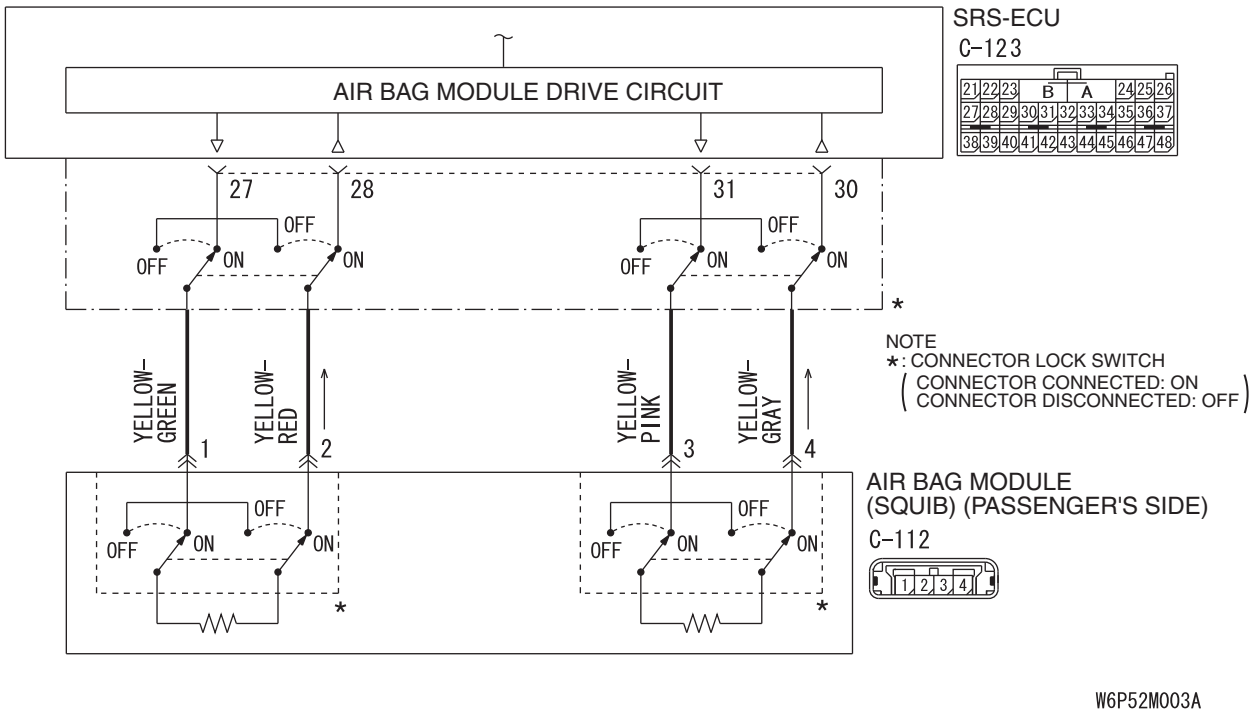
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

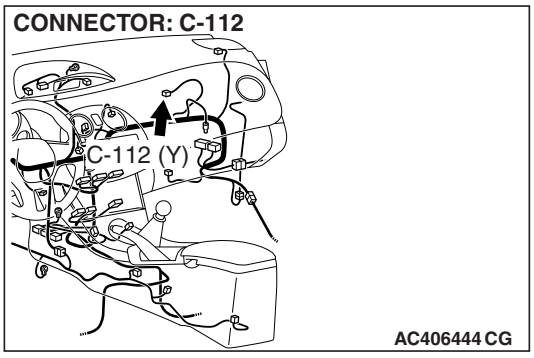
Q: Is DTC B1411 <1st squib> or B1491 <2nd squib> set?

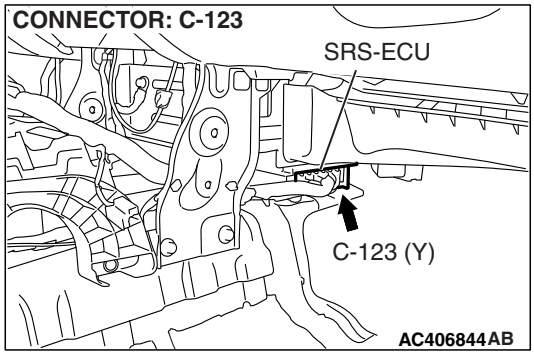
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1412: Passenger's (Front) Air Bag Module (1st Squib) System Fault for Ground Circuit (Short-Circuited to Ground)
DTC B1492: Passenger's (Front) Air Bag Module (2nd Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

Passenger's (Front) Air Bag Module (1st Squid and 2nd Squib) Circuit







⚠ CAUTION
If DTC B1412 <1st squib> or B1492 <2nd squib> 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 SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

TSB Revision

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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

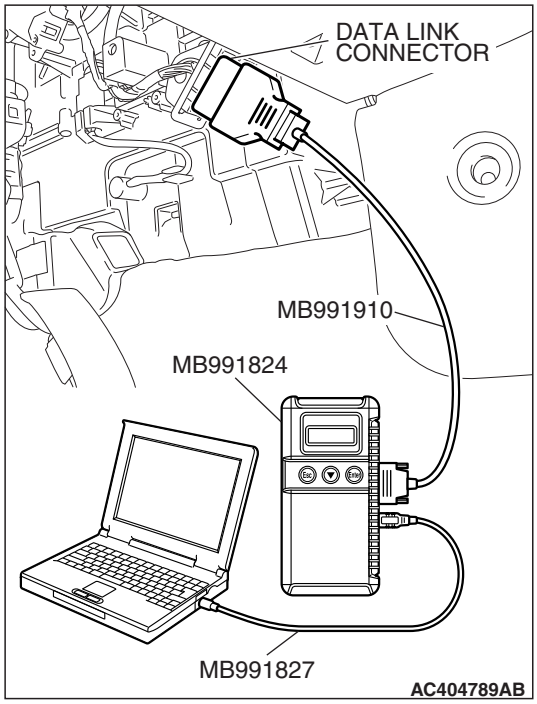
⚠ CAUTION

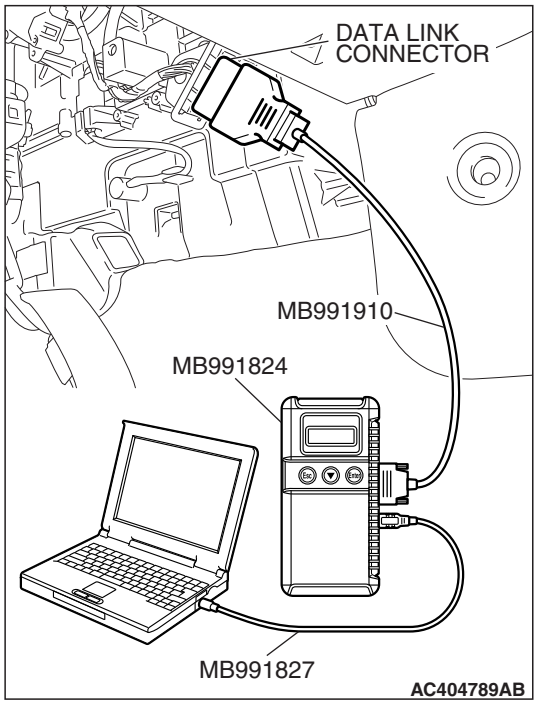
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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?

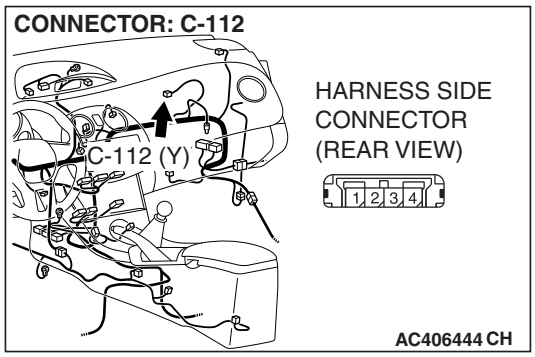
YES : Go to Step 3.

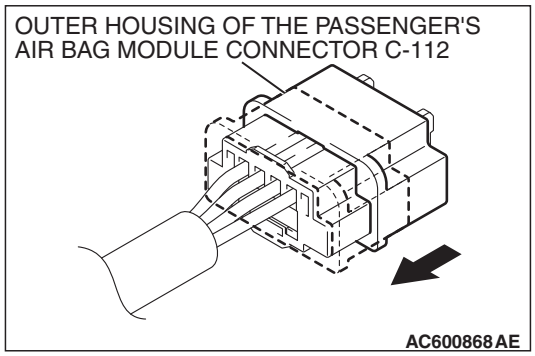
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the passenger's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

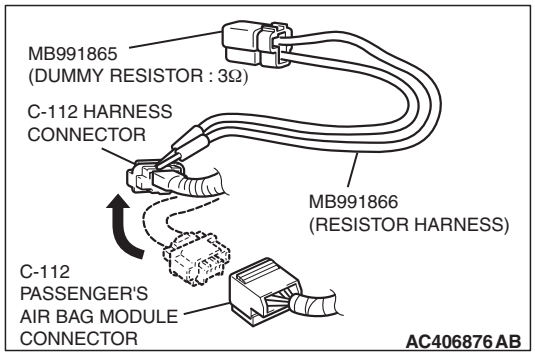
(1) Disconnect the negative battery terminal.

(2) Disconnect the passenger's air bag module connector C-112.





(3) Slide the outer housing of passenger's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.



(4) 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.

(5) Insert special tool MB991866 into the harness side connector C-112 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1491 is set when checking DTC B1412. This is because the second side terminal is isolated when checking it, DTC B1491 is set but this is not a fault. In addition, always DTC B1411 is set when checking DTC B1492 because the first side terminal is isolated.

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

Q: Is DTC B1412 <1st squib> B1492 <2nd squib> set?

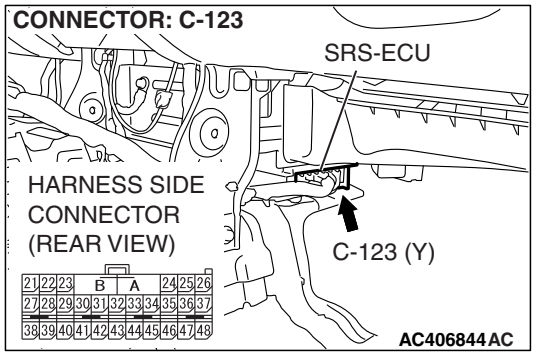
YES : Go to Step 4.

NO : Replace the passenger's air bag module (Refer to P.52B-423). Then go to Step 6.

STEP 4. Check the passenger's air bag module circuit. Measure the resistance at the SRS-ECU connector C-123.

(1) Disconnect the negative battery terminal.

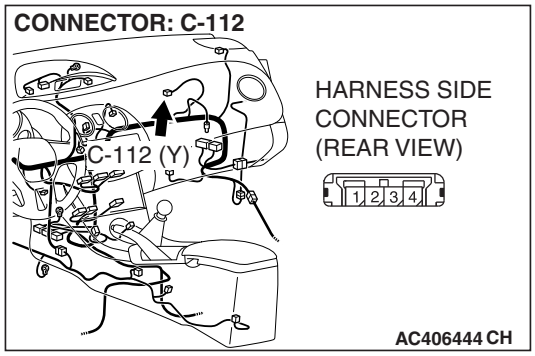
(2) Disconnect SRS-ECU connector C-123.



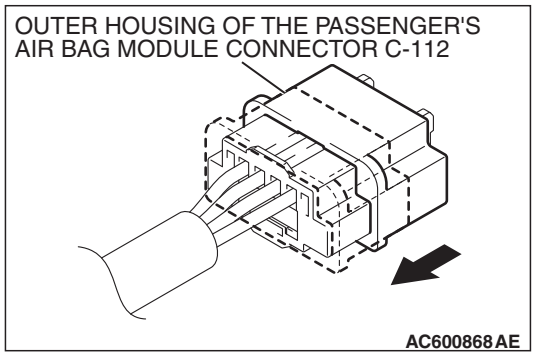
⚠ ***DANGER***

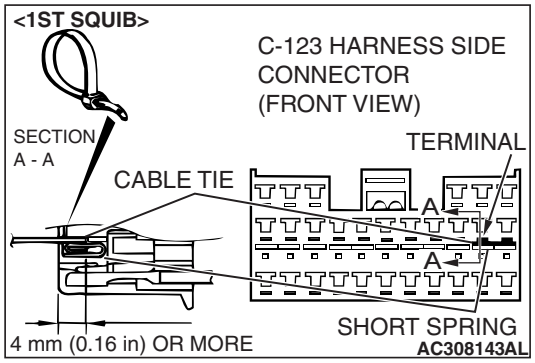
To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-112 to short the squib circuit.

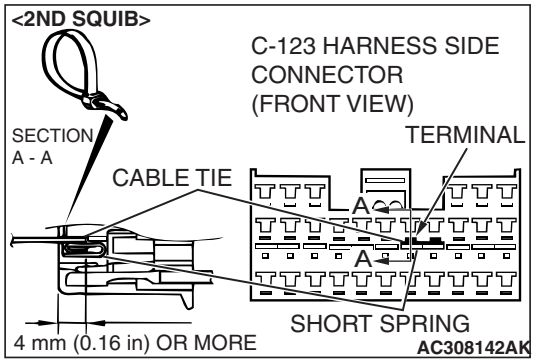
(3) Disconnect the passenger's air bag module connector C-112.

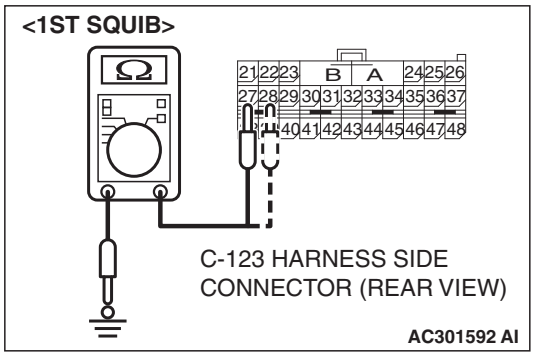


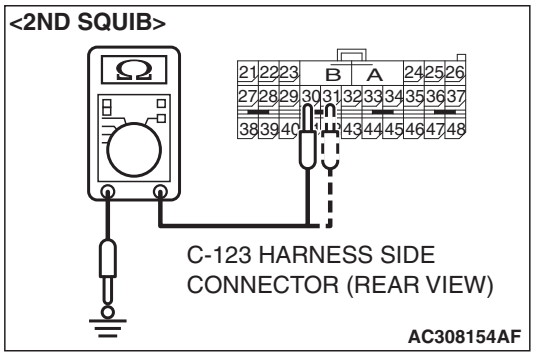
(4) Slide the outer housing of passenger's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.











⚠ 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.

(5) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>, and the short spring to release the short spring.

⚠ CAUTION

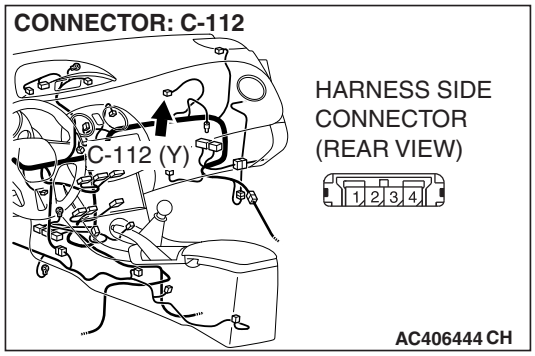
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

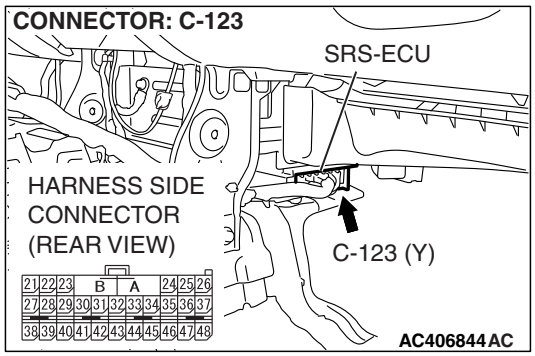
(6) Check for continuity between C-123 harness side connector terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>, and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1412 <1st squib> B1492<2nd squib> sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.



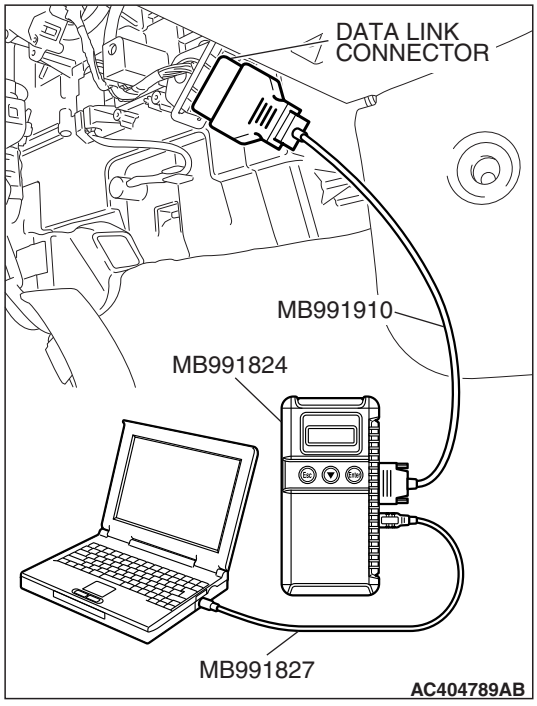


STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-123 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-112 (terminal No.1 and 2 <1st squib> or terminal No.4 and 3 <2nd squib>).

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-112 (terminal No.1 and 2 <1st squib> or terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-123 and passenger's air bag module connector C-112. 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 B1412 <1st squib> B1492 <2nd squib> set?

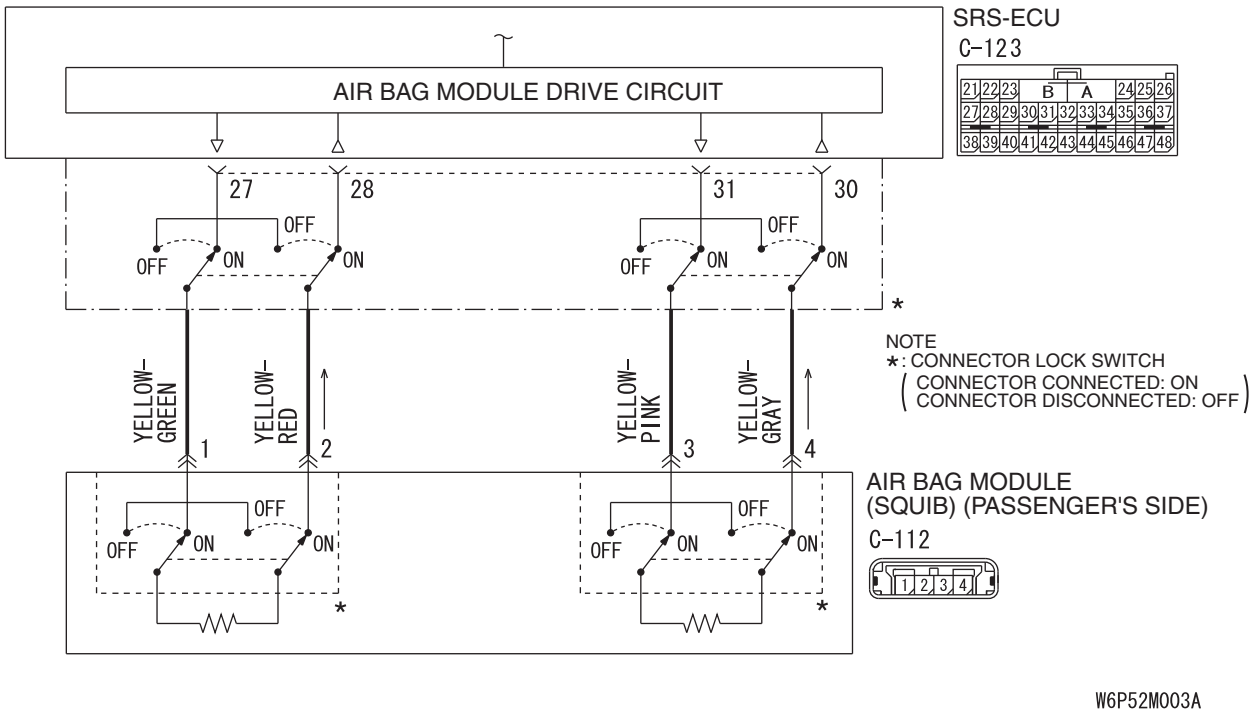
YES : Return to Step 1.

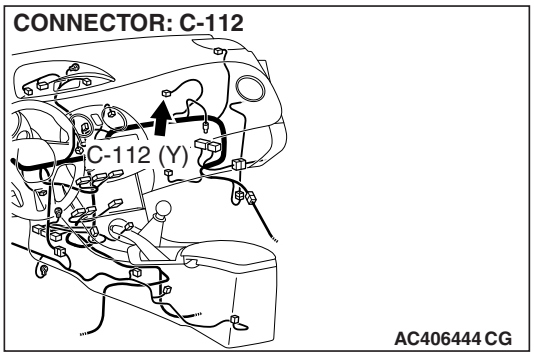
NO : The procedure is complete.

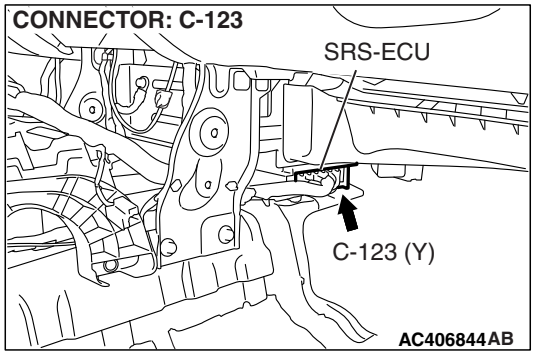
TSB Revision

DTC B1413: Passenger's (Front) Air Bag Module (1st Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)
DTC B1493: Passenger's (Front) Air Bag Module (2nd Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)

Passenger's (Front) Air Bag Module (1st Squid and 2nd Squib) Circuit







⚠ CAUTION
If DTC B1413 <1st squib> or B1493 <2nd squib> 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 SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

TSB Revision

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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

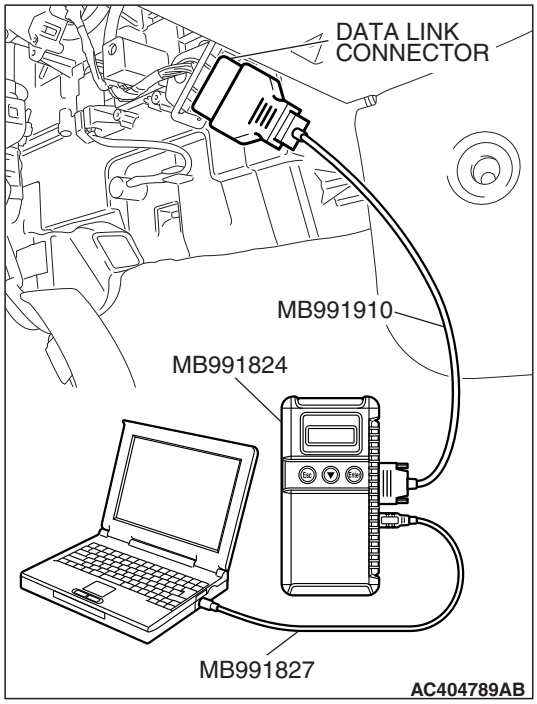
⚠ CAUTION

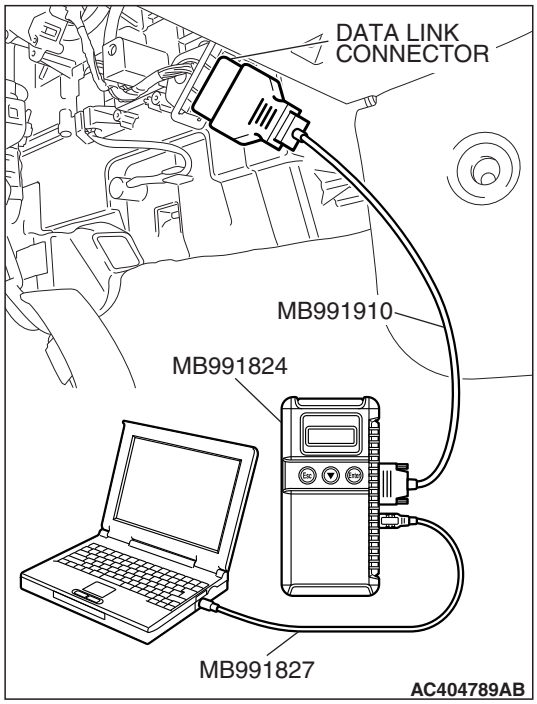
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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?

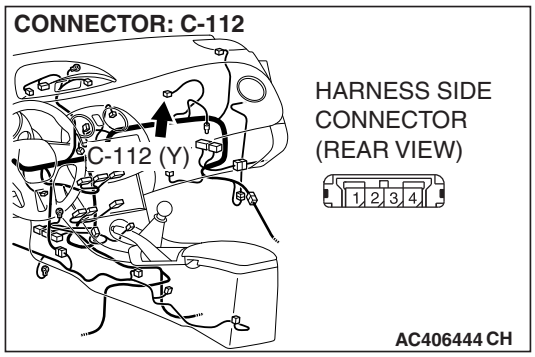
YES : Go to Step 3.

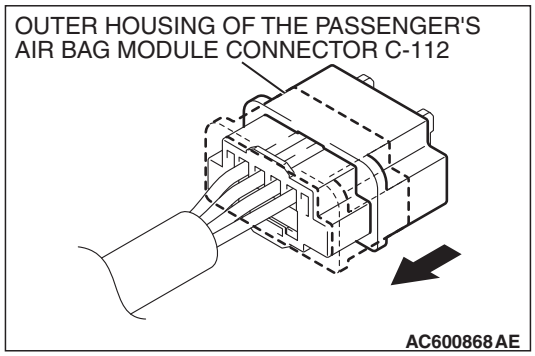
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the passenger's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

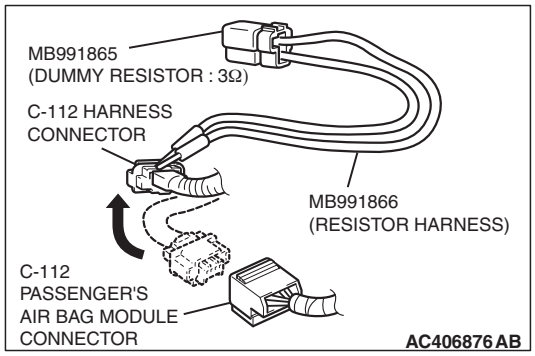
(1) Disconnect the negative battery terminal.

(2) Disconnect the passenger's air bag module connector C-112.





(3) Slide the outer housing of passenger's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.



(4) 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.

(5) Insert special tool MB991866 into the harness side connector C-112 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1491 is set when checking DTC B1413. This is because the second side terminal is isolated when checking it, DTC B1493 is set but this is not a fault. In addition, always DTC B1411 is set when checking DTC B1490 because the first side terminal is isolated.

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

Q: Is DTC B1413 <1st squib> B1493 <2nd squib> set?

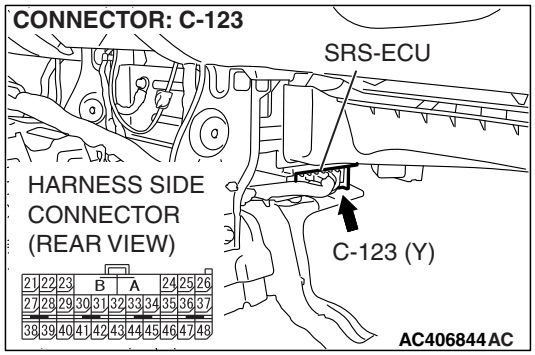
YES : Go to Step 4.

NO : Replace the passenger's air bag module (Refer to P.52B-423). Then go to Step 6.

STEP 4. Check the passenger's air bag module circuit. Measure the voltage at the SRS-ECU connector C-123.

(1) Disconnect the negative battery terminal.

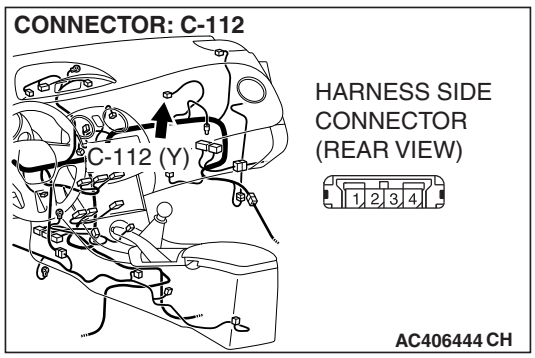
(2) Disconnect SRS-ECU connector C-123.



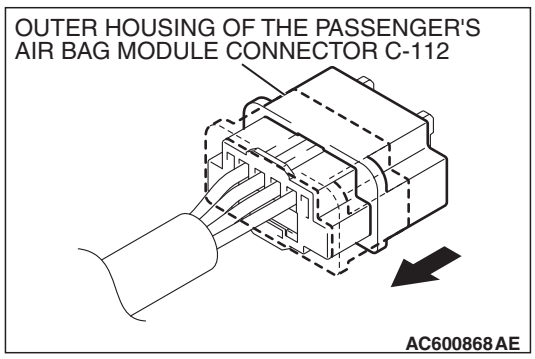
⚠ ***DANGER***

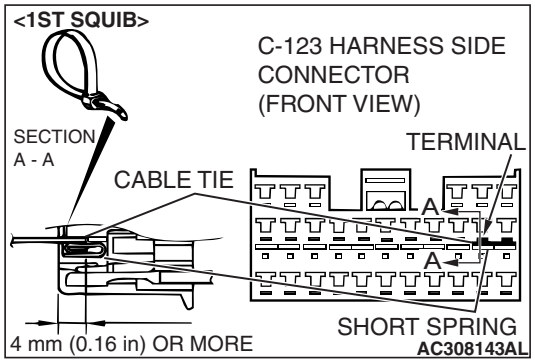
To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-112 to short the squib circuit.

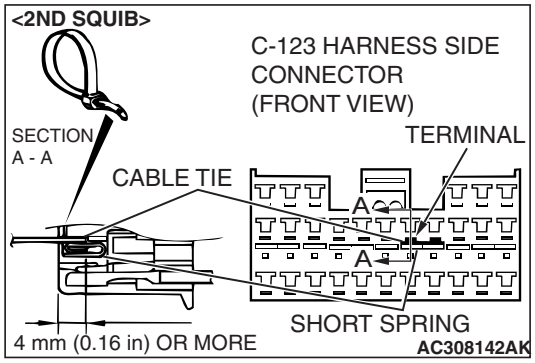
(3) Disconnect the passenger's air bag module connector C-112.

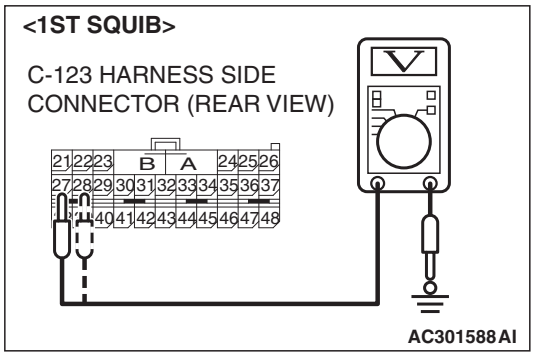


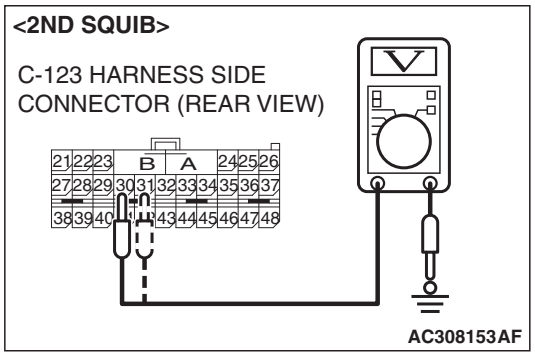
(4) Slide the outer housing of passenger's air bag module connector C-112 in the arrow direction shown, and disconnect the connector.











⚠ 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.

(5) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>, and the short spring to release the short spring.
(6) Connect the negative battery terminal.
(7) Turn the ignition switch to the "ON" position.

⚠ CAUTION

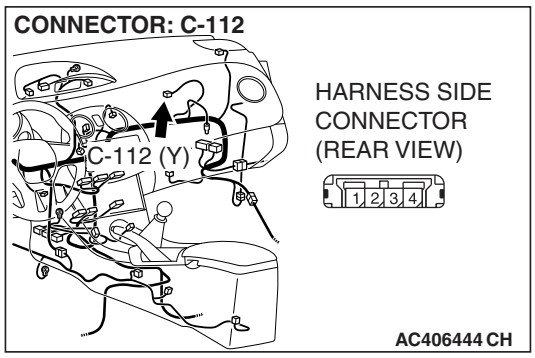
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

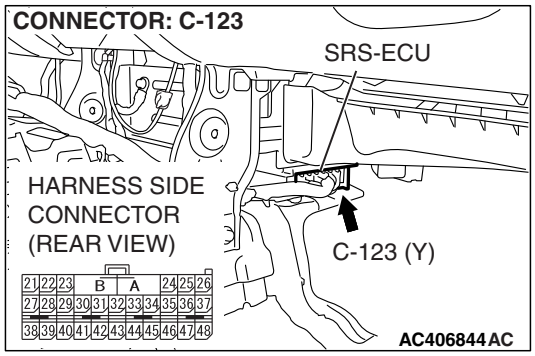
(8) Measure the voltage between C-123 harness side connector terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib> and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1413 <1st squib> B1493 <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-420). 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-123 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-112 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>).



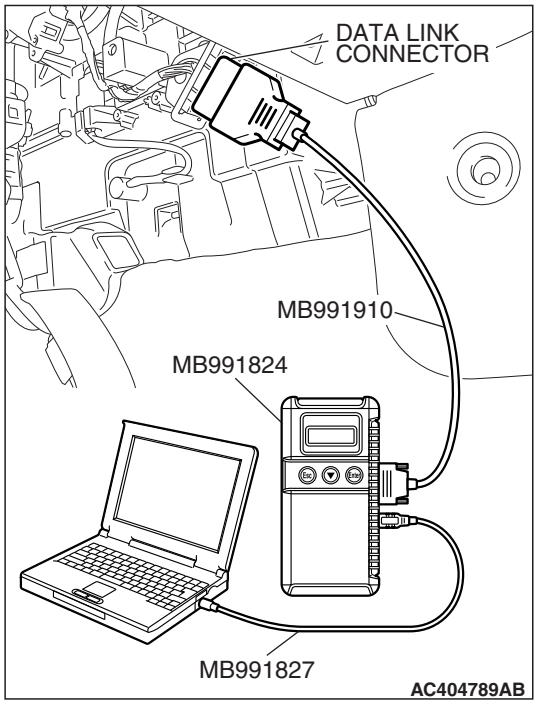


Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-112 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-123 and passenger's air bag module connector C-112. 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.

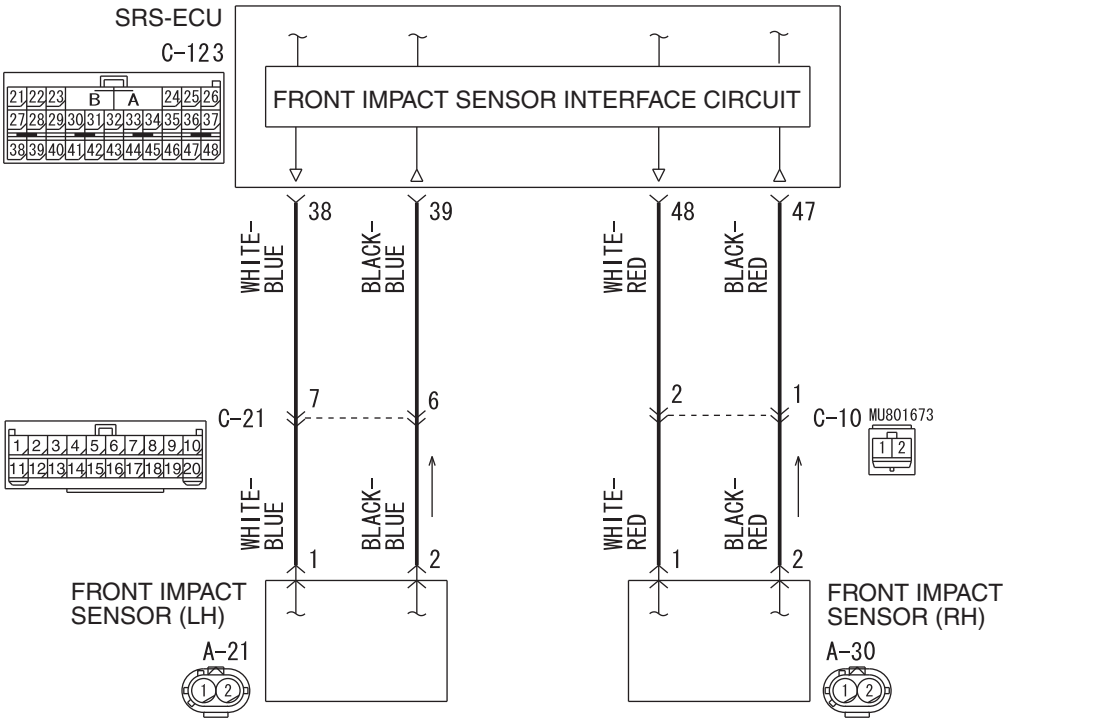
Q: Is DTC B1413 <1st squib> B1493 <2nd squib> set?

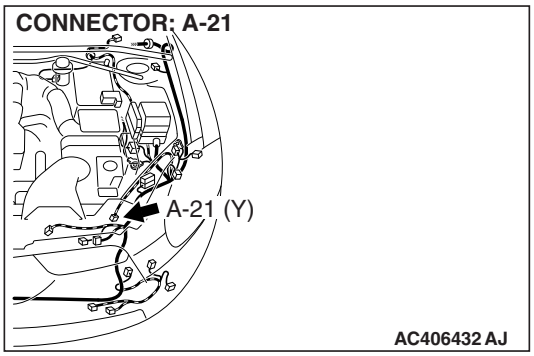
YES : Return to Step 1.

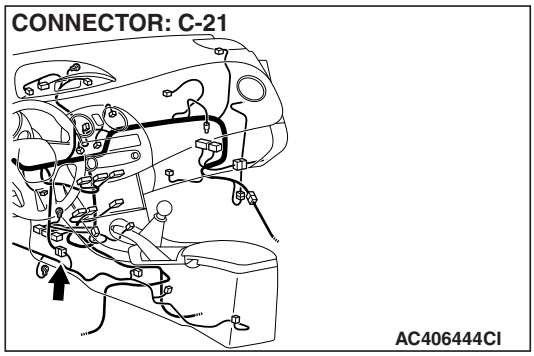
NO : The procedure is complete.

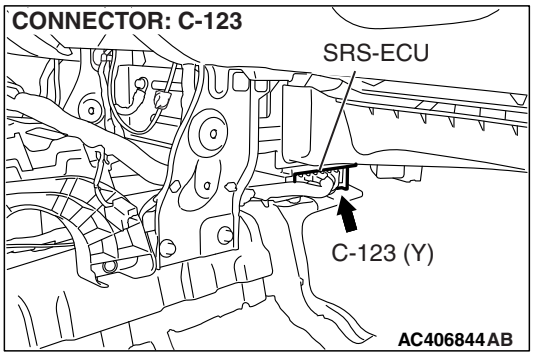
DTC B1417: Front Impact Sensor (LH) Power Supply Circuit System

Front Impact Sensor Circuit









⚠ CAUTION

If DTC B1417 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The front impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the front air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the front air bags. In addition, the CPU diagnoses the internal components of the front impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

DTC SET CONDITIONS

This DTC will set when the power supply voltage to the front impact sensor (LH) remains less than a predetermined value for five seconds.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

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

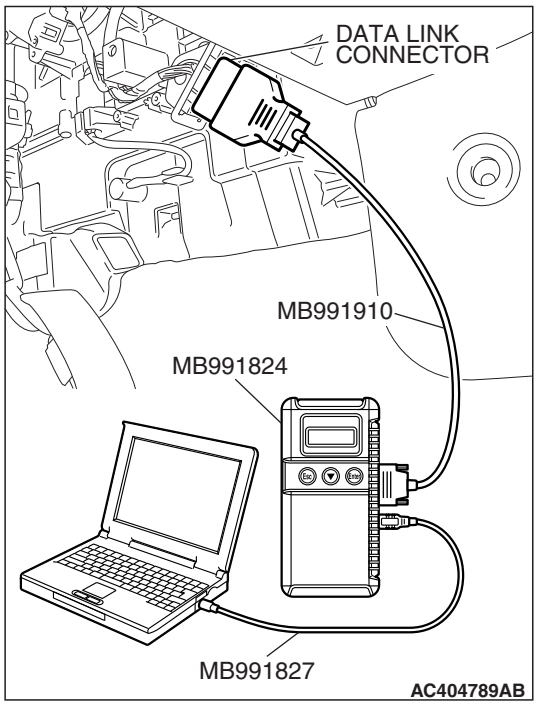
⚠ CAUTION

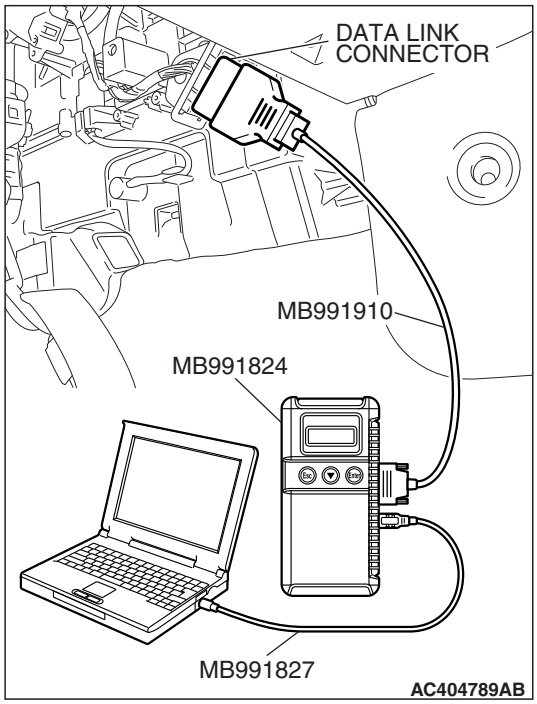
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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).



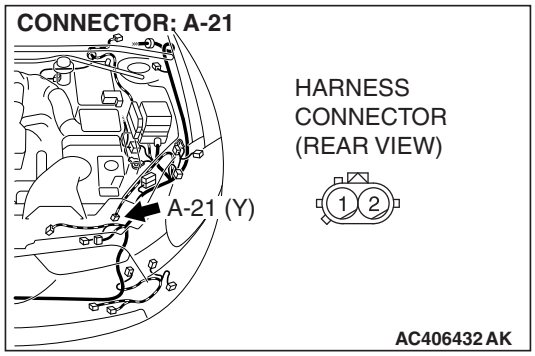


STEP 2. Recheck for diagnostic trouble code.

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.

