

GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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⚠ WARNING

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

⚠ WARNING

- *Carefully read and observe the information in the SRS SERVICE PRECAUTIONS prior to any service.*
- *For information concerning diagnosis or maintenance, always observe the procedures in the SRS Diagnosis or the SRS Maintenance sections, respectively.*
- *If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section for the compartments involved.*
- *If you have any questions about the SRS, please contact the MMNA Tech Line.*

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GENERAL DESCRIPTION

M1524000100730

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*

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

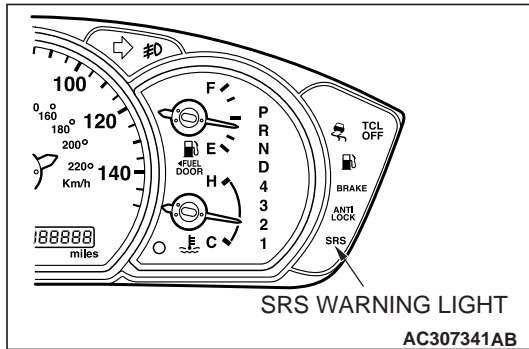
Side-airbag systems in the front seats are activated when side impacts exceed a criteria to protect the occupants' upper bodies.

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

The SRS consists of four air bag modules, SRS air bag control unit (SRS-ECU), two front impact sensors, two side impact sensors, SRS warning light, passenger's air bag OFF indicator light, passenger's seat belt warning light, clock spring, seat belt pre-tensioner, seat belt switch, seat slide sensor, occupant classification sensor and occupant classification-ECU. Air bag modules are located in the cen-

- *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*

ter of the steering wheel and above the glove box. Side-airbags are located inside the front seatback assemblies. 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's air bag OFF indicator light is installed to the lower left of the multi-center display, and illuminates when the passenger seat airbag is inactive. The passenger's seat belt warning light is installed to the lower right of the multi-center display, and illuminates when the passenger is not wearing the seatbelt. The seatbelt switch detects whether the seatbelt 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.



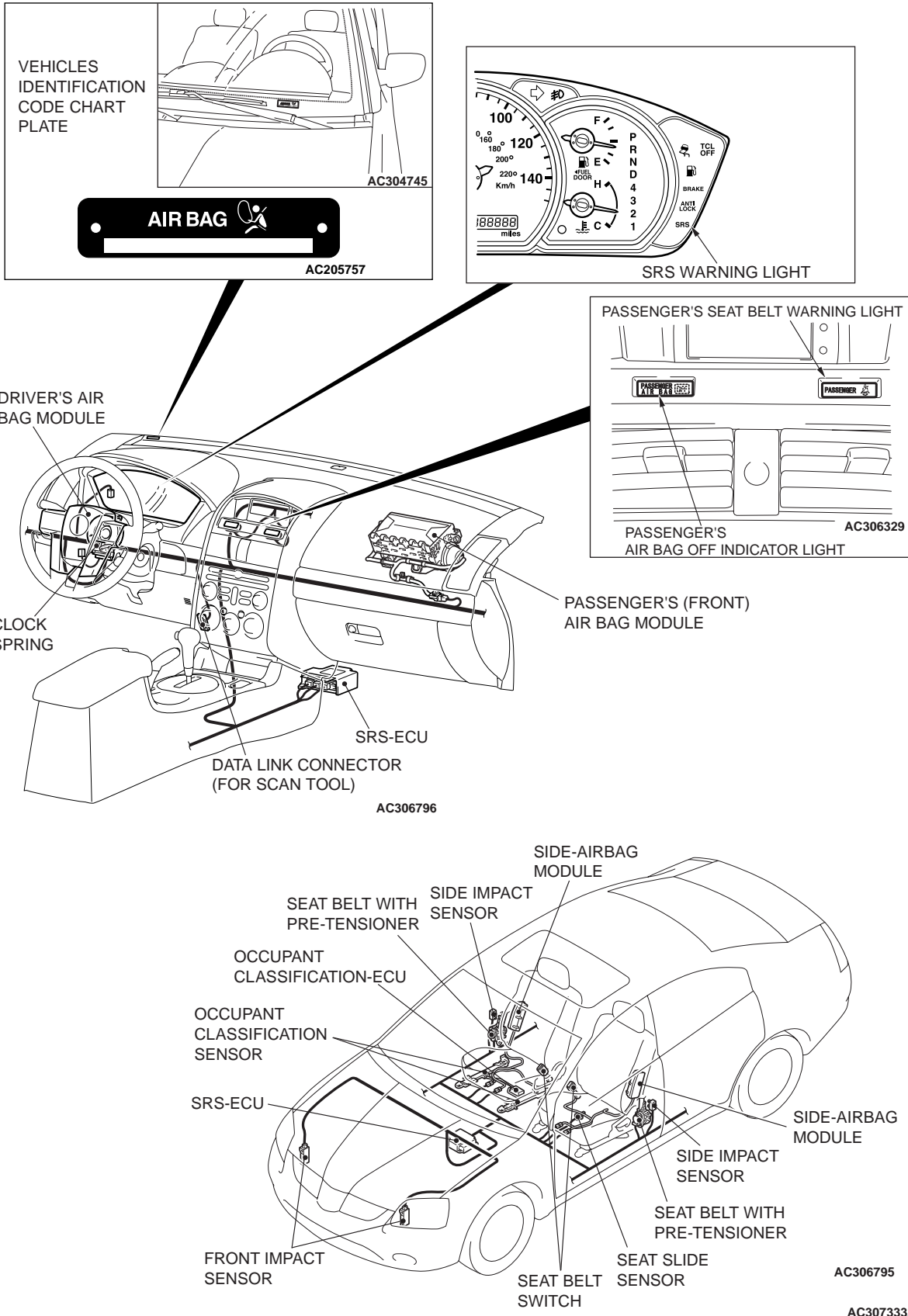
ON-BOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

The diagnosis unit monitors the SRS system and stores data concerning any detected faults in the system. When the ignition switch is in "ON" or "START" 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, 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

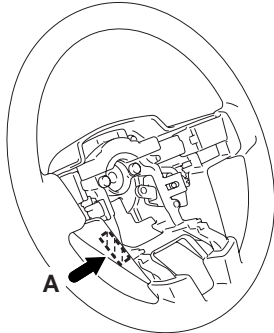


NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic(P.52B-9), "Configuration Diagrams(P.52B-12), " and "Circuit Diagram(P.52B-14)".

WARNING/CAUTION LABELS

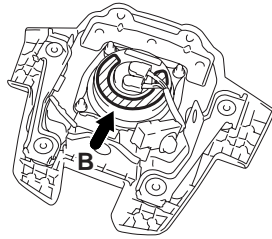
A number of caution labels related to the SRS are found in the vehicle, as shown in the following illustrations. Follow label instructions when servicing SRS. If the other labels are dirty or damaged, replace them.

STEERING WHEEL



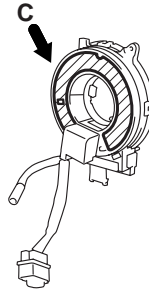
SRS-ECU

DRIVER'S AIR BAG MODULE



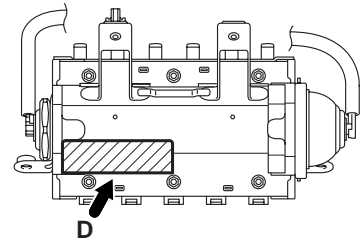
AC306338

CLOCK SPRING



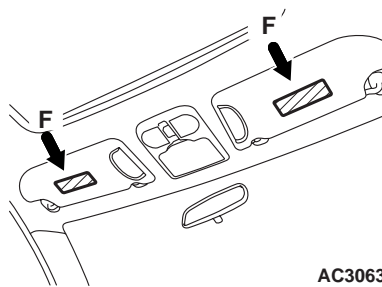
AC306339

PASSENGER'S AIR BAG MODULE



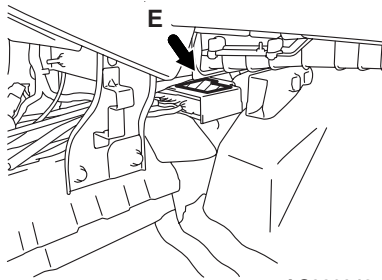
AC308167

SUN VISOR

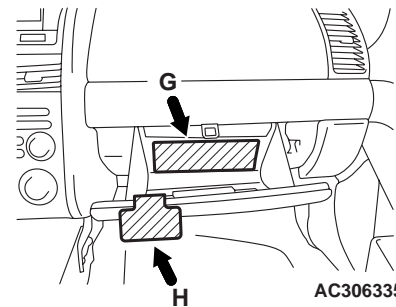


AC306334

GLOVE BOX



AC306340

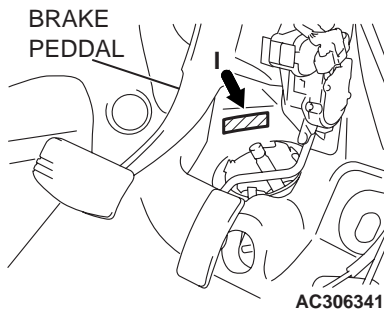


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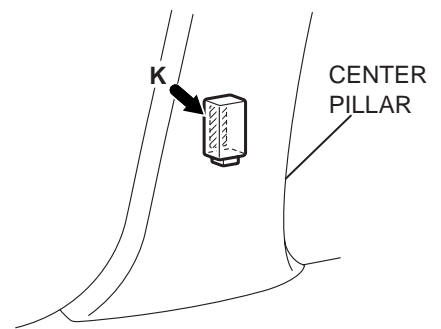
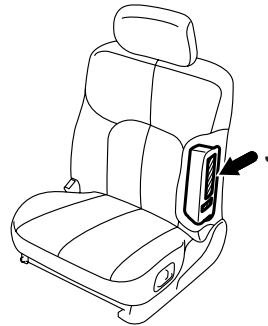
STEERING JOINT COVER

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

SIDE IMPACT SENSORS
(RH AND LH)



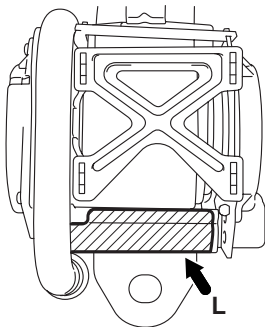
AC306341



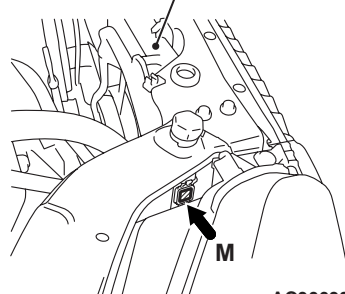
SEAT BELT WITH
PRE-TENSIONER
(DRIVER'S AND FRONT
PASSENGER'S SEATBELT)