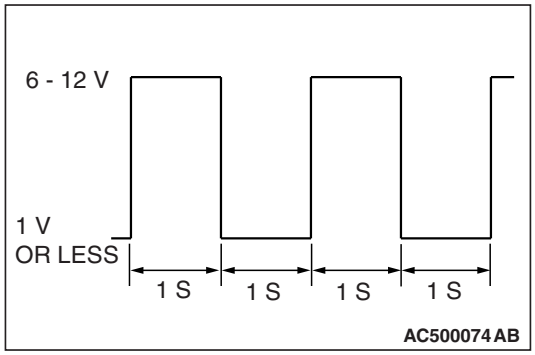
Q: Is the DTC set?

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



STEP 3. Check the front impact sensor (LH) power supply circuit. Measure the voltage at the front impact sensor (LH) connector A-21.

(1) Connect the negative battery terminal.
(2) Turn the ignition switch to the "ON" position.



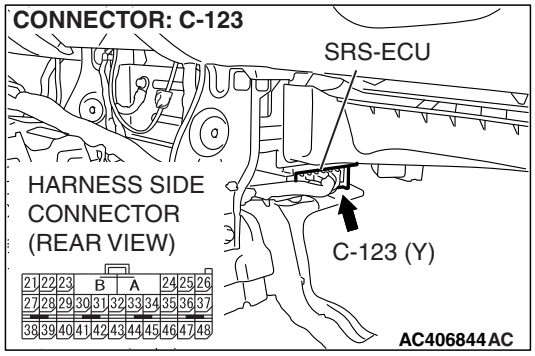
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

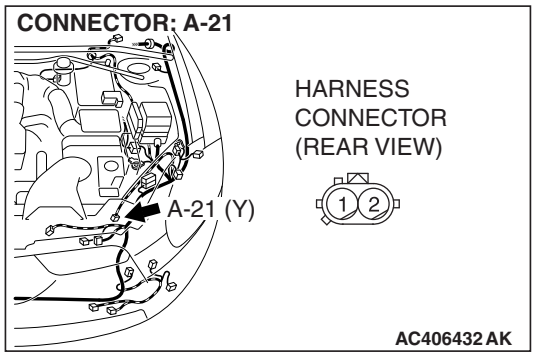
(3) Measure the voltage between A-21 harness side connector terminal 1 and ground.
A wave pattern of oscilloscope iterates an amplitude of 6 – 12 volts.

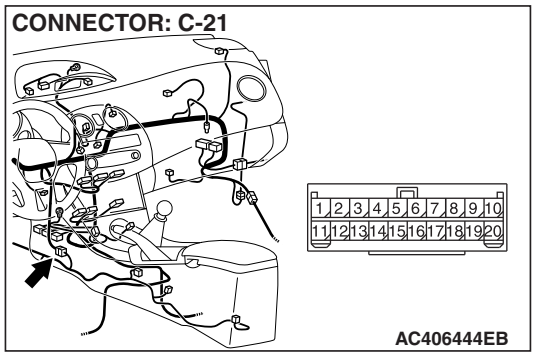
Q: Is the check result normal?

YES : Replace the front impact sensor (LH) (Refer to P.52B-417). Then go to Step 5.
NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-123 (terminal No.38 and 39) and front impact sensor (LH) connector A-21 (terminal No.1 and 2).





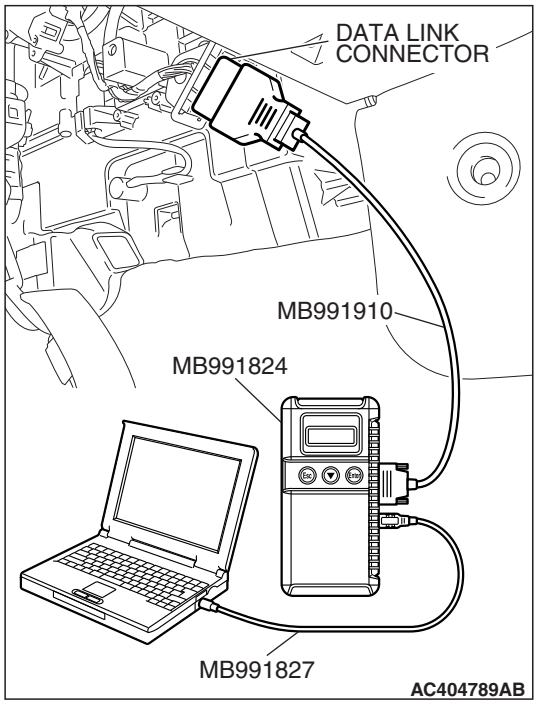


NOTE: After inspecting intermediate connectors C-21 inspect the wiring harness. If the intermediate connectors C-21 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.38 and 39) and front impact sensor (LH) connector A-21 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1417 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-123 and front impact sensor (LH) connector A-21. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

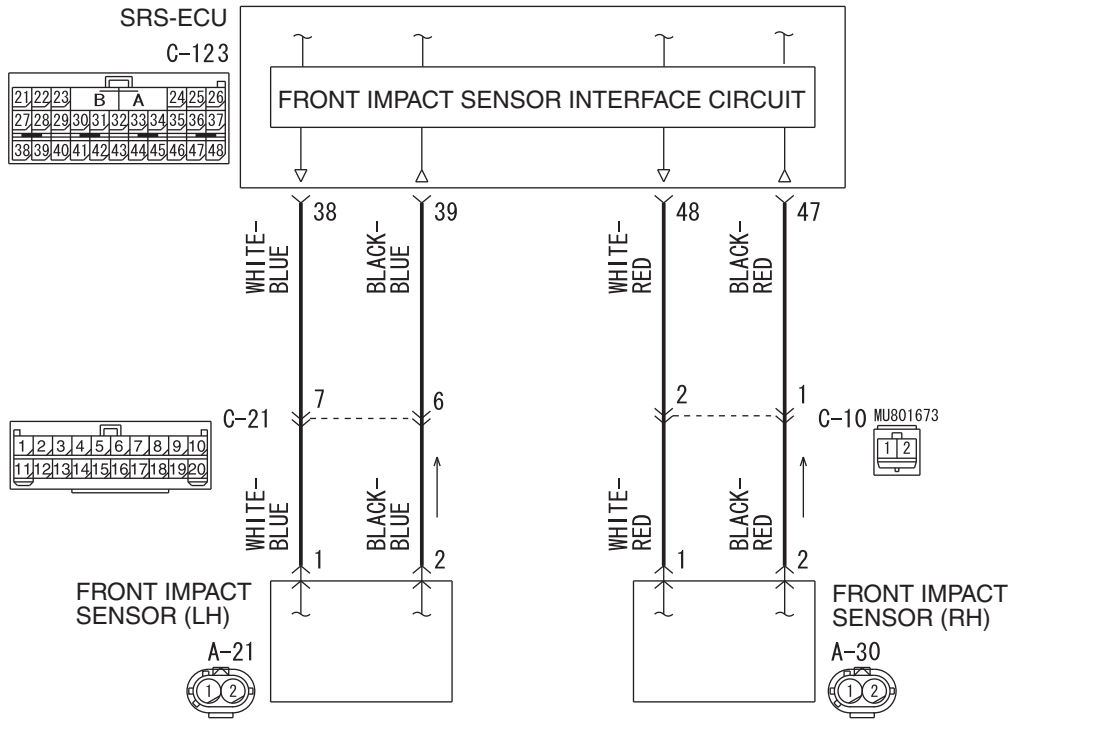
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1417 set?

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

DTC B1418: Front Impact Sensor (LH) (Squib) for Power Supply Circuit
DTC B1419: Front Impact Sensor (LH) (Squib) for Communication System

Front Impact Sensor Circuit



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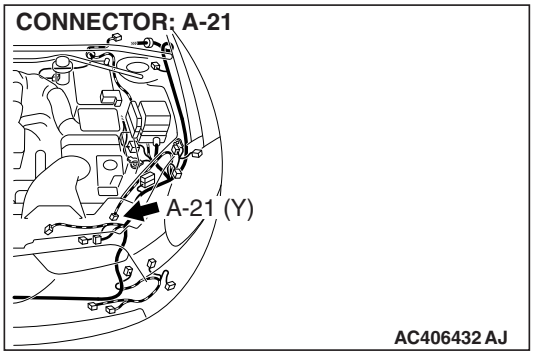
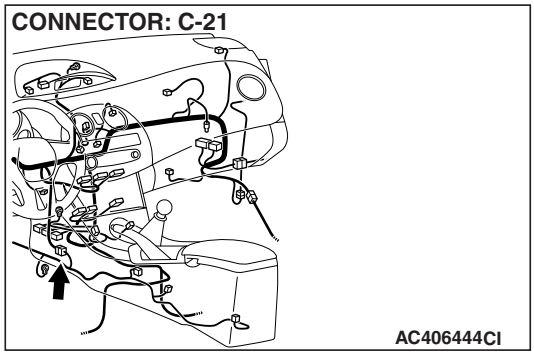
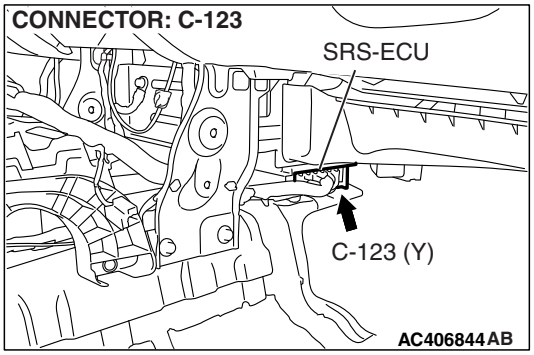






⚠ **CAUTION**

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

CIRCUIT OPERATION

The front impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the front air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the front air bags. In addition, the CPU diagnoses the internal components of the front impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

DTC SET CONDITIONS

These DTCs are set if communication between the front impact sensor (LH) and the SRS-ECU is not possible or faulty.

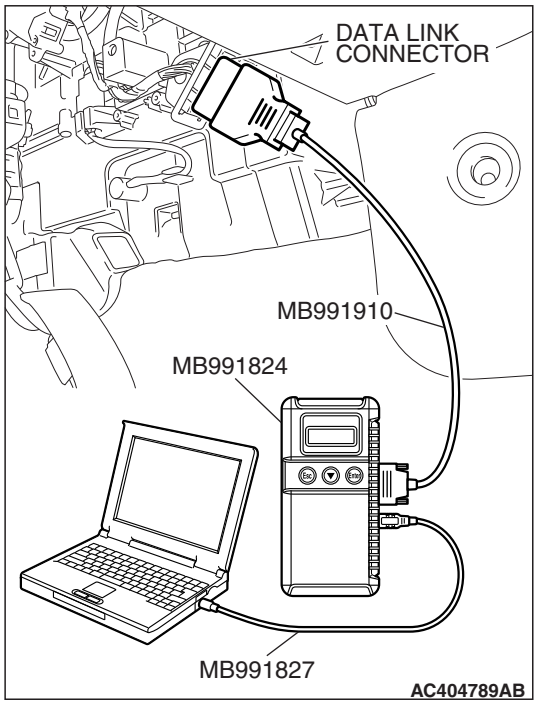
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



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

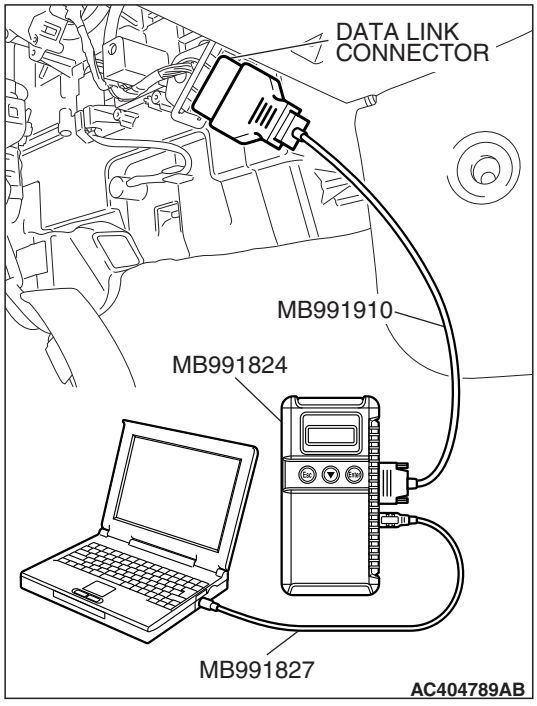
⚠ CAUTION

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-31."
(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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

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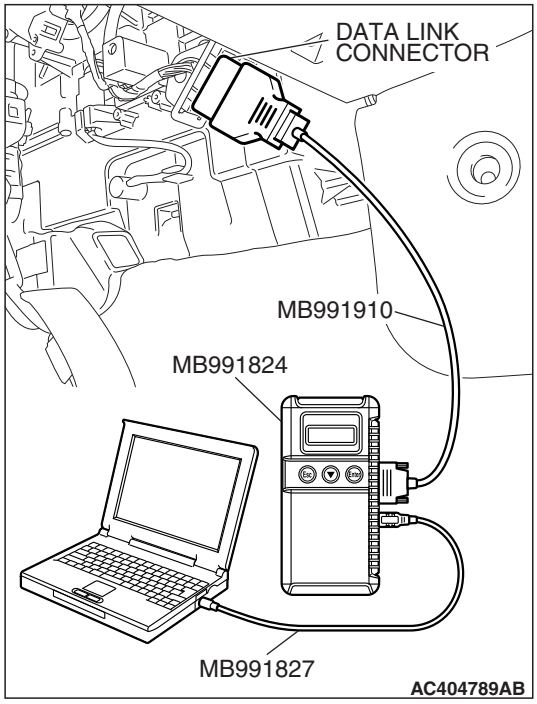


STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the front impact sensor (LH).

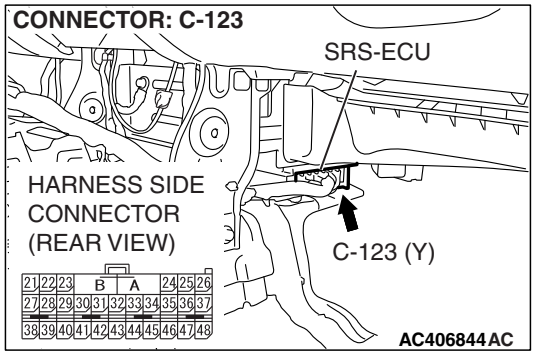
(1) Disconnect the negative battery terminal.
(2) Temporarily replace the front impact sensor (LH) with the front impact sensor (RH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

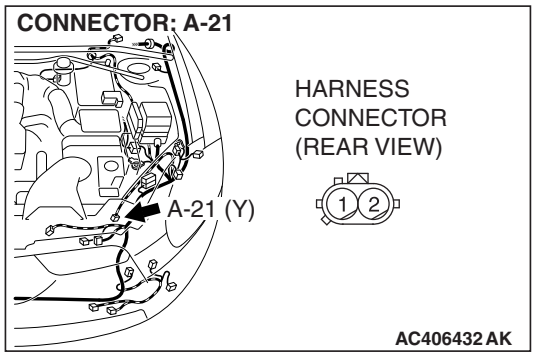
Q: Is DTC B1408 or B1409 set?

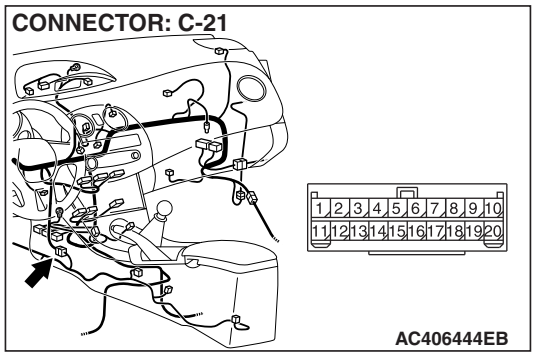
YES : Replace the front impact sensor (LH) with a new one (Refer to P.52B-432). Then go to Step 5.

NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-123 (terminal No.38 and 39) and front impact sensor (LH) connector A-21 (terminal No.1 and 2).





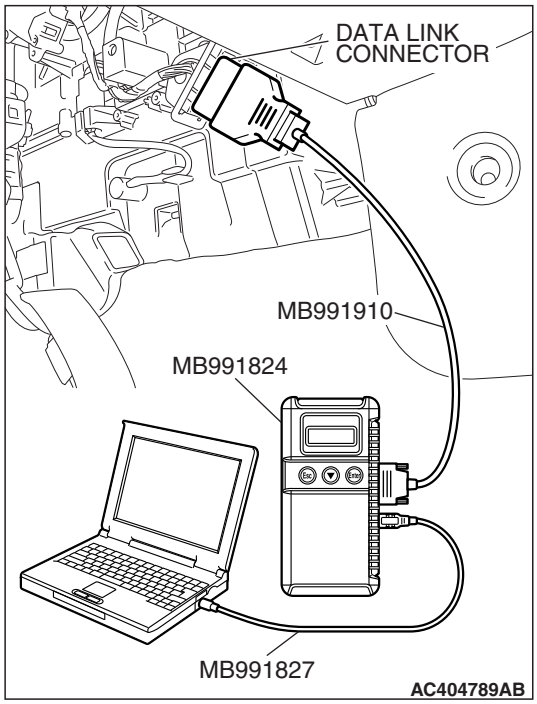


NOTE: After inspecting intermediate connectors C-21 inspect the wiring harness. If the intermediate connectors C-21 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-123 (terminal No.38 and 39) and front impact sensor (LH) connector A-21 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1418 or B1419 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-123 and front impact sensor (LH) connector A-21. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

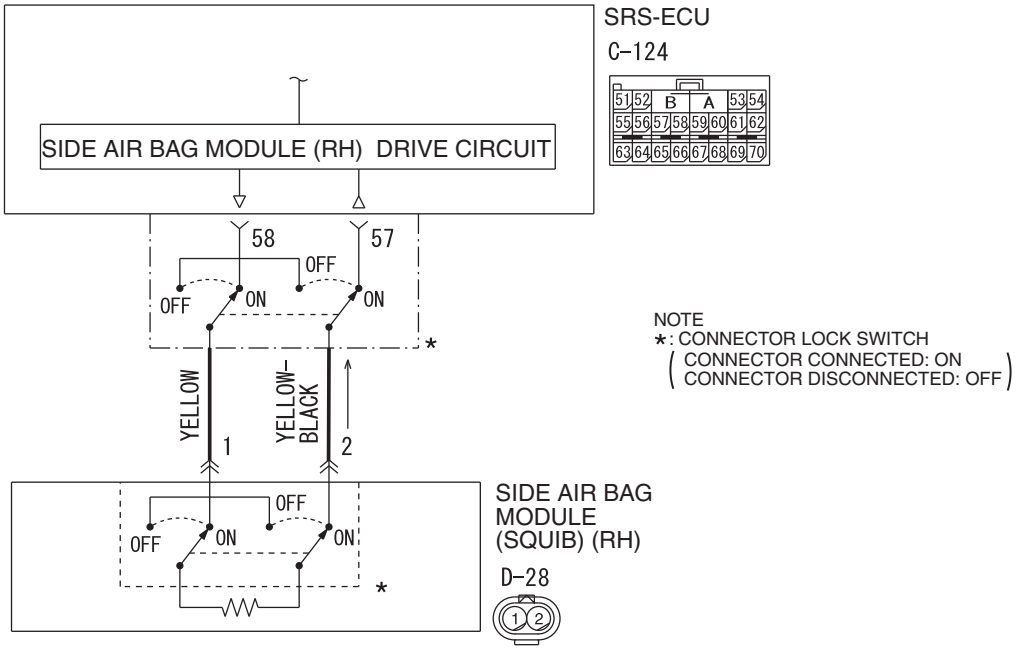
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

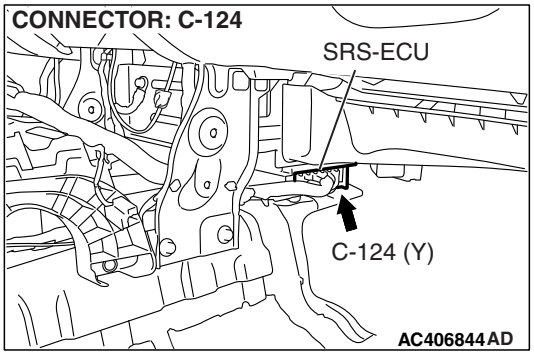
Q: Is DTC B1418 or B1419 set?

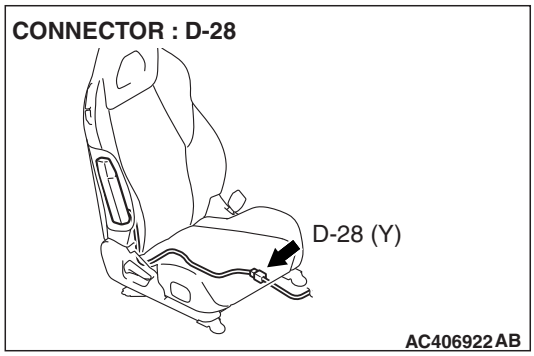
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1420: Side-Airbag Module (RH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Side-Airbag Module (RH) (Squib) Circuit







⚠ CAUTION

If DTC B1420 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

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

TSB Revision

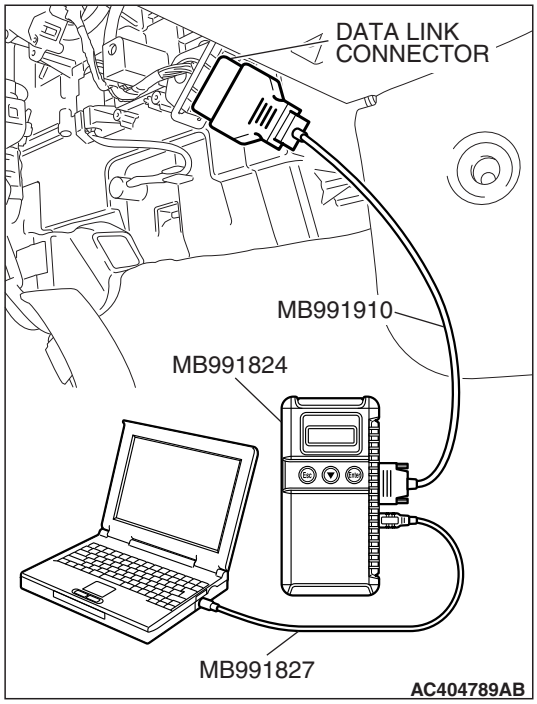
*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-124 or D-28 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resister
- MB991866: Resister harness

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

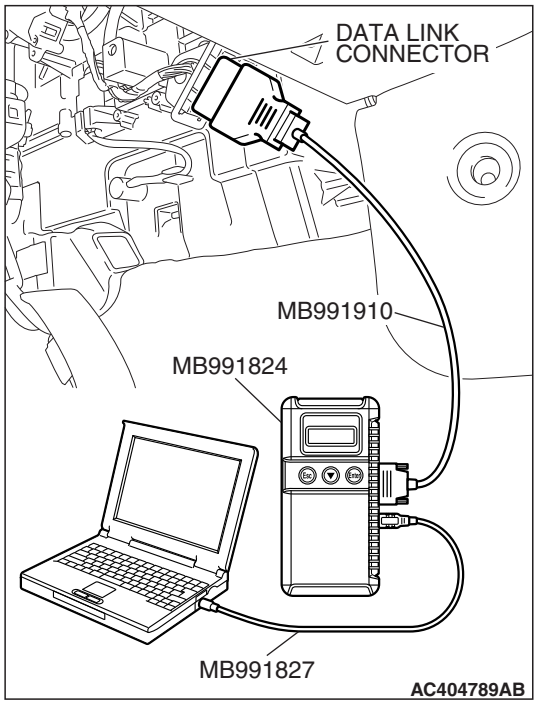


⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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 lines (Refer to GROUP 54C, Diagnosis P.54C-17).

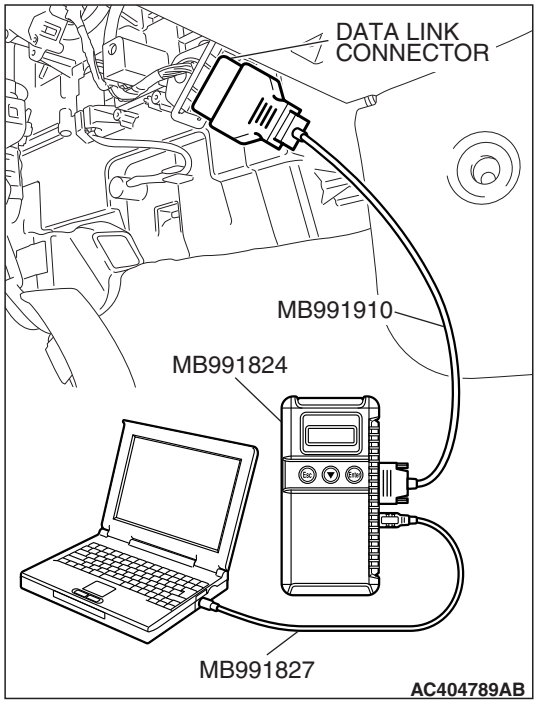


STEP 2. Recheck for diagnostic trouble code.

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).



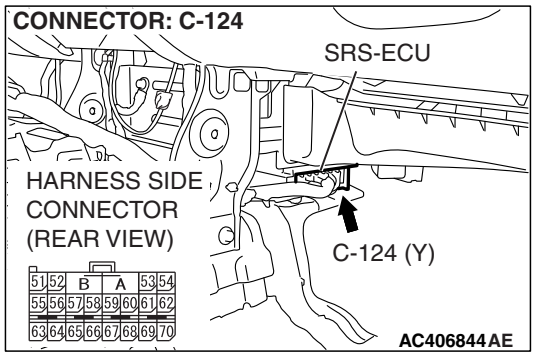
STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

⚠ 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) 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 DTC B1519 set?

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

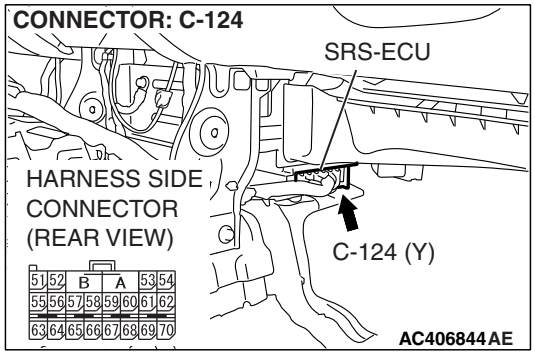


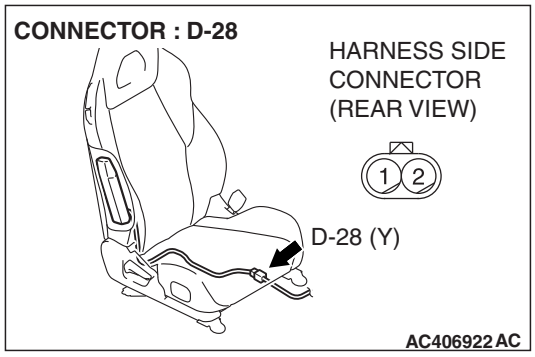
STEP 4. Check SRS-ECU connector C-124.

Q: Is the connector correctly engaged?

YES : Go to Step 5.

NO : Engage the connector correctly. Then go to Step 9.





STEP 5. Check SRS-ECU connector C-124 and side-airbag module (RH) connector D-28. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-124 and D-28, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1420 out put?

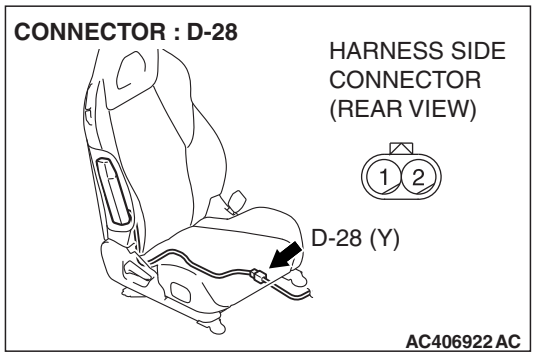
YES : Go to Step 6.

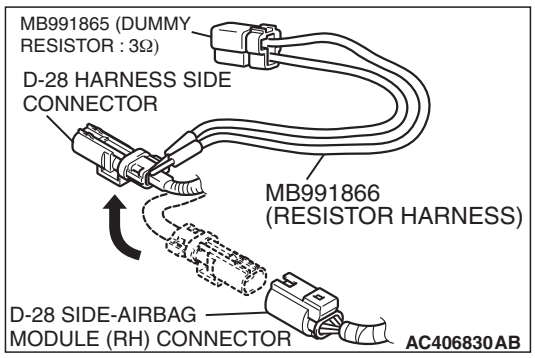
NO : The procedure is complete. It is assumed that DTC B1420 set because connector C-124 or D-28 was engaged improperly.

STEP 6. Check the side-airbag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect the side-airbag module (RH) connector D-28.





(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-28 harness side connector by backprobing.

(5) Connect the negative battery terminal.

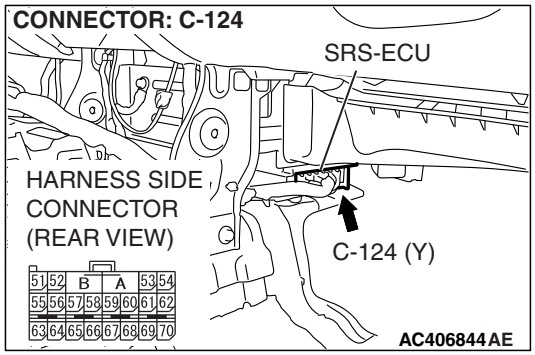
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1420 set?

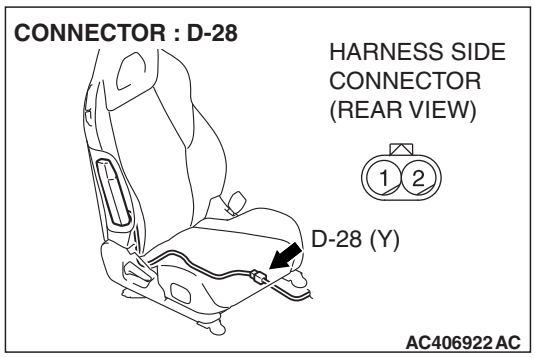
YES : Go to Step 7.

NO : Replace the seatback frame of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 9.

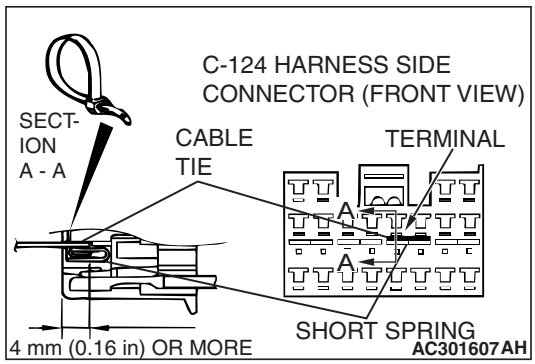
STEP 7. Check the side-airbag module (RH) circuit.
Measure the resistance at the SRS-ECU connector C-124.
(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-124.



⚠ DANGER
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-28 to short the squib circuit.
(3) Disconnect side-airbag module connector D-28.

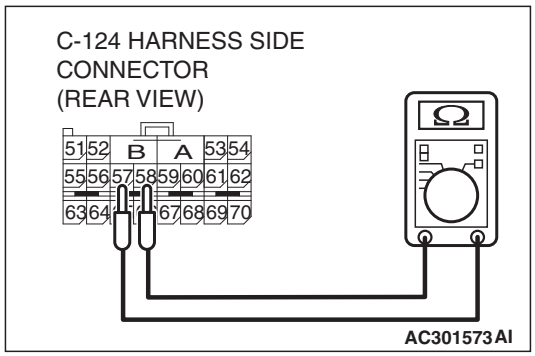


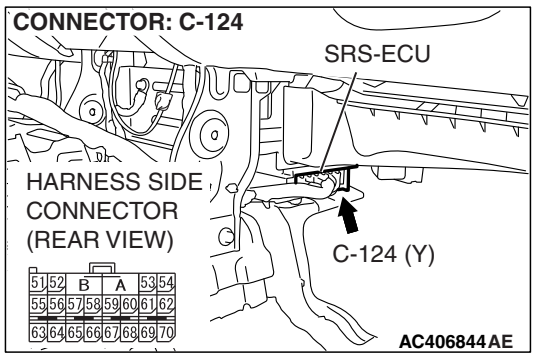
⚠ CAUTION
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 57, 58 and the short spring to release the short spring.
(5) Measure at the wiring harness side.

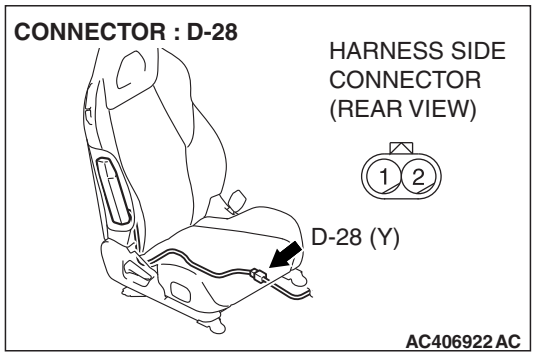


⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.
(6) Check for continuity between C-124 harness side connector terminals 57 and 58.
It should be open circuit.

Q: Does continuity exist?
YES : Go to Step 8.
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1420 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9.





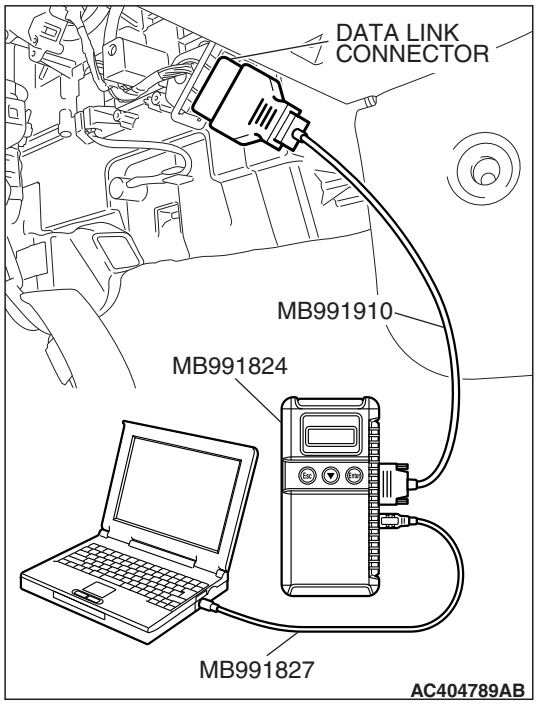


STEP 8. Check the harness wires for short circuit between SRS-ECU connector C-124 (terminal No.57 and 58) and side-airbag module (RH) connector D-28 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.57 and 58) and side-airbag module (RH) connector D-28 (terminal No.2 and 1) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-124 and side-airbag module (RH) connector D-28. Then go to Step 9.



STEP 9. 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.

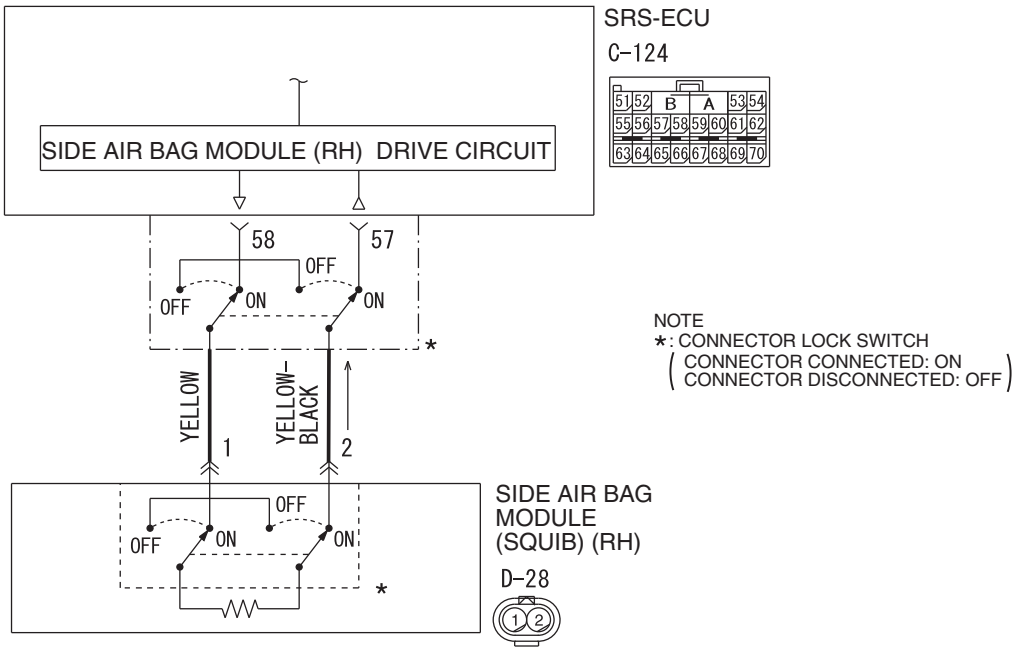
Q: Is DTC B1420 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1421: Side-Airbag Module (RH) (Squib) System Fault 2 (Open in the Squib Circuit)

Side-Airbag Module (RH) (Squib) Circuit



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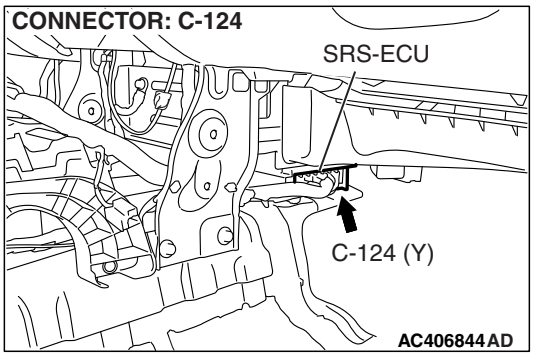

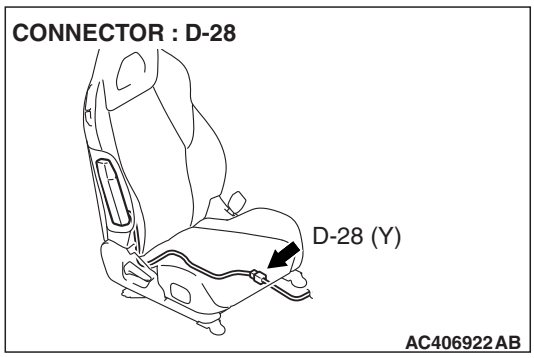

⚠ CAUTION

If DTC B1421 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

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

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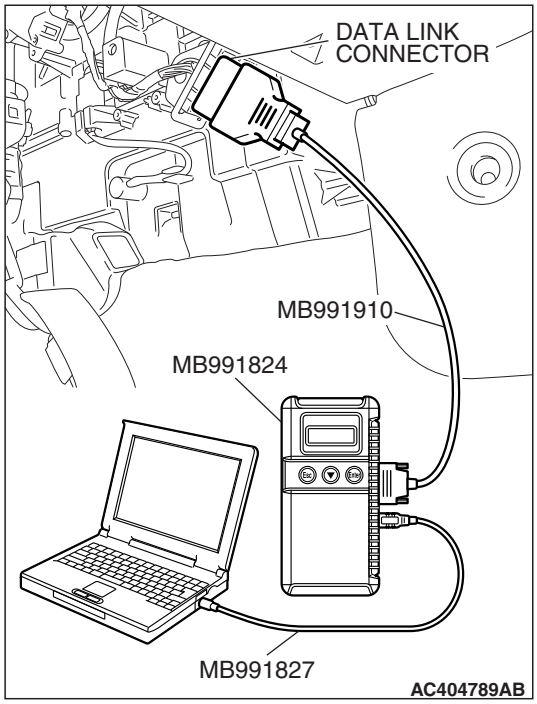
DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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



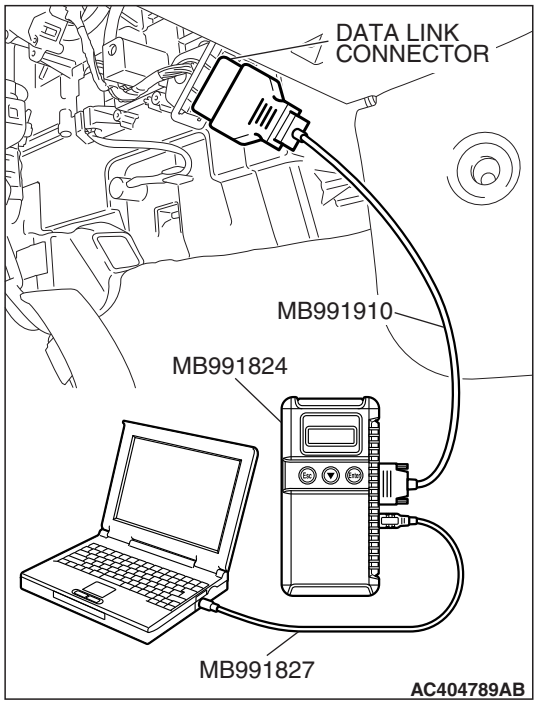
⚠ CAUTION

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-31."
(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 lines (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.

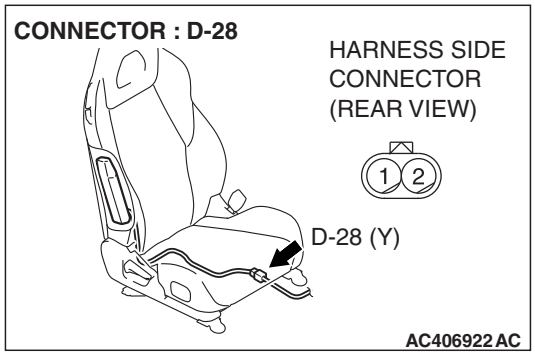
Q: Is the DTC set?

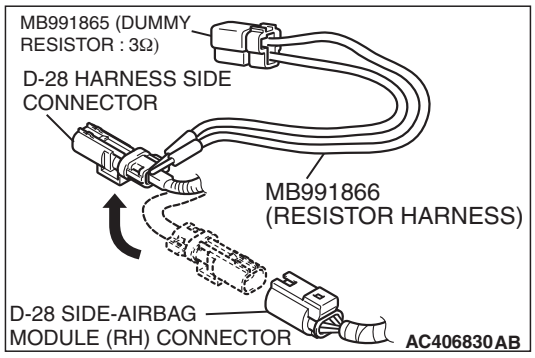
YES : Go to Step 3.

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 the side-airbag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-28.





(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-28 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 B1421 set?

YES : Go to Step 4.

NO : Replace the seatback frame of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 5.

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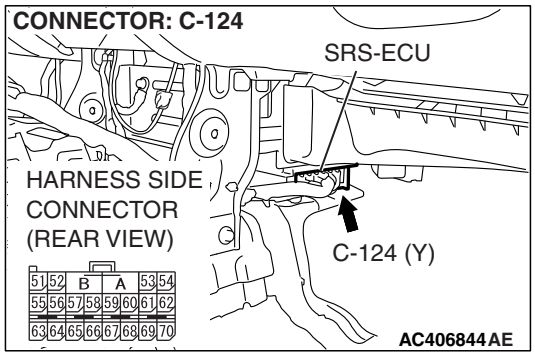
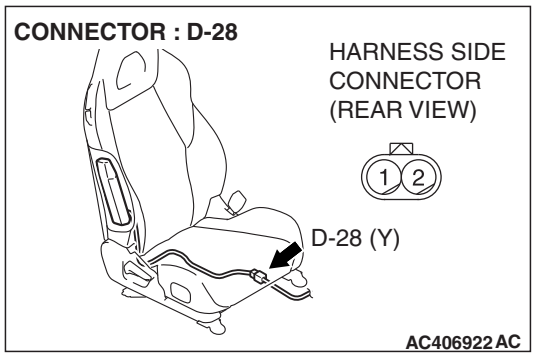
STEP 4. Check the harness for open circuit between SRS-ECU connector C-124 (terminal No.57 and 58) and the side-airbag module (RH) connector D-28 (terminal No.2 and 1).

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-124.

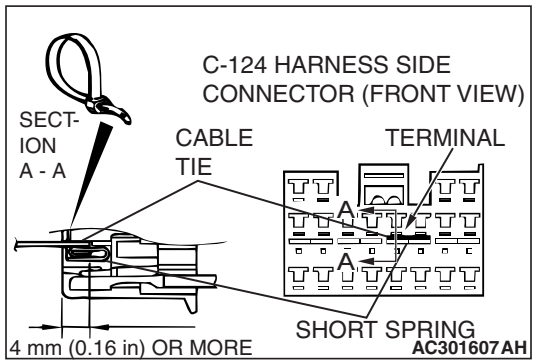




⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-28 to short the squib circuit.

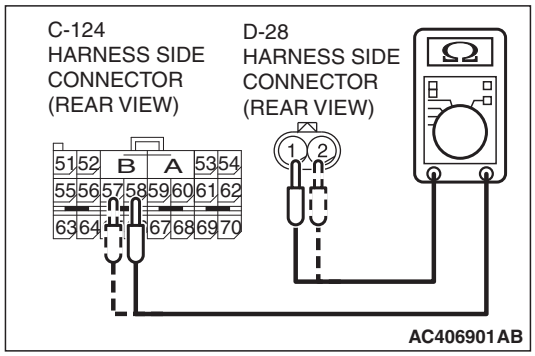
(3) Disconnect side-airbag module connector D-28.



⚠ 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 57, 58 and the short spring to release the short spring.



⚠ CAUTION

Do not insert a test probe into the terminal from its 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-124 (terminal No.57) and the side-airbag module (RH) connector D-28 (terminal No.2)
- SRS-ECU connector C-124 (terminal No.58) and the side-airbag module (RH) connector D-28 (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1421 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU

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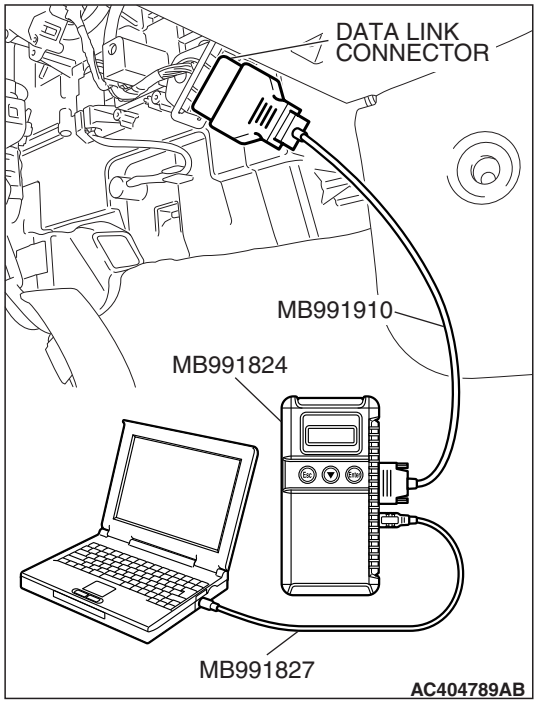
connector C-124 and side-airbag module (RH) connector D-28 Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

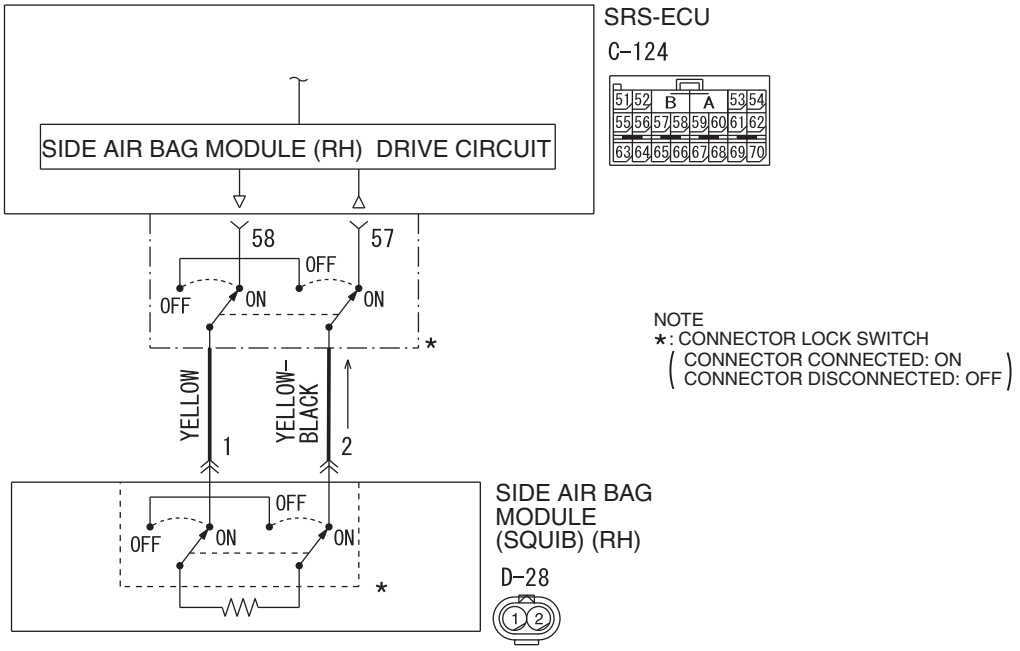
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1421 set?

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

DTC B1422: Side-Airbag Module (RH) (Squib) System Fault Ground Circuit (Short-Circuited to Ground)

Side-Airbag Module (RH) (Squib) Circuit



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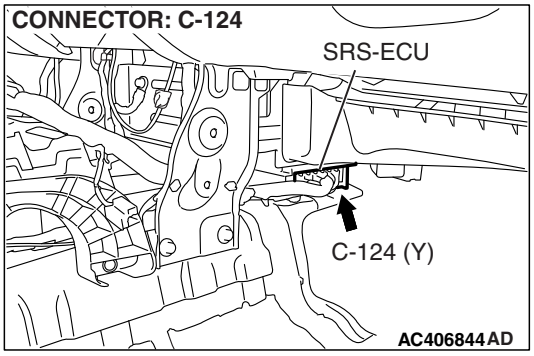

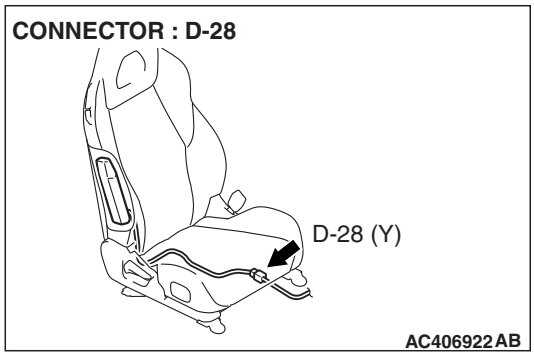

⚠ CAUTION
If DTC B1422 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

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

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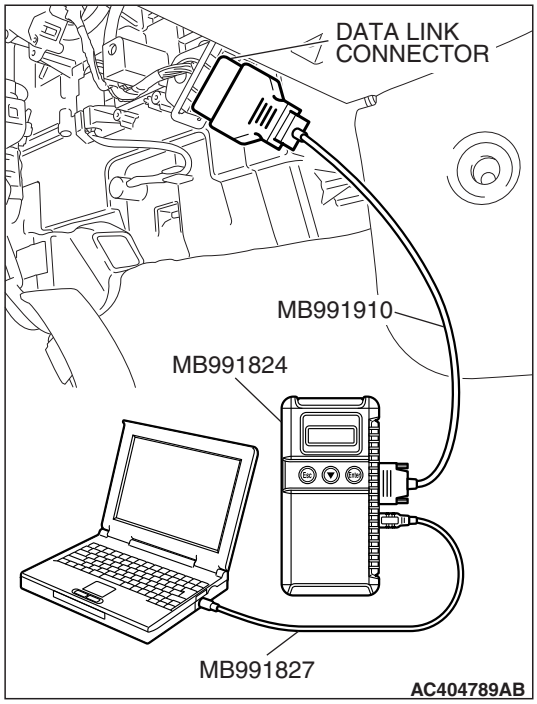
DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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



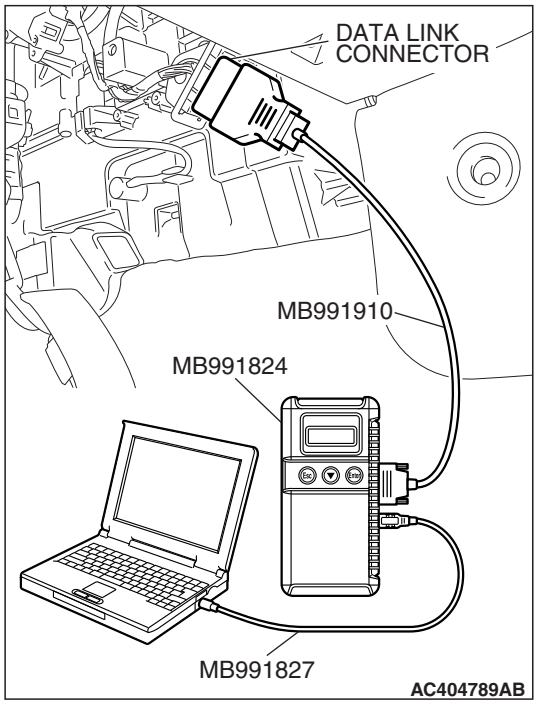
⚠ CAUTION

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-31."
(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 lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

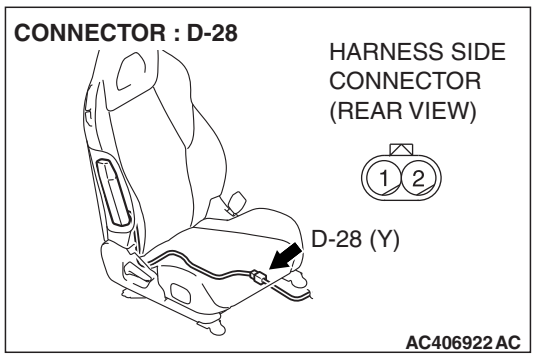
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

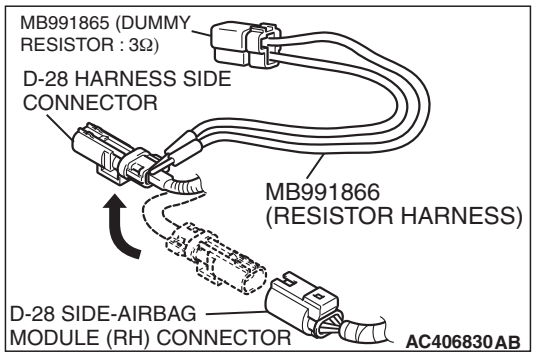
Q: Is the DTC set?

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 the side-airbag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-28.





(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.

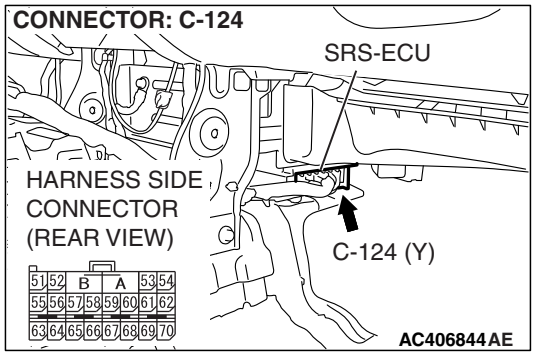
(4) Insert special tool MB991866 into the D-28 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1422 set?

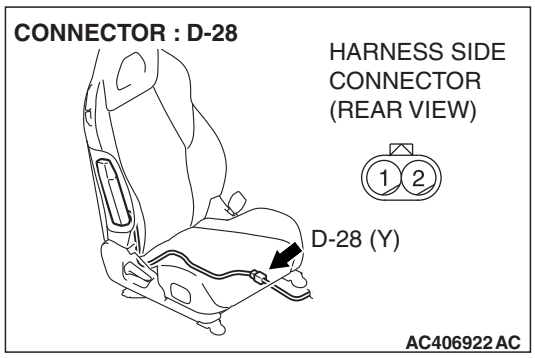
YES : Go to Step 4.
NO : Replace the seatback frame of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 6.

TSB Revision

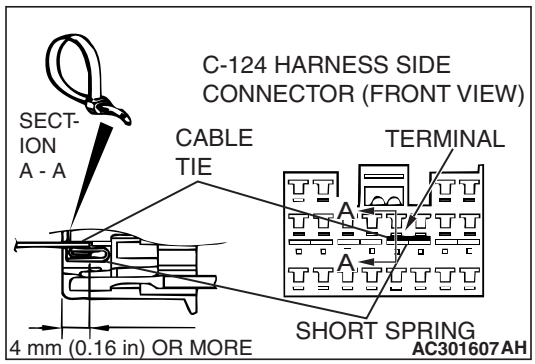
STEP 4. Check the side-airbag module (RH) circuit.
Measure the resistance at the SRS-ECU connector C-124.
(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-124.



⚠ DANGER
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-28 to short the squib circuit.
(3) Disconnect side-airbag module (RH) connector D-28.

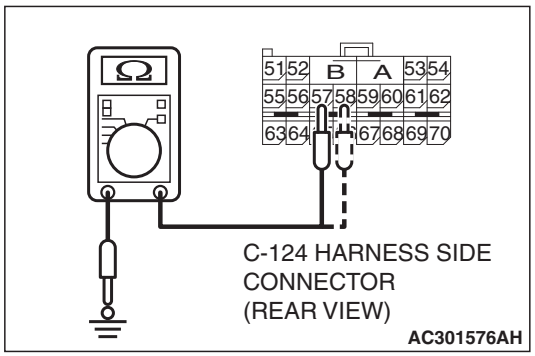


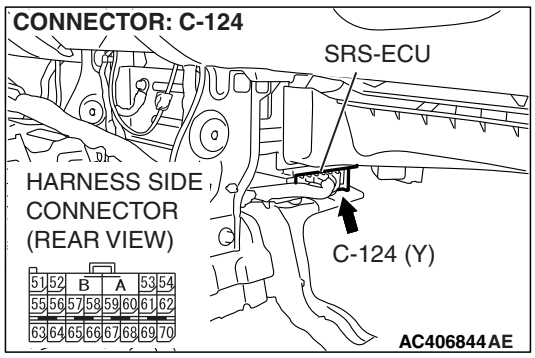
⚠ CAUTION
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 57, 58 and the short spring to release the short spring.

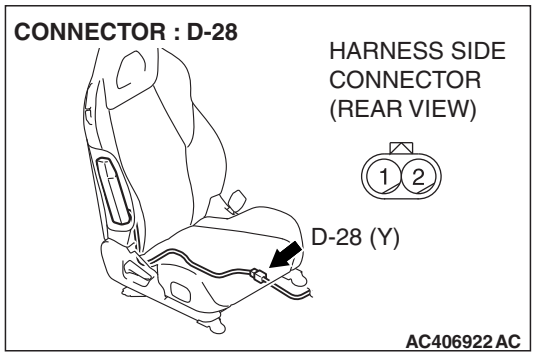


⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.
(5) Check for continuity between C-124 harness side connector terminals 57, 58 and body ground.
It should be open circuit.

Q: Does continuity exist?
YES : Go to Step 5.
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1422 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.





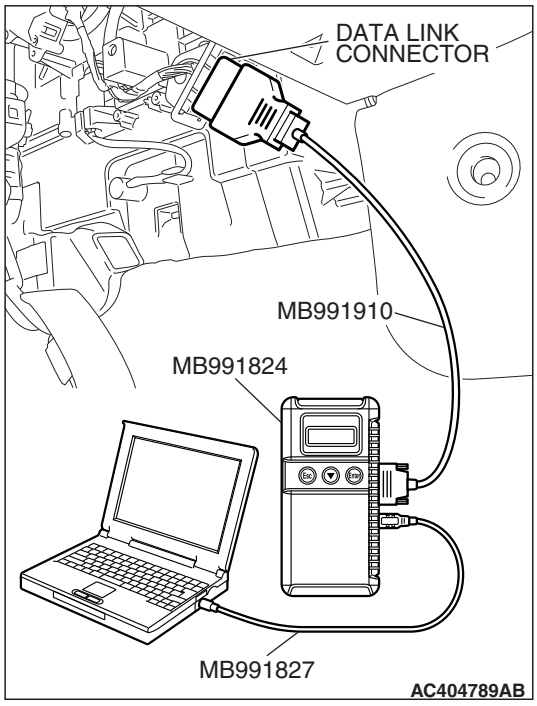


STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-124 (terminal No.57 and 58) and s1de-airbag module (RH) connector D-28 (terminal No.2 and 2).

Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.57 and 58) and side-airbag module (RH) connector D-28 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-124 and side-airbag module (RH) connector D-28. 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.

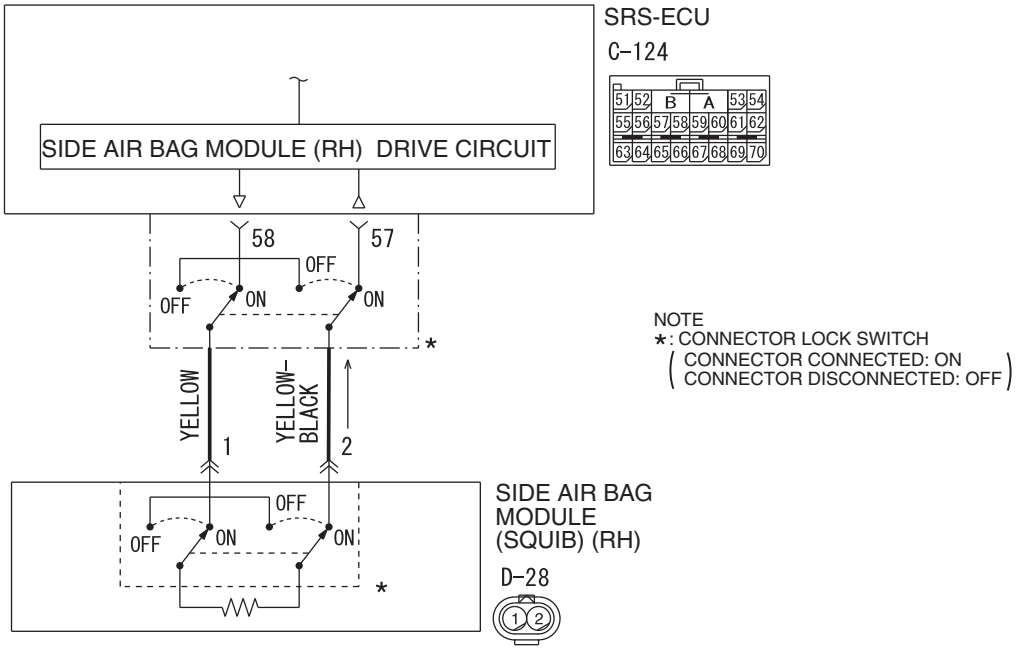
Q: Is DTC B1422 set?

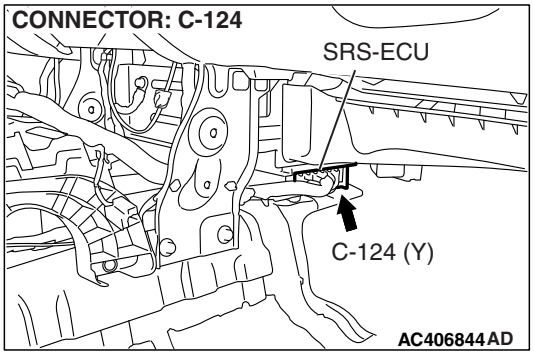
YES : Return to Step 1.

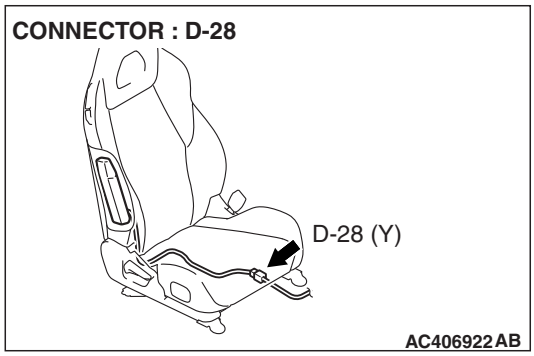
NO : The procedure is complete.

DTC B1423: Side-Airbag Module (RH) (Squib) System Fault Power Supply Circuit (Short-Circuited to Power Supply)

Side-Airbag Module (RH) (Squib) Circuit







⚠ CAUTION

If DTC B1423 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

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

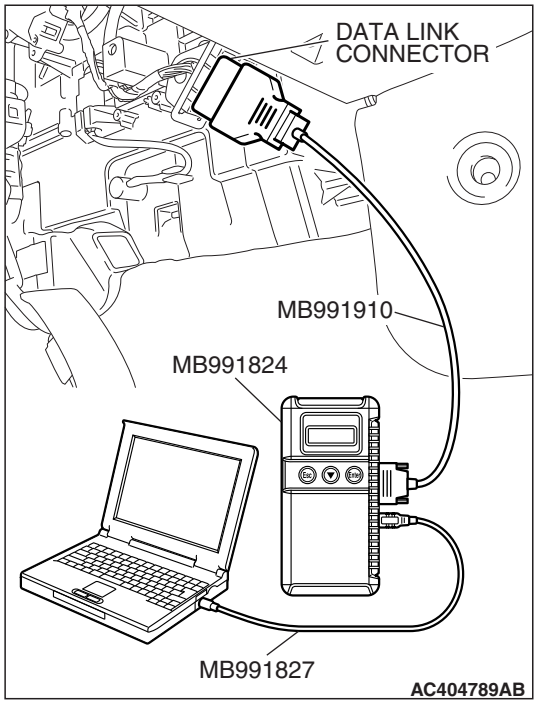
TSB Revision

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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



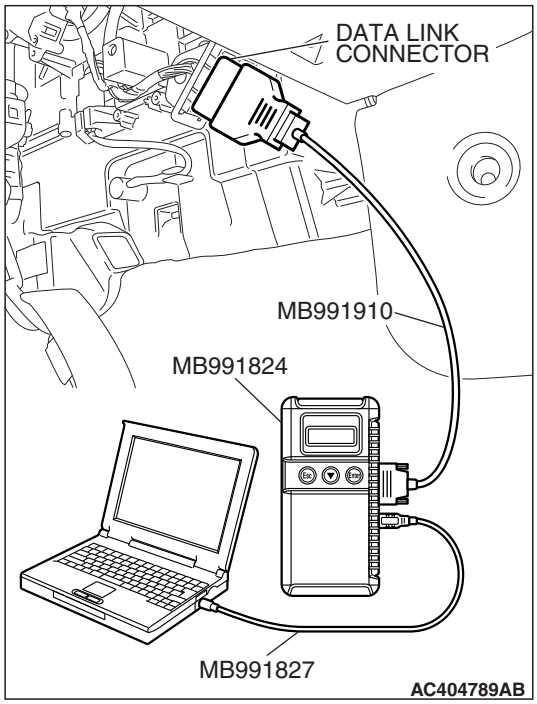
⚠ CAUTION

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-31."
(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 lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

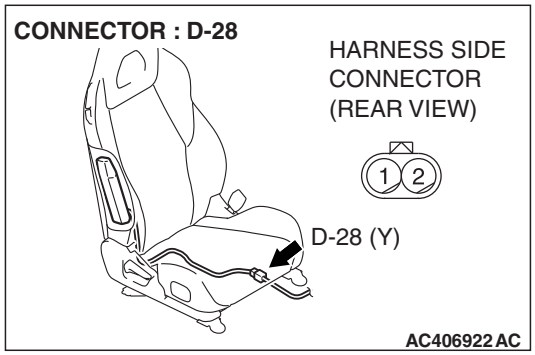
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

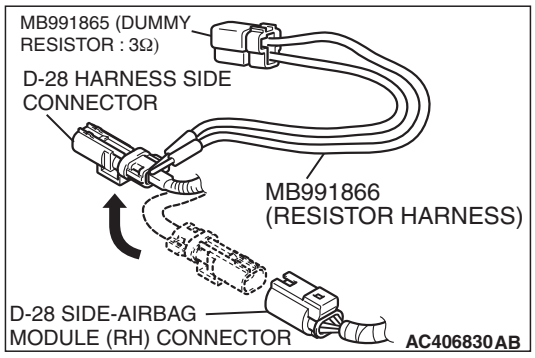
Q: Is the DTC set?

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 the side-airbag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-28.





(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.

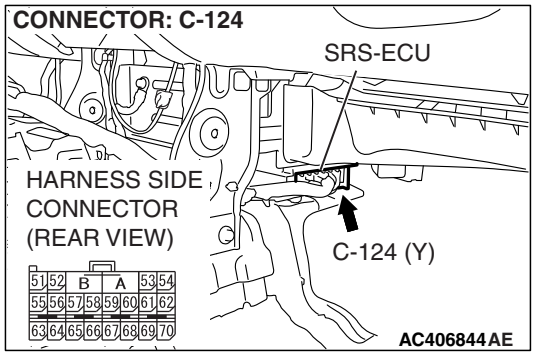
(4) Insert special tool MB991866 into the D-28 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1423 set?

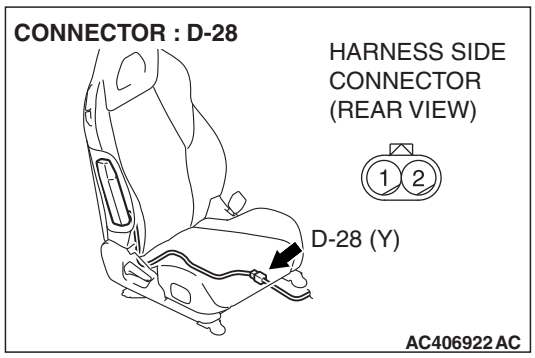
YES : Go to Step 4.
NO : Replace the seatback frame of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 5.

TSB Revision

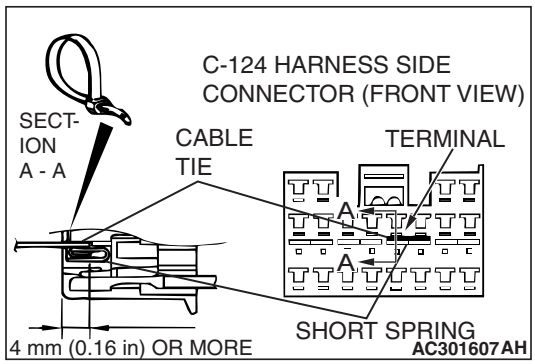
STEP 4. Check the side-airbag module (RH) circuit.
Measure the voltage at the SRS-ECU connector C-124.
(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-124.



⚠ DANGER
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-28 to short the squib circuit.
(3) Disconnect side-airbag module (RH) connector D-28.

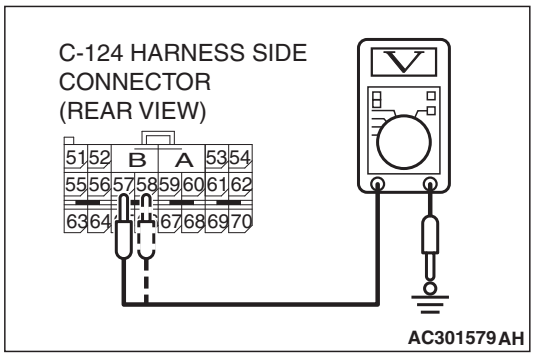


⚠ CAUTION
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.
(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 57, 58 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Turn the ignition switch to the "ON" position.

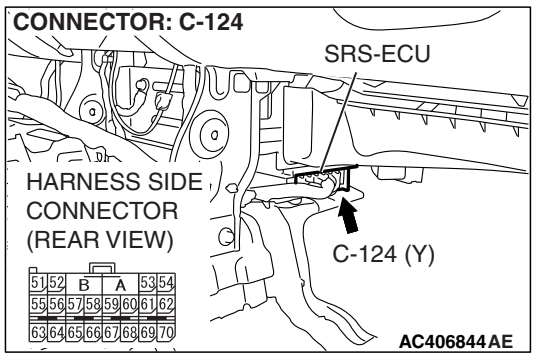


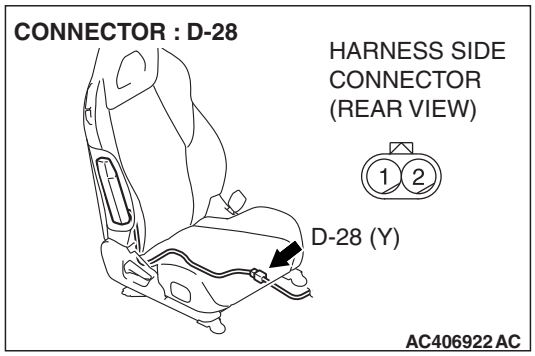
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.
(7) Measure the voltage between C-124 harness side connector terminals 57 and 58 and body ground. Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1423 sets, replace the SRS-ECU (Refer to P.52B-420). 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-124 (terminal No.57 and 58) and side-airbag module (RH) connector D-28 (terminal No.2 and 1).





Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.57 and 58) and side-airbag module (RH) connector D-28 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-124 and side-airbag module (RH) connector D-28. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

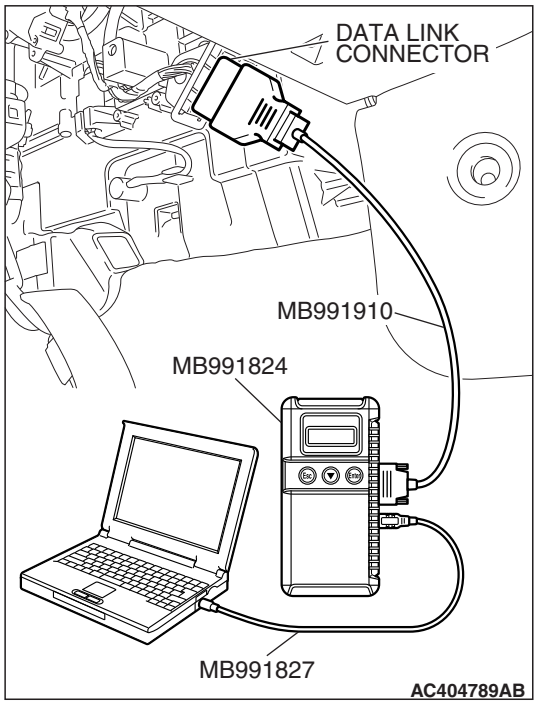
Check again if the DTC is set.

(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 B1423 set?

YES : Return to Step 1.

NO : The procedure is complete.



DTC B1426: Side Impact Sensor (RH) System for Fault 1
DTC B1436: Side Impact Sensor (LH) System for Fault 1

⚠ CAUTION
If DTC B1426 or B1436 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 (RH) (for DTC B1426) and side impact sensor (LH) (for DTC B1436)

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

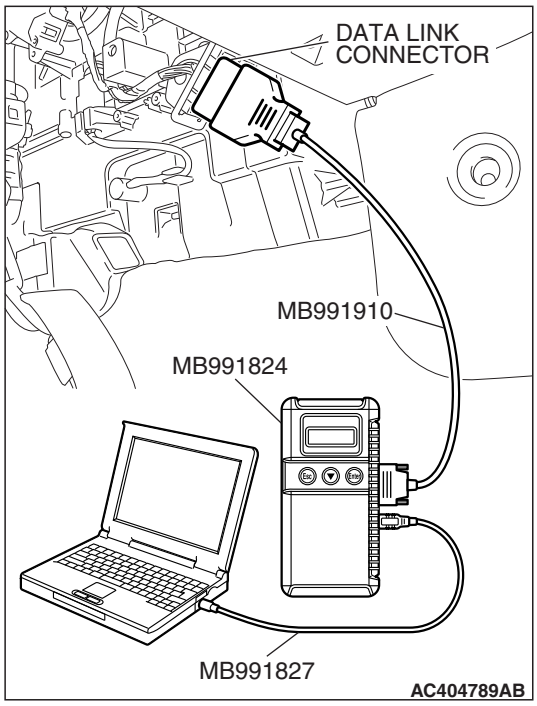
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

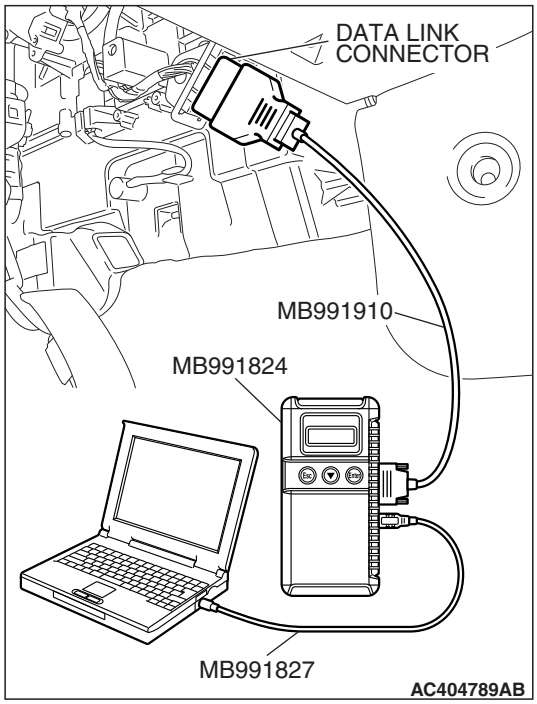
⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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.

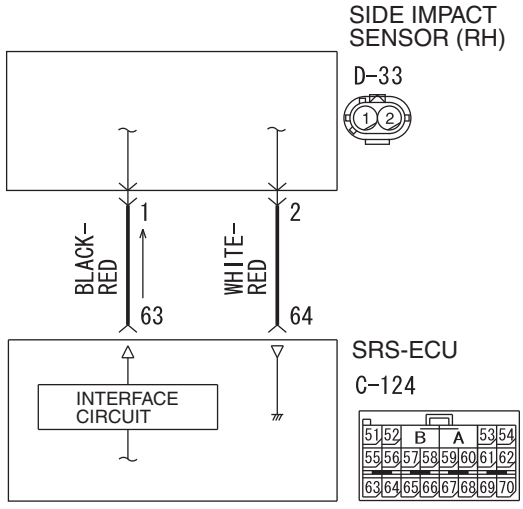
Q: Is the DTC set?

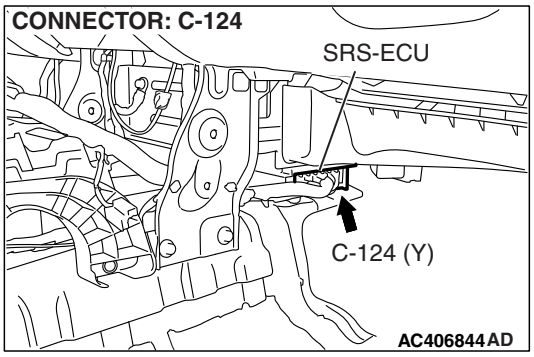
YES : Replace the SRS-ECU and side impact sensor (RH) (for DTC B1426) or replace the SRS-ECU and side impact sensor (LH) (for DTC B1436).

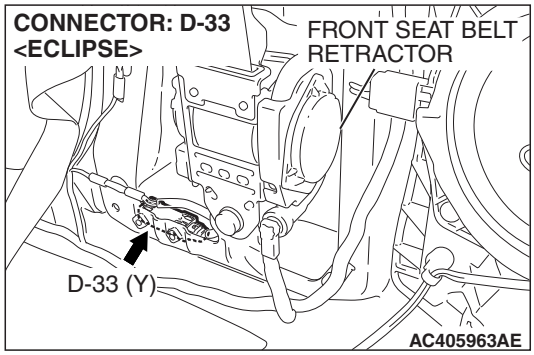
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

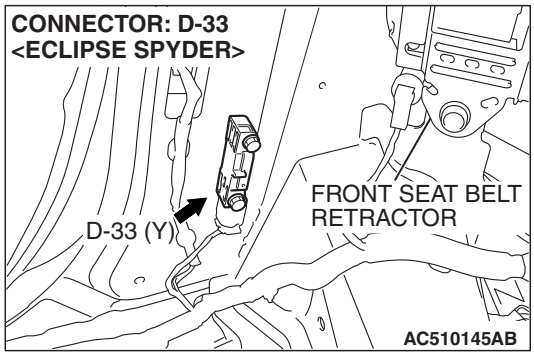
DTC B1427: Side Impact Sensor (RH) Power Supply Circuit System

Side Impact Sensor (RH) Circuit









⚠ CAUTION

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

CIRCUIT OPERATION

The side impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the side-airbags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags. In addition, the CPU diagnoses the internal components of the side impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

DTC SET CONDITIONS

This DTC will set when the power supply voltage to the side impact sensor (RH) remains less than a predetermined value for five seconds.

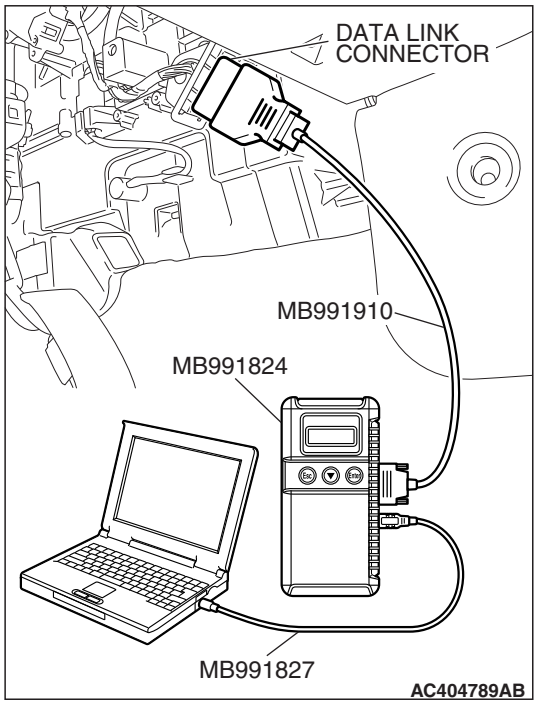
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



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

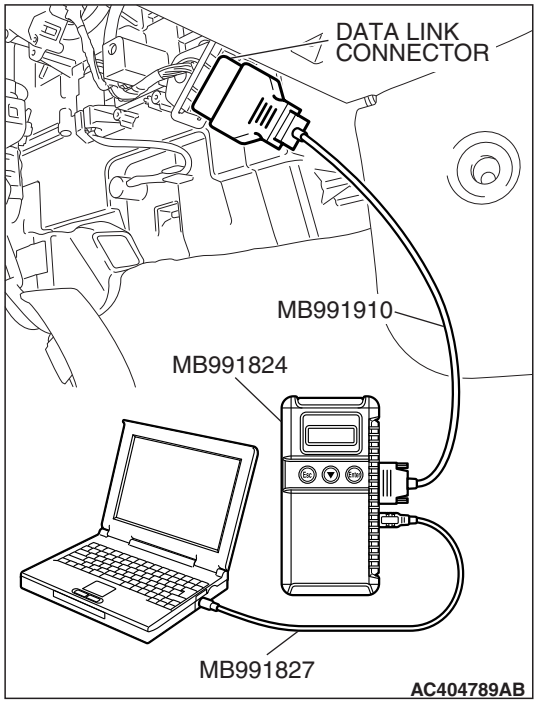
⚠ CAUTION

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-31."
(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).

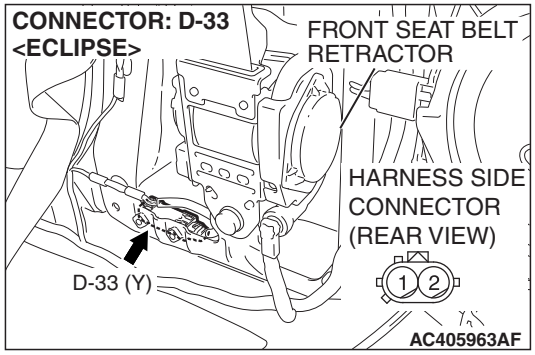


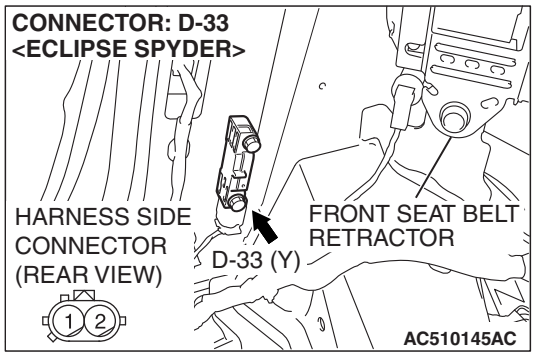
STEP 2. Recheck for diagnostic trouble code.

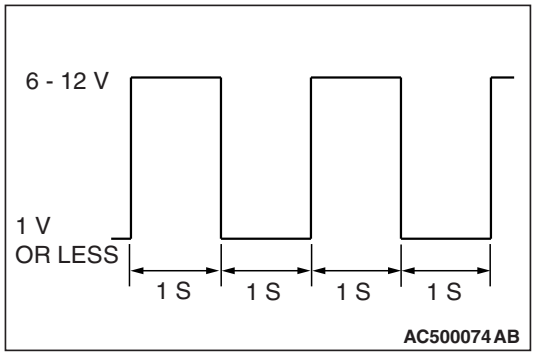
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

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







STEP 3. Check the side impact sensor (RH) power supply circuit. Measure the voltage at the side impact sensor (RH) connector D-33.

(1) Connect the negative battery terminal.
(2) Turn the ignition switch to the "ON" position.

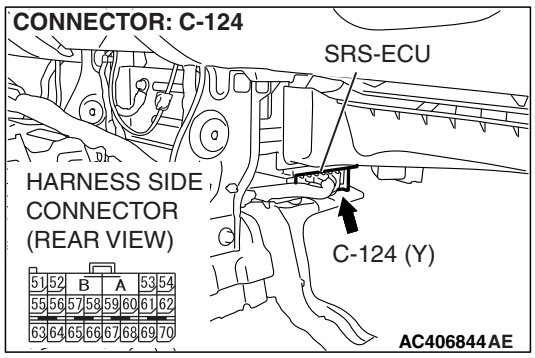
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

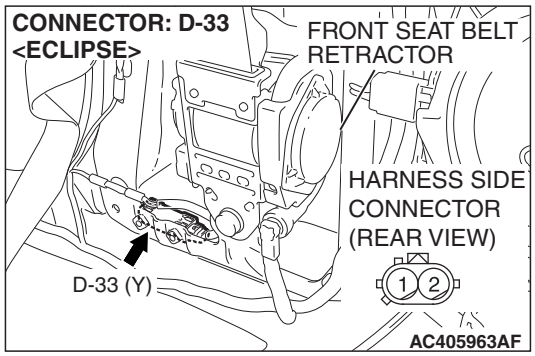
(3) Measure the voltage between D-33 harness side connector terminal 1 and ground.
A wave pattern of oscilloscope iterates an amplitude of 6 – 12 volts.