FRONT IMPACT SENSORS (RH AND LH)

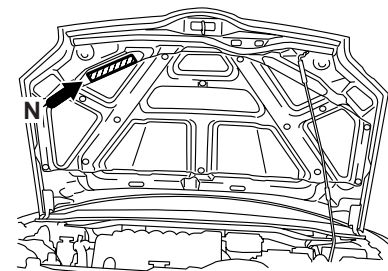
HOOD




RADIATOR



AC306337

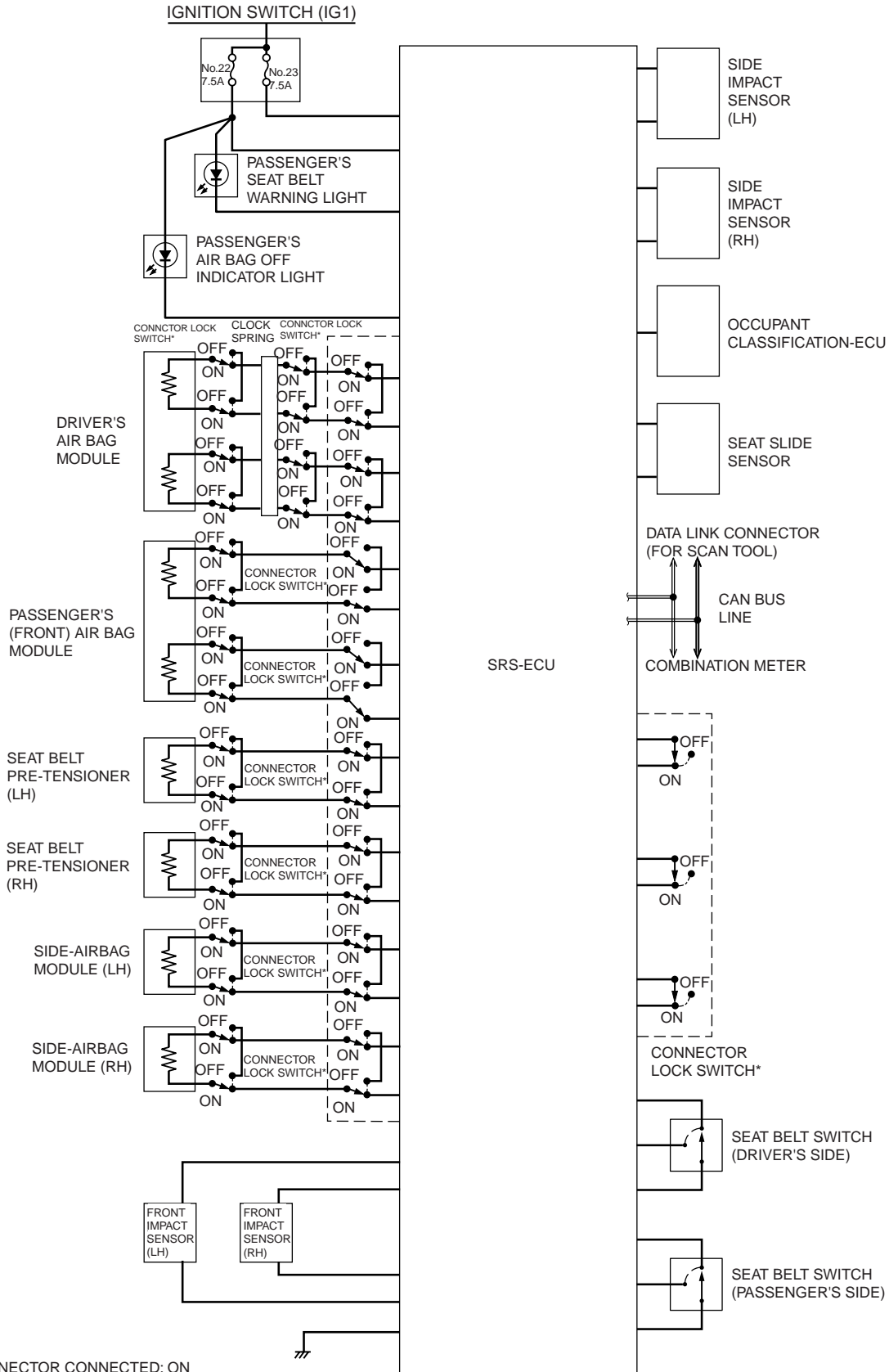


AC306336

LABEL CONTENTS	
A	<p>WARNING: SRS</p> <ul style="list-style-type: none"> • BEFORE REPLACING STEERING WHEEL, READ SERVICE MANUAL, CENTER FRONT WHEELS AND ALIGN SRS CLOCK SPRING NEUTRAL MARKS. FAILURE TO DO SO MAY RENDER SRS SYSTEM INOPERATIVE, RISKING SERIOUS DRIVER INJURY. • THE AIR BAG MODULE CAN NOT BE REPAIRED. DO NOT DISASSEMBLE OR TAMPER. DO NOT PERFORM DIAGNOSIS. DO NOT TOUCH WITH ELECTRICAL TEST EQUIPMENT OR PROBES. REFER TO SERVICE MANUAL FOR FURTHER INSTRUCTIONS, AND FOR SPECIAL HANDLING, STORAGE AND DISPOSAL PROCEDURES. TAMPERING OR MISHANDLING CAN RESULT IN INJURY.
B	<p>DANGER: FLAMMABLE MATERIAL</p> <p>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.</p>
C	<p>CAUTION: SRS CLOCKSPrING</p> <p>THIS IS NOT A REPAIRABLE PART. IF DEFECTIVE REPLACE ENTIRE UNIT ACCORDING TO THE SERVICE MANUAL INSTRUCTIONS. TO RE-CENTER: ROTATE CLOCKWISE UNTIL TIGHT. THEN ROTATE IN OPPOSITE DIRECTION ROUGHLY 3 3/4 TURNS AND ALIGN ARROWS.</p>
D, J	<p>WARNING FLAMMABLE/EXPLOSIVE</p> <p>SRS AIR BAG MODULE</p> <p>TO AVOID SERIOUS INJURY:</p> <ul style="list-style-type: none"> • DO NOT REPAIR, DISASSEMBLE OR TAMPER. • AVOID CONTACT WITH FLAME OR ELECTRICITY. • DO NOT DIAGNOSIS/USE NO TEST EQPT OR PROBES. • STORE BELOW 200°F (93°C). • BEFORE DOING ANY WORK INVOLVING MODULE, READ SERVICE MANUAL FOR IMPORTANT FURTHER DATA.
E, K	<p>CAUTION:</p> <p>DO NOT DISASSEMBLE OR DROP. IF DEFECTIVE REFER TO SERVICE MANUAL.</p>
<p>F</p>  <p align="center">AC306673</p>	<p>WARNING</p> <p>EVEN WITH ADVANCED AIR BAGS</p> <ul style="list-style-type: none"> • 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

LABEL CONTENTS	
G	<p>AIR BAG SYSTEM INFORMATION</p> <p>THIS VEHICLE HAS AN AIR BAG SYSTEM WHICH WILL SUPPLEMENT THE SEAT BELT IN CERTAIN FRONTAL COLLISIONS. THE AIR BAG IS NOT A SUBSTITUTE FOR THE SEAT BELT IN ANY TYPE OF COLLISION. THE DRIVER AND ALL OTHER OCCUPANTS SHOULD WEAR SEAT BELTS AT ALL TIMES.</p> <p>WARNING!</p> <p>IF THE "SRS" WARNING LIGHT DOES NOT ILLUMINATE FOR SEVERAL SECONDS WHEN THE IGNITION KEY IS TURNED TO "ON" OR THE ENGINE IS STARTED, OR IF THE WARNING LIGHT STAYS ON WHILE DRIVING, TAKE THE VEHICLE TO YOUR NEAREST AUTHORIZED DEALER IMMEDIATELY. ALSO, IF VEHICLE'S FRONT END IS DAMAGED OR IF THE AIR BAG HAS DEPLOYED, TAKE THE VEHICLE FOR SERVICE IMMEDIATELY.</p> <p>THE AIR BAG SYSTEM MUST BE INSPECTED BY AN AUTHORIZED DEALER TEN YEARS AFTER THE VEHICLE MANUFACTURE DATE SHOWN ON THE CERTIFICATION LABEL LOCATED ON THE LEFT FRONT DOOR-LATCH POST OR DOOR FRAME.</p> <p>READ THE "SRS" SECTION OF YOUR OWNER'S MANUAL BEFORE DRIVING FOR IMPORTANT INFORMATION ABOUT OPERATION AND SERVICE OF THE AIR BAG SYSTEM.</p> <p>WHEN YOU ARE GOING TO DISCARD YOUR GAS GENERATOR OR VEHICLE, PLEASE SEE YOUR DEALER.</p>
H	<p>This Vehicle is Equipped with Advanced Air Bags Even with Advanced Air Bags</p> <p>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.</p> <p>See owner's manual for more information about air bags.</p> <p>No to be removed except by owner.</p>
I	<p>CAUTION: SRS</p> <p>FIX STRG. WHEEL AT TIRES STRAIGHT AHEAD BEFORE GEARBOX REMOVAL. OTHERWISE, MAY DAMAGE SRS CLOCKSPrING MAKING SRS SYSTEM INOPERATIVE, RISKING SERIOUS DRIVER INJURY.</p>
L	<p>DANGER: SEAT BELT PRETENSIONER</p> <p>CAUTION: THIS ASSEMBLY CONTAINS AN EXPLOSIVE INITIATOR FLAMMABLE MATERIAL</p> <p>TO PREVENT PERSONAL INJURY</p> <ul style="list-style-type: none"> • DO NOT IMPACT, DISMANTLE OR INSTALL IT INTO ANOTHER VEHICLE. • SERVICE OR DISPOSE OF IT AS DIRECTED IN THE REPAIR MANUAL.
M	<p>CAUTION:</p> <p>DO NOT DISASSEMBLE OR DROP.</p>
N	<p>WARNING</p> <p>THIS VEHICLE HAS AN AIR BAG SYSTEM.</p> <p>REFER TO SERVICE MANUAL BEFORE SERVICING OR DISASSEMBLING UNDERHOOD COMPONENTS.</p> <p>READ THE "SRS" SECTION OF MANUAL FOR IMPORTANT INSTRUCTIONS. IMPROPER SERVICE PROCEDURES CAN RESULT IN THE AIR BAG FIRING OR BECOMING INOPERATIVE, POSSIBLY LEADING TO INJURY.</p>

SCHEMATIC

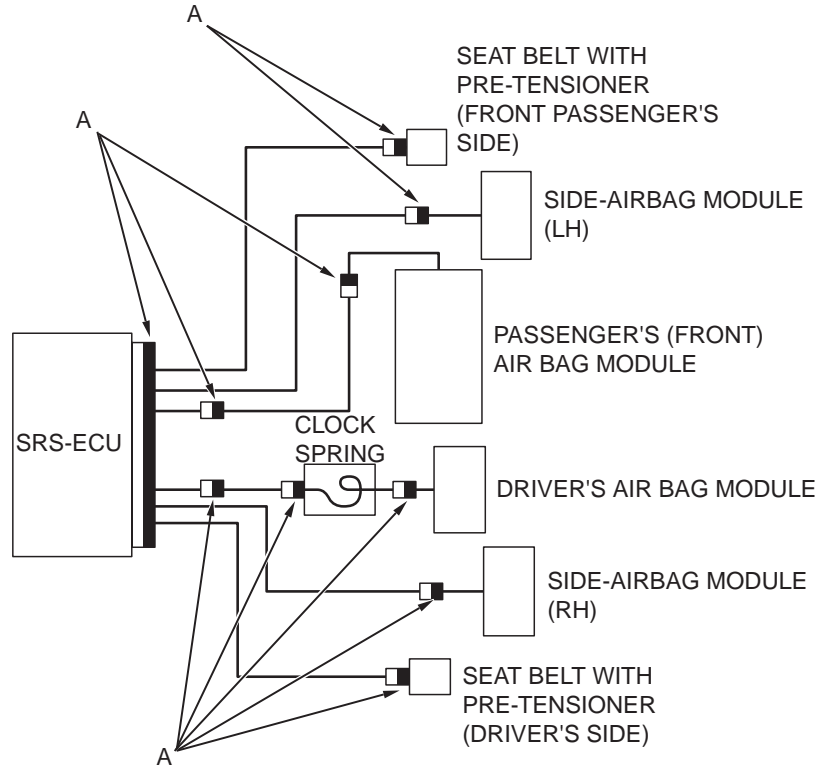


NOTE
*: CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF

AC306343AB

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).



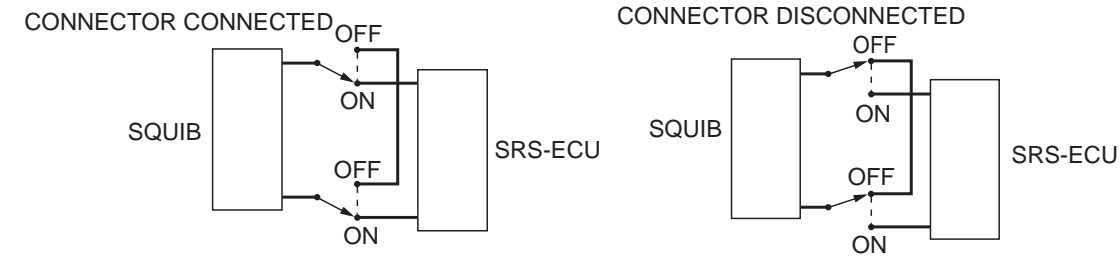
AC401872AB

SQUIB CIRCUIT CONNECTOR LOCK SWITCH

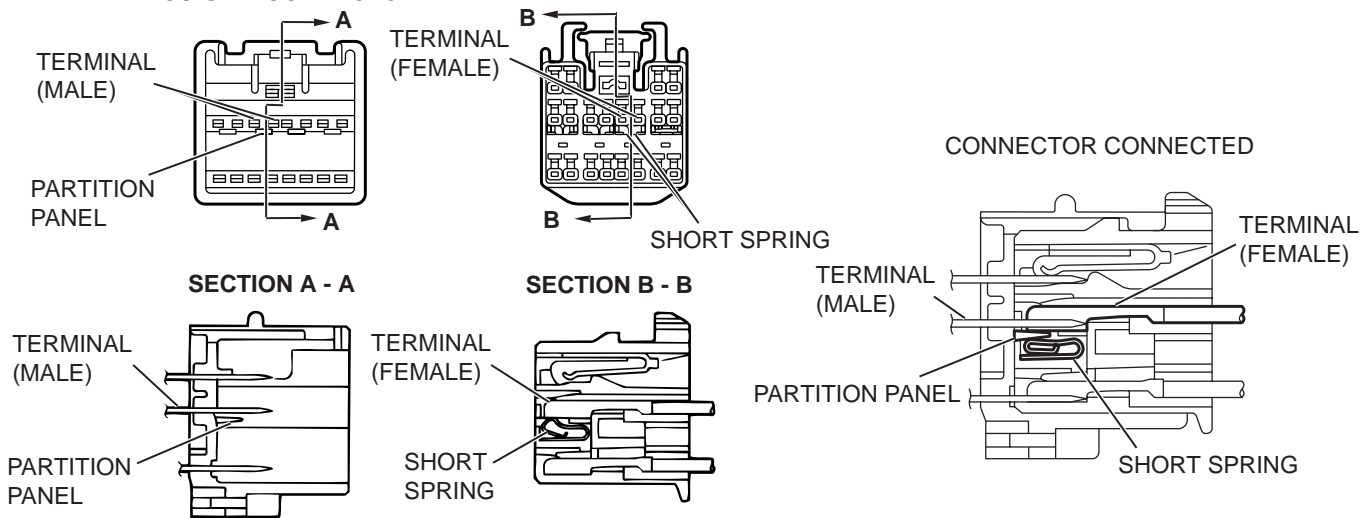
The switch is a mechanism that shorts the power supply terminal to the ground terminal automatically in the air bag squib circuit when the connector is disconnected. A "short" spring is integrated inside the connector. This spring prevents static electricity from flowing to the squib by shorting the 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.



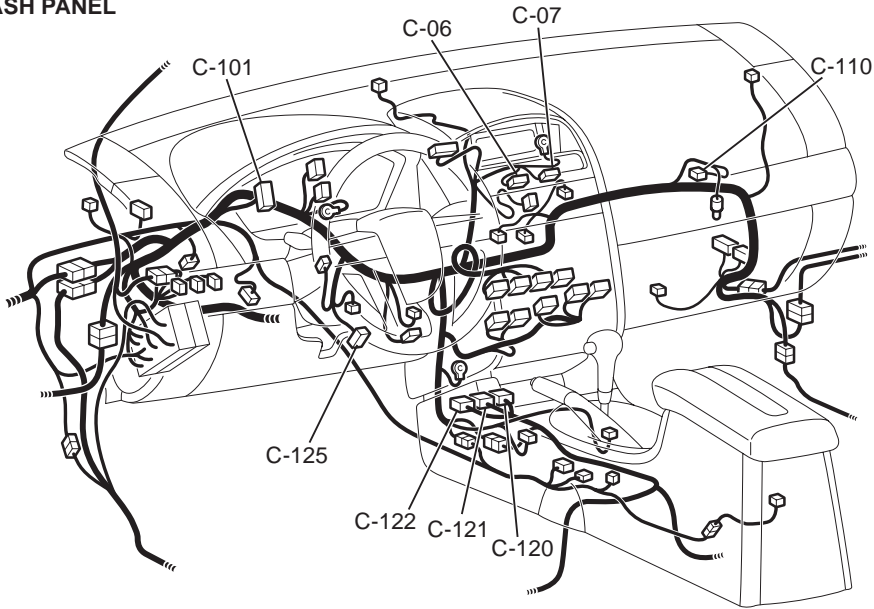
<CONNECTOR SHORTING MECHANISM (E.G. SRS-ECU CONNECTOR)>
ECU-SIDE CONNECTOR WIRING HARNESS-SIDE CONNECTOR



AC006197AG

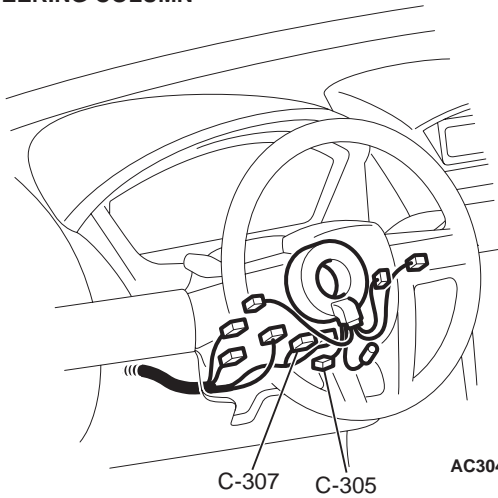
CONFIGURATION DIAGRAMS

DASH PANEL



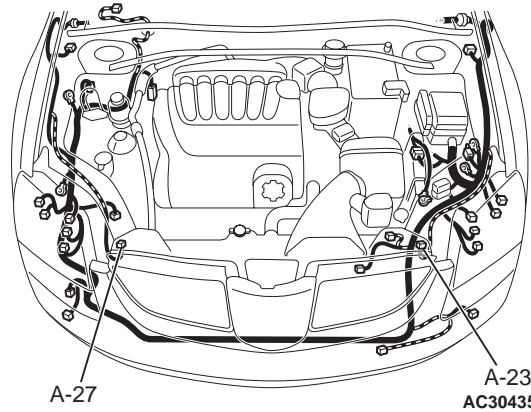
AC304362

STEERING COLUMN



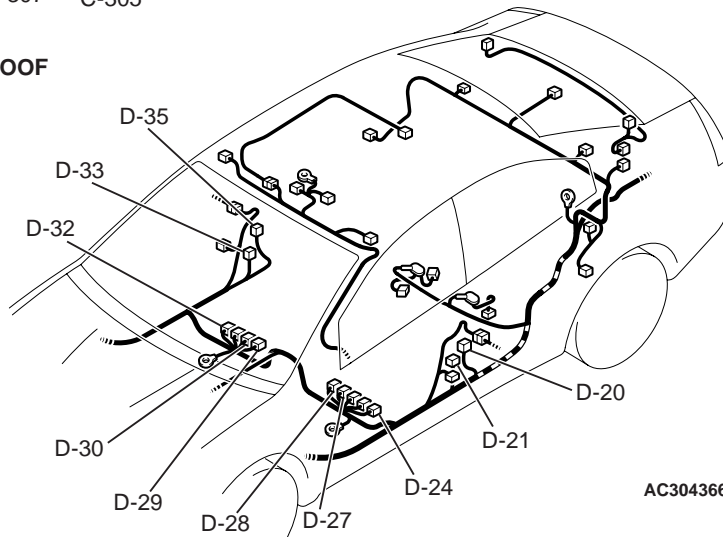
AC304363

ENGINE ROOM



AC304353

FLOOR AND ROOF



AC304366

AC307197AB

A-23 (Y)	FRONT IMPACT SENSOR (LH)	D-20	SIDE IMPACT SENSOR (LH)
A-27 (Y)	FRONT IMPACT SENSOR (RH)	D-21 (B)	SEAT BELT PRE-TENSIONER (LH)
C-06	AIR BAG OFF INDICATOR LIGHT (PASSENGER'S SIDE)	D-24 (R)	SIDE-AIRBAG MODULE (SQUIB) (LH)
C-07	SEAT BELT WARNINNG LIGHT (PASSENGER'S SIDED)	D-27 (GR)	SEAT SLIDE SENSOR
C-101	COMBINATION METER (FOR SRS WARNING LIGHT)	D-28 (B)	SEAT BELT SWITCH (DRIVER'S SIDE)
C-110 (Y)	AIR BAG MODULE (FRONT PASSENGER'S SIDE)	D-29	SEAT BELT SWITCH (PASSENGER'S SIDE)
C-120 (Y)	SRS-ECU	D-30 (GR)	OCCUPANT CLASSIFICATION-ECU
C-121 (Y)	SRS-ECU	D-32 (R)	SIDE-AIRBAG MODULE (SQUIB) (RH)
C-122 (Y)	SRS-ECU	D-33 (B)	SEAT BELT PRE-TENSIONER (RH)
C-125 (B)	DATA LINK CONNECTOR	D-35	SIDE IMPACT SENSOR (RH)
C-305 (Y)	AIR BAG MODULE (SQUIB) (DRIVER'S SIDE)		
C-307 (Y)	CLOCK SPRING		