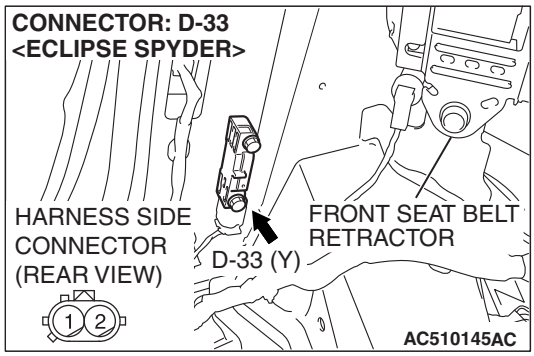
Q: Is the check result normal?

YES : Replace the side impact sensor (RH) (Refer to P.52B-432). Then go to Step 5.

NO : Go to Step 4.





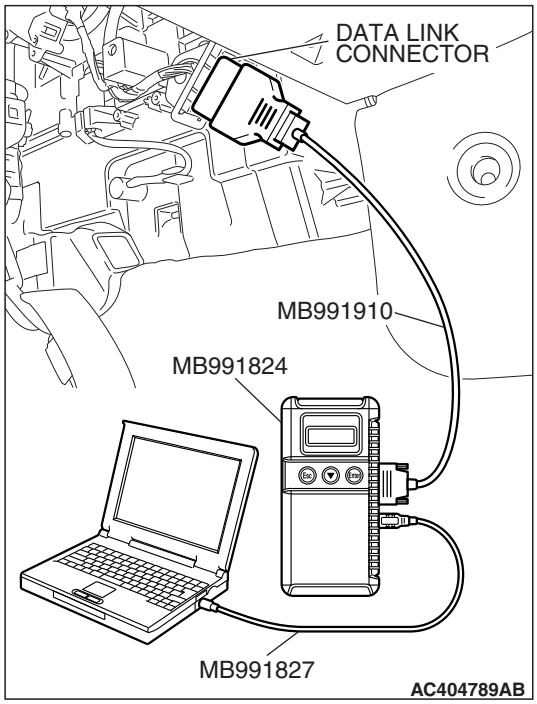


STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-124 (terminal No.63 and 64) and side impact sensor (RH) connector D-33 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.63 and 64) and side impact sensor (RH) connector D-33 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1427 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-124 and side impact sensor (RH) connector D-33. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

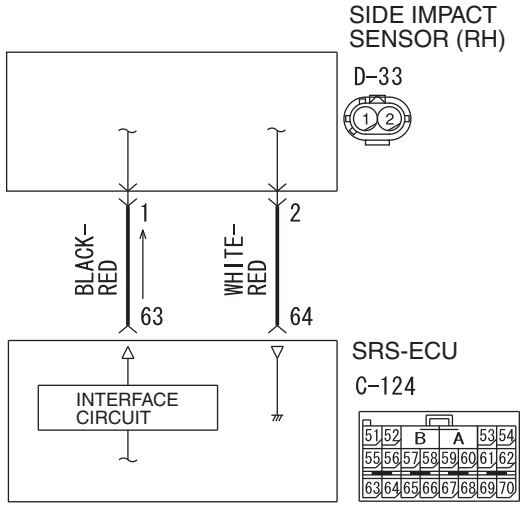
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1427 set?

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

DTC B1428: Side Impact sensor (RH) (Squib) for Power Supply Circuit
DTC B1429: Side Impact sensor (RH) (Squib) for Communication System

Side Impact Sensor (RH) Circuit



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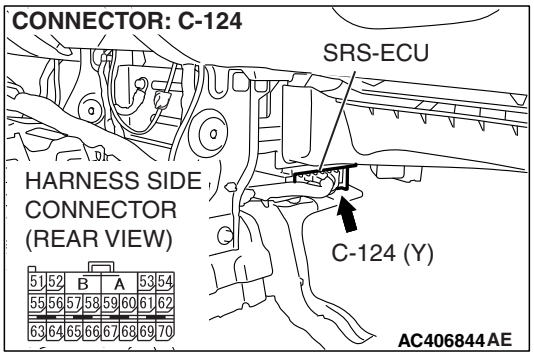
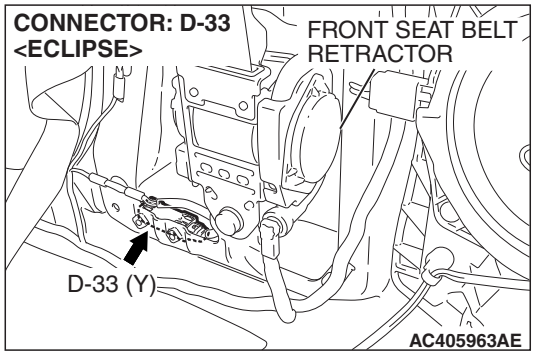
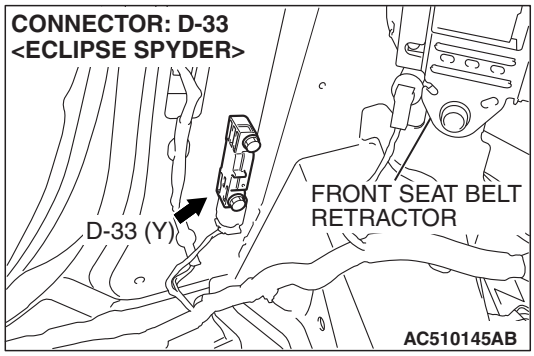






⚠ CAUTION

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

CIRCUIT OPERATION

The side impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the side-airbags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags. In addition, the CPU diagnoses the internal components of the side impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

DTC SET CONDITIONS

These DTCs are set if communication between the side impact sensor (RH) and the SRS-ECU is not possible or communication is faulty.

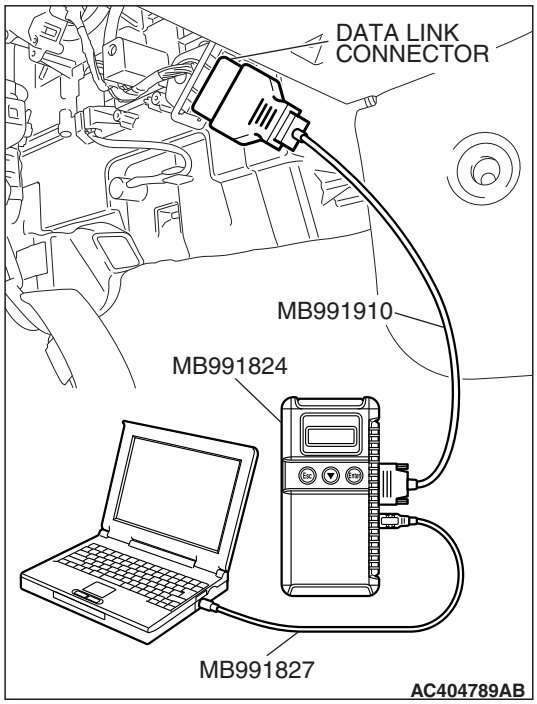
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



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

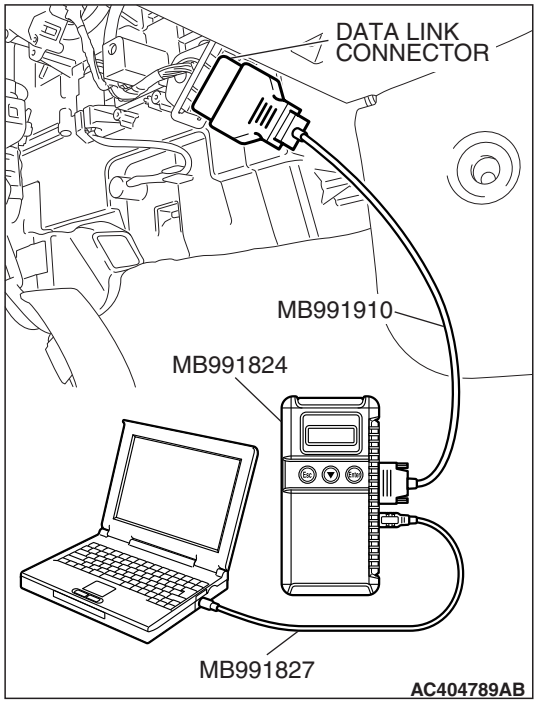
⚠ CAUTION

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-31."
(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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

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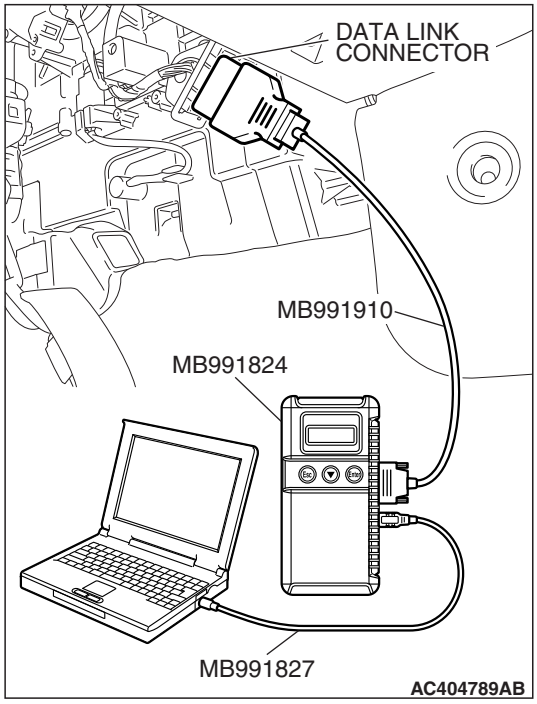


STEP 3. Check any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

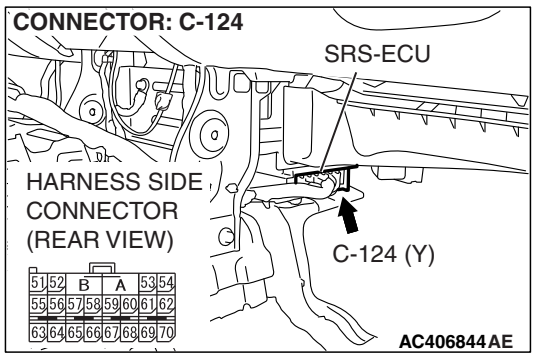
Check the side impact sensor (RH).

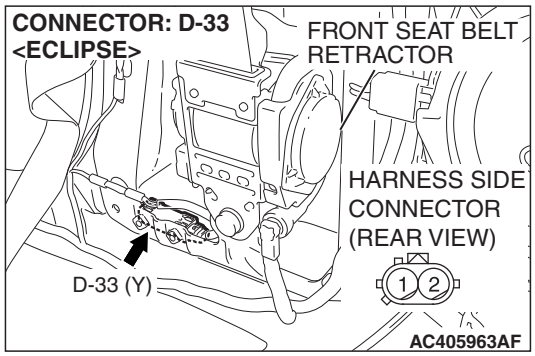
(1) Disconnect the negative battery terminal.
(2) Temporarily replace the side impact sensor (RH) with the side impact sensor (LH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

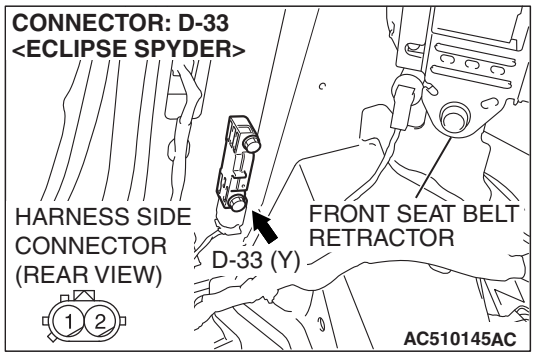
Q: Is DTC B1438 or B1439 set?

YES : Replace the side impact sensor (RH) with a new one (Refer to P.52B-432). Then go to Step 5.

NO : Go to Step 4.





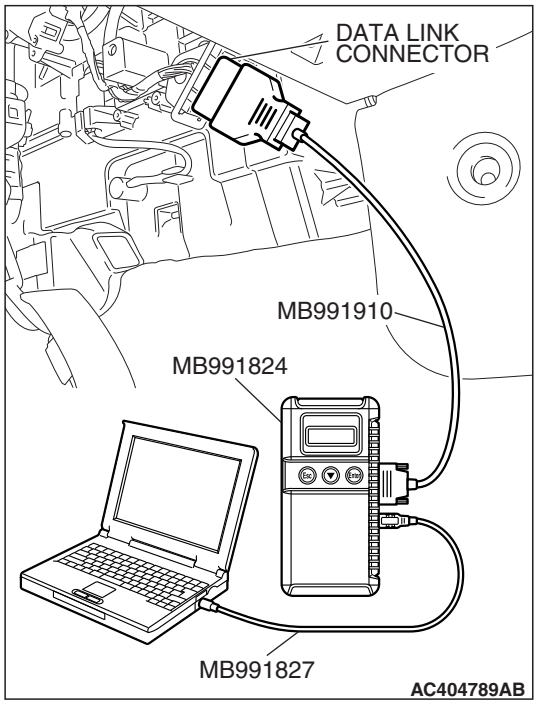


STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-124 (terminal No.63 and 64) and side impact sensor (RH) connector D-33 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.63 and 64) and side impact sensor (RH) connector D-33 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1428 or B1429 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-124 and side impact sensor (RH) connector D-33. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

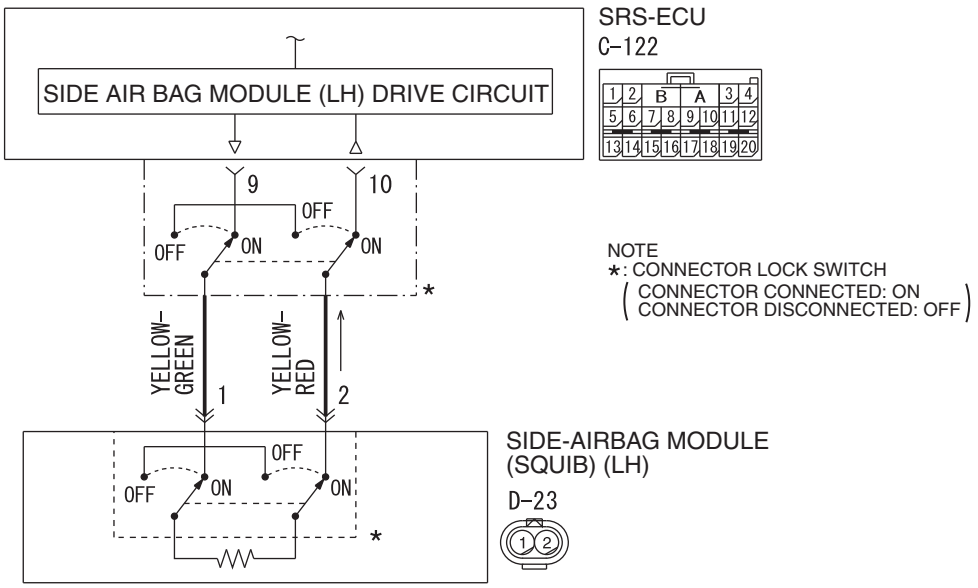
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1428 or B1429 set?

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

DTC B1430: Side-Airbag Module (LH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Side-Airbag Module (LH) (Squid) Circuit



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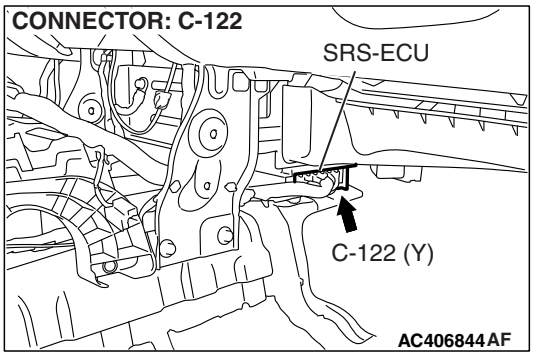
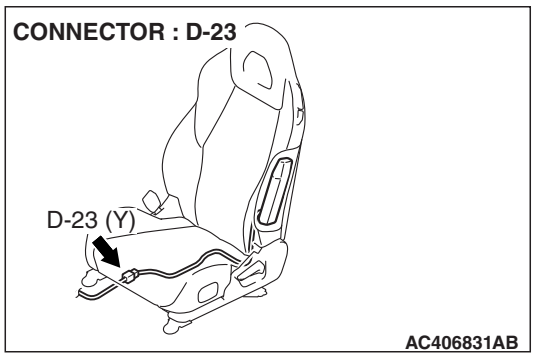




⚠ CAUTION
If DTC B1430 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

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

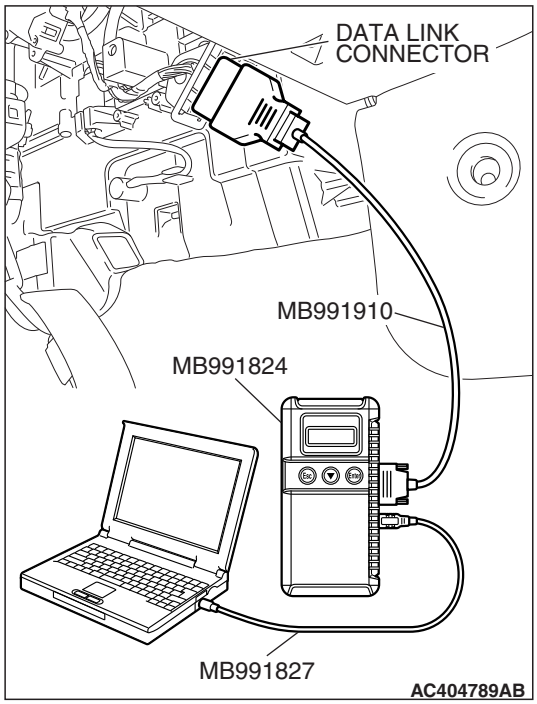
- Improper engaged connector or defective short spring*
- Short circuit between the side-airbag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-122 or D-23 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness



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

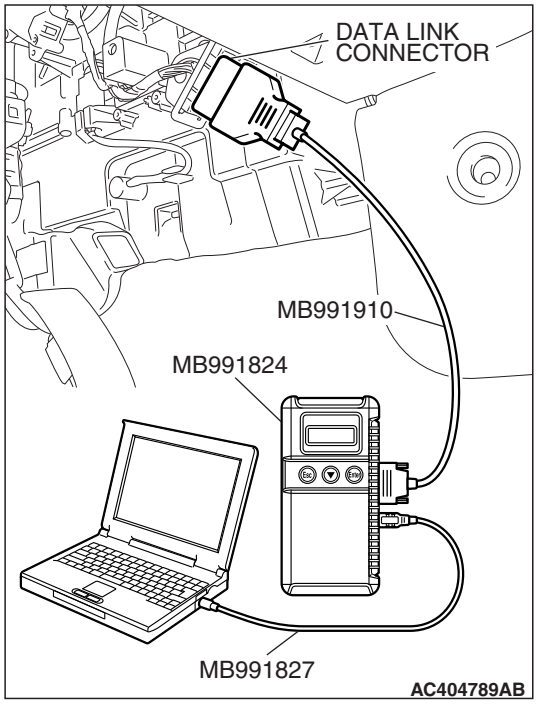
⚠ CAUTION

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-31."
(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 lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart P.54C-17).

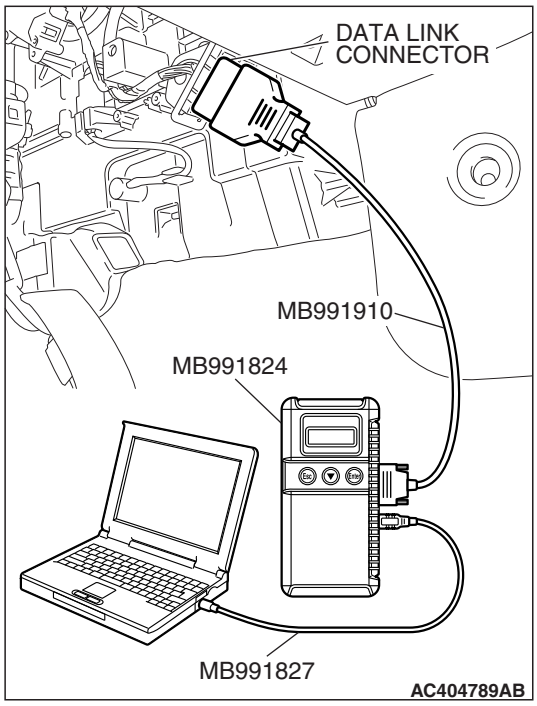


STEP 2. Recheck for diagnostic trouble code.

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).

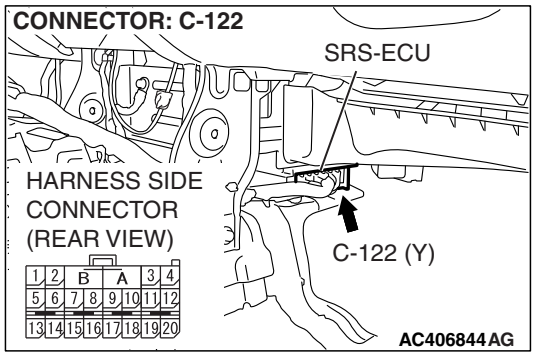


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(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 DTC B1519 set?

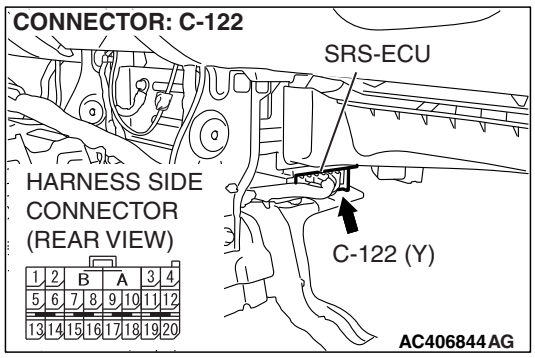
YES : Go to Step 4.
NO : Go to Step 5.

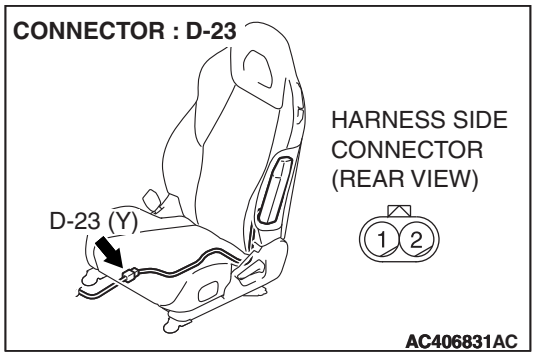


STEP 4. Check SRS-ECU connector C-122.

Q: Is the connector correctly engaged?

YES : Go to Step 5.
NO : Engage the connector correctly. Then go to Step 9.





STEP 5. Check SRS-ECU connector C-122 and side-airbag module (LH) connector D-24. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-122 and D-23, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

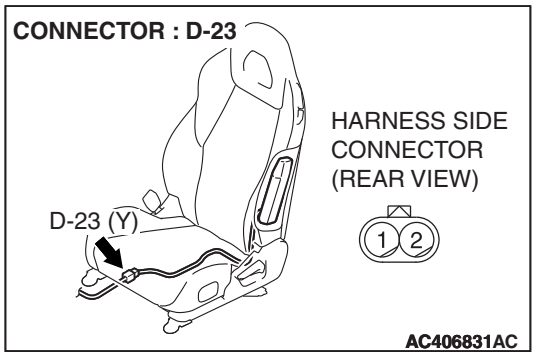
Q: Is DTC B1430 out put?

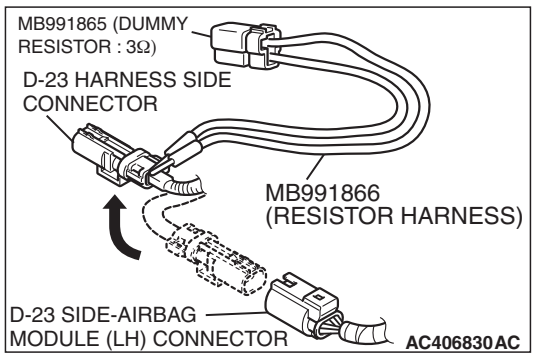
YES : Go to Step 6.
NO : The procedure is complete. It is assumed that DTC B1430 set because connector C-122 or D-23 was engaged improperly.

STEP 6. Check the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect the side-airbag module (LH) connector D-23.





(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-23 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

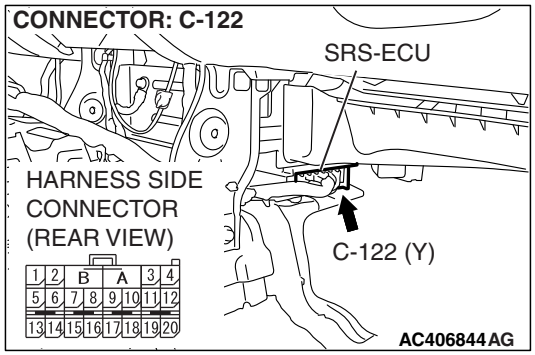
Q: Is DTC B1430 set?

YES : Go to Step 7.

NO : Replace the seatback frame of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 9.

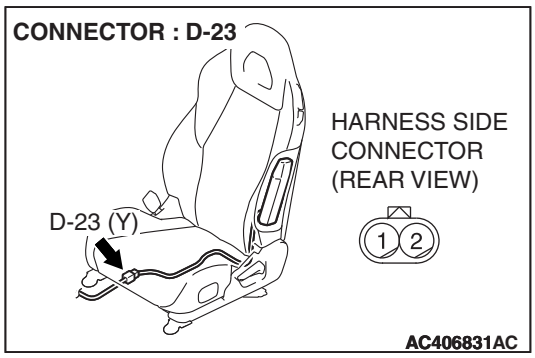
STEP 7. Check the side-airbag module (LH) circuit.
Measure the resistance at the SRS-ECU connector C-122.

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



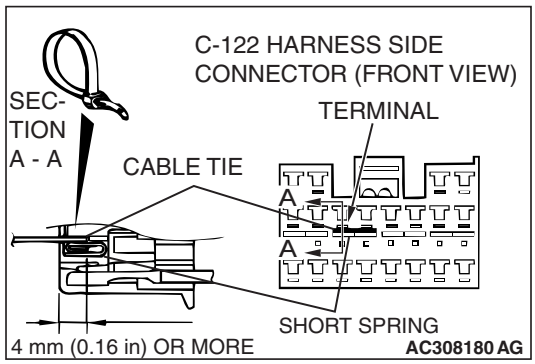
⚠ DANGER
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-23 to short the squib circuit.

(3) Disconnect side-airbag module (LH) connector D-23.



⚠ 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 9, 10 and the short spring to release the short spring.

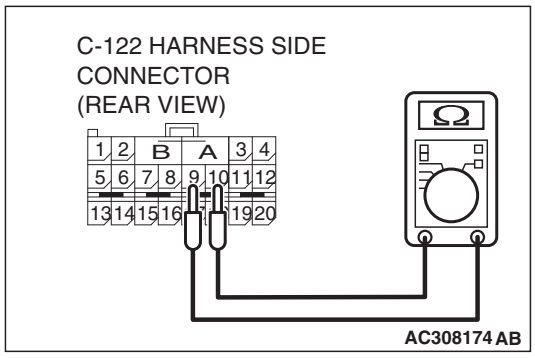


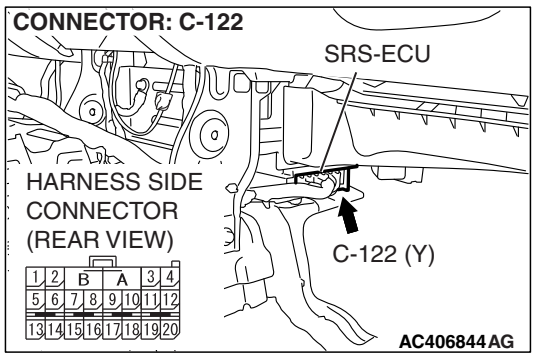
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

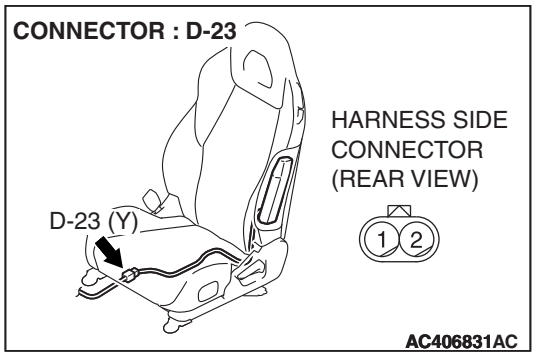
(5) Check for continuity between C-122 harness side connector terminals 9 and 10.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1430 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9.





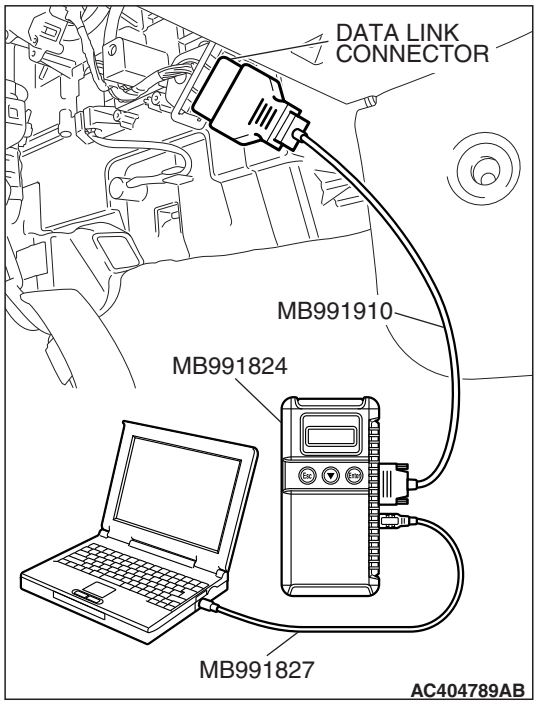


STEP 8. Check the harness wires for short circuit between SRS-ECU connector C-122 (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-122 and side-airbag module (LH) connector D-23. Then go to Step 9.



STEP 9. 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.

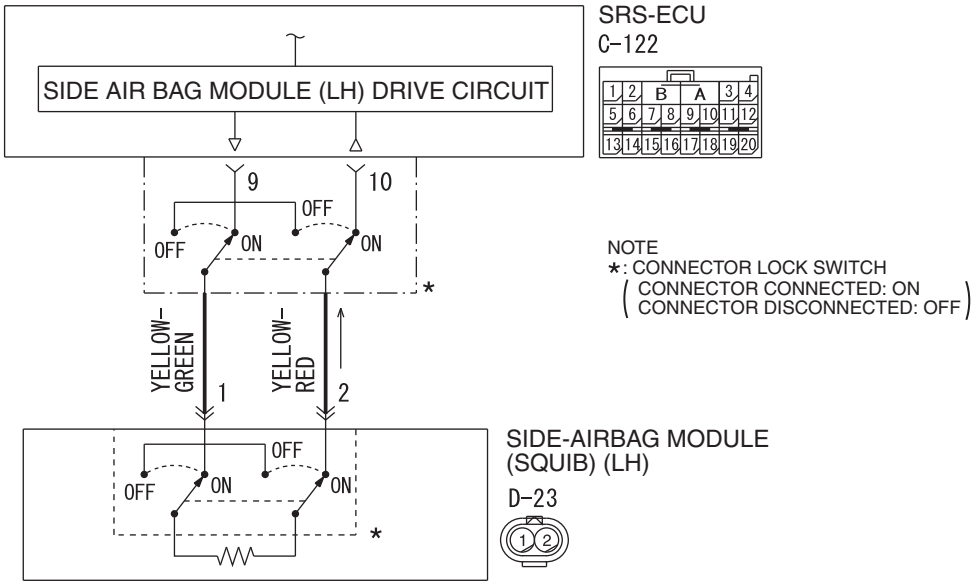
Q: Is DTC B1430 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1431: Side-Airbag Module (LH) (Squib) System Fault 2 (Open in the Squib Circuit)

Side-Airbag Module (LH) (Squid) Circuit



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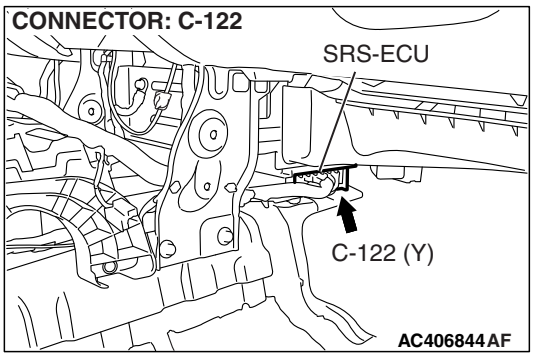
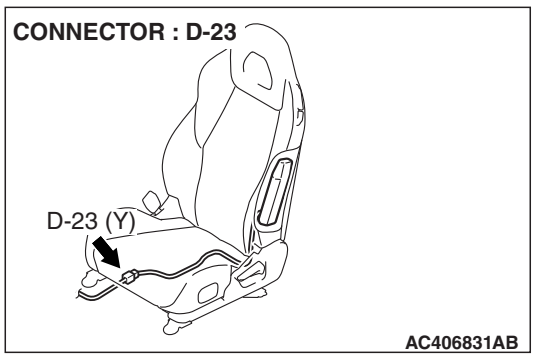




⚠ CAUTION
If DTC B1431 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

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

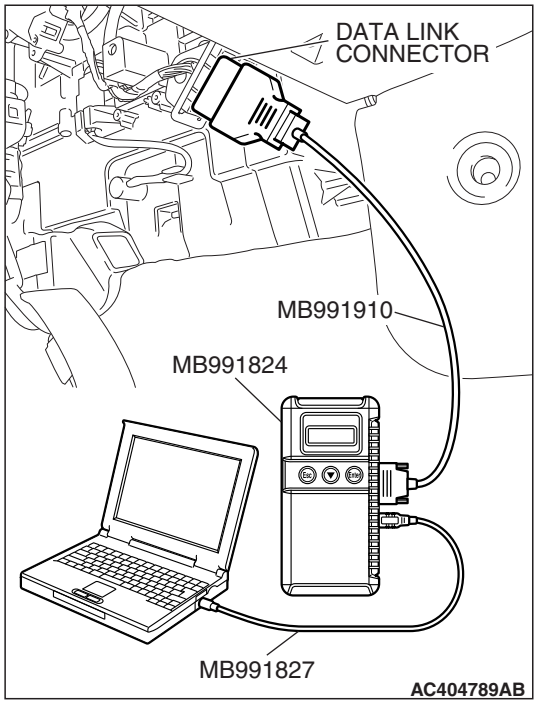
- Open circuit in the side-airbag module (squib) (LH) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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



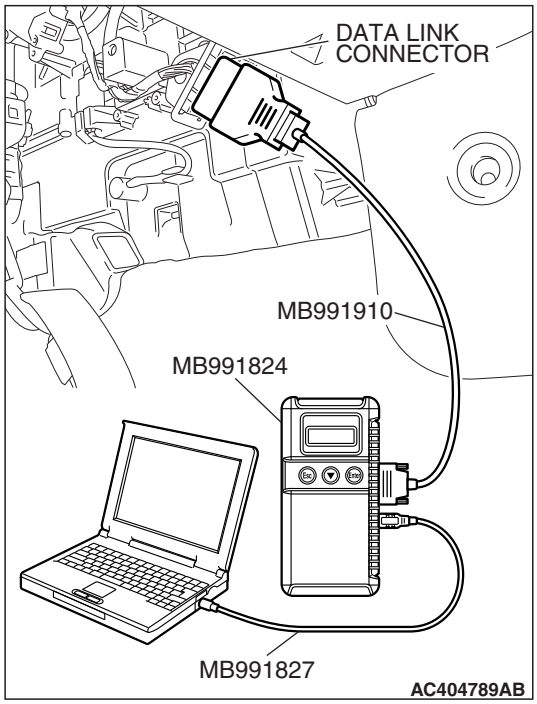
⚠ CAUTION

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-31."
(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 lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart P.54C-17).



STEP 2. Recheck for diagnostic trouble code.

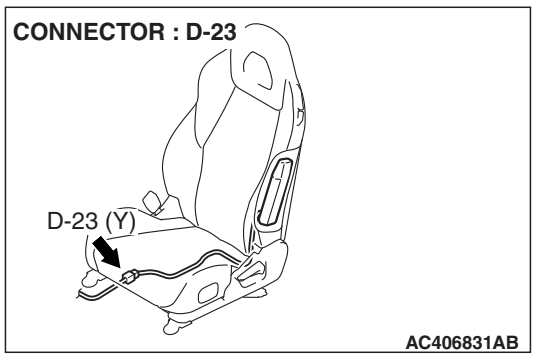
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

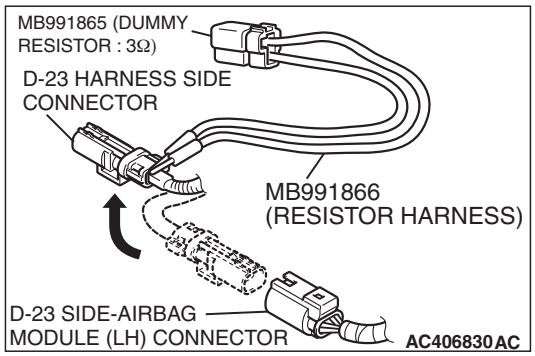
Q: Is the DTC set?

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 the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-23.





(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-23 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 B1431 set?

YES : Go to Step 4.
NO : Replace the seatback frame of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 5.

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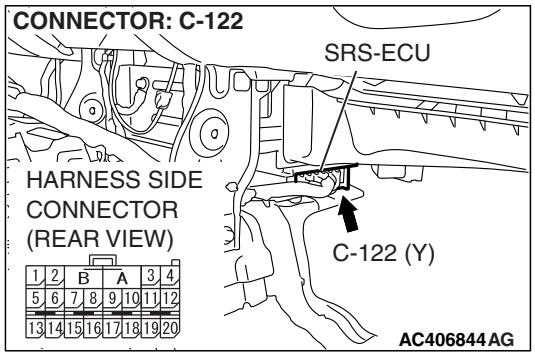
STEP 4. Check the harness for open circuit between the SRS-ECU connector C-122 (terminal No.9 and 10) and the side-airbag module (LH) connector D-23 (terminal No.1 and 2).

(1) Disconnect the negative battery terminal.

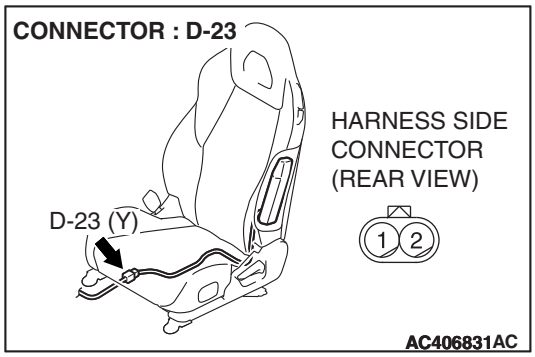
(2) Disconnect SRS-ECU connector C-122.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-23 to short the squib circuit.

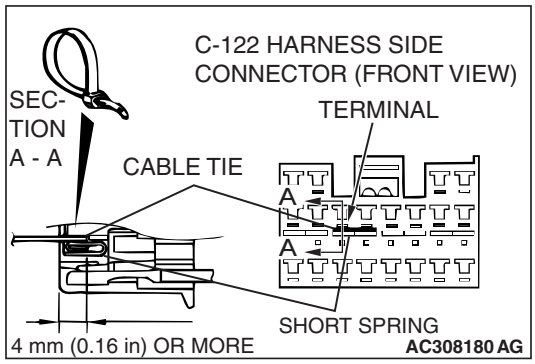
(3) Disconnect side-airbag module (LH) connector D-23.



⚠ 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 9, 10 and the short spring to release the short spring.

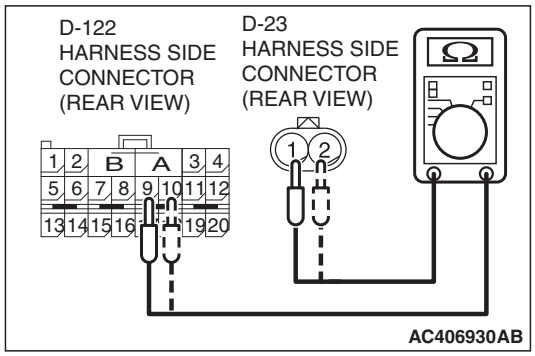


⚠ CAUTION

Do not insert a test probe into the terminal from its 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.9) and the side-airbag module (LH) connector D-23 (terminal No.1)
- SRS-ECU connector C-122 (terminal No.10) and the side-airbag module (LH) connector D-23 (terminal No.2)



Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1431 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU

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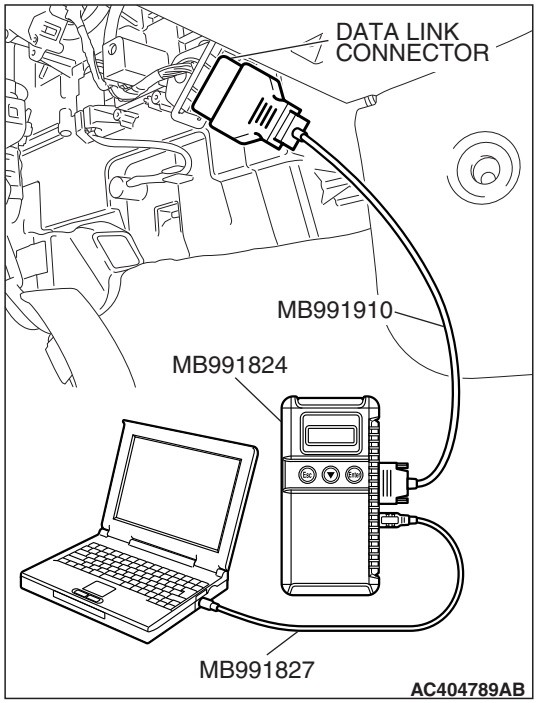
connector C-122 and side-airbag module (LH) connector D-23. Then go to Step 5.



STEP 5.Recheck for diagnostic trouble code.

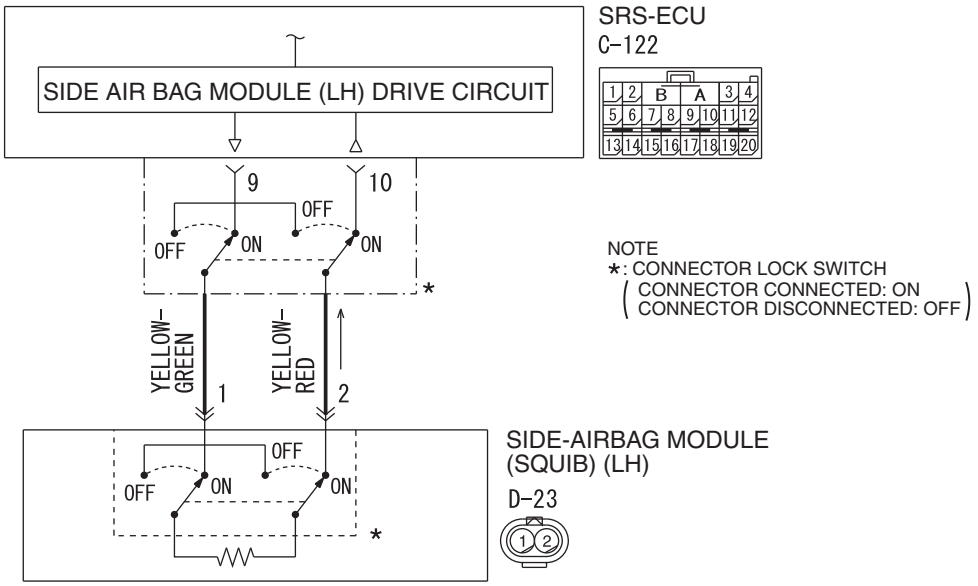
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1431 set?