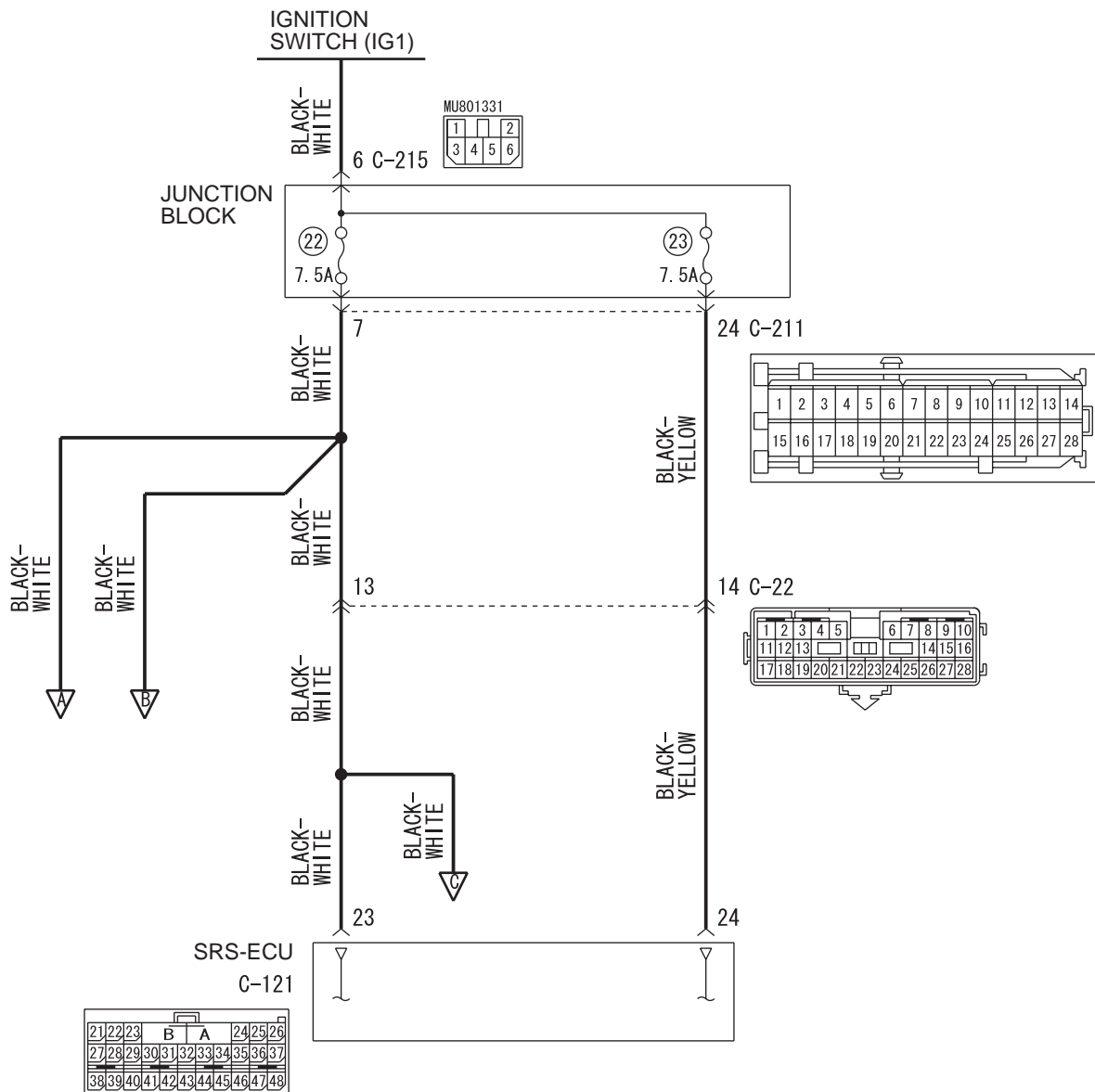
CIRCUIT DIAGRAM

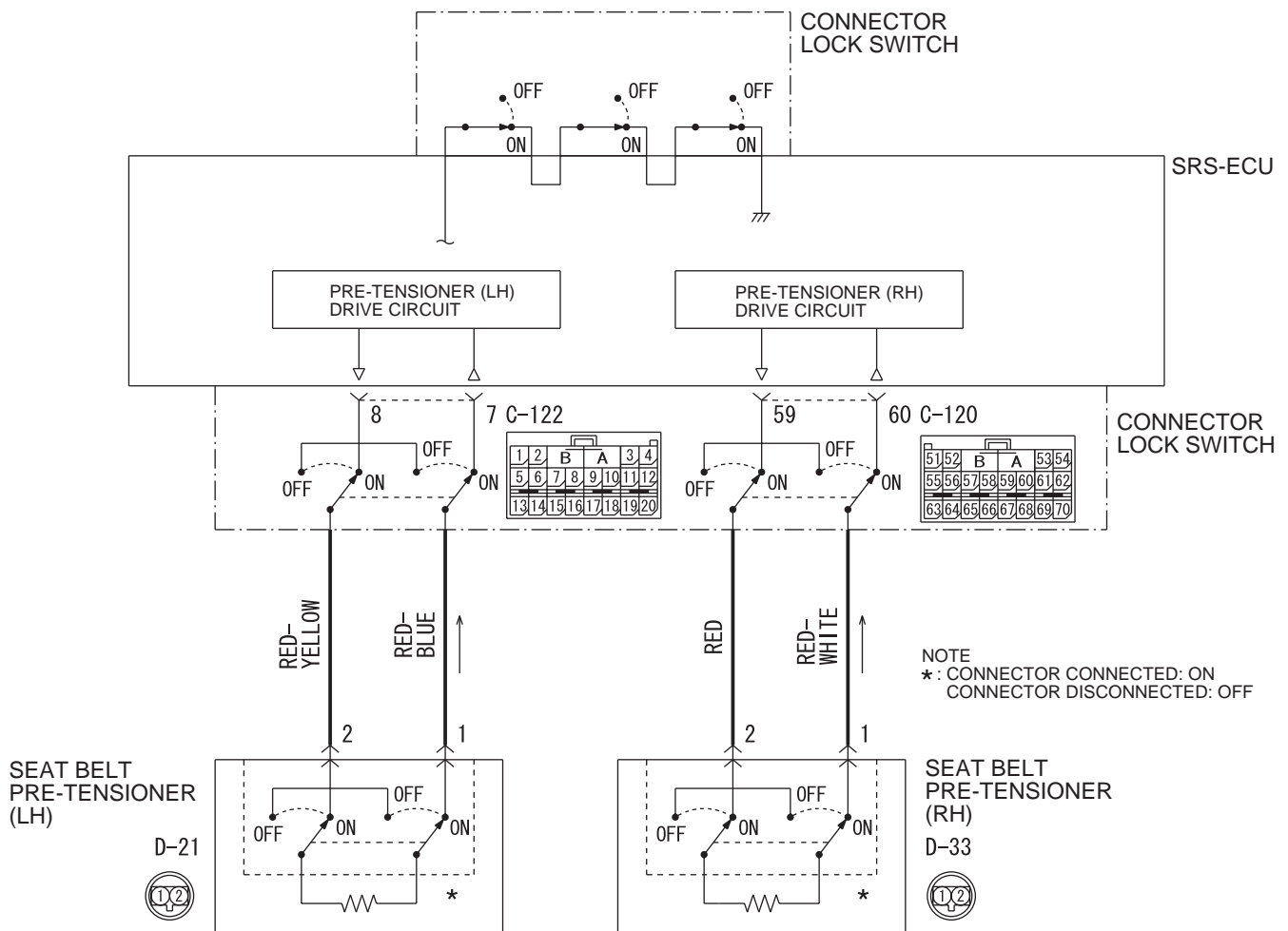
⚠ WARNING

- 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-26): 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-346) and a digital multi-meter (refer to P.52B-347).

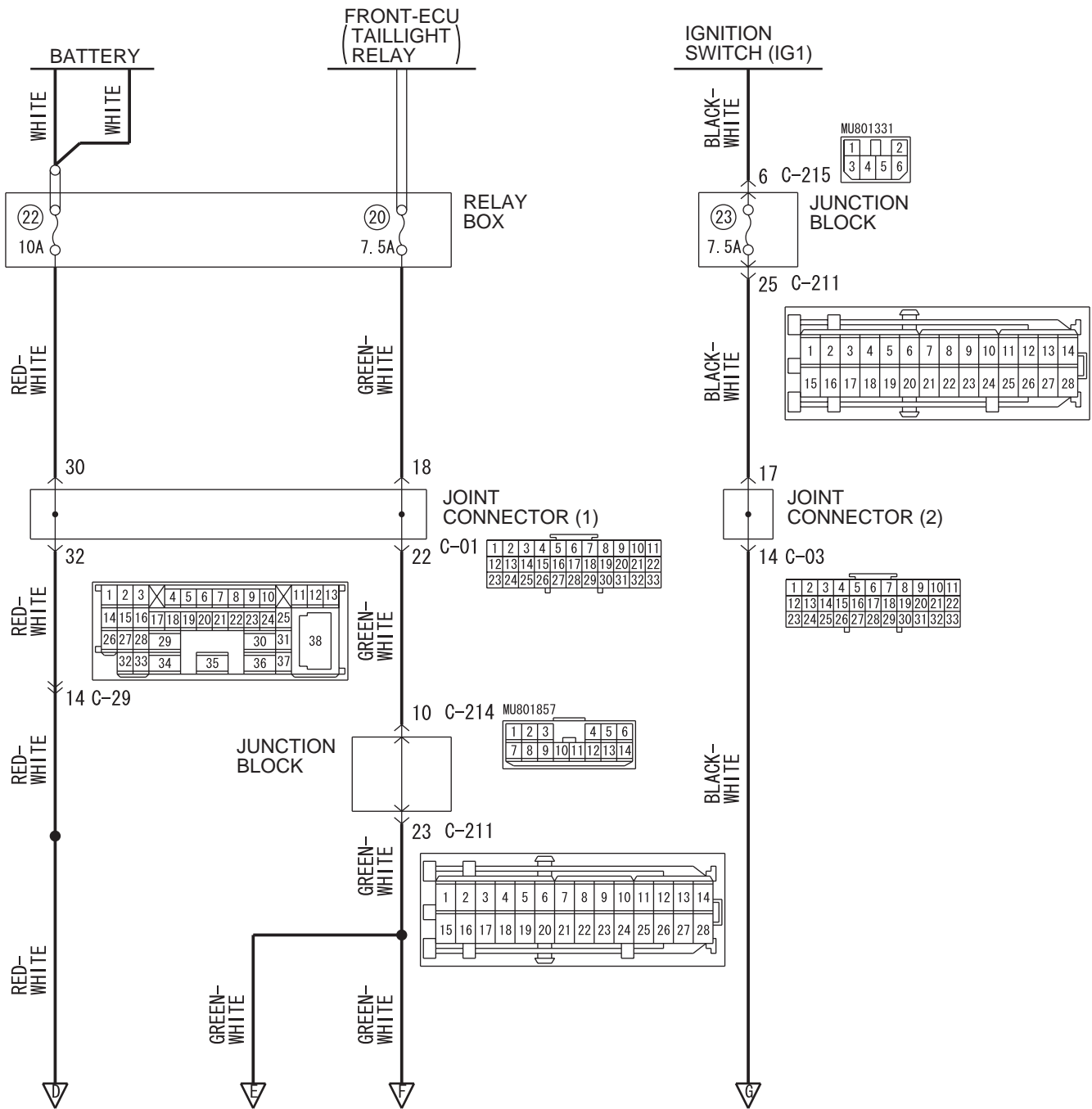
⚠ CAUTION

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

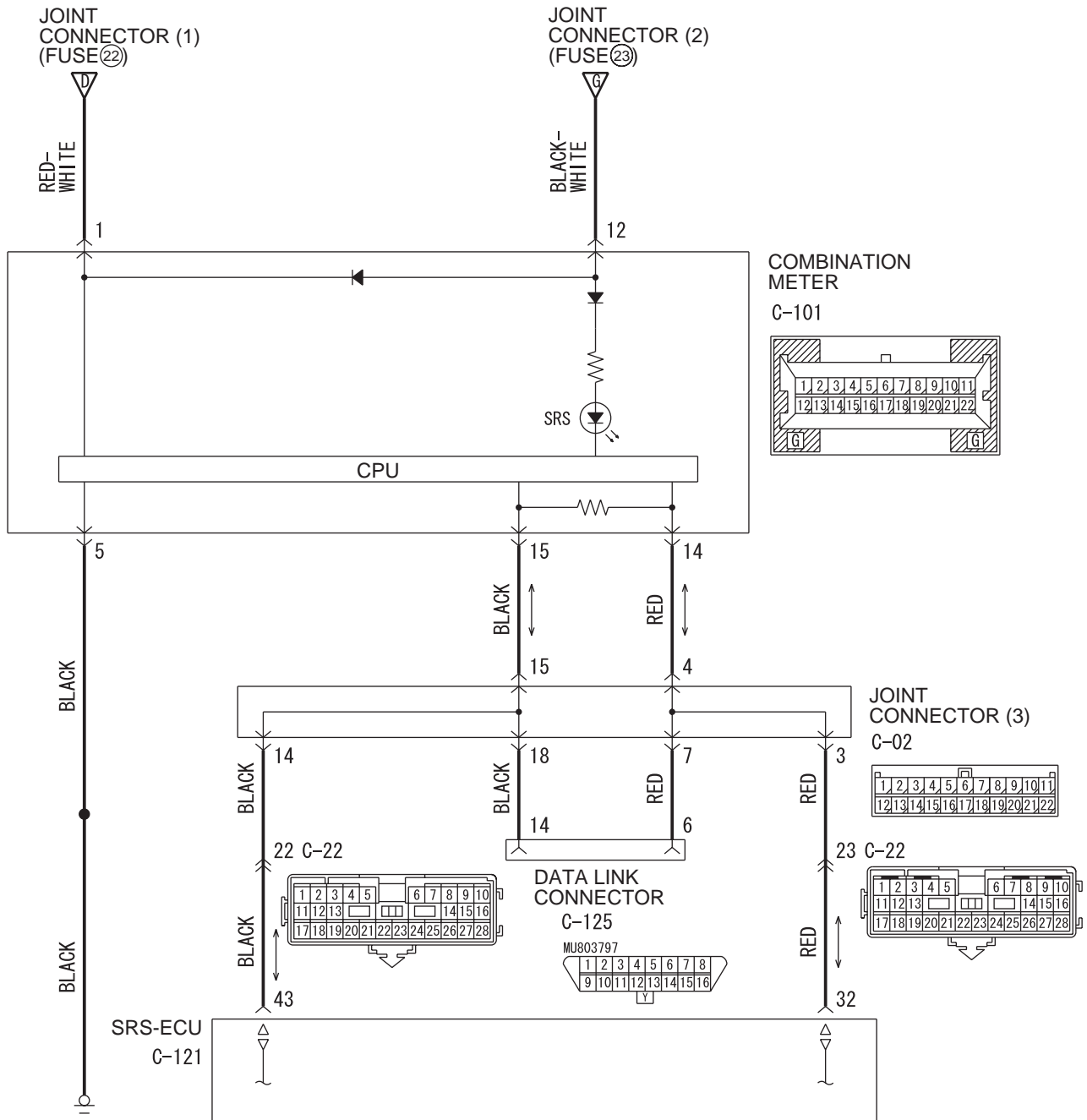




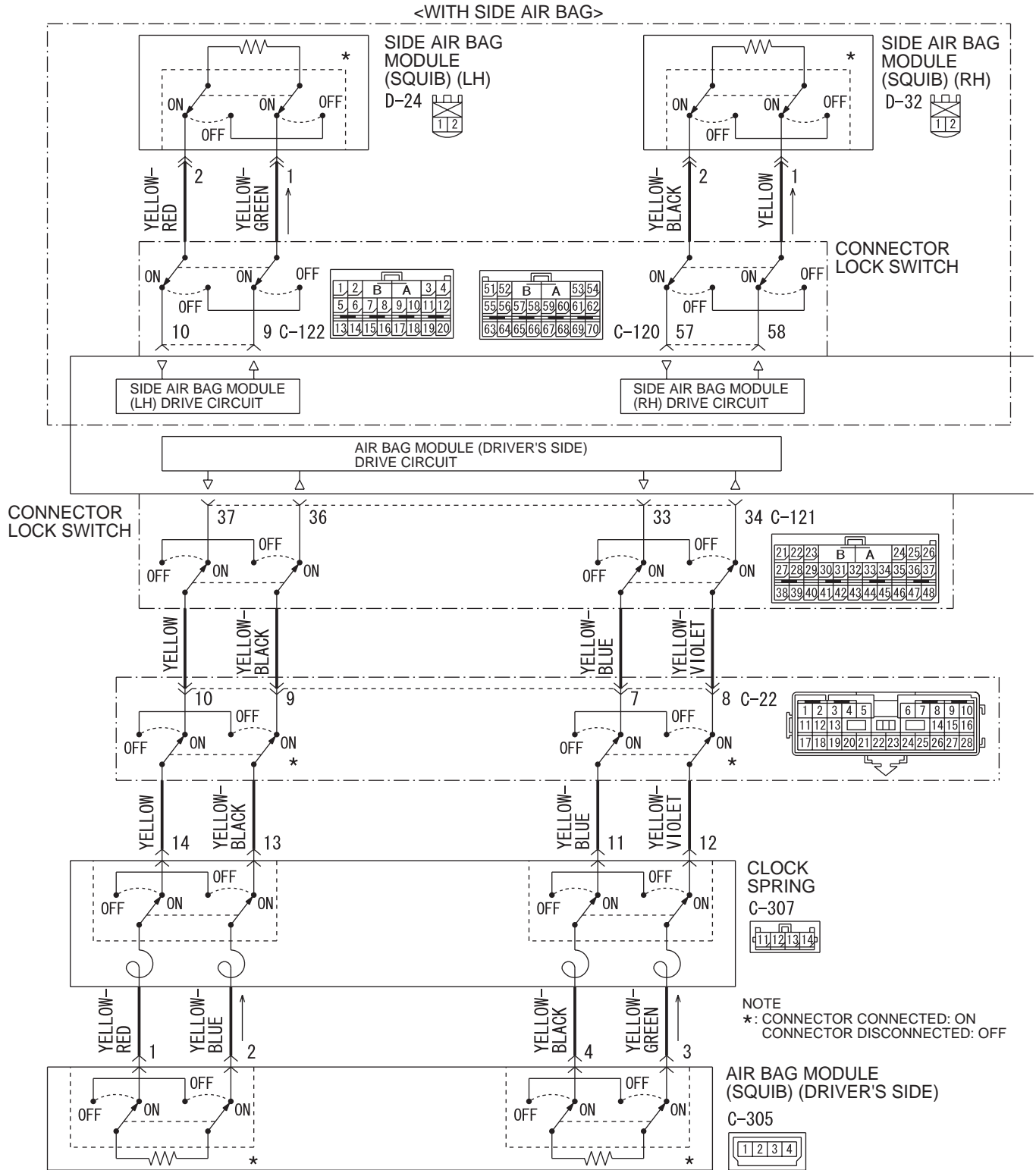