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

DTC B1432: Side-Airbag Module (LH) (Squib) System Fault Ground Circuit (Short-Circuited to Ground)

Side-Airbag Module (LH) (Squid) Circuit



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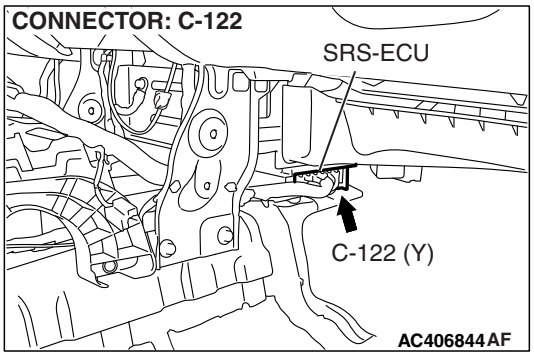
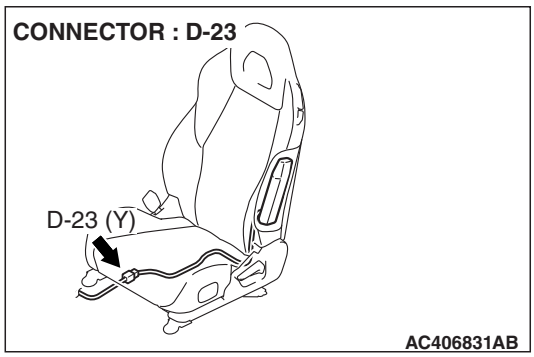




⚠ CAUTION
If DTC B1432 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag 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).

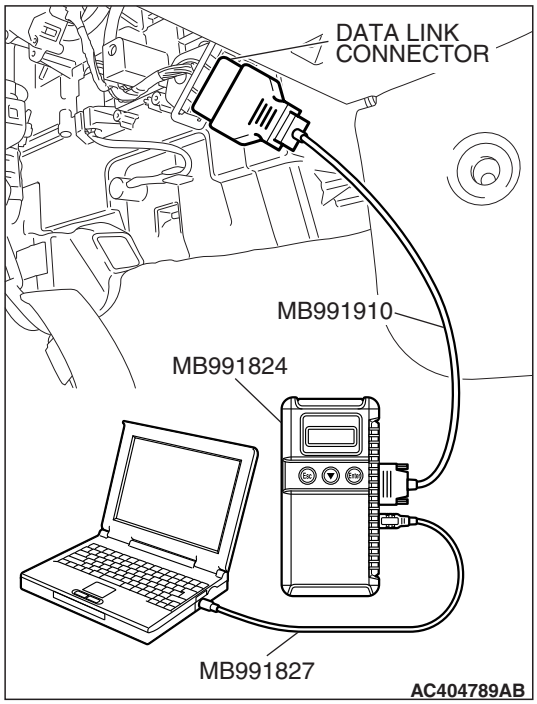
TROUBLESHOOTING HINTS

- 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness



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

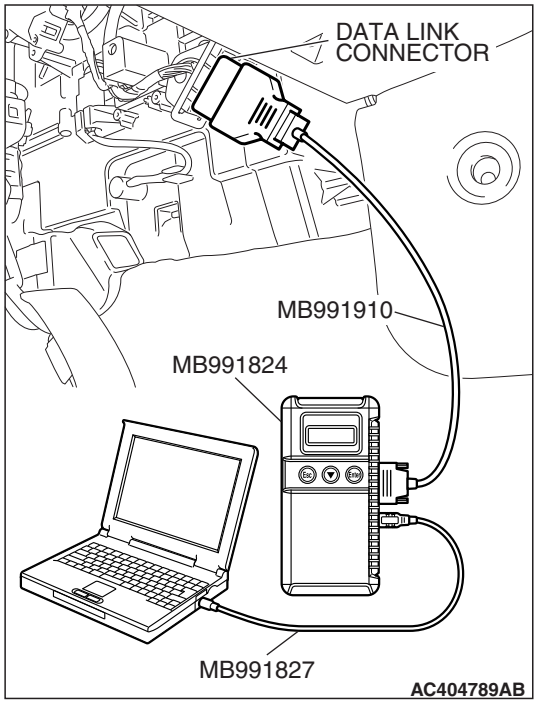
⚠ CAUTION

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-31."
(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 lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart 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.

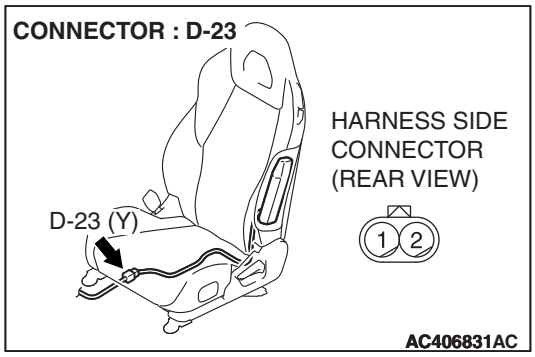
Q: Is the DTC set?

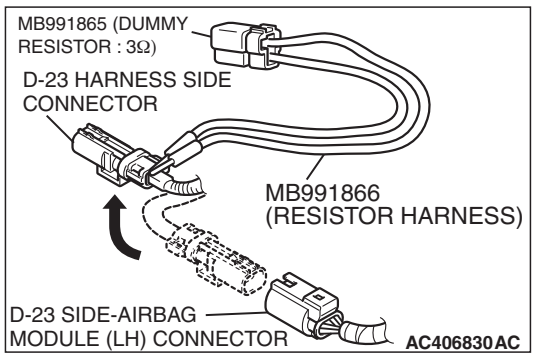
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect the side-airbag module (LH) connector D-23.





(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-23 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

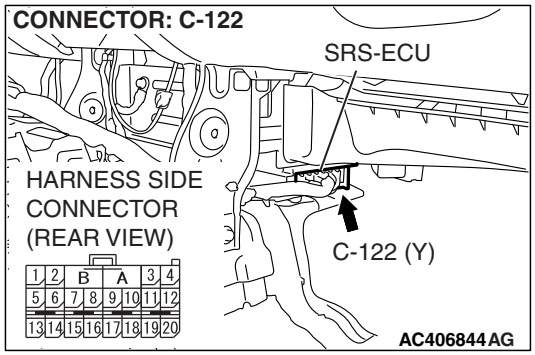
Q: Is DTC B1432 set?

YES : Go to Step 4.

NO : Replace the seatback frame of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 6.

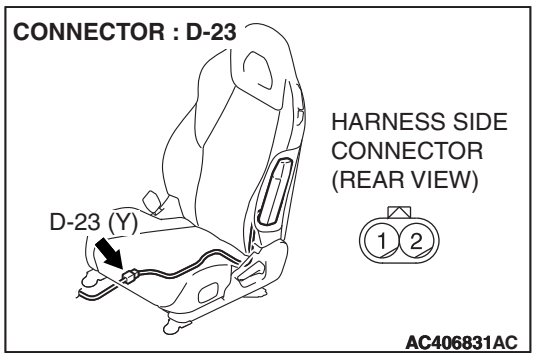
STEP 4. Check the side-airbag module (LH) circuit.
Measure the resistance at the SRS-ECU connector C-122.

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



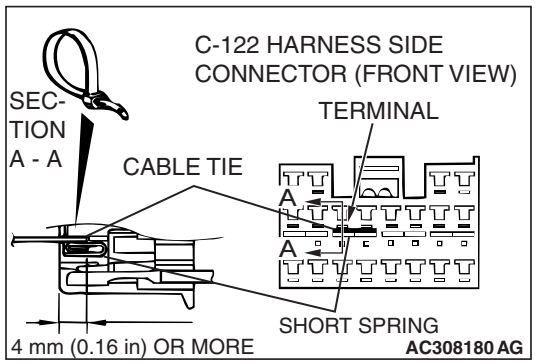
⚠ DANGER
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-23 to short the squib circuit.

(3) Disconnect side-airbag module (LH) connector D-23.



⚠ 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 9, 10 and the short spring to release the short spring.

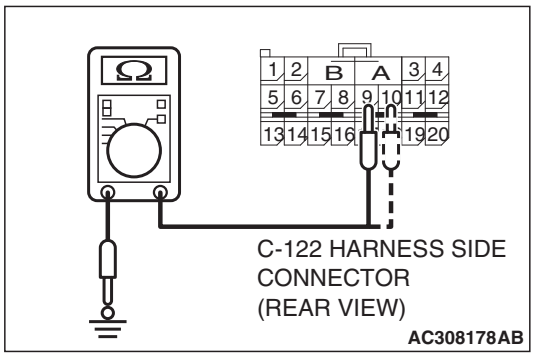


⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between C-122 harness side connector terminals 9, 10 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.
NO : Erase the diagnostic trouble code from memory, and check the diagnostic trouble code. If DTC B1432 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

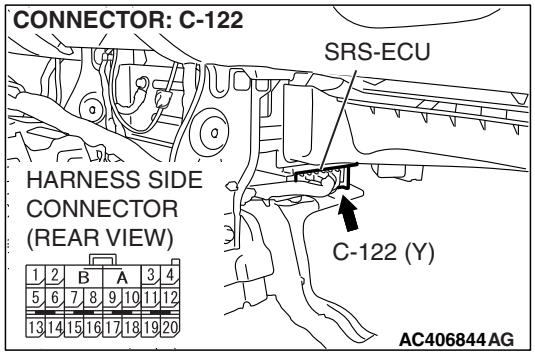


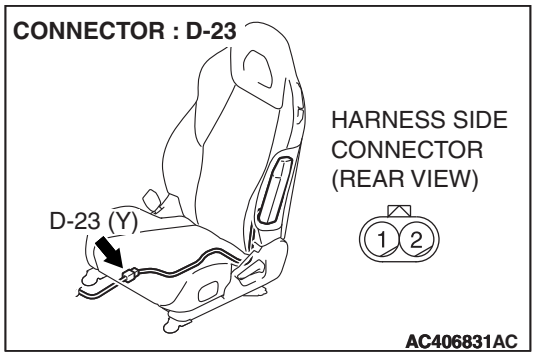
STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and side-airbag module (LH) connector D-23. 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.

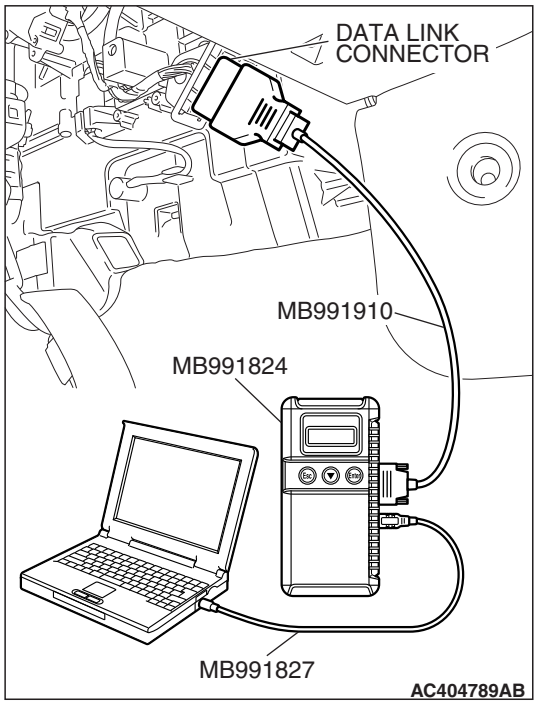
(3) Check if the DTC is set.

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

Q: Is DTC B1432 set?

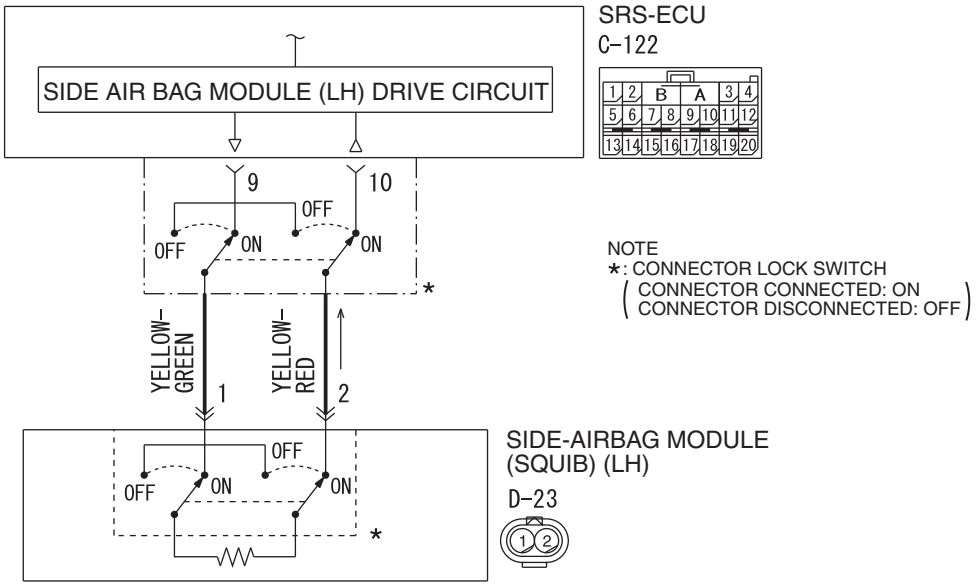
YES : Return to Step 1.

NO : The procedure is complete.



DTC B1433: Side-Airbag Module (LH) (Squib) System Fault Power Supply Circuit (Short-Circuited to Power Supply)

Side-Airbag Module (LH) (Squid) Circuit



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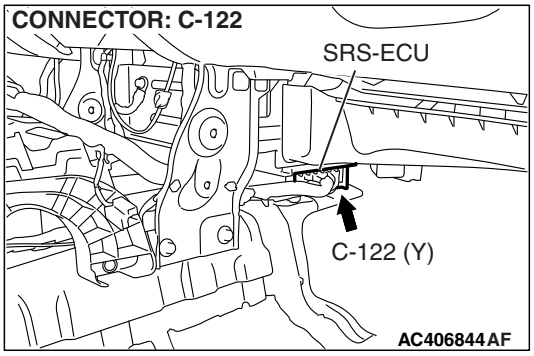
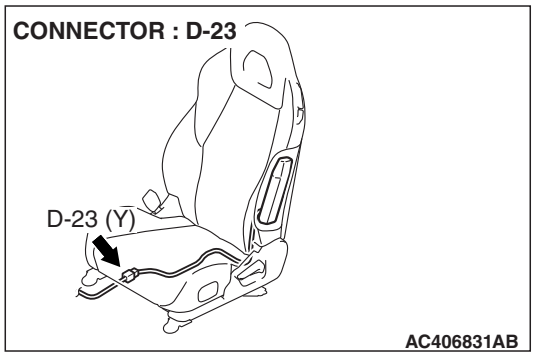




⚠ CAUTION

If DTC B1433 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

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

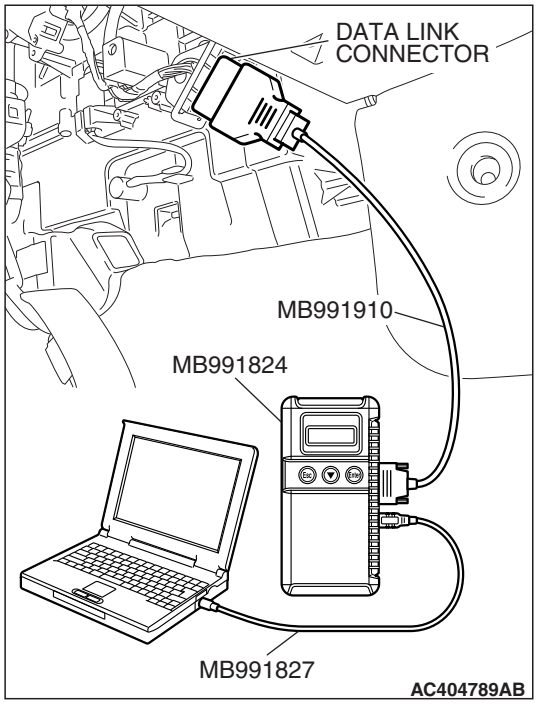
- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991866: Resister harness

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



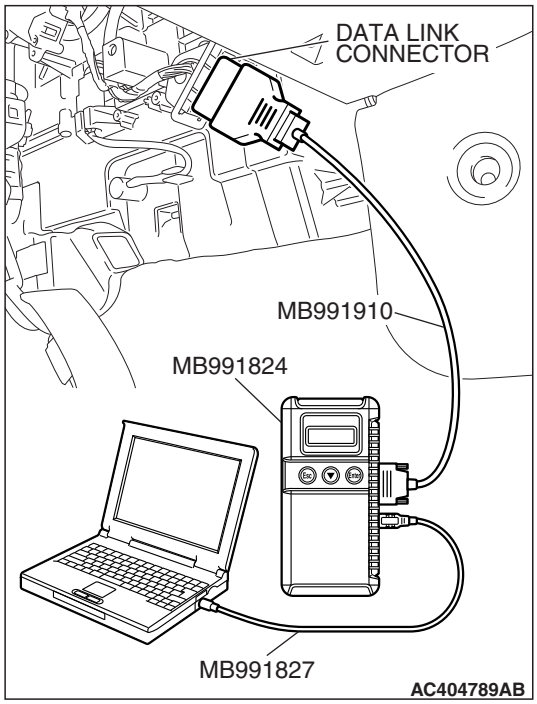
⚠ CAUTION

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-31."
(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 lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart 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.

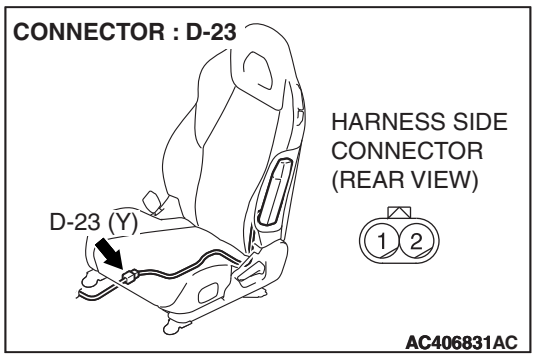
Q: Is the DTC set?

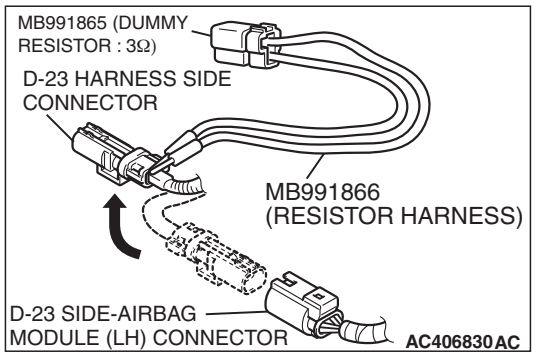
YES : Go to Step 3.

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 the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-23.





(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.

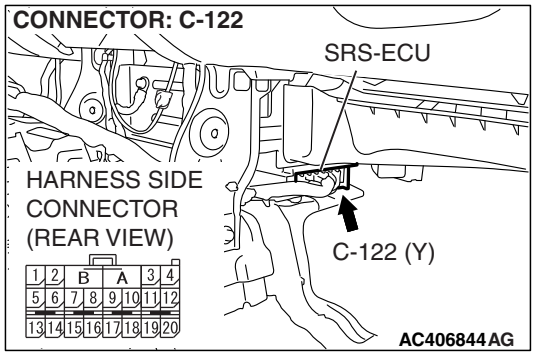
(4) Insert special tool MB991866 into the D-23 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1433 set?

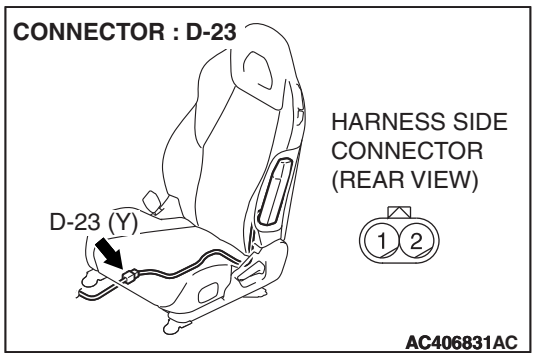
YES : Go to Step 4.

NO : Replace the seatback frame of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-45). Then go to Step 6.

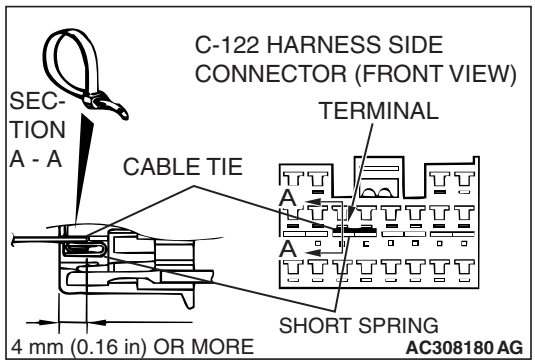
STEP 4. Check the side-airbag module (RH) circuit.
Measure the voltage at the SRS-ECU connector C-122.
Disconnect the negative battery terminal.
(1) Disconnect SRS-ECU connector C-122.



⚠ DANGER
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-23 to short the squib circuit.
(2) Disconnect side-airbag module (LH) connector D-23.

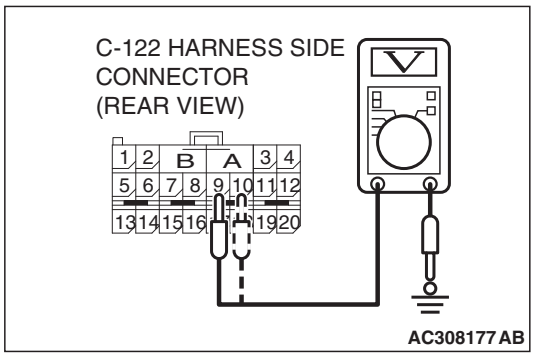


⚠ CAUTION
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.
(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 9, 10 and the short spring to release the short spring.
(4) Connect the negative battery terminal.
(5) Turn the ignition switch to the "ON" position.

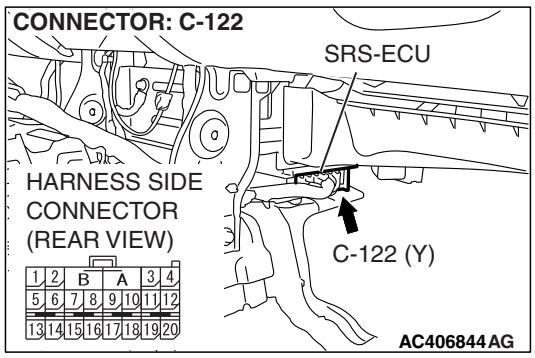


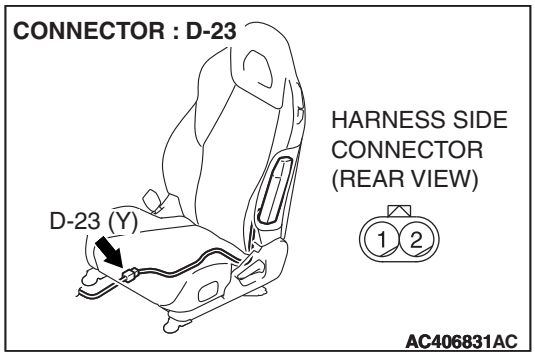
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.
(6) Measure the voltage between C-122 harness side connector terminals 9, 10 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1433 sets, replace the SRS-ECU (Refer to P.52B-420). 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.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2).





Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2) in good condition?

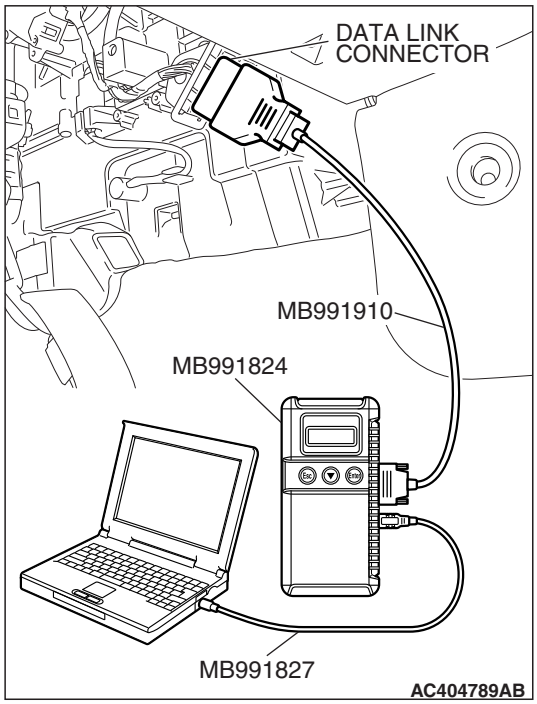
YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and side-airbag module (LH) connector D-23. 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.



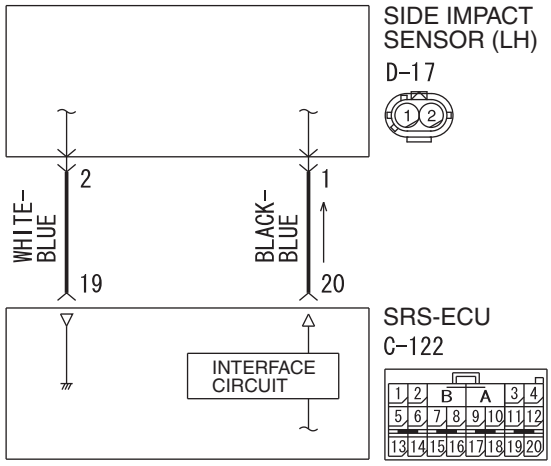
Q: Is DTC B1433 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1437: Side Impact Sensor (LH) Power Supply Circuit System

Side Impact Sensor (LH) Circuit



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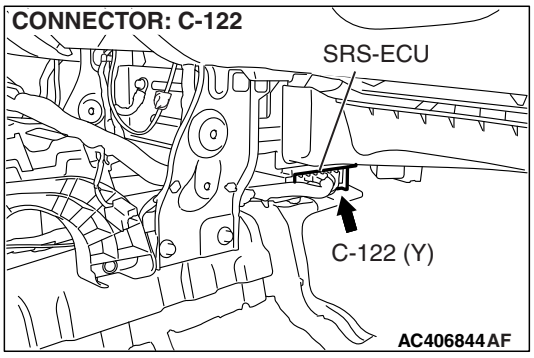
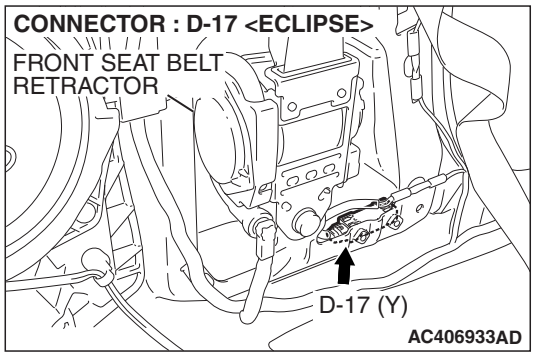
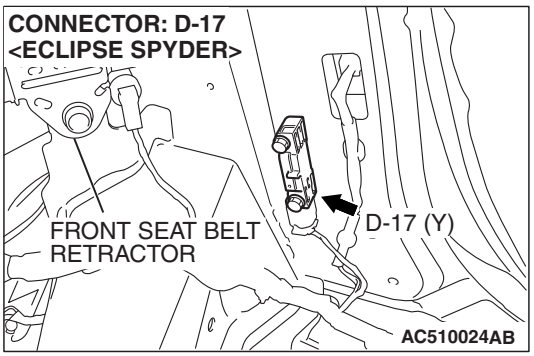






⚠ CAUTION

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

CIRCUIT OPERATION

The side impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the side-airbags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags. In addition, the CPU diagnoses the internal components of the side impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

TSB Revision

DTC SET CONDITIONS

This DTC is set if the power supply voltage of the side impact sensor (LH) drops below the rated value for a continuous period of 5 seconds or more.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A

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

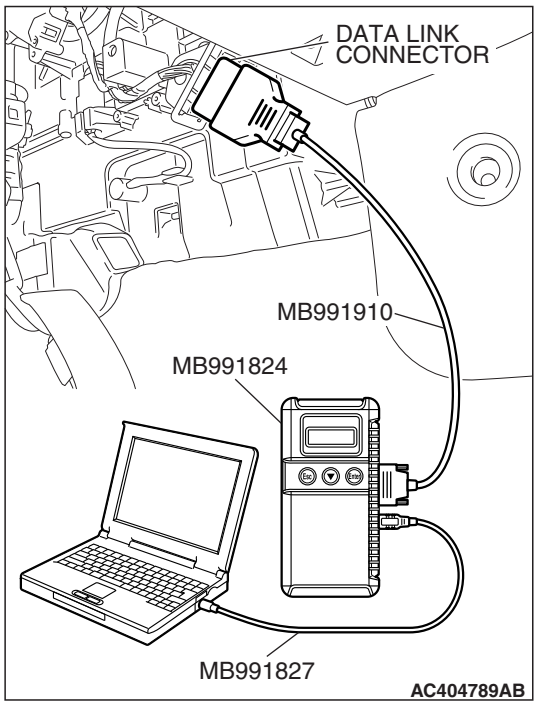
⚠ CAUTION

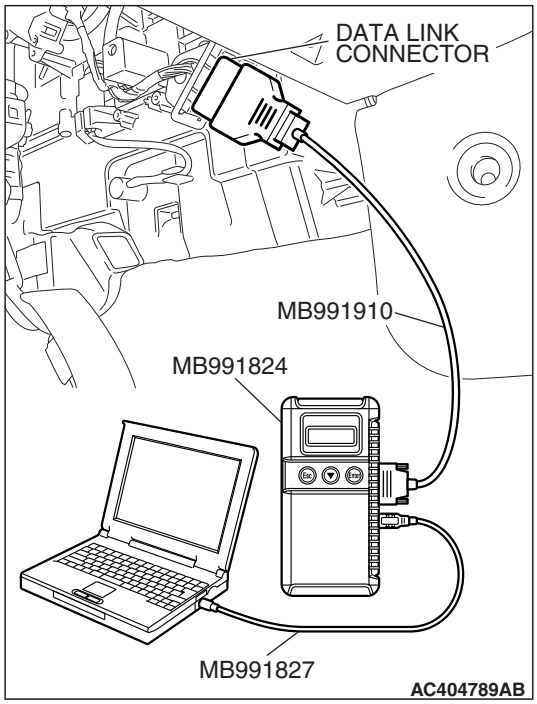
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

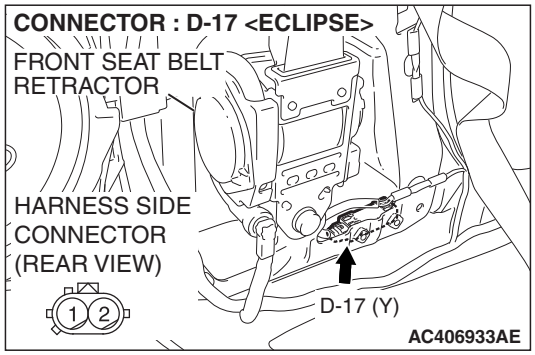
STEP 3. Check the side impact sensor (LH) power supply circuit. Measure the voltage at the side impact sensor (LH) connector D-17.

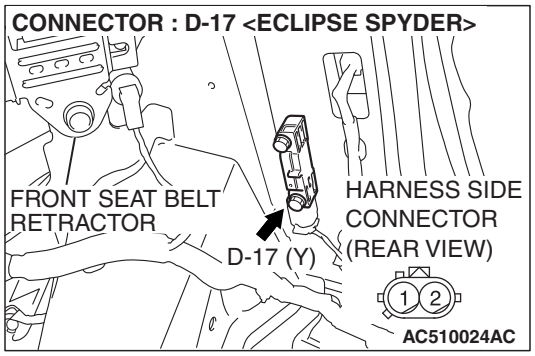
(1) Connect the negative battery terminal.
(2) Turn the ignition switch to the "ON" position.

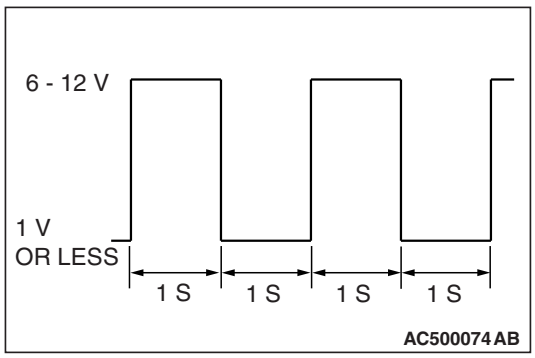
⚠ CAUTION

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

(3) Measure the voltage between the D-17 harness side connector terminal 1 and body ground.





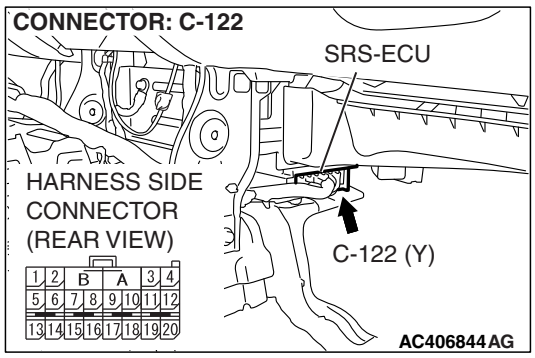


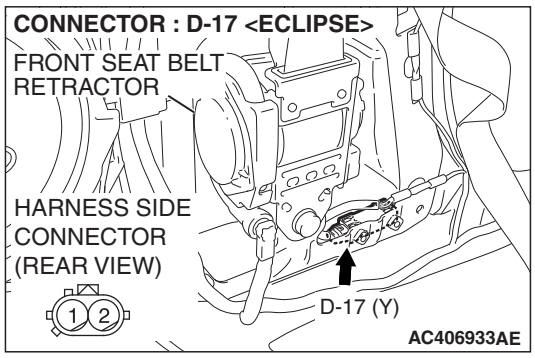
(4) A wave pattern of oscilloscope iterates an amplitude of 6 – 12 volts.

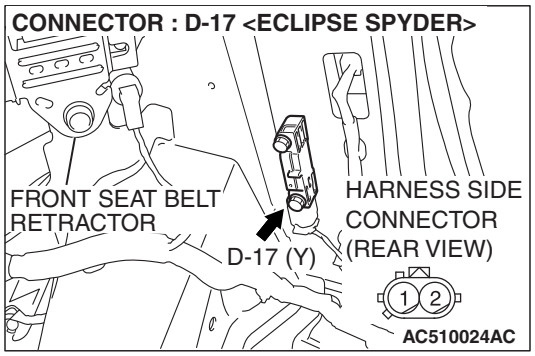
Q: Is the check result normal?

YES : Replace the side impact sensor (LH) (Refer to P.52B-432). Then go to Step 5.

NO : Go to Step 4.





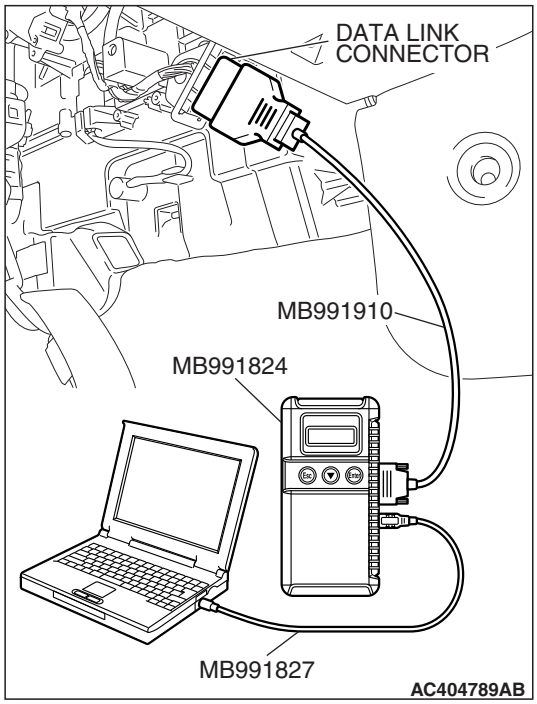


STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-122 (terminal No.19 and 20) and side impact sensor (LH) connector D-17(terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.19 and 20) and side impact sensor (LH) connector D-17 (terminal No.2 and 1) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1437 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-122 and side impact sensor (LH) connector D-17. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

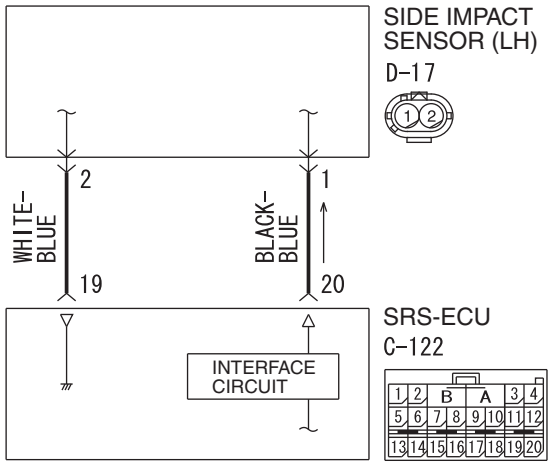
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1437 set?

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

DTC B1438: Side Impact Sensor (LH) (Squib) for Power Supply Circuit
DTC B1439: Side Impact Sensor (LH) (Squib) for Communication System

Side Impact Sensor (LH) Circuit



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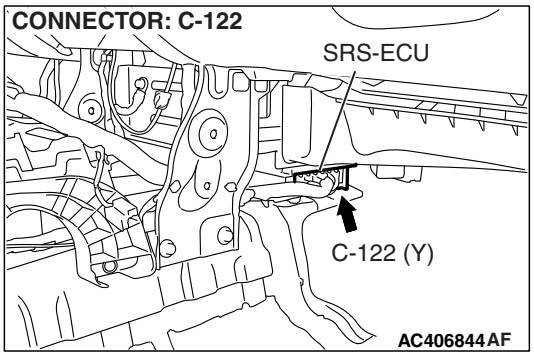
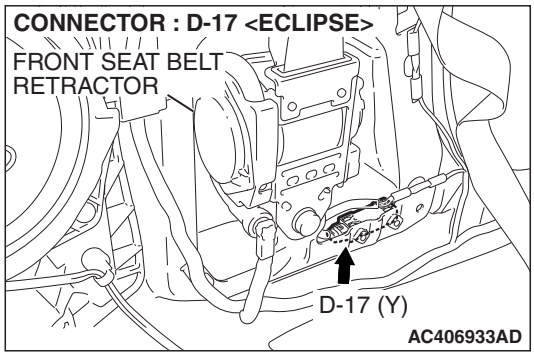
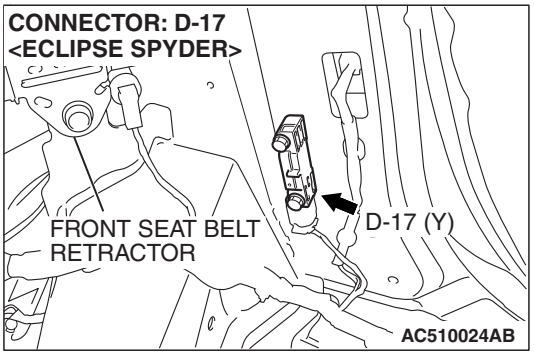






⚠ CAUTION
If DTC B1438 or B1439 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The side impact sensor includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the side-airbags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags. In addition, the CPU diagnoses the internal components of the side impact sensor. If a malfunction occurs, it requests the SRS-ECU to set a diagnostic trouble code.

DTC SET CONDITIONS

These DTCs are set if communication between the side impact sensor (LH) and the SRS-ECU is not possible or faulty.

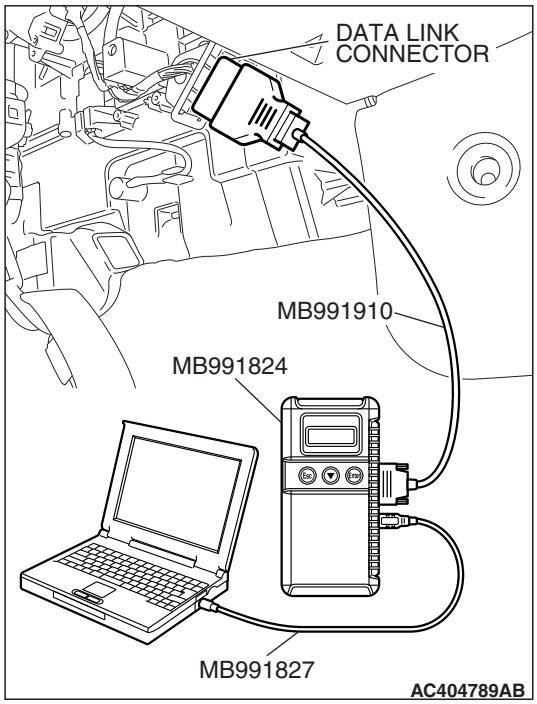
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A



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

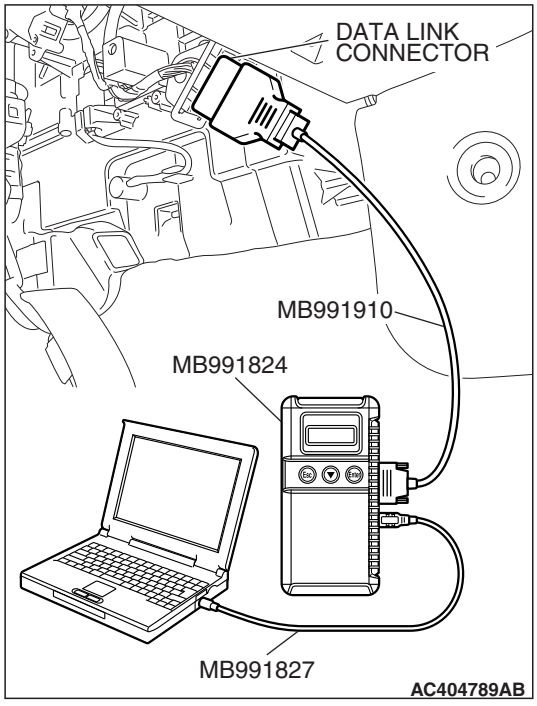
⚠ CAUTION

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-31."
(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).