W5P52M001A



W4P52M21AA

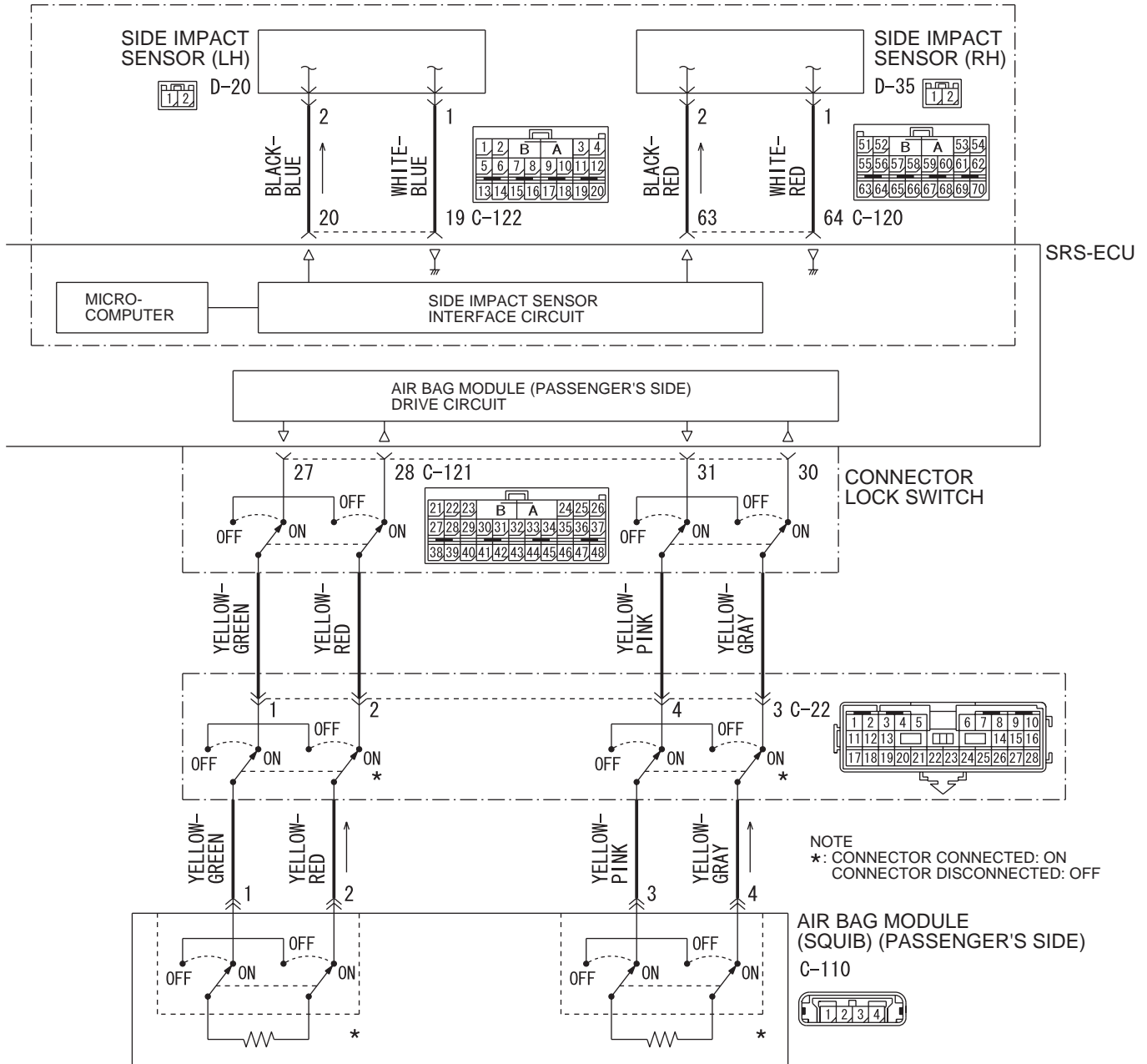


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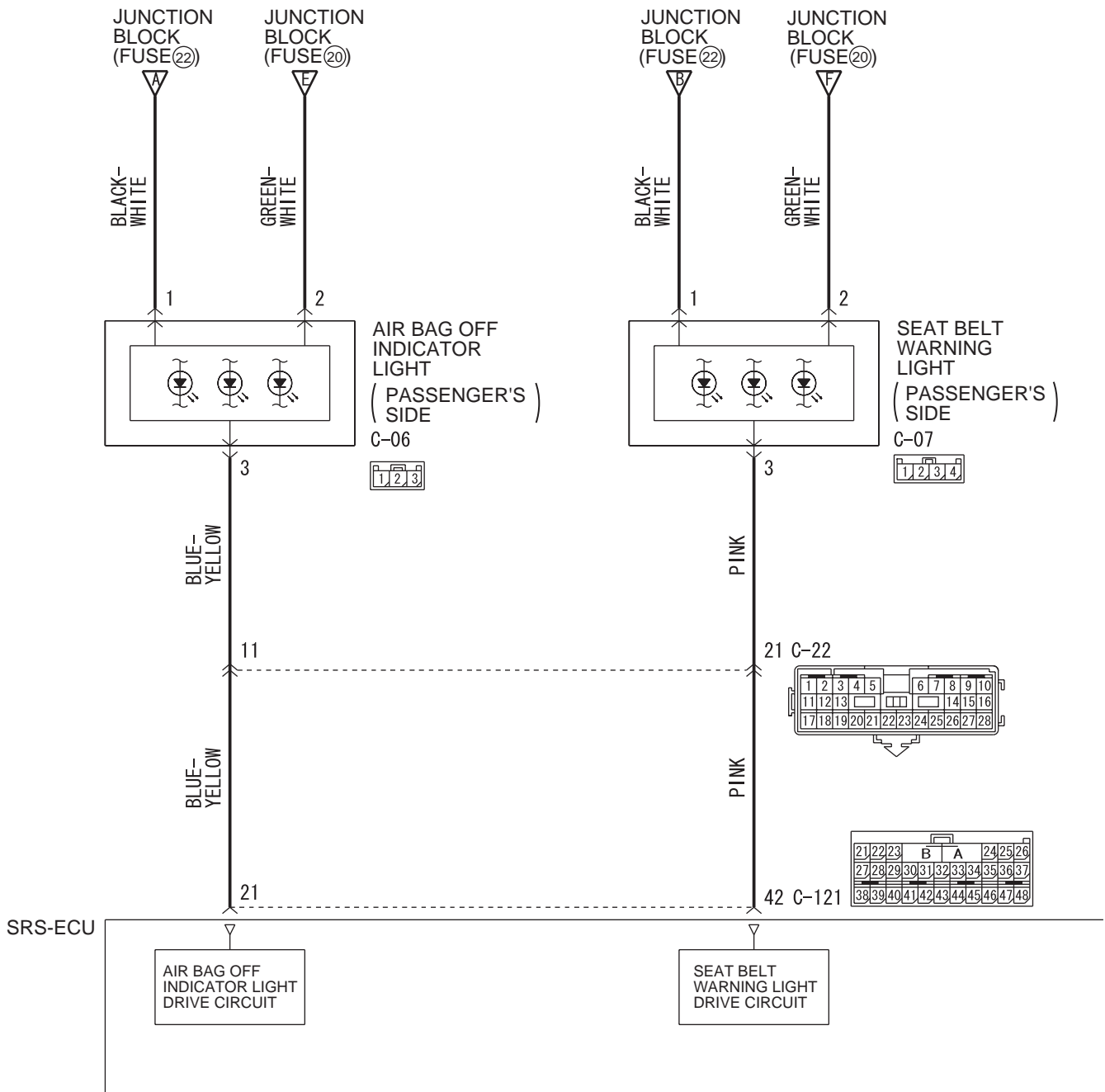