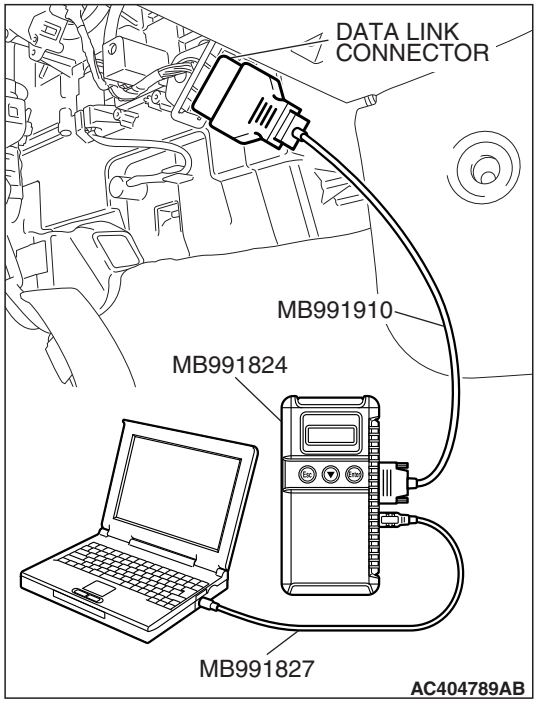


STEP 2. Recheck for diagnostic trouble code.

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



STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

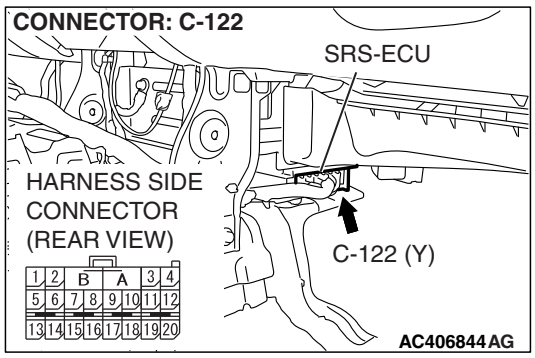
Check the side impact sensor (LH).

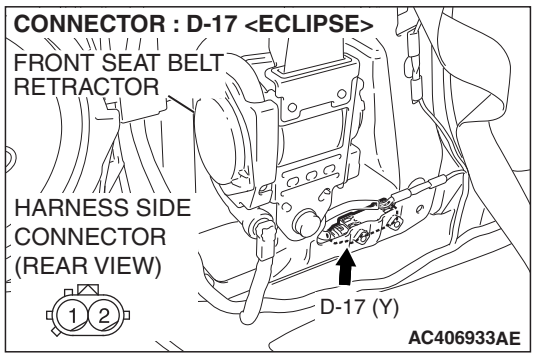
(1) Disconnect the negative battery terminal.
(2) Temporarily replace the side impact sensor (LH) with the side impact sensor (RH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

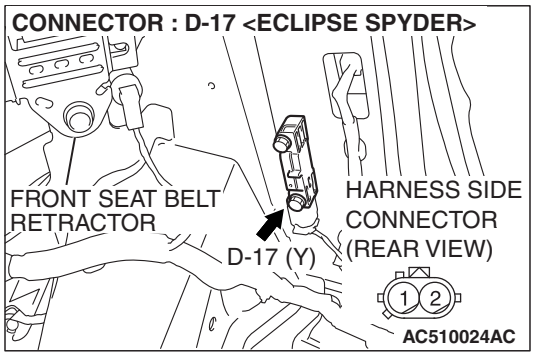
Q: Is DTC B1428 or B1429 set?

YES : Replace the side impact sensor (LH) with a new one (Refer to P.52B-432). Then go to Step 5.

NO : Go to Step 4.





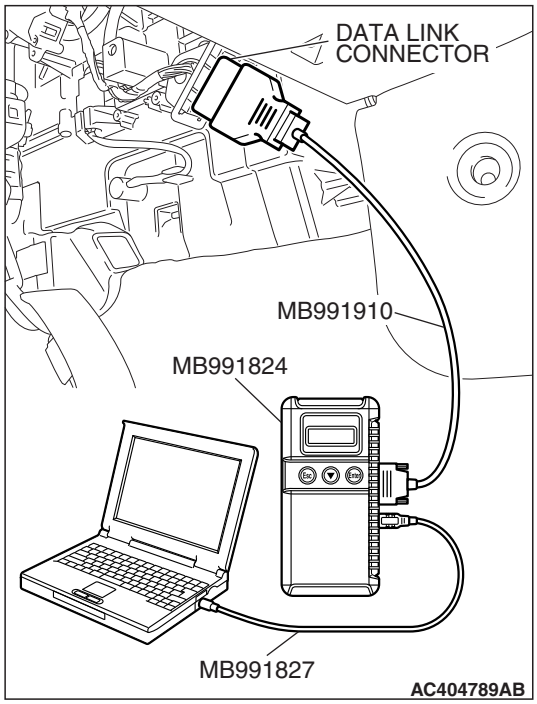


STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-122 (terminal No.19 and 20) and side impact sensor (LH) connector D-17 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.19 and 20) and side impact sensor (LH) connector D-17 (terminal No.2 and 1) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1438 or B1439 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-122 and side impact sensor (LH) connector D-17. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

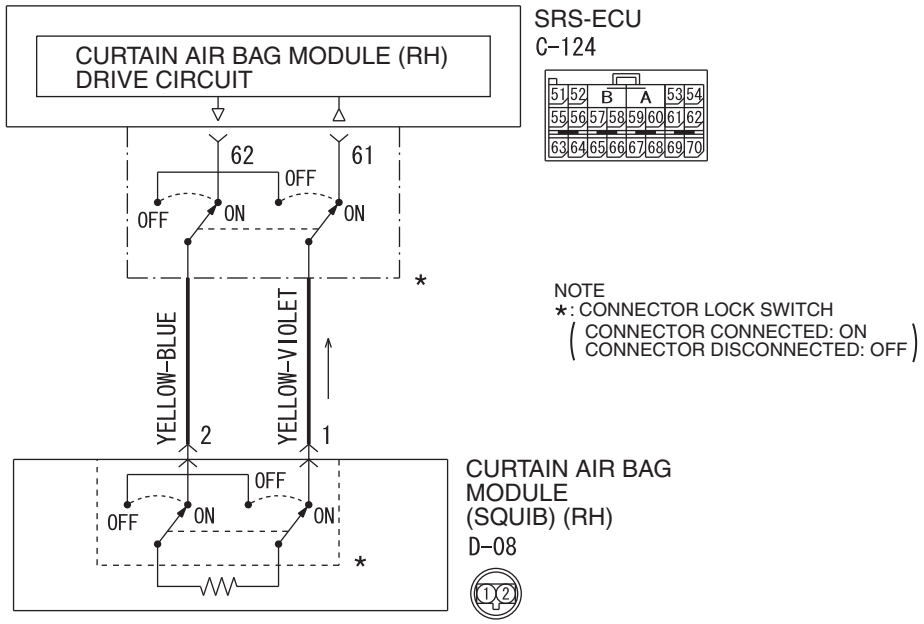
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1438 or B1439 set?

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

DTC B1440: Curtain Air Bag Module (RH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit) <ECLIPSE>

Curtain Air Bag Module (RH) (Squib) Circuit



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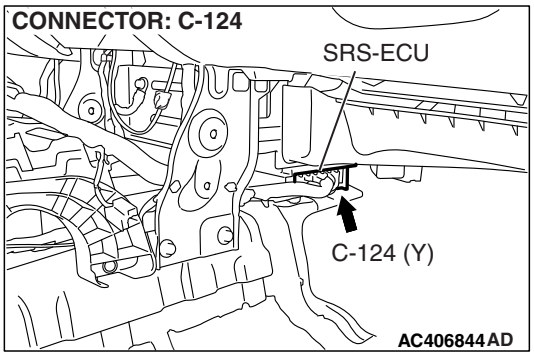
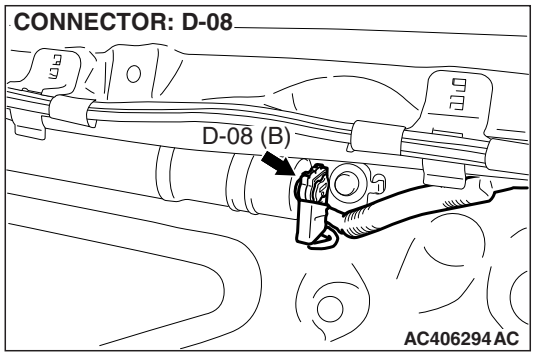




⚠ CAUTION
If DTC B1440 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag 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-436). Therefore, if connector C-124 or D-08 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

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

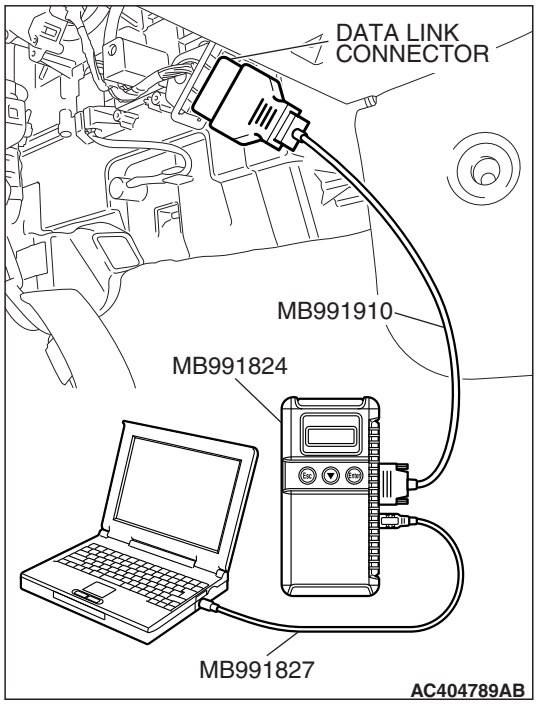
⚠ CAUTION

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-31."
(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).

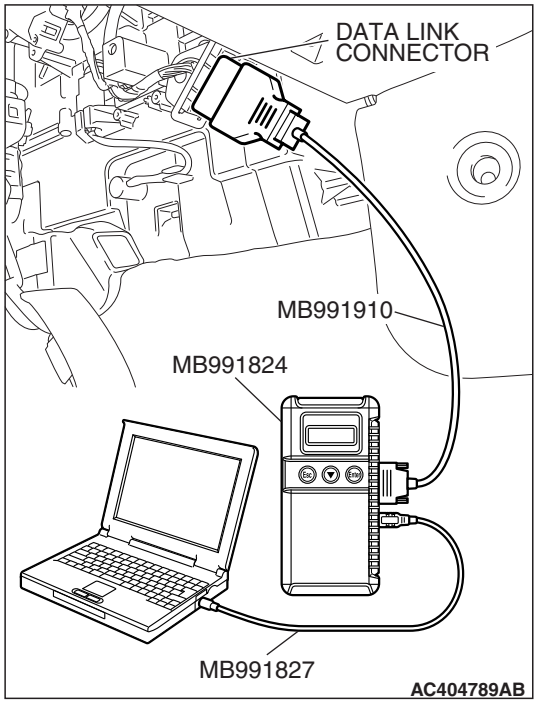


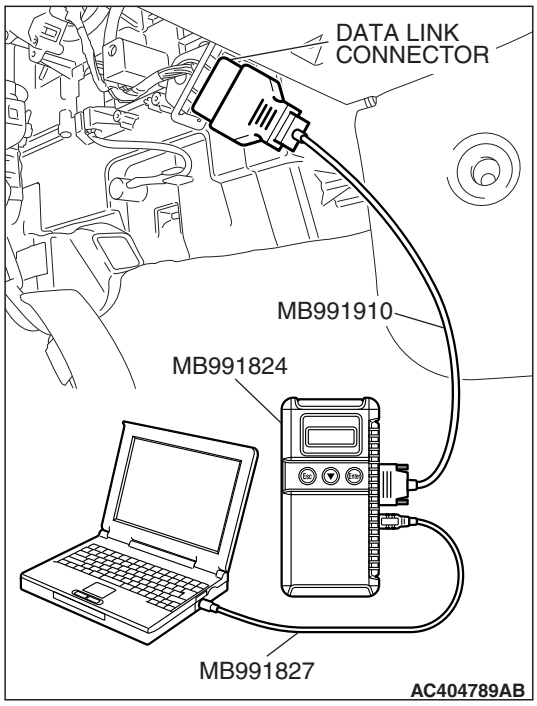
STEP 2. Recheck for diagnostic trouble code.

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).



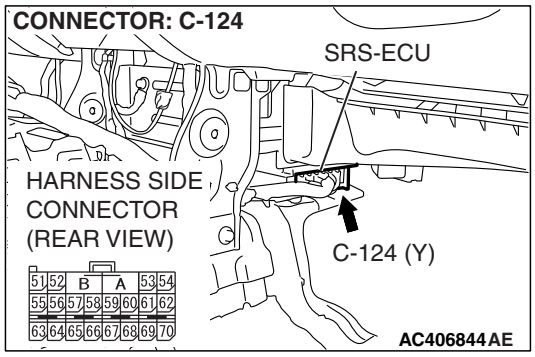


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(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 DTC B1519 set?

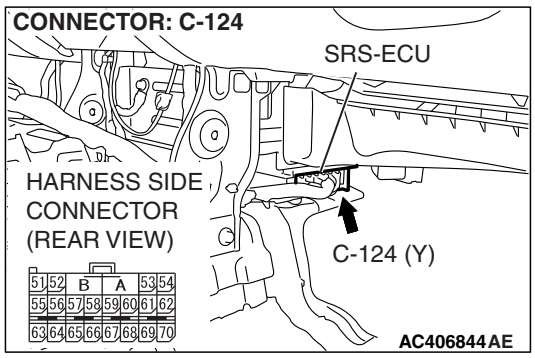
YES : Go to Step 4.
NO : Go to Step 5.

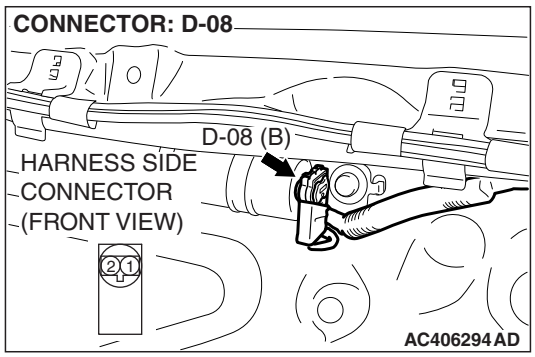


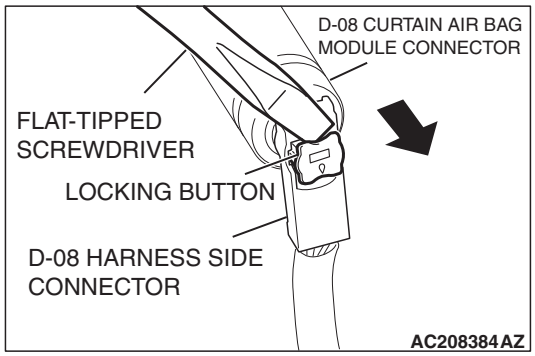
STEP 4. Check the SRS-ECU connector C-124.

Q: Is connector correctly engaged?

YES : Go to Step 5.
NO : Engage the connector correctly. Then go to Step 9.







STEP 5. Check SRS-ECU connector C-124 and curtain air bag module (RH) connector D-08. (Using scan tool MB991958, read the diagnostic trouble code.)

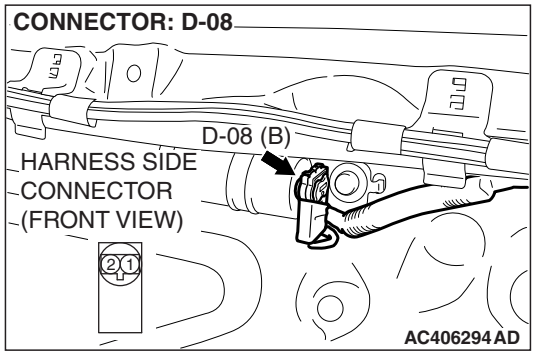
(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-124 and D-08, and then reconnect them. For connector D-08, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

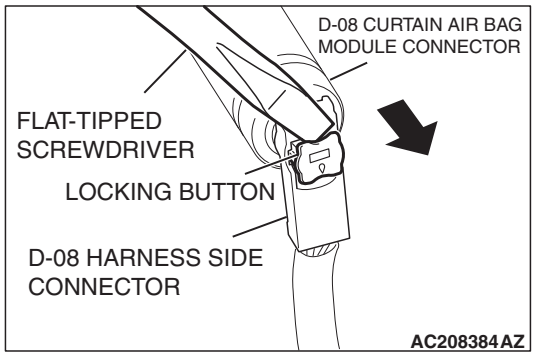
Q: Is DTC B1440 set?

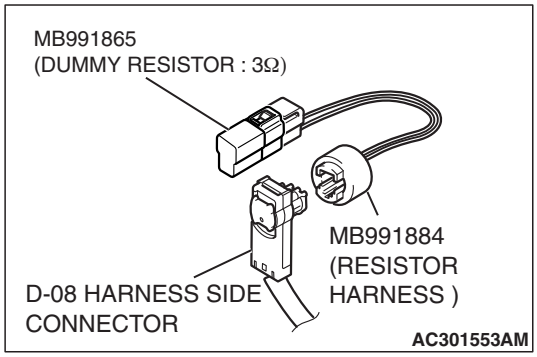
YES : Go to Step 6.
NO : The procedure is complete. It is assumed that DTC B1440 set because connector C-124 or D-08 was engaged improperly.

STEP 6. Check the curtain air bag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect curtain air bag module (RH) connector D-08. 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-08 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

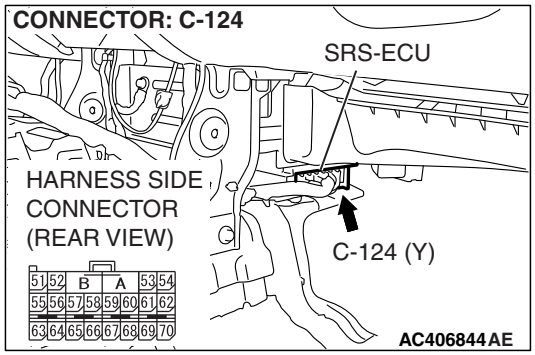
Q: Is DTC B1440 set?

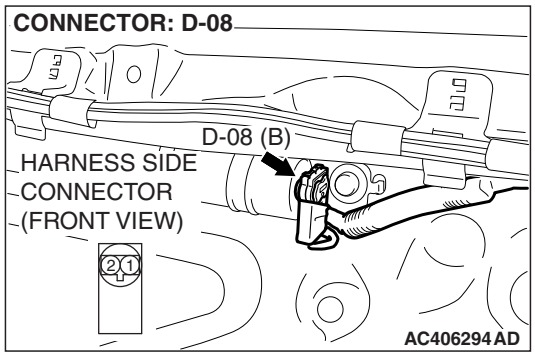
YES : Go to Step 7.
NO : Replace the curtain air bag module (RH) (Refer to P.52B-436). Then go to Step 9.

STEP 7. Check the curtain air bag module (RH) circuit. Measure the resistance at the SRS-ECU connector C-124.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-124.

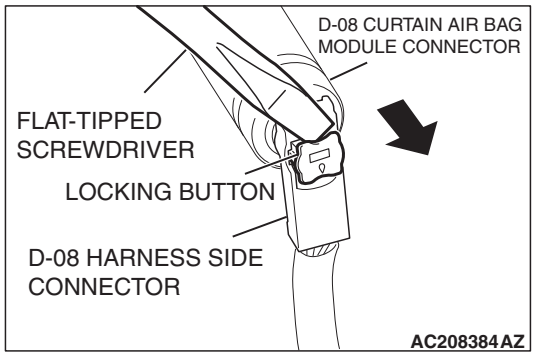




⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-08 to short the squib circuit.

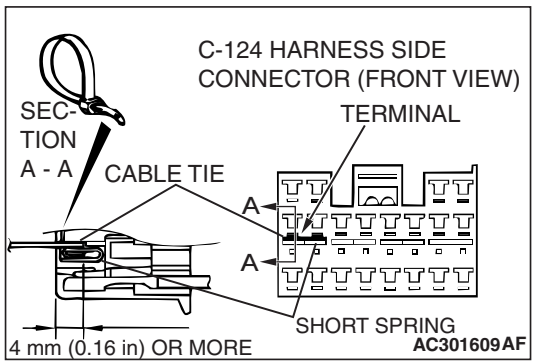
(3) Disconnect curtain air bag module (RH) connector D-08. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

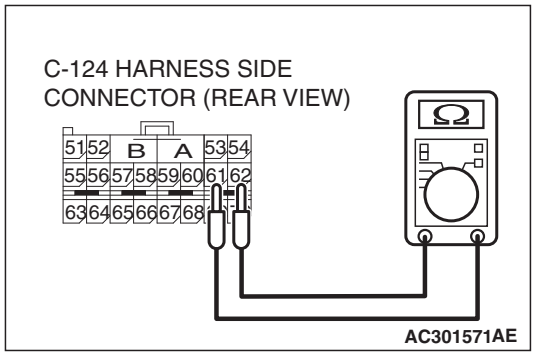


⚠ CAUTION

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 61, 62 and the short spring to release the short spring.





⚠ CAUTION

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

(5) Check for continuity between C-124 harness side connector terminals 61 and 62.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.

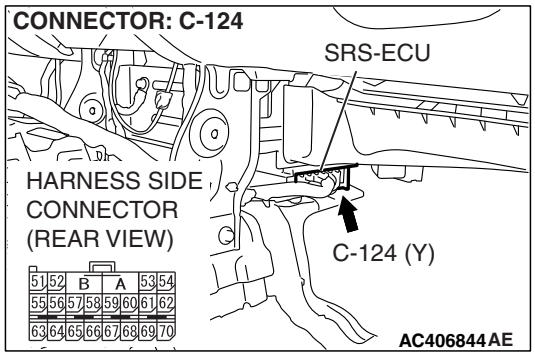
NO : Erase the diagnostic trouble code memory, and check diagnostic trouble code. If DTC B1440 set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9 .

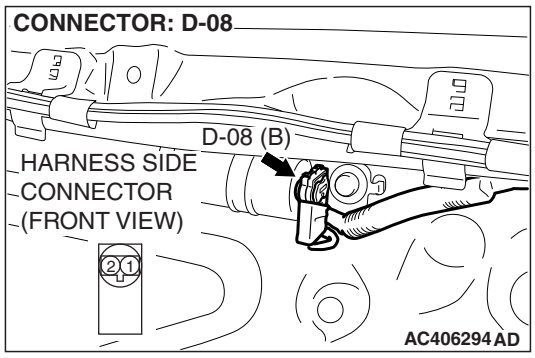
STEP 8. Check the harness for short circuit between SRS-ECU connector C-124 (terminal No.61 and 62) and curtain air bag module (RH) connector D-08 (terminal No.1 and 2).

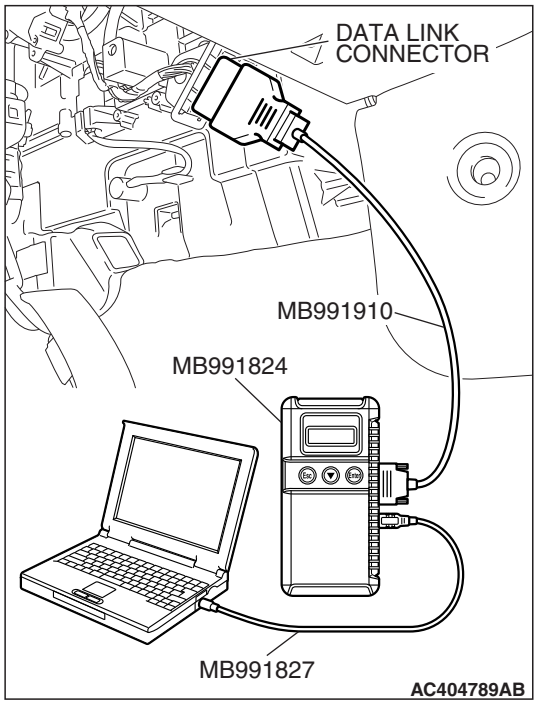
Q: Are harness wires between SRS-ECU connector C-124 (terminal No.61 and 62) connector and curtain air bag module (RH) connector (terminal No.1 and 2) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-124 and curtain air bag module (RH) connector D-08. Then go to Step 9.







STEP 9. Recheck for diagnostic trouble code.

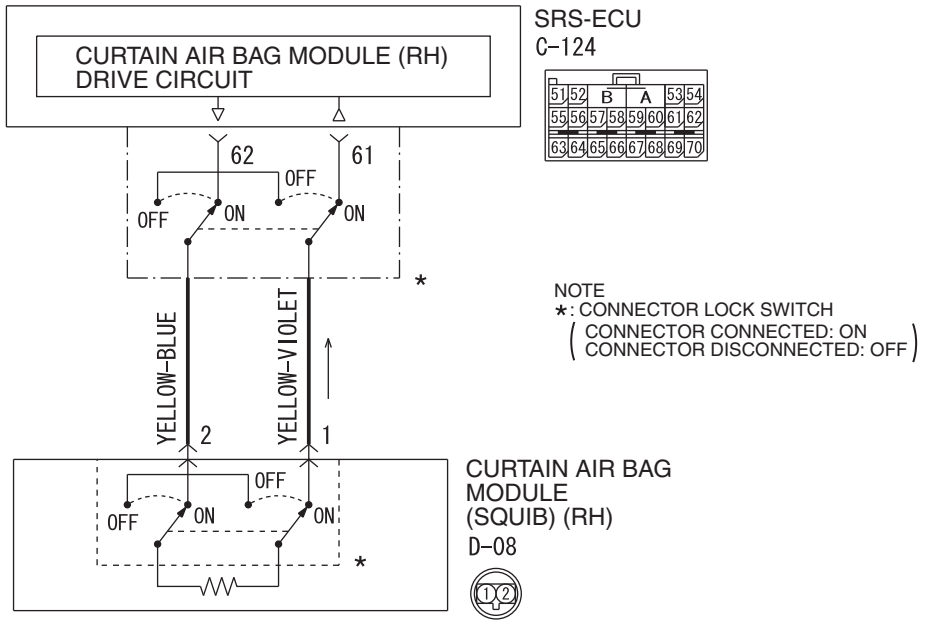
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1440 set?

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

DTC B1441: Curtain Air Bag Module (RH) (Squib) System Fault 2 (Open in the Squib Circuit) <ECLIPSE>

Curtain Air Bag Module (RH) (Squib) Circuit



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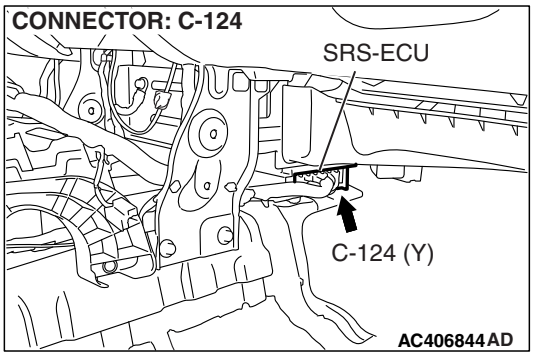
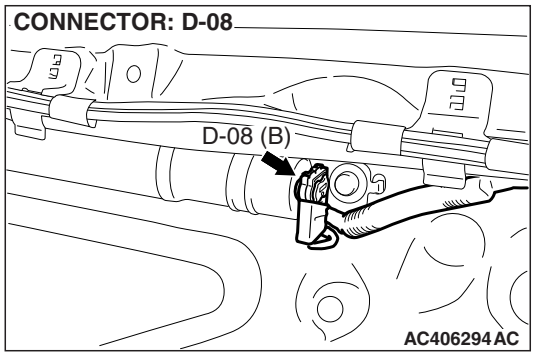




⚠ CAUTION

If DTC B1441 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module 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).

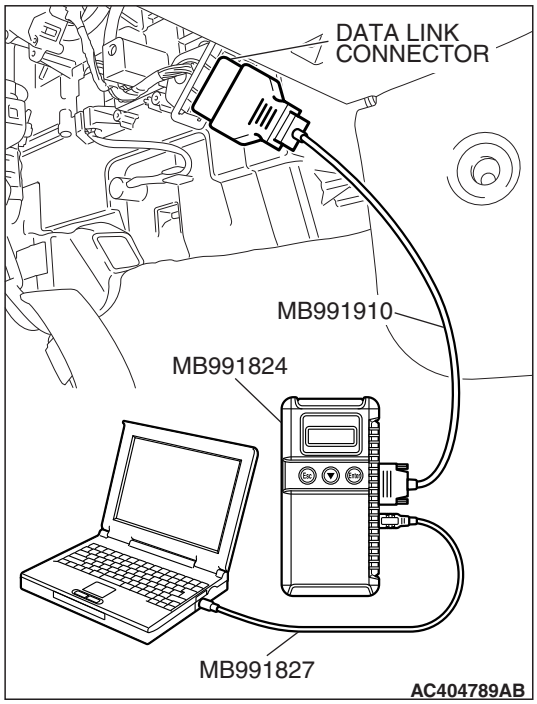
TROUBLESHOOTING HITS

- 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness



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

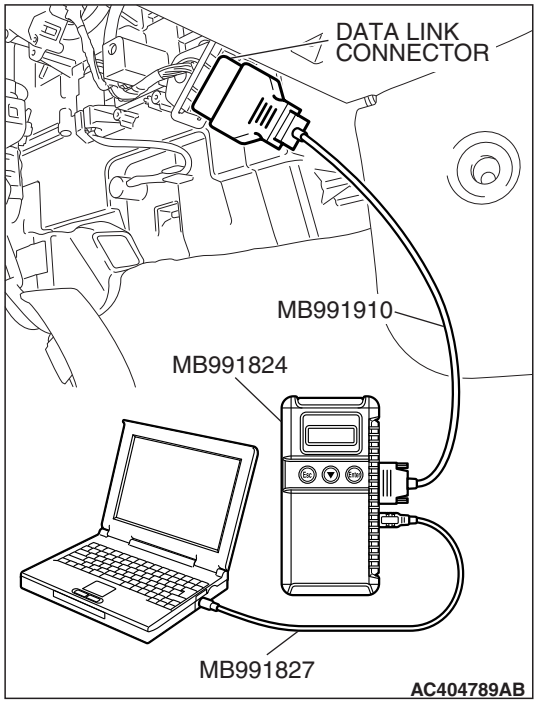
⚠ CAUTION

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-31."
(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).

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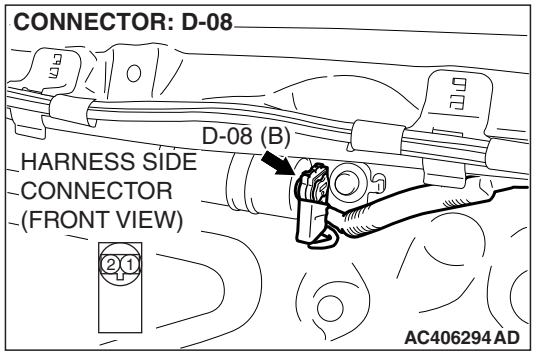
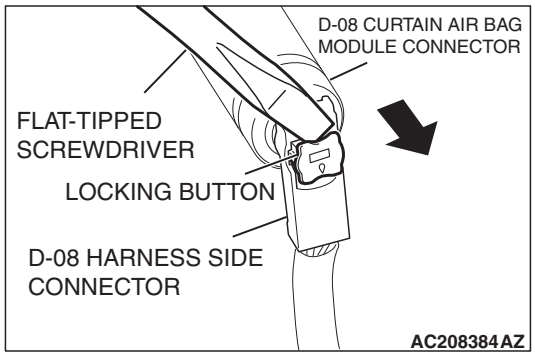
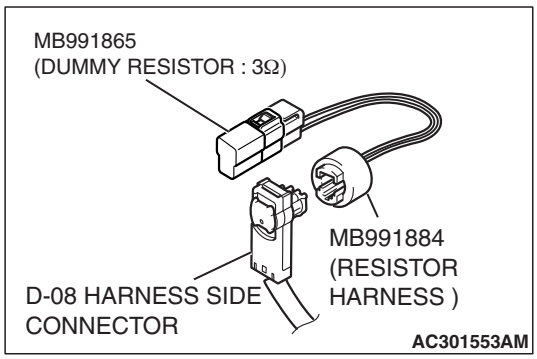
STEP 3. Check the curtain air bag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect curtain air bag module (RH) connector D-08. 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-08 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

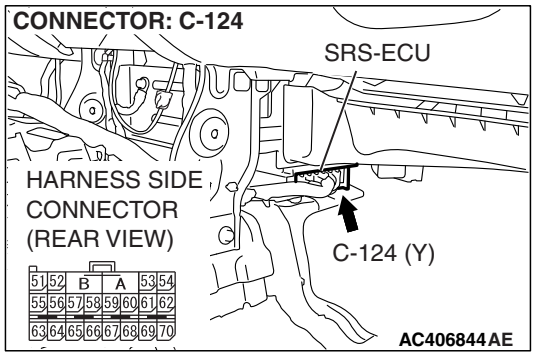
Q: Is DTC B1441 set?

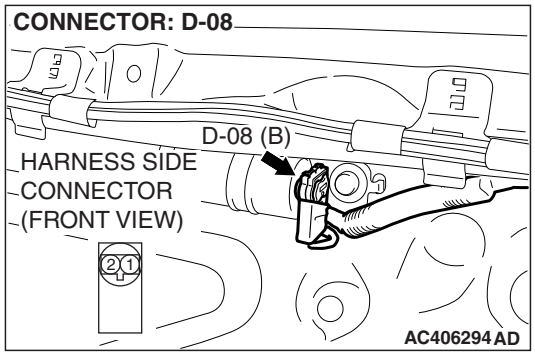
YES : Go to Step 4.
NO : Replace the curtain air bag module (RH) (Refer to P.52B-436). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-124 (terminal No61 and 62) and the curtain air bag module (RH) connector D-08 (terminal No.1 and 2).

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-124.

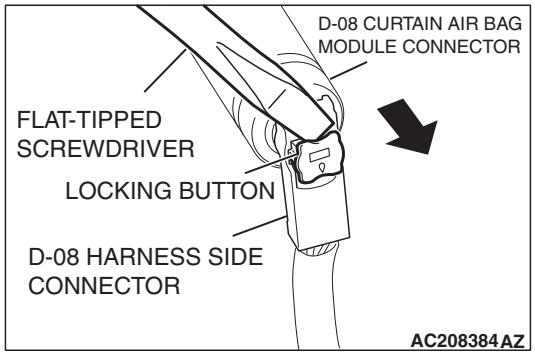




⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-08 to short the squib circuit.

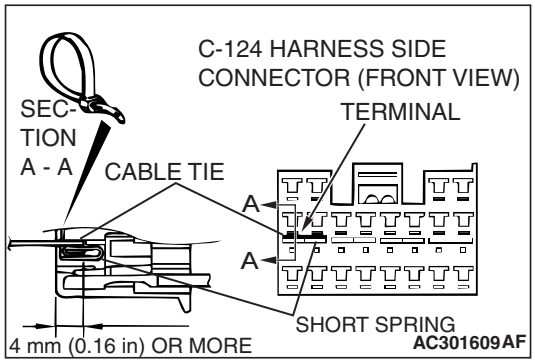
(3) Disconnect curtain air bag module (RH) connector D-08. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

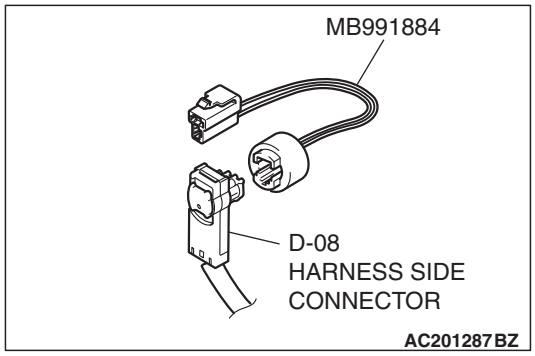


⚠ CAUTION

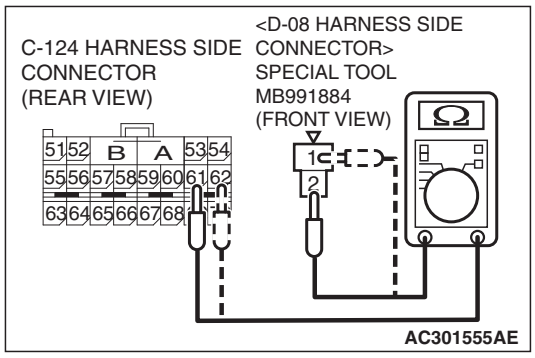
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 61, 62 and the short spring to release the short spring.





(5) Connect D-08 harness side connector to special tool MB991884.



⚠ CAUTION

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

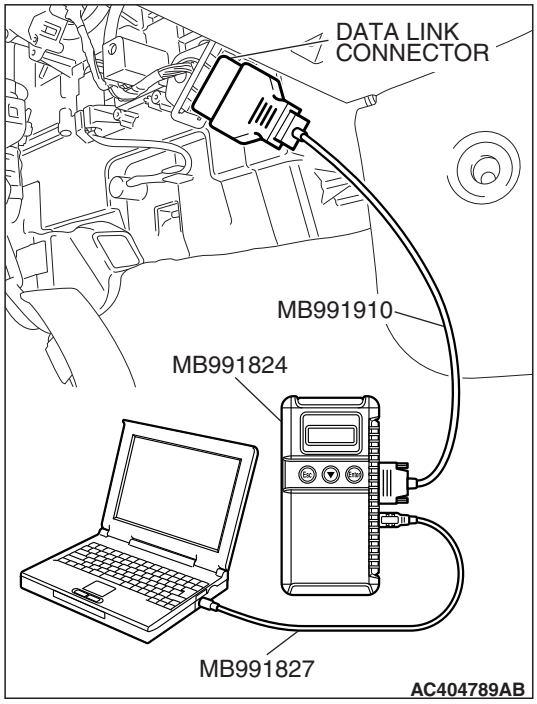
(6) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-124 (terminal No.61) and the special tool (terminal No.2)
- SRS-ECU connector C-124 (terminal No.62) and the special tool (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1441 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-124 curtain air bag module (RH) D-08. 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.

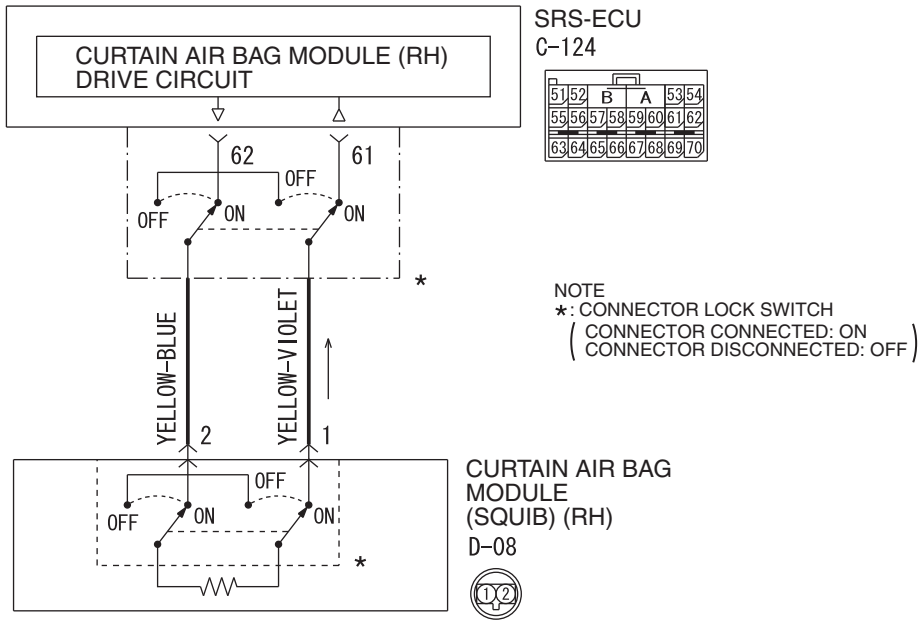
Q: Is DTC B1441 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1442: Curtain Air Bag Module (RH) (Squib) System Fault Ground Circuit (Short-Circuited to Ground) <ECLIPSE>

Curtain Air Bag Module (RH) (Squib) Circuit



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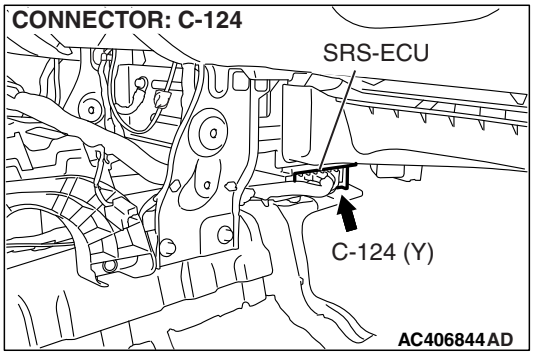
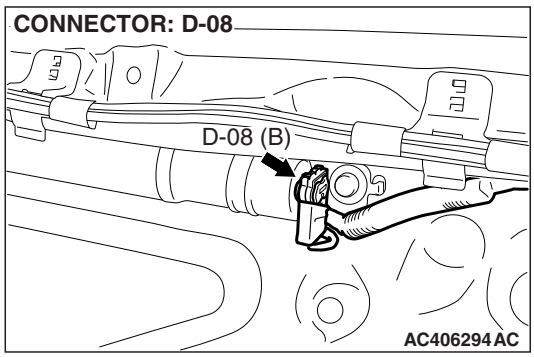




⚠ CAUTION
If DTC B1442 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

TSB Revision

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

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

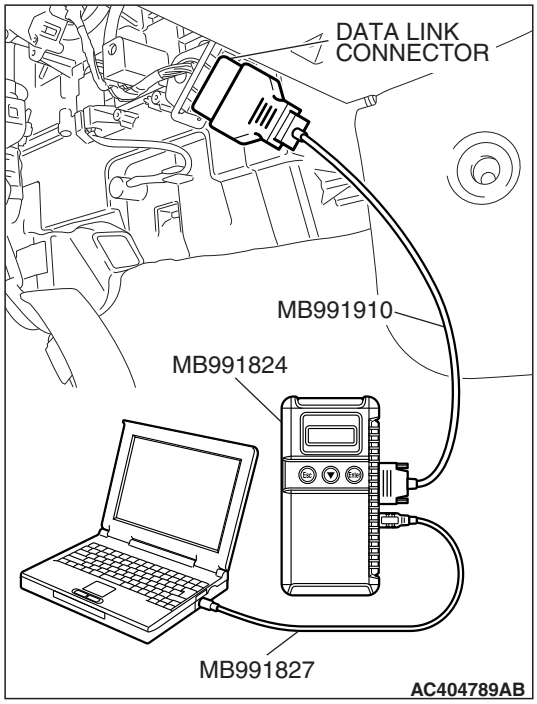
⚠ CAUTION

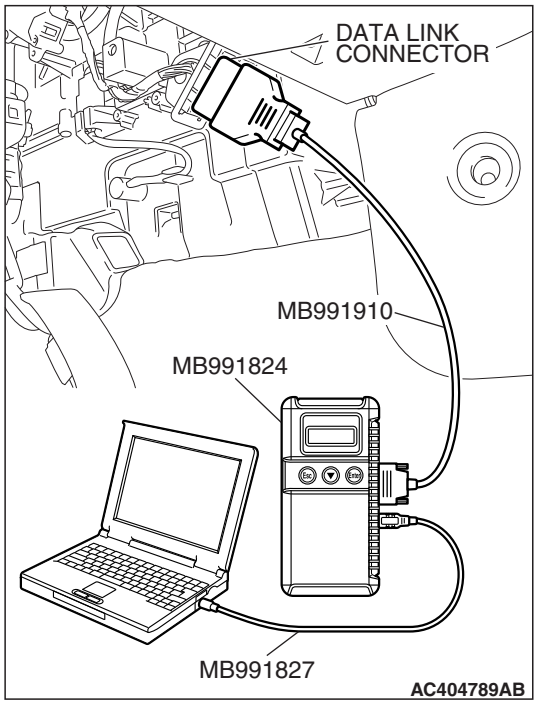
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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.