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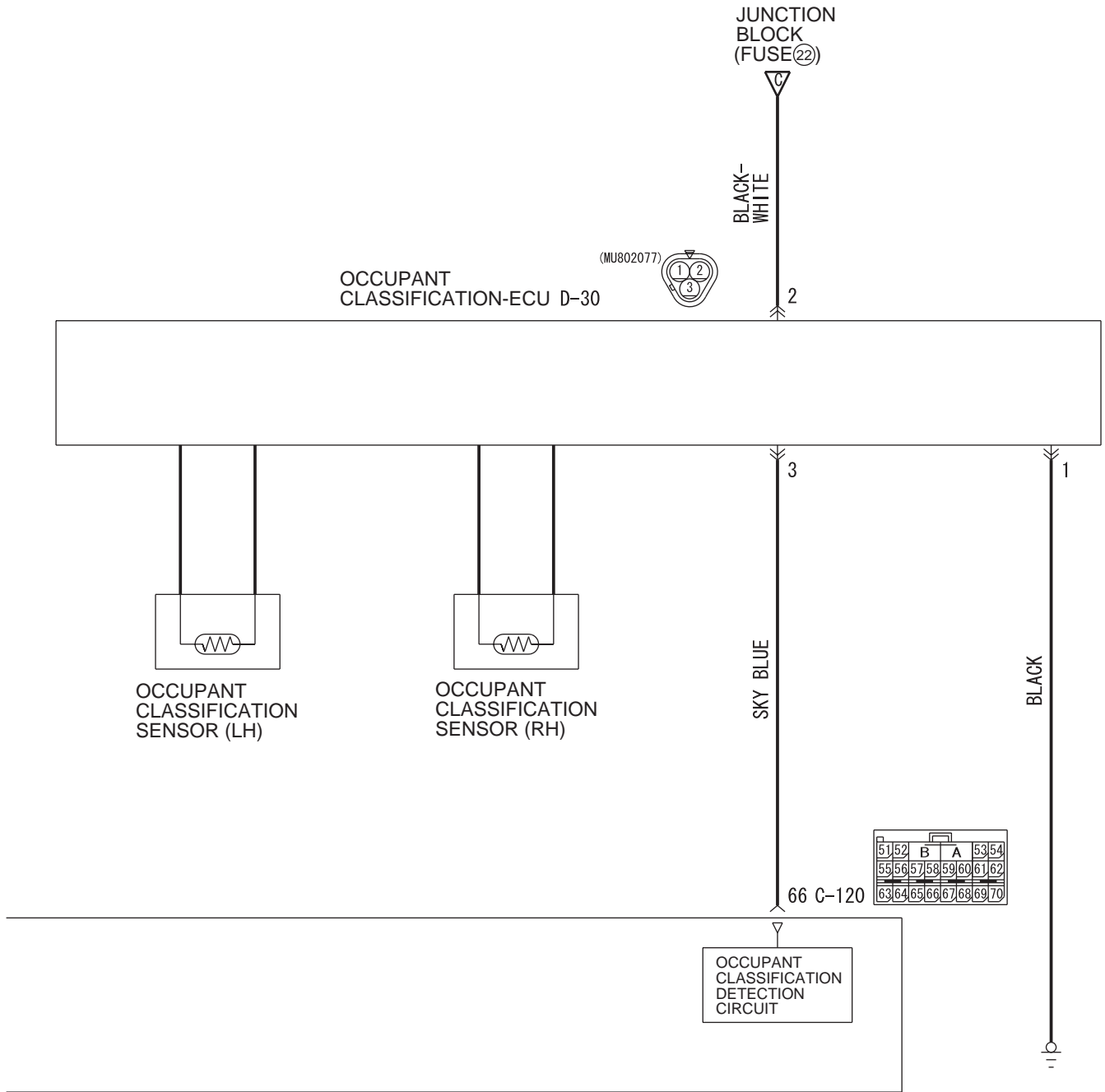
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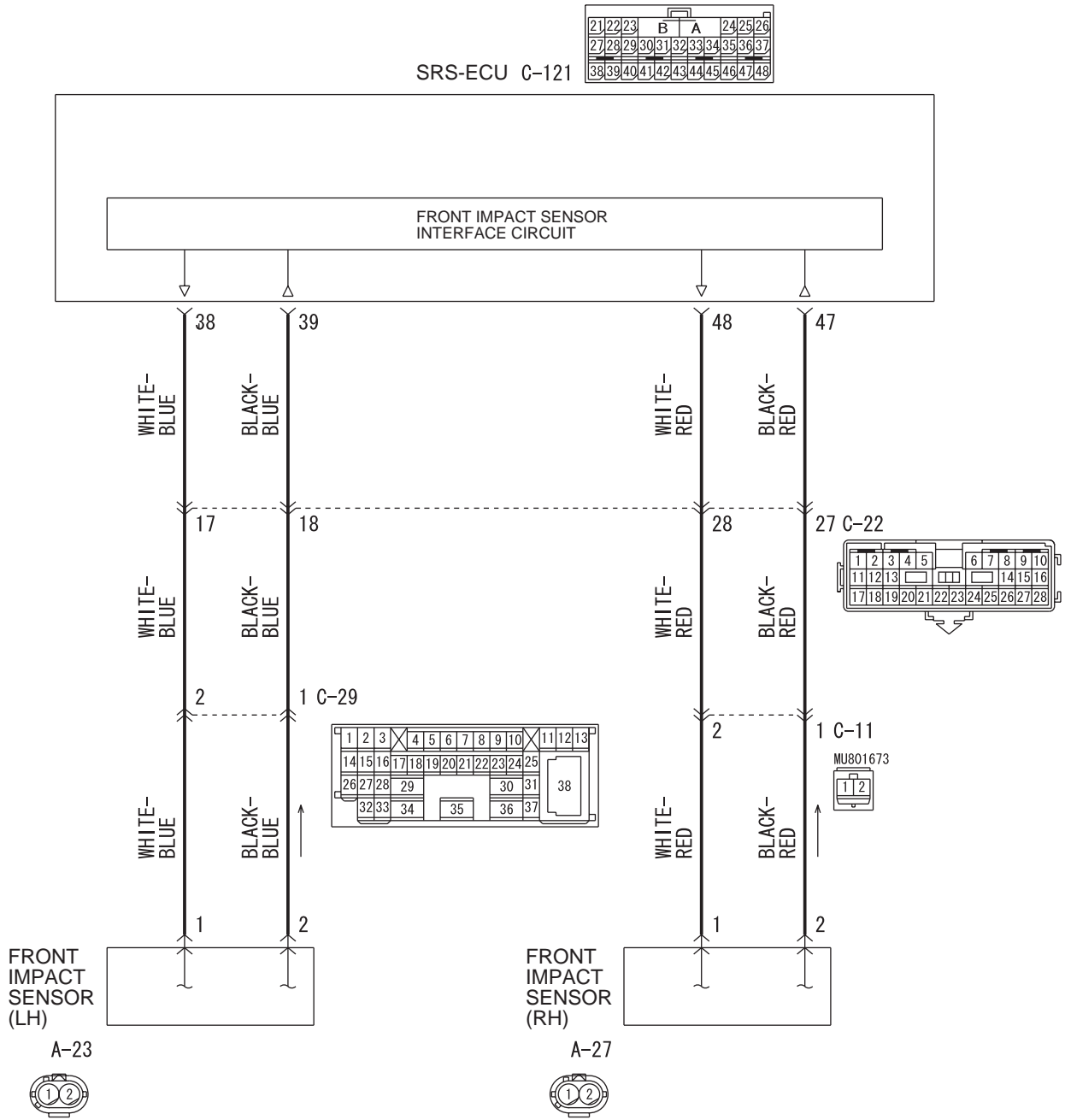
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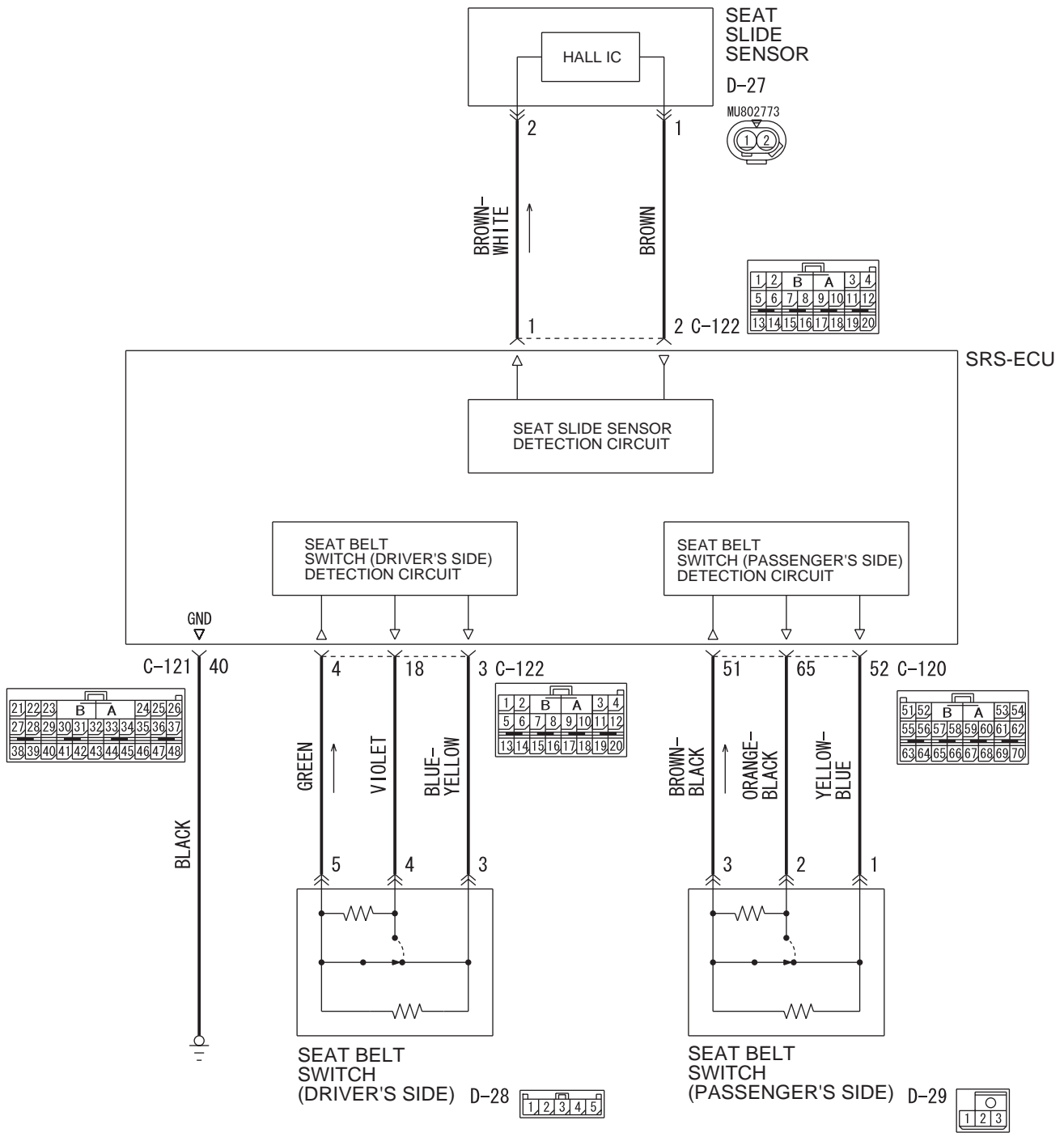
W5P52M005A



W4P52M26AA

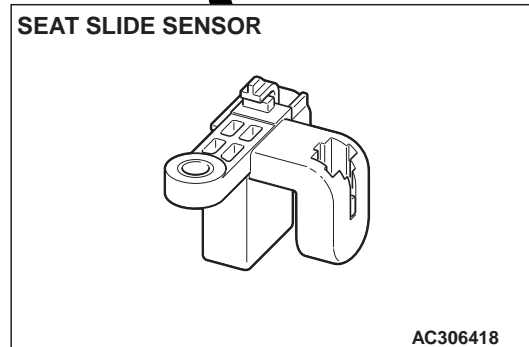
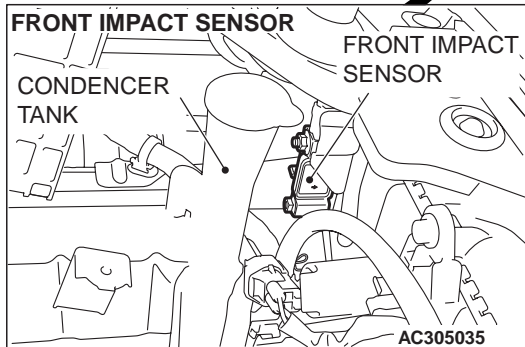
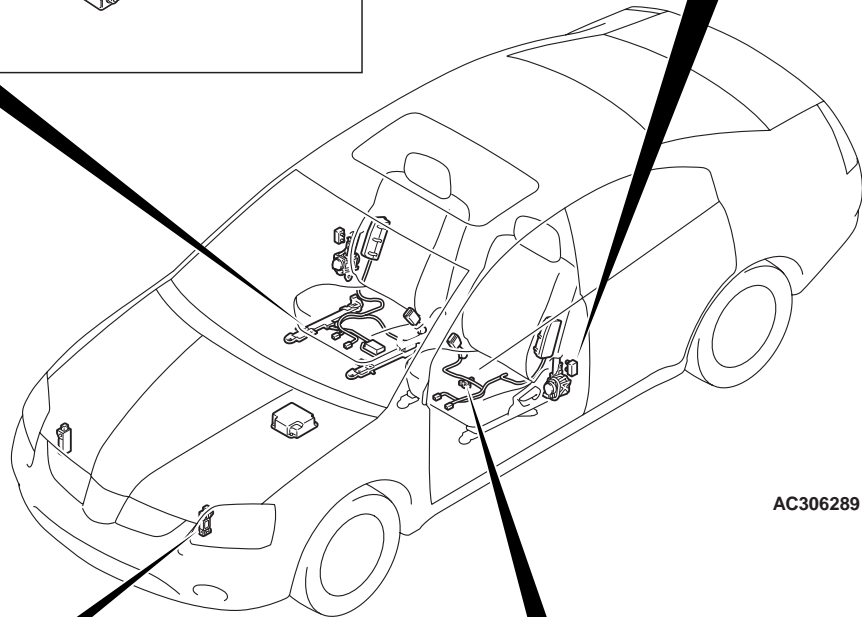
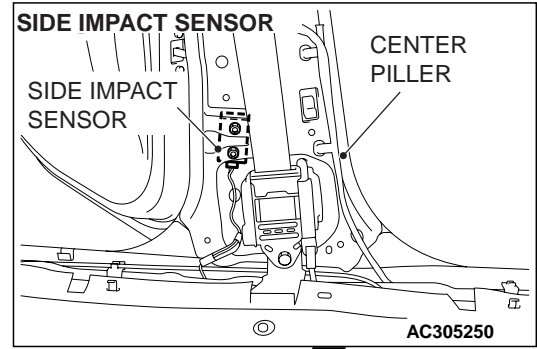
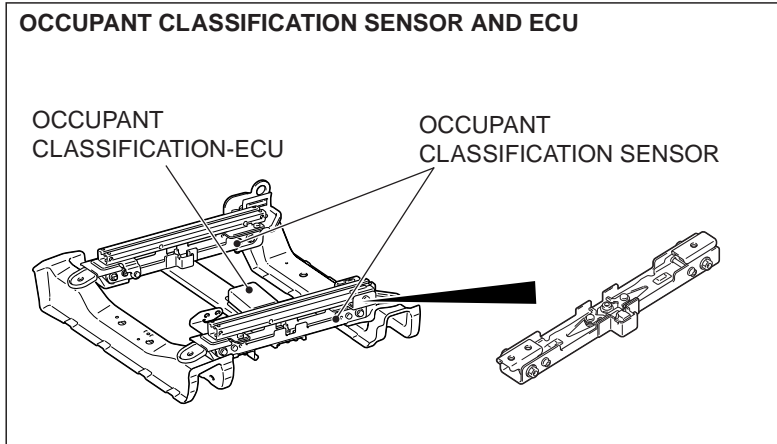