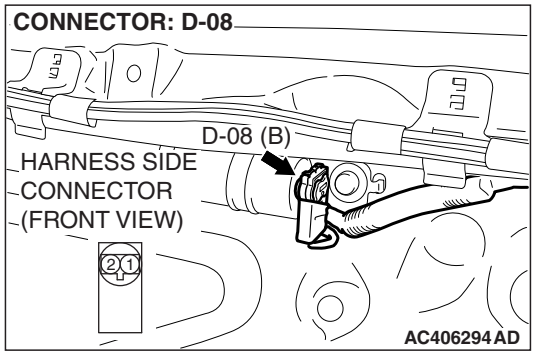
Q: Is the DTC set?

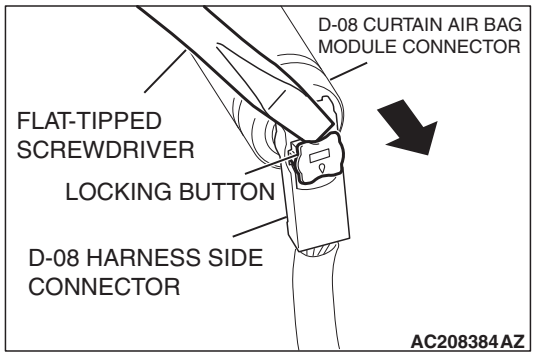
YES : Go to Step 3.

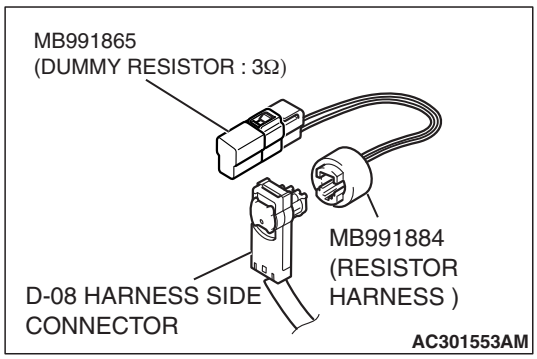
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the curtain air bag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect curtain air bag module (RH) connector D-08. 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-08 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

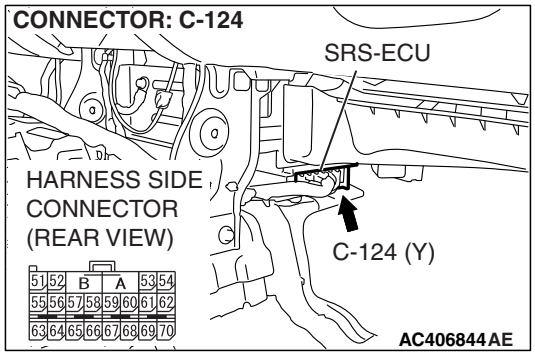
Q: Is DTC B1442 set?

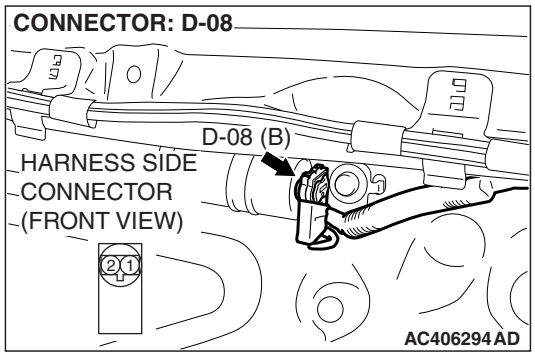
YES : Go to Step 4.
NO : Replace the curtain air bag module (RH) (Refer to P.52B-436). Then go to Step 6.

STEP 4. Check the curtain air bag module (RH) circuit. Measure the resistance at the SRS-ECU connector C-124.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-124.

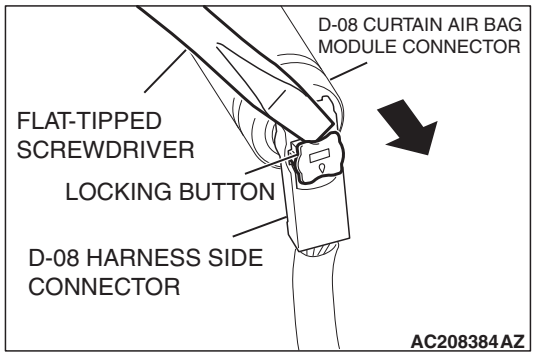




⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-08 to short the squib circuit.

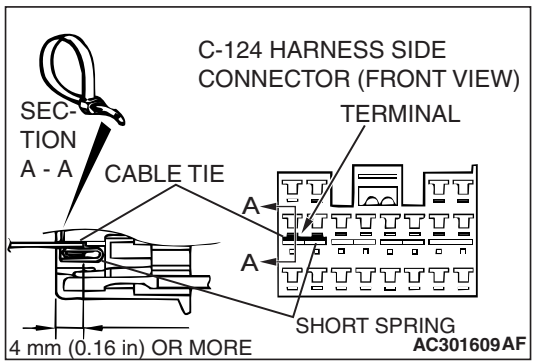
(3) Disconnect curtain air bag module (RH) connector D-08. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

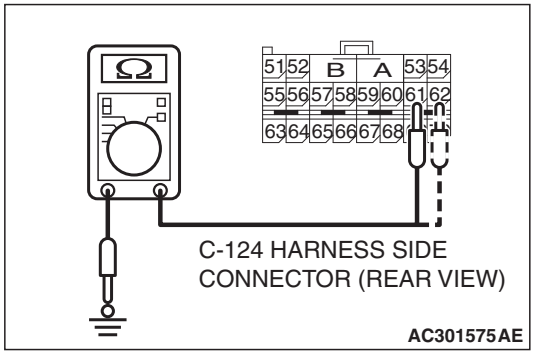


⚠ **CAUTION**

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 61, 62 and the short spring to release the short spring.





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

(5) Check for continuity between C-124 harness side connector terminals 61, 62 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

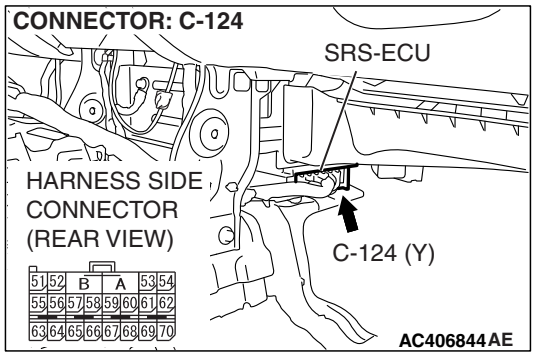
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1442 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

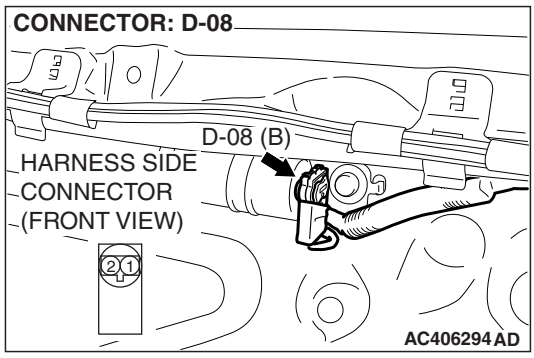
STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-124 (terminal No.61 and 62) and curtain air bag module (RH) connector D-08 (terminal No.1 and 2).

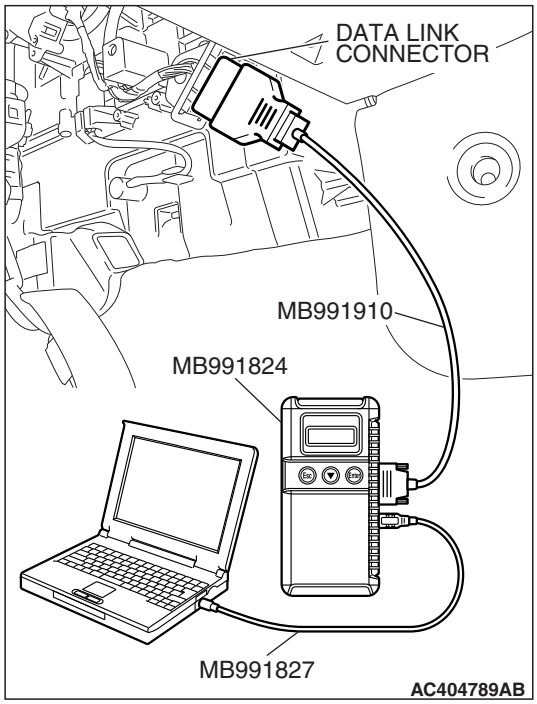
Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.61 and 62) and curtain air bag module (RH) connector D-08 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-124 and curtain air bag module (RH) connector D-08. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

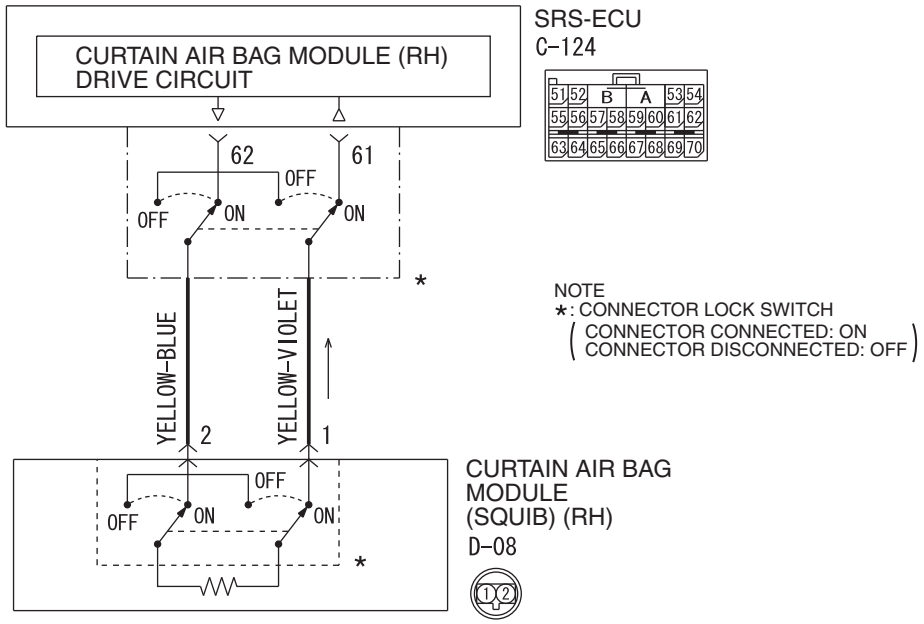
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1442 set?

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

DTC B1443: Curtain Air Bag Module (RH) (Squib) System Fault Power Supply Circuit (Short-Circuited to Power Supply) <ECLIPSE>

Curtain Air Bag Module (RH) (Squib) Circuit



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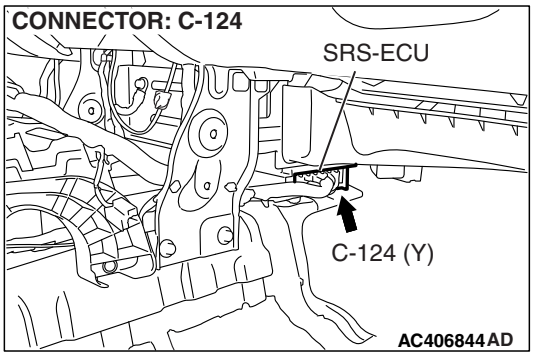
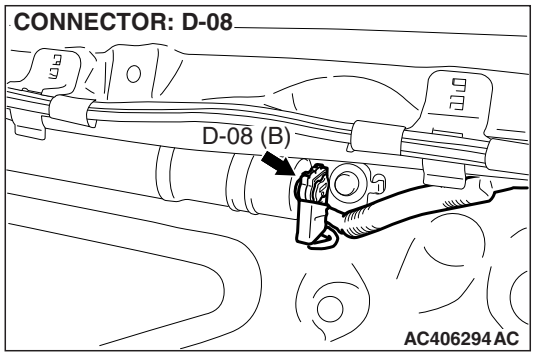




⚠ CAUTION

If DTC B1443 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module 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

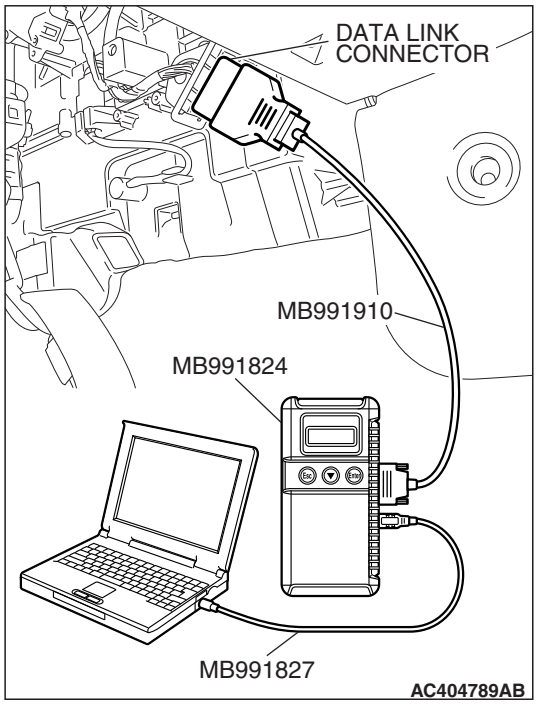
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- 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.



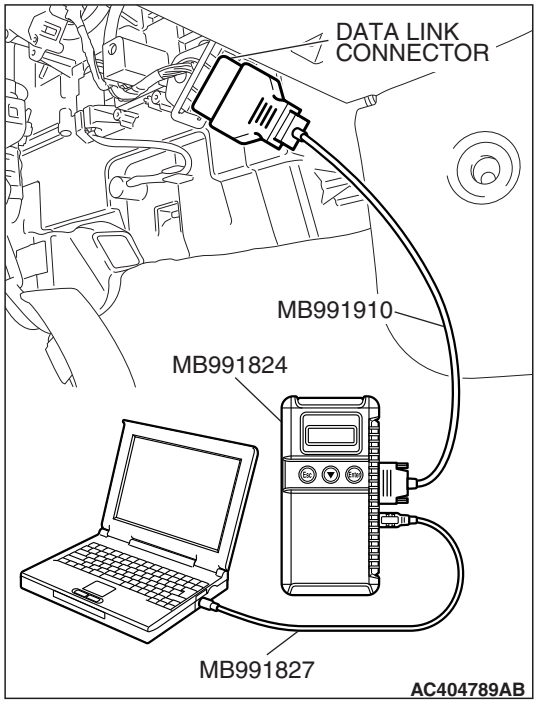
(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

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.



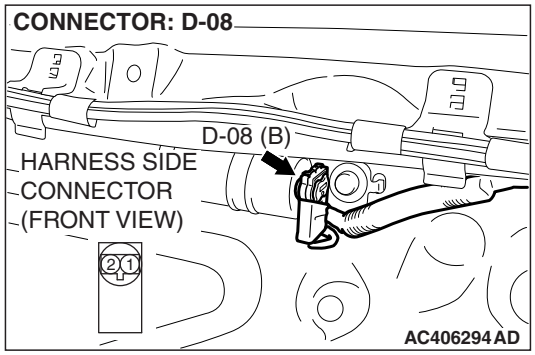
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

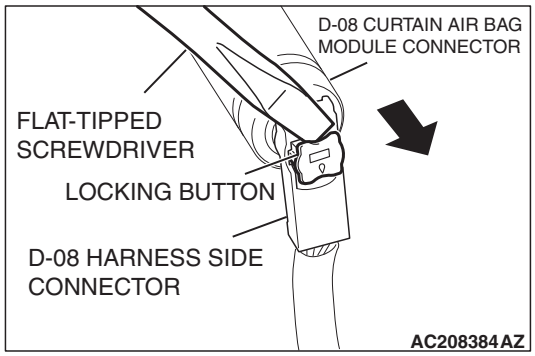
Q: Is the DTC set?

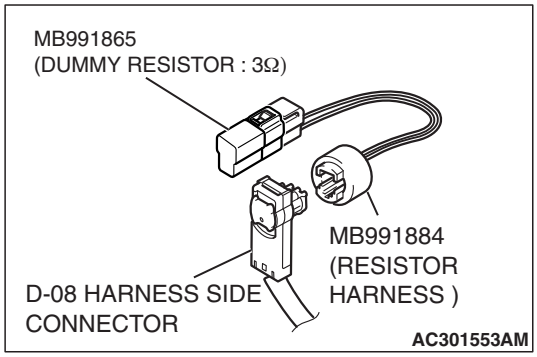
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the curtain air bag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect curtain air bag module (RH) connector D-08. 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.





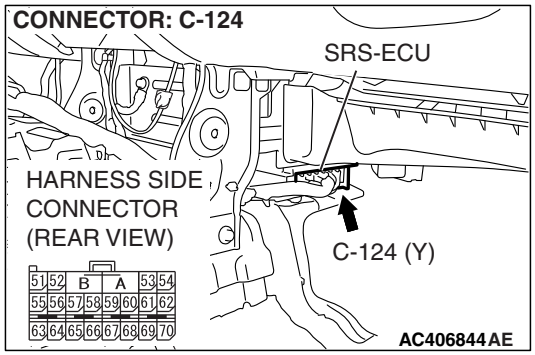


(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-08 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

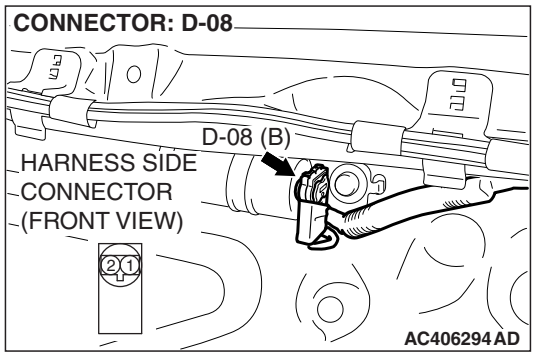
Q: Is DTC B1443 set?

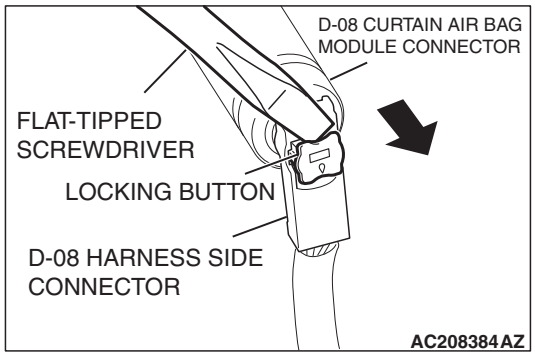
YES : Go to Step 4.
NO : Replace the curtain air bag module (RH) (Refer to P.52B-436). Then go to Step 6.

STEP 4. Check the curtain air bag module (RH) circuit.
Measure the voltage at the SRS-ECU connector C-124.
(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-124.

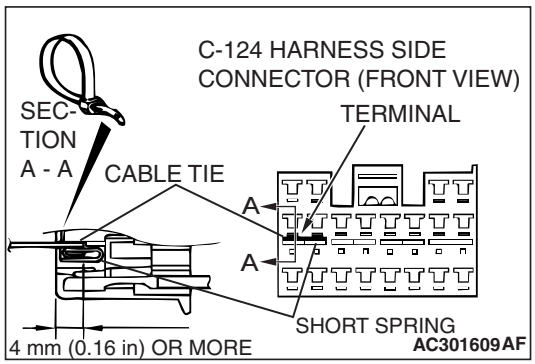


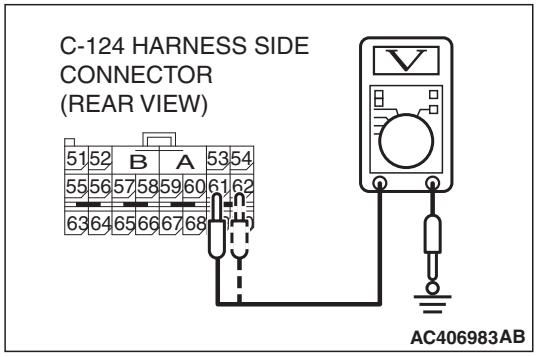
⚠ *DANGER*
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-08 to short the squib circuit.
(3) Disconnect curtain air bag module (RH) connector D-08. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing 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 61, 62 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Turn the ignition switch to the "ON" position,





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

(7) Measure the voltage between C-124 harness side connector terminals 61, 62 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt ?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1443 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

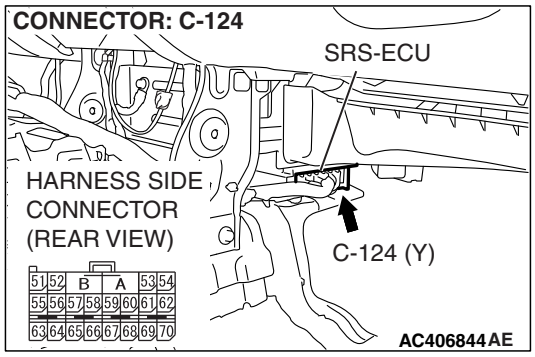
NO : Go to Step 5.

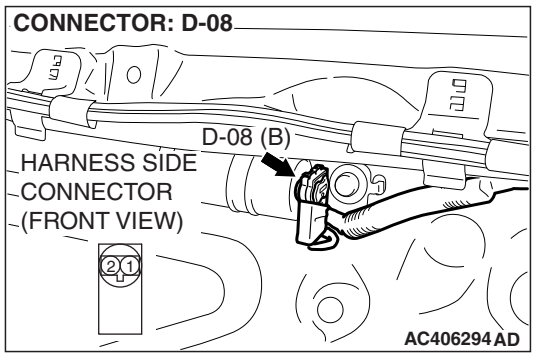
STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-124 (terminal No.61 and 62) and curtain air bag module (RH) connector D-08 (terminal No.1 and 2).

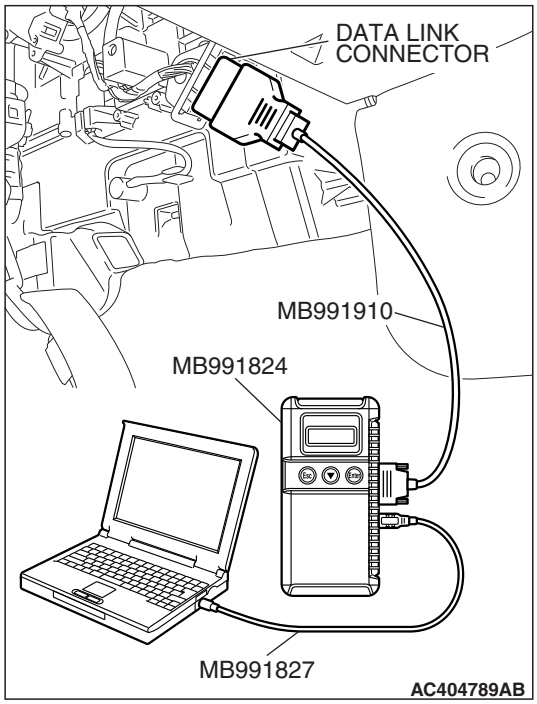
Q: Are the harness wires between SRS-ECU connector C-124 (terminal No.61 and 62) and curtain air bag module (RH) connector D-08 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-124 and curtain air bag module (RH) connector D-08. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

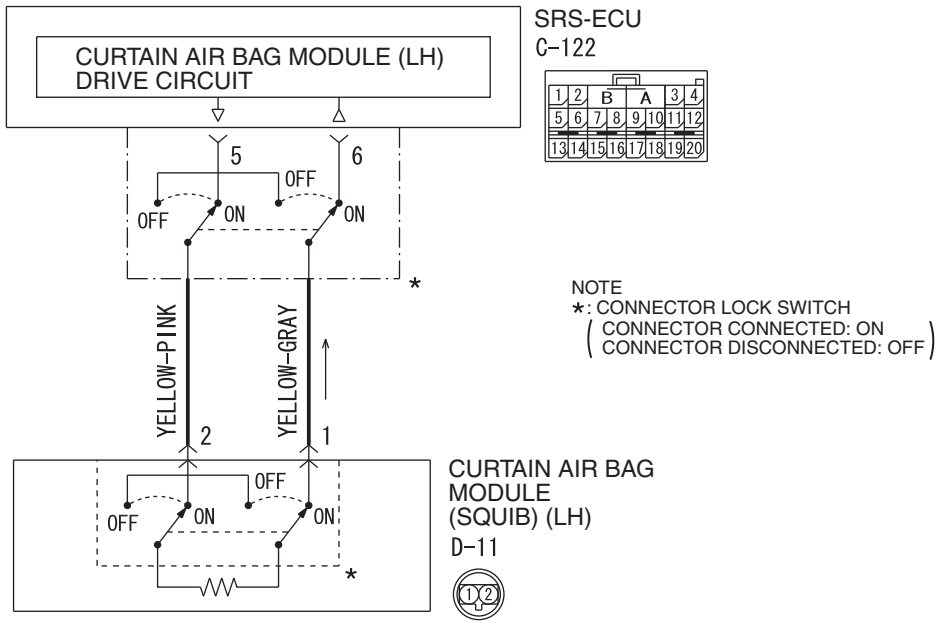
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1443 set?

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

DTC B1450: Curtain Air Bag Module (LH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit) <ECLIPSE>

Curtain Air Bag Module (LH) (Squib) Circuit



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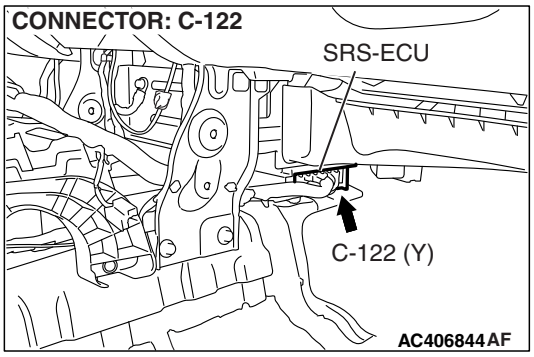
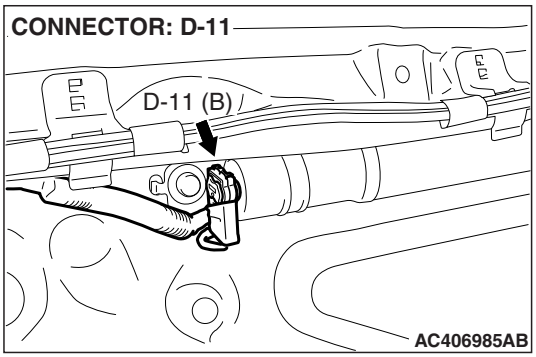




⚠ CAUTION
If DTC B1450 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag 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-122 or D-11 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

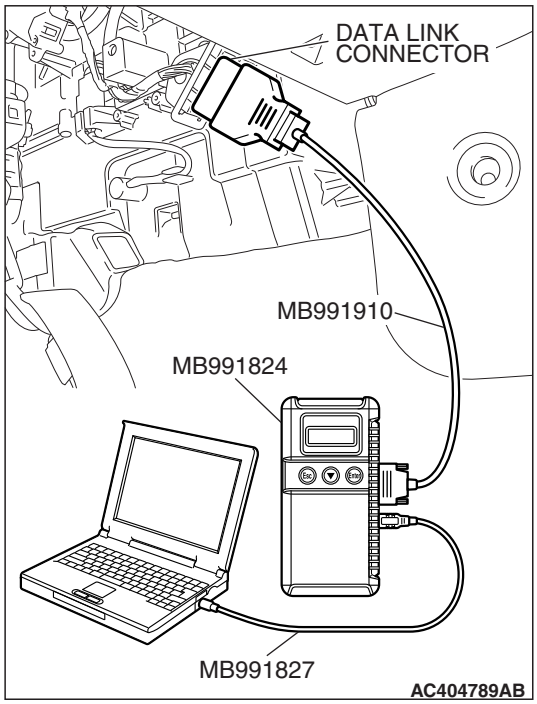
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resister
- 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.



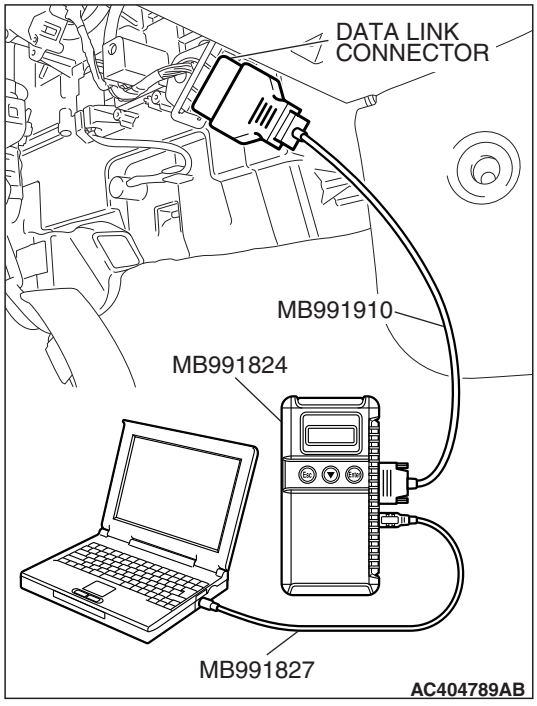
(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

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.

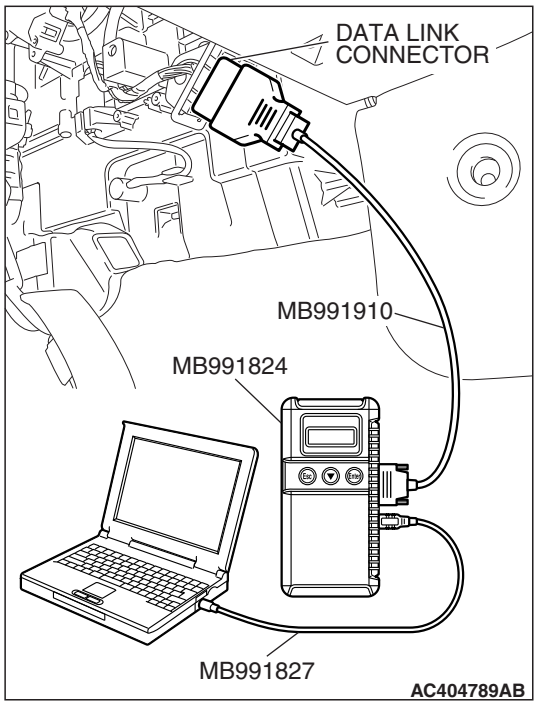
Check again if the DTC is set.



(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).

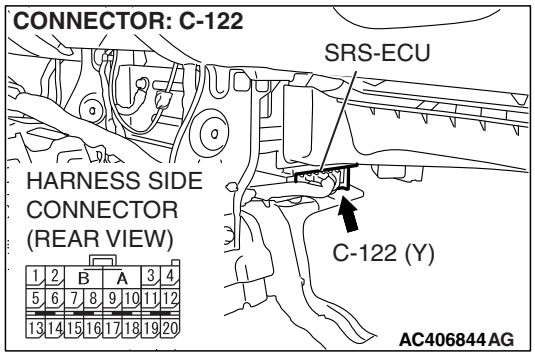


STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

(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 DTC B1519 set?

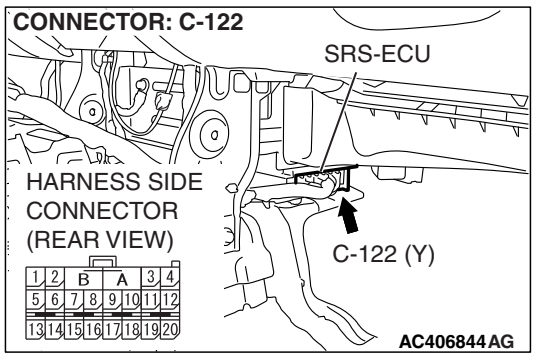
YES : Go to Step 4.
NO : Go to Step 5.

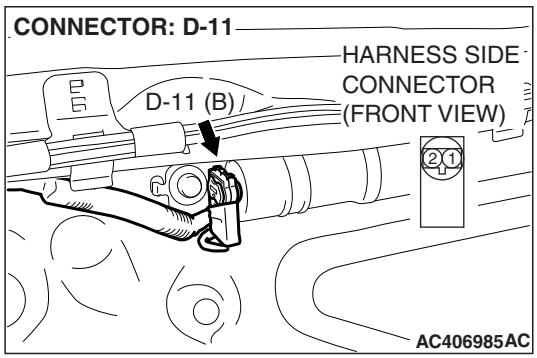


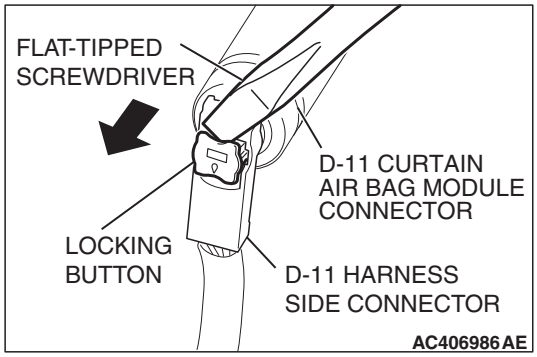
STEP 4. Check the SRS-ECU connector C-122.

Q: Is the connector correctly engaged?

YES : Go to Step 5.
NO : Engage the connector correctly. Then go to Step 9.







STEP 5. Check SRS-ECU connector C-122 and curtain air bag module (LH) connector D-11. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-122 and D-11, and then reconnect them. For connector D-11, 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) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

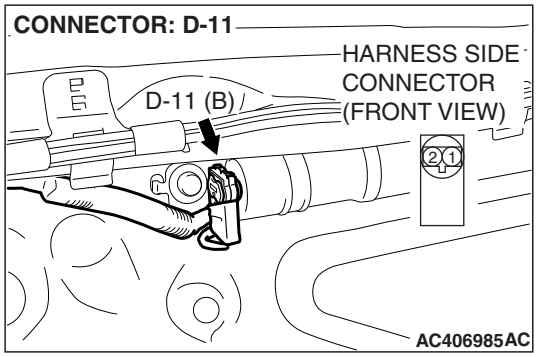
Q: Is DTC B1450 set?

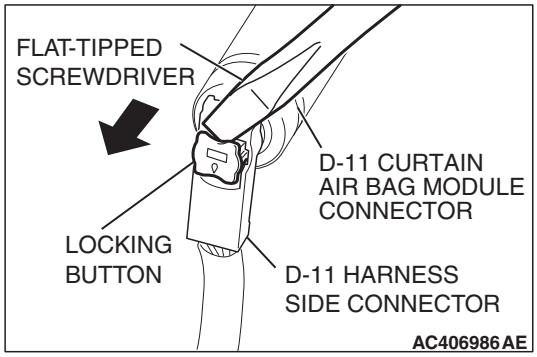
YES : Go to Step 6.
NO : The procedure is complete. It is assumed that DTC B1450 set because connector C-122 or D-11 was engaged improperly.

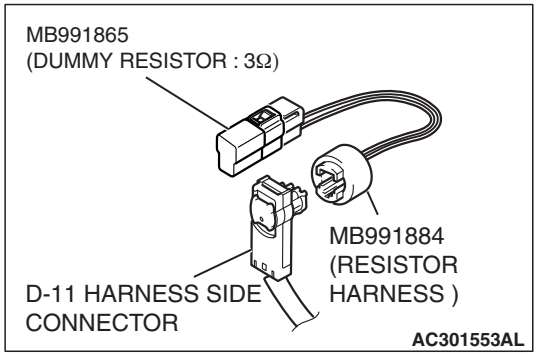
STEP 6. Check the curtain air bag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.

(2) Disconnect curtain air bag module (LH) connector D-11. 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-11 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 B1450 set?

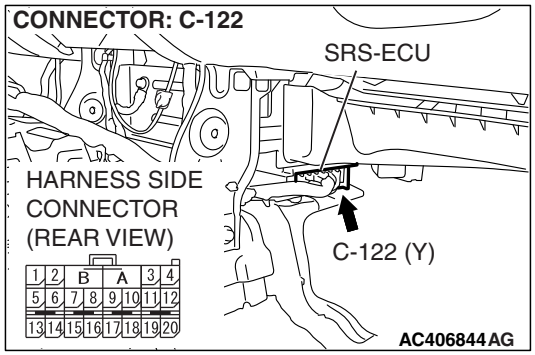
YES : Go to Step 7.

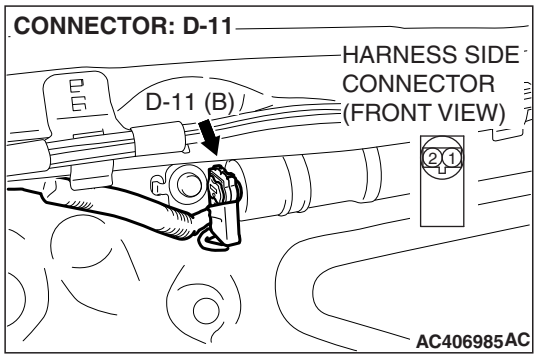
NO : Replace the curtain air bag module (LH) (Refer to P.52B-436). Then go to Step 9.

STEP 7. Check the curtain air bag module (LH) circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect the negative battery terminal.

(2) Disconnect SRS-ECU connector C-122.

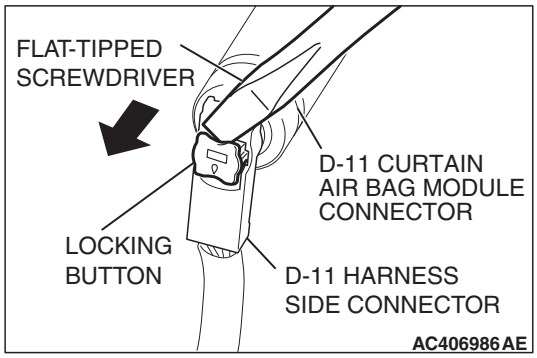




⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module (LH) connector D-11 to short the squib circuit.

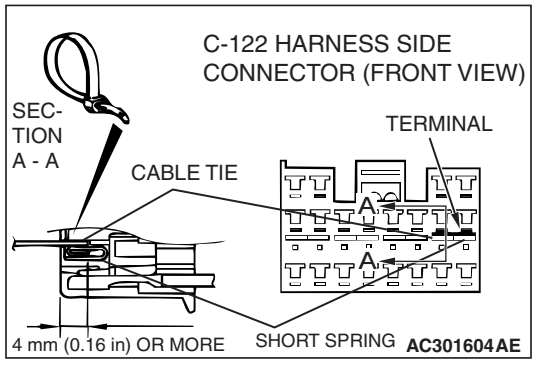
(3) Disconnect curtain air bag module (LH) connector D-11. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

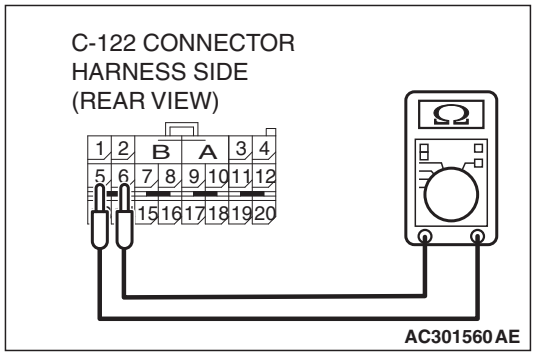


⚠ CAUTION

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 5, 6 and the short spring to release the short spring.





⚠ CAUTION

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

(5) Check for continuity between C-122 harness side connector terminals 5 and 6.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.

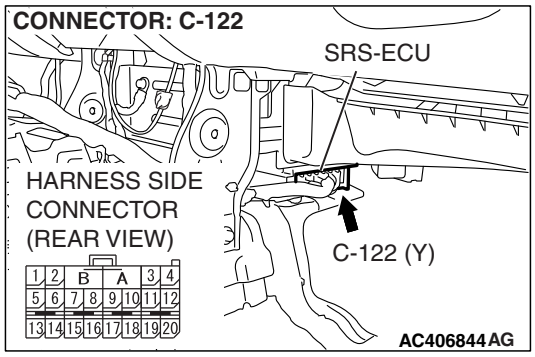
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1450 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 9.

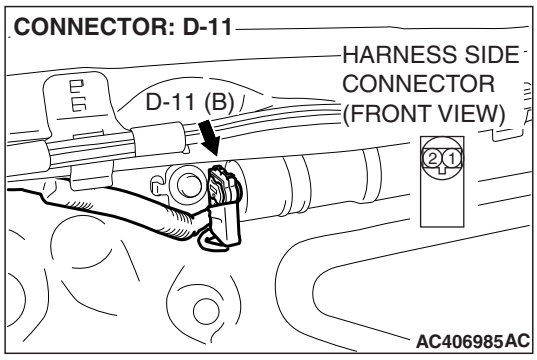
STEP 8. Check the harness for short circuit between SRS-ECU connector C-122 (terminal No.5 and 6) and curtain air bag module (LH) connector D-11 (terminal No.2 and 1).

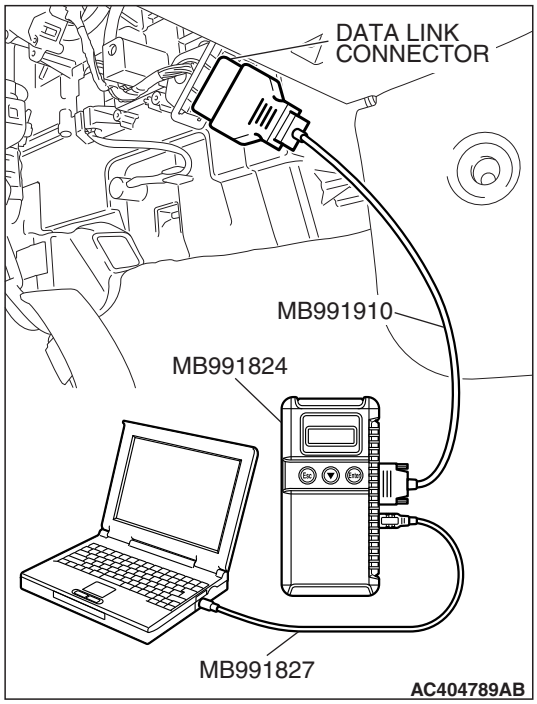
Q: Are harness wires between SRS-ECU connector C-122 (terminal No.5 and 6) and curtain air bag module (LH) connector D-11 (terminal No.2 and 1) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-122 and curtain air bag module (LH) connector D-11. Then go to Step 9.







STEP 9. Recheck for diagnostic trouble code.

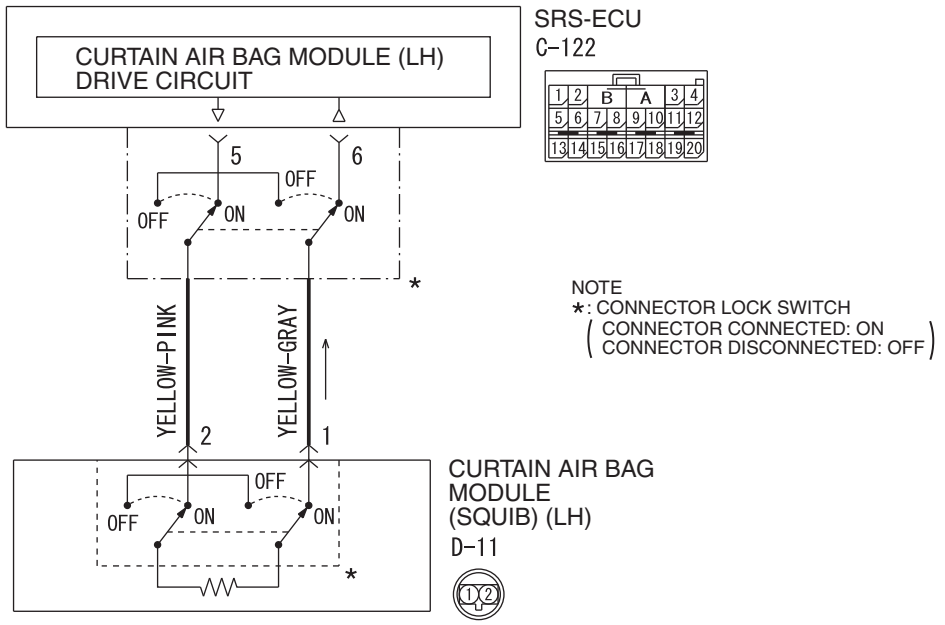
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1450 set?

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

DTC B1451: Curtain Air Bag Module (LH) (Squib) System Fault 2 (Open in the Squib Circuit) <ECLIPSE>

Curtain Air Bag Module (LH) (Squib) Circuit



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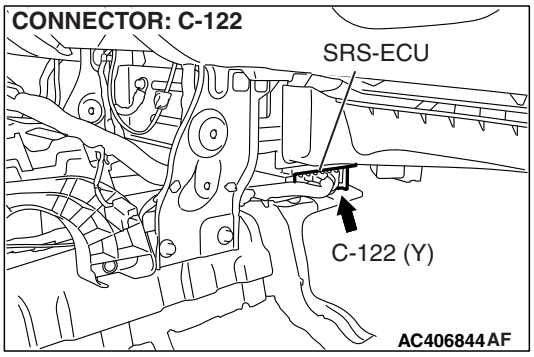
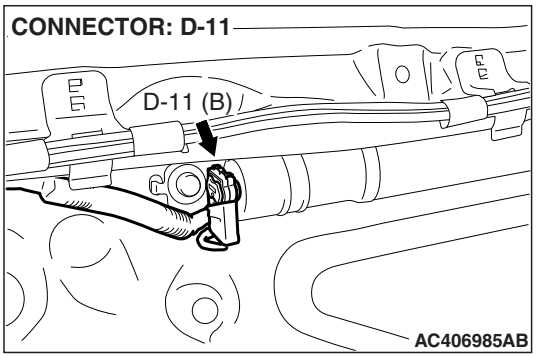




⚠ CAUTION

If DTC B1451 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag 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 connector contact
- Open circuit in the curtain air bag module (LH) (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

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

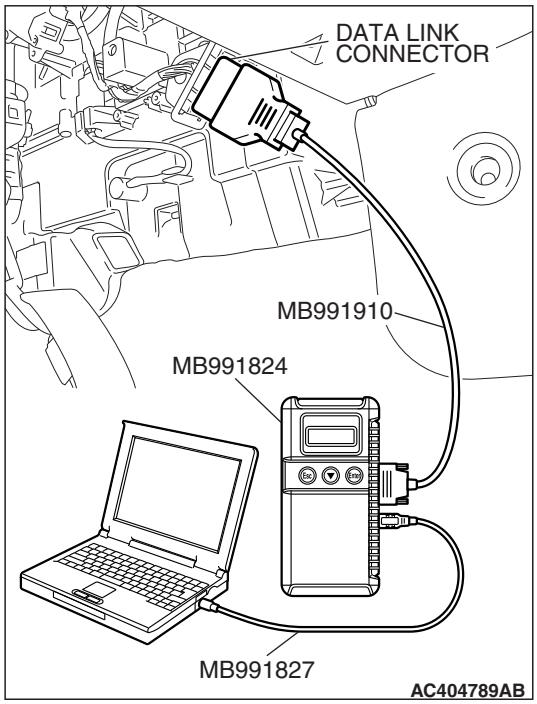
⚠ CAUTION

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-31."
(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).

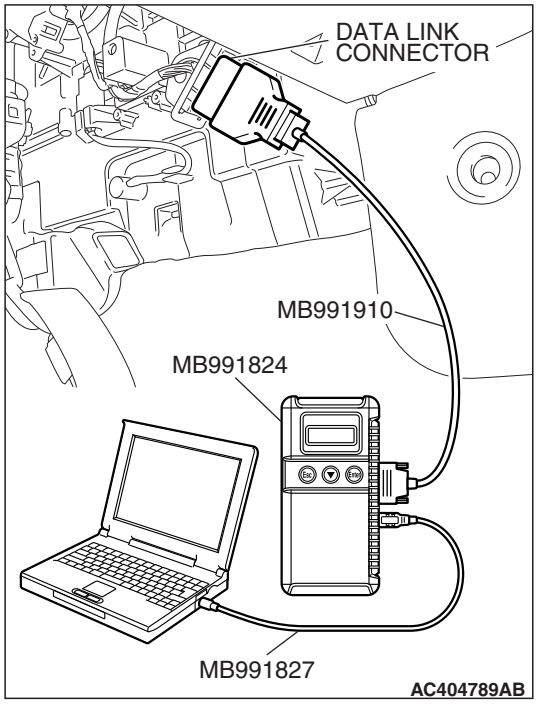


STEP 2. Recheck for diagnostic trouble code.

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.

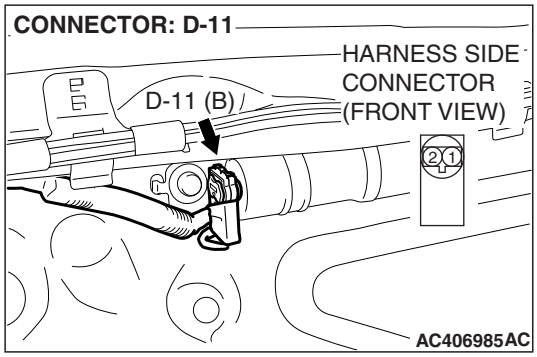
Q: Is the DTC set?

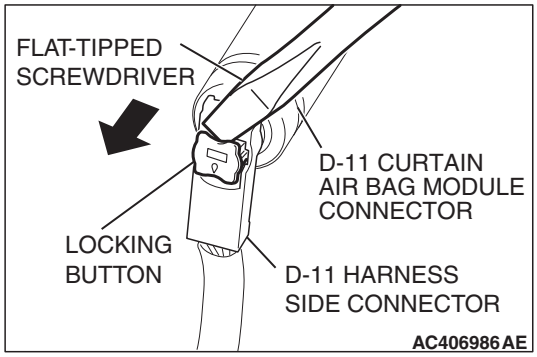
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

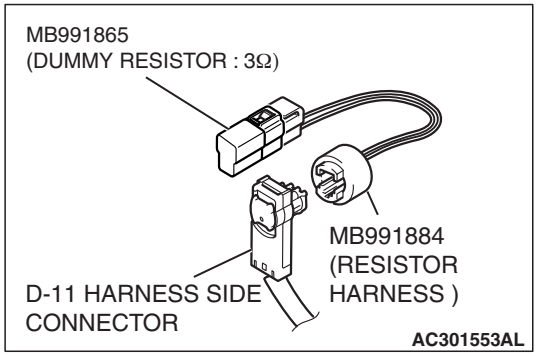


STEP 3. Check the curtain air bag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect curtain air bag module (LH) connector D-11. 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-11 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

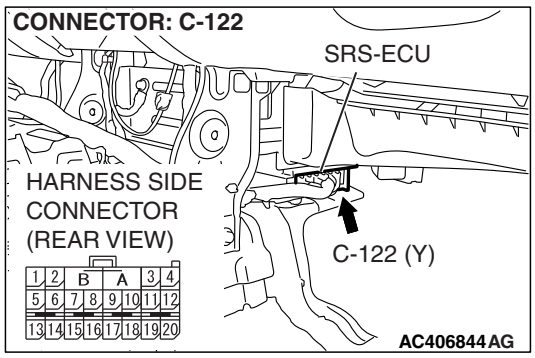
Q: Is DTC B1451 set?

YES : Go to Step 4.
NO : Replace the curtain air bag module (LH) (Refer to P.52B-436). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.5 and 6) and the curtain air bag module (LH) D-11 (terminal No.1 and 2).

(1) Disconnect the negative battery terminal.

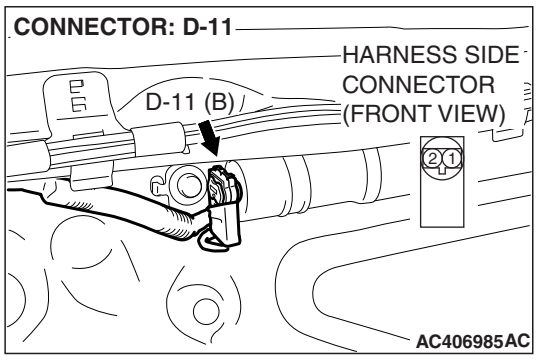
(2) Disconnect SRS-ECU connector C-122.

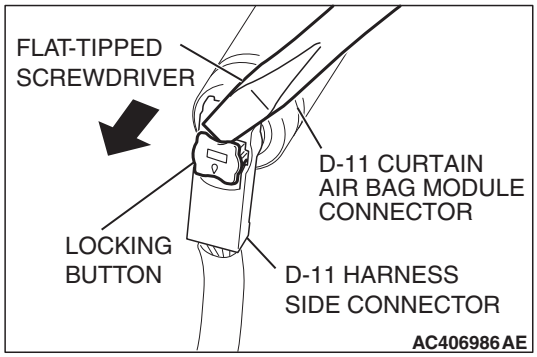


⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module (LH) connector D-11 to short the squib circuit.

(3) Disconnect curtain air bag module (LH) connector D-11. 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.

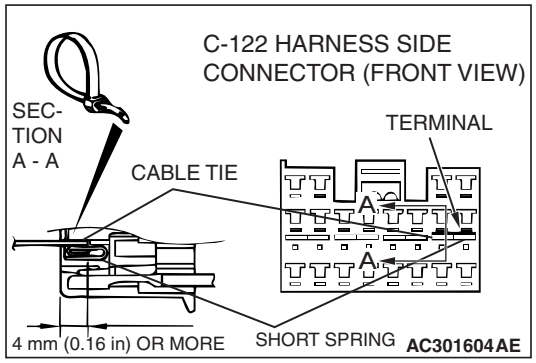


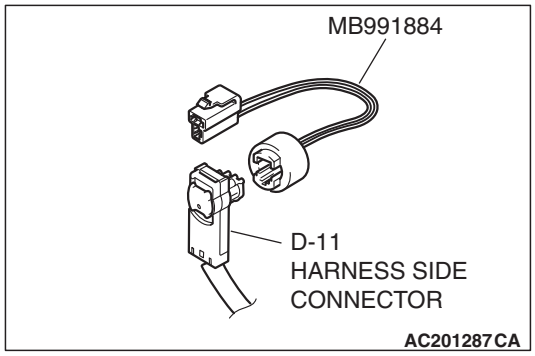


⚠ **CAUTION**

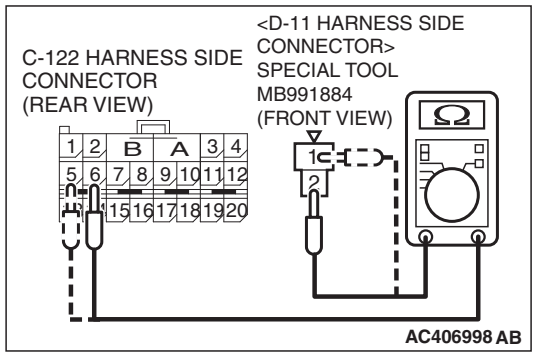
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 and the short spring to release the short spring.





(5) Connect D-11 harness side connector to special tool MB991884.



⚠ CAUTION

Do not insert a test probe into the terminal from its 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.
- SRS-ECU connector C-122 (terminal No.5) and the special tool (terminal No.1)
- SRS-ECU connector C-122 (terminal No.6) 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 B1451 set, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 5.

NO : Repair harness wires between SRS-ECU connector C-122 and curtain air bag module (LH) connector D-11. Then go to Step 5.

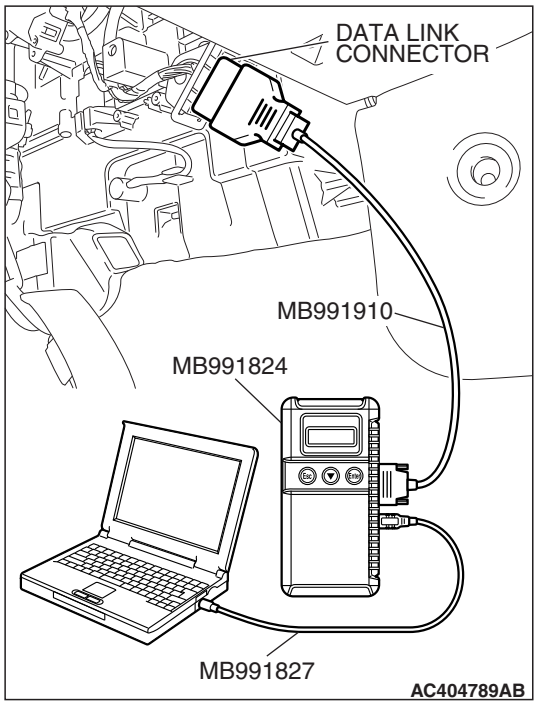
STEP 5. Check for diagnostic trouble code.

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 B1451 set?

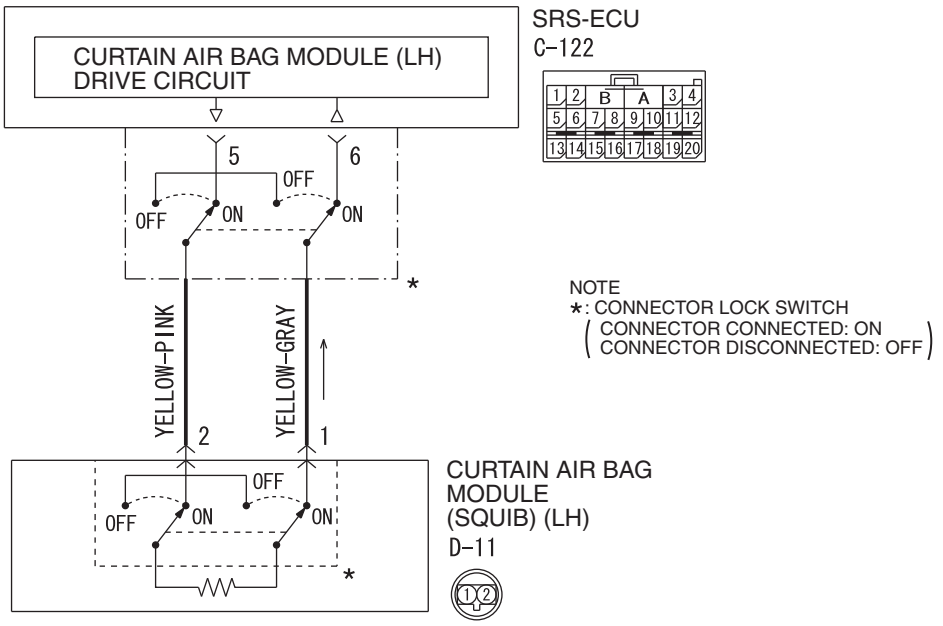
YES : Return to Step 1.

NO : The procedure is complete.



DTC B1452: Curtain Air Bag Module (LH) (Squib) System Fault Ground Circuit (Short-Circuited to Ground) <ECLIPSE>

Curtain Air Bag Module (LH) (Squib) Circuit



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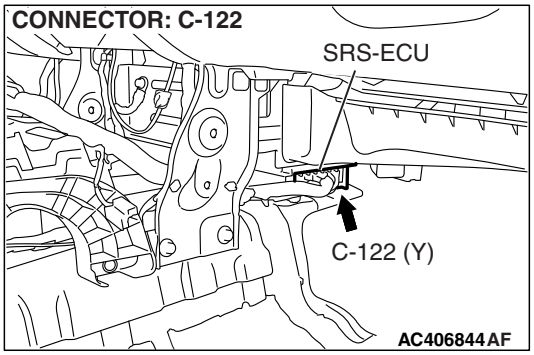
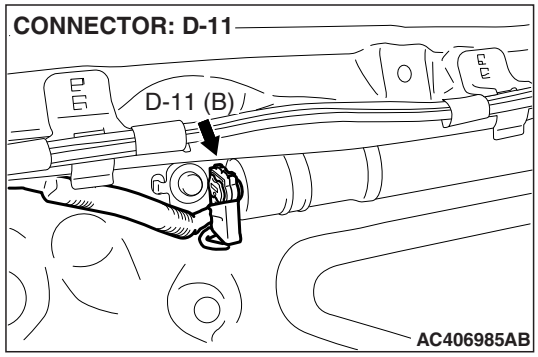




⚠ CAUTION
If DTC B1452 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

TSB Revision

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness

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

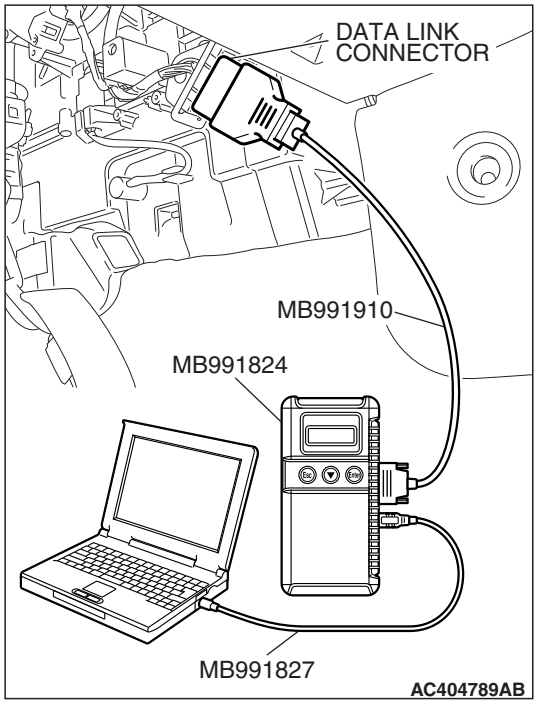
⚠ CAUTION

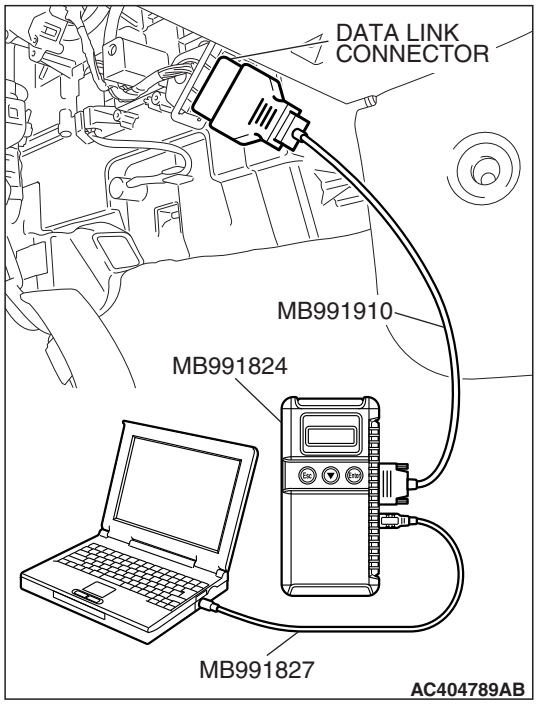
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(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.

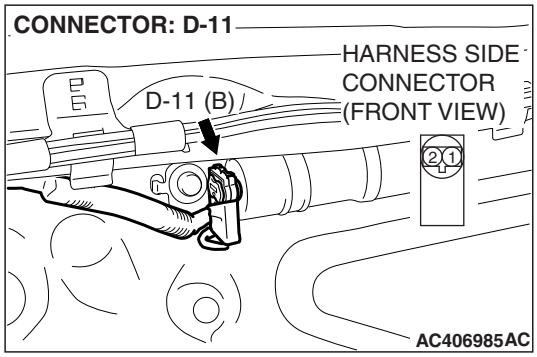
Q: Is DTC set?

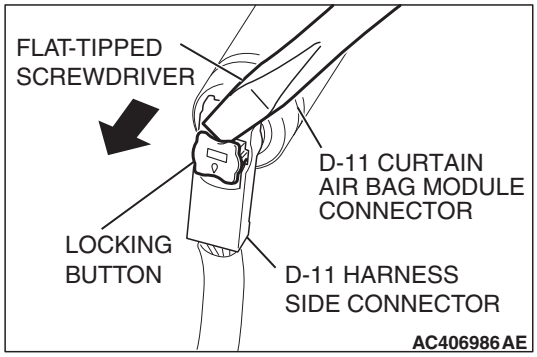
YES : Go to Step 3.

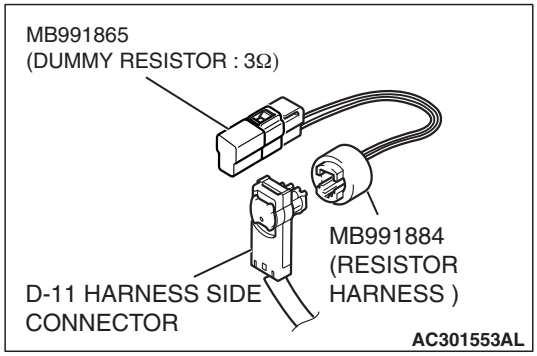
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

STEP 3. Check the curtain air bag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect curtain air bag module (LH) connector D-11. 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.





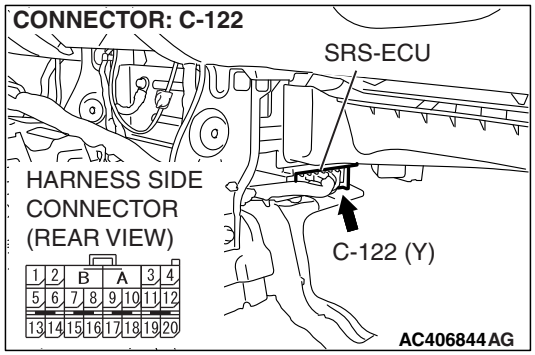


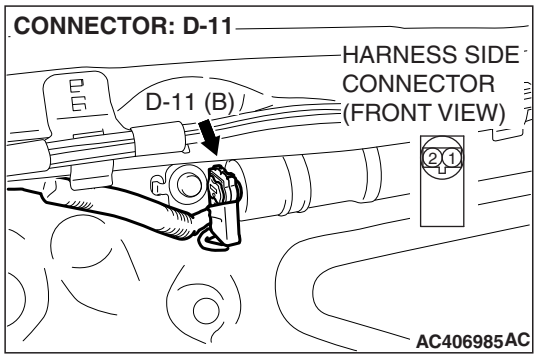
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-11 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1452 set?

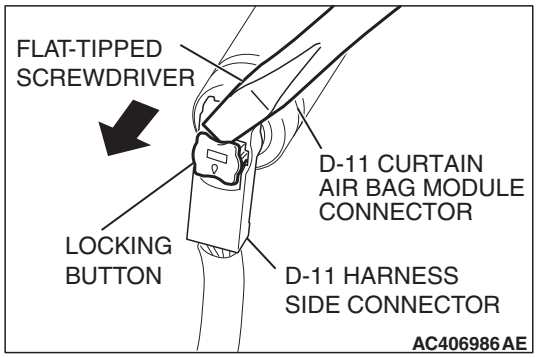
YES : Go to Step 4.
NO : Replace the curtain air bag module (LH) (Refer to P.52B-436). Then go to Step 6.

STEP 4. Check the curtain air bag module (LH) circuit.
Measure the voltage at the SRS-ECU connector C-122.
(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-122.

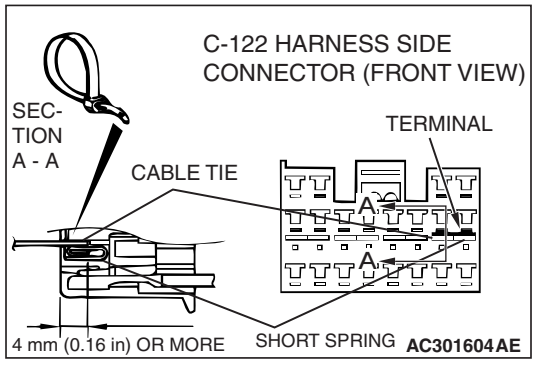


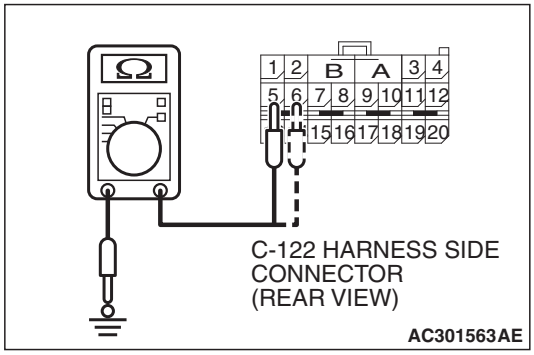


⚠ DANGER
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module (LH) connector D-11 to short the squib circuit.
(3) Disconnect curtain air bag module (LH) connector D-11. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by 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 5, 6 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Turn the ignition switch to the "ON" position.





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

(7) Check for continuity C-122 harness side connector terminals 5, 6 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

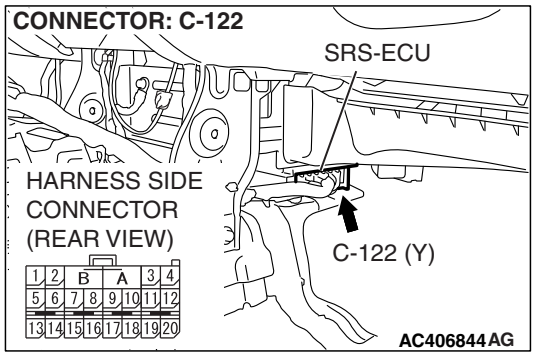
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1452 sets, replace the SRS-ECU (Refer to P.52B-109). Then go to Step 6.

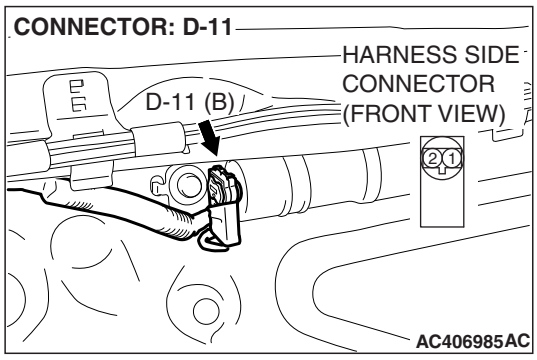
STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.5 and 6) and curtain air bag module (LH) connector D-11 (terminal No.2 and 1).

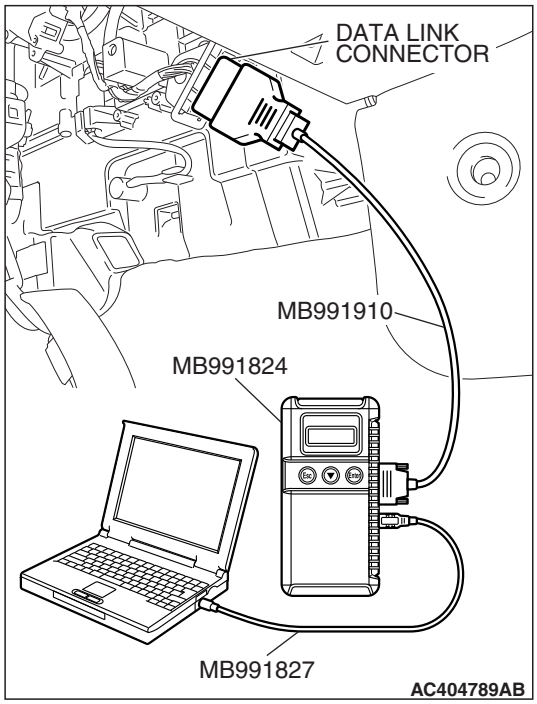
Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.5 and 6). and curtain air bag module (LH) connector D-11 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and curtain air bag module (LH) connector D-11. Then go to Step 6.







STEP 6. Recheck for diagnostic trouble code.

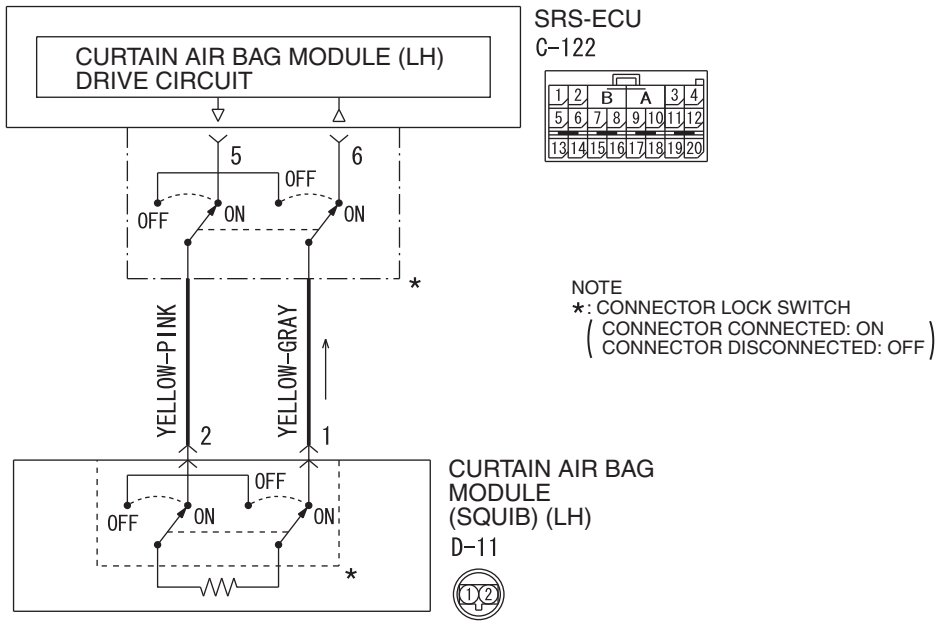
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1452 set?

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

DTC: B1453 Curtain Air Bag Module (LH) (squib) System Fault Power Supply Circuit (short-circuited to Power Supply) <ECLIPSE>

Curtain Air Bag Module (LH) (Squib) Circuit



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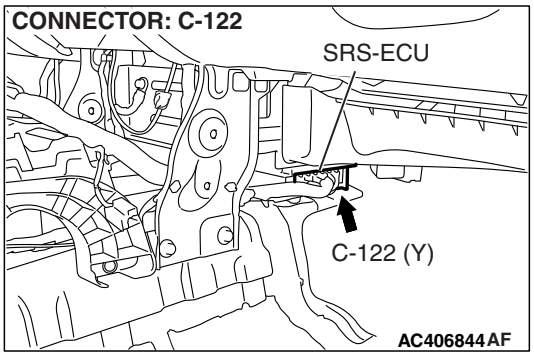
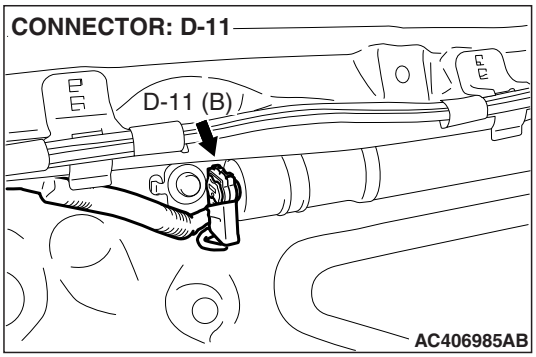




⚠ CAUTION

If DTC B1453 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag 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).

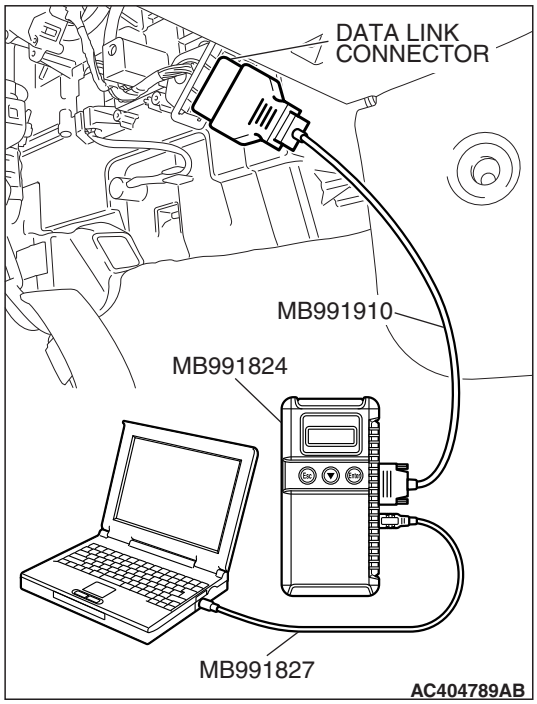
TROUBLESHOOTING HITS

- 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: V.C.I.
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness



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

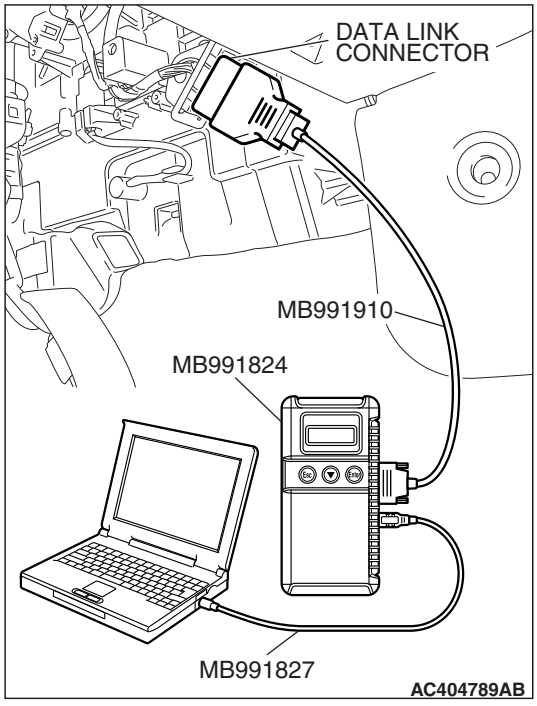
⚠ CAUTION

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-31."
(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 Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-14).

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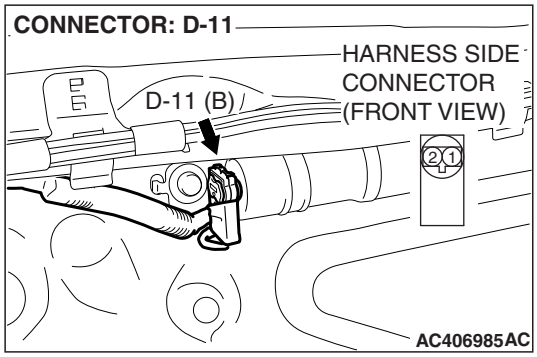
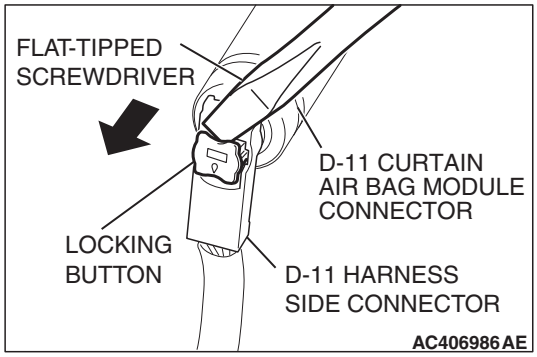
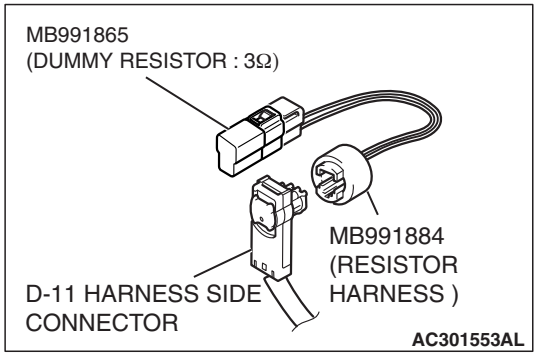
STEP 3. Check the curtain air bag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect curtain air bag module (LH) connector D-11. 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.





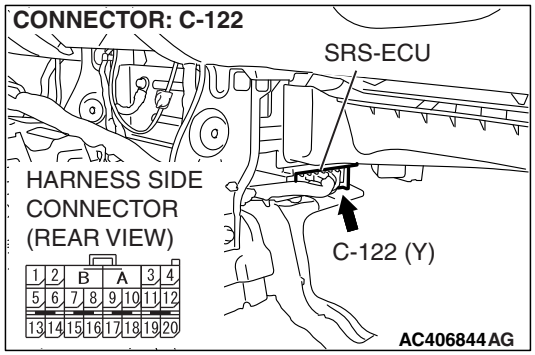


(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-11 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

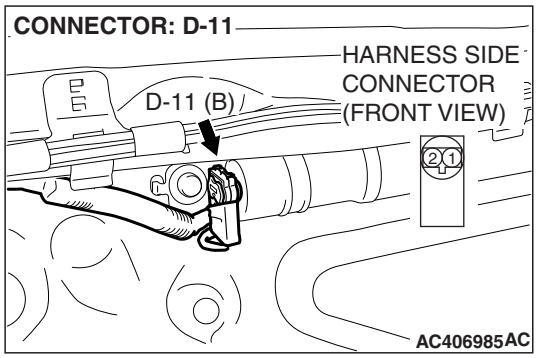
Q: Is DTC B1453 set?

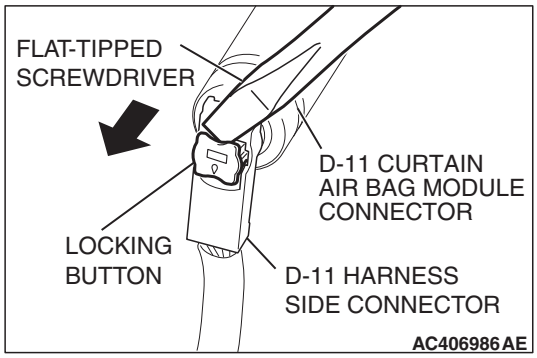
YES : Go to Step 4.
NO : Replace the curtain air bag module (LH). Refer to P.52B-436. Then go to Step 6.

STEP 4. Check the curtain air bag module (LH) circuit.
Measure the resistance at the SRS-ECU connector C-122.
(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-122.

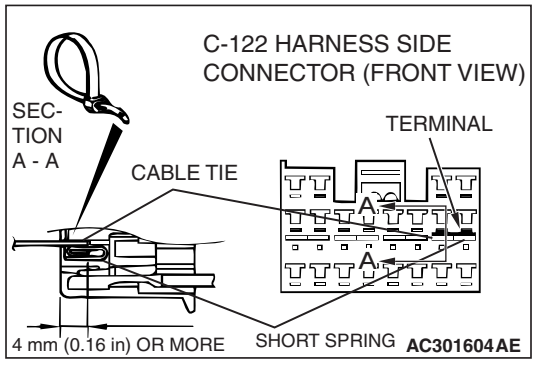


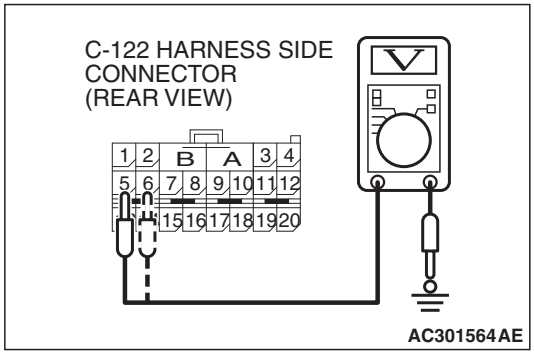
⚠ *DANGER*
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module (LH) connector D-11 to short the squib circuit.
(3) Disconnect curtain air bag module (LH) connector D-11. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by 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 5, 6 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Turn the ignition switch to the "ON" position,





⚠ CAUTION

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

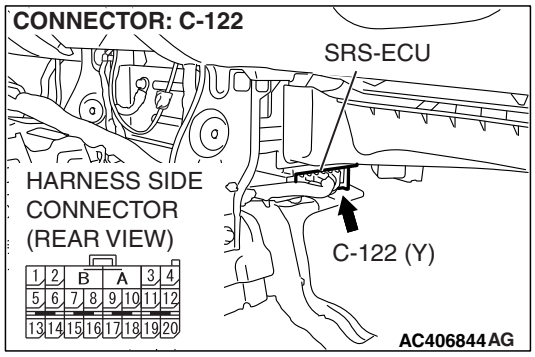
(7) Measure the voltage C-122 harness side connector terminals 5, 6 and body ground.
Voltage should measure 0 volt.

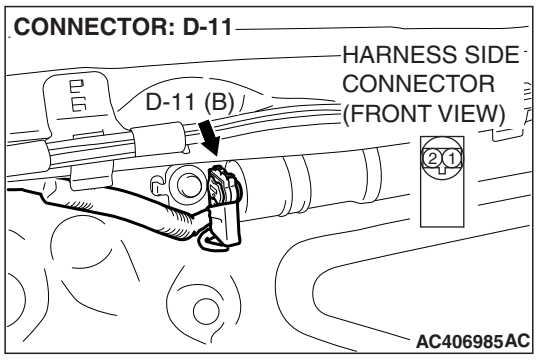
Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1453 sets, replace the SRS-ECU (Refer to P.52B-420). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.5 and 6) and curtain air bag module (LH) connector D-11 (terminal No.1 and 2).

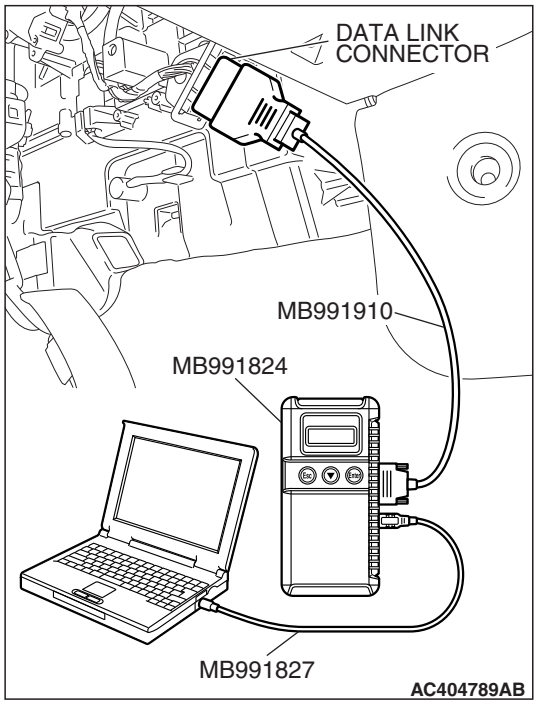




Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.5 and 6) and curtain air bag module (LH) connector D-11 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-122 and curtain air bag module (LH) connector D-11. 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 B1453 set?

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