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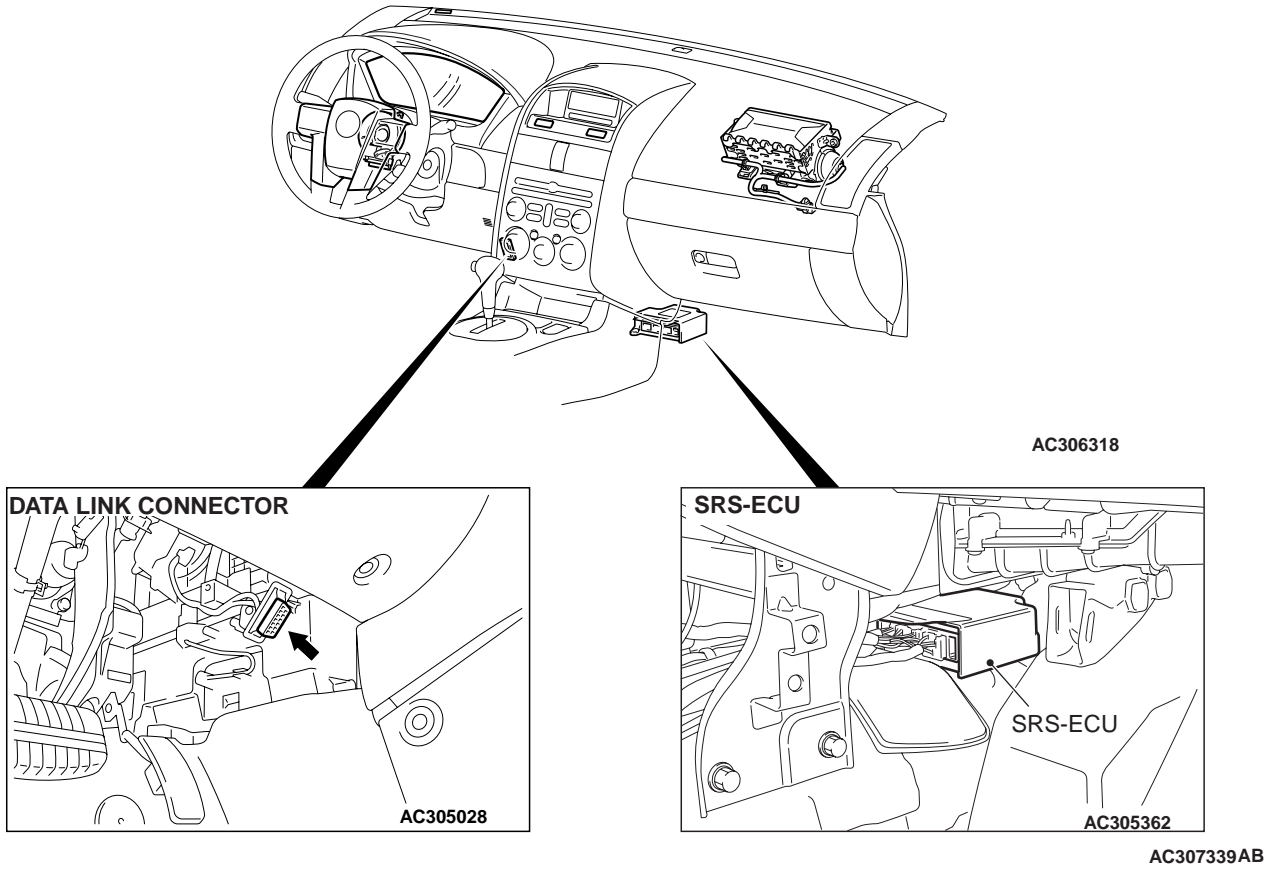


W5P52M007A

COMPONENT LOCATION



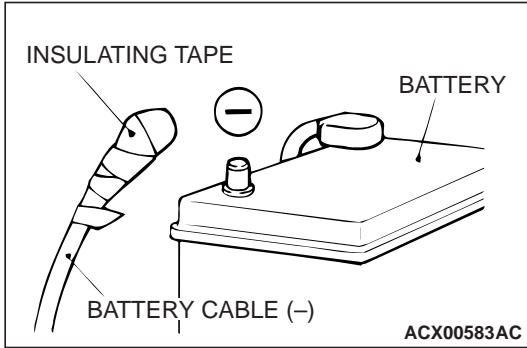
AC307338AB



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

SERVICE PRECAUTIONS

M1524000300499

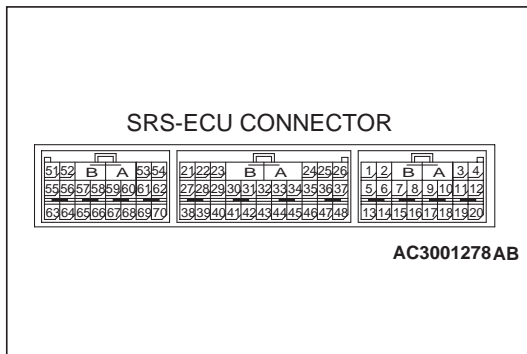


⚠ DANGER

- *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

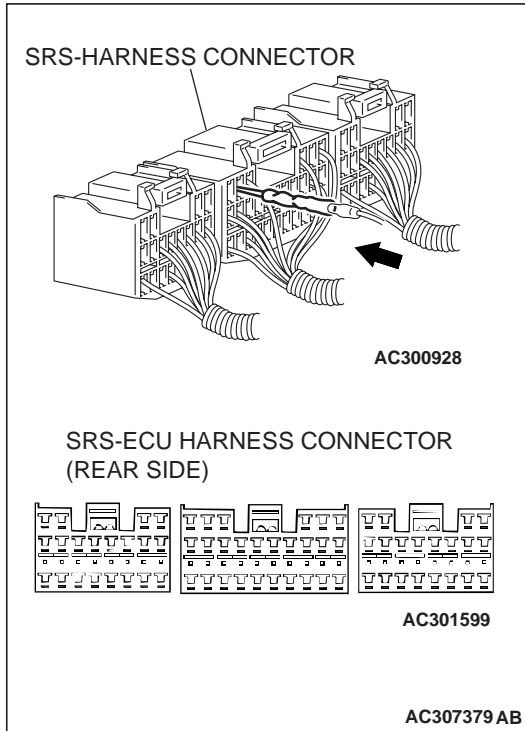
- *Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.*
- *Do not use any electrical test equipment on or near the SRS components, except those specified on [P.52B-347](#).*
- *Never Attempt to Repair the Following Components: SRS-ECU, Clock Spring, 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-353](#).*
- *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 N/C 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.
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 N/O 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 COM terminal	Correct or replace the floor wiring harness.
52	Floor wiring harness → Passenger's seat belt switch for N/C 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.
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 N/O terminal	Correct or replace the floor wiring harness.
66	Floor wiring harness → Occupant classification sensor	Correct or replace the floor wiring harness.

*NOTE: *Vehicles with side-airbags*



⚠ WARNING

- **Inspection of the SRS-ECU connector harness should be carried out by the following procedure. Insert the backprobing tool into connector from harness side (rear side), and connect the tester to backprobing tool. If any tool other than backprobing tool is used, it may cause damage to the harness and other components. Furthermore, measurement should not be carried out by touching the backprobing tool directly against the terminals from the front of the connector. The terminals are plated to increase their conductivity, so if they are touched directly by the backprobing tool, the plating may break, which will decrease reliability.**
- **The SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, driver's and front passenger's air bag modules, clock spring, side-airbag modules, and seat belt pre-tensioner before drying or baking the vehicle after painting.**
 - **SRS-ECU, air bag module, clock spring: 93° C (200° F) or more**
 - **Seat belt with pre-tensioner 90°C (194° F) or more**
- **After servicing the SRS system, check the warning light operation to make sure that the system functions properly. (Refer to P.52B-3).**
- **Make certain that the ignition switch is in the "LOCK"(OFF) position when the scan tool is connected or disconnected.**

SRS AIR BAG DIAGNOSIS

INTRODUCTION TO DIAGNOSIS

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

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

- 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-348).

M1524005000330

TROUBLESHOOTING STRATEGY

M1524003100654

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

1. Gather information about the problem from the customer.
2. Verify that the condition described by the customer exists.
3. Check the vehicle for any SRS diagnostic trouble codes (SRS DTC).
4. If you cannot verify the condition but there are no SRS DTCs, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions .
5. If there is a SRS DTC, record the code number, then erase the code from vehicle memory using scan tool (MUT-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 .

DIAGNOSTIC FUNCTION

M1524013800074

HOW TO CONNECT THE SCAN TOOL (MUT-III)

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

CAUTION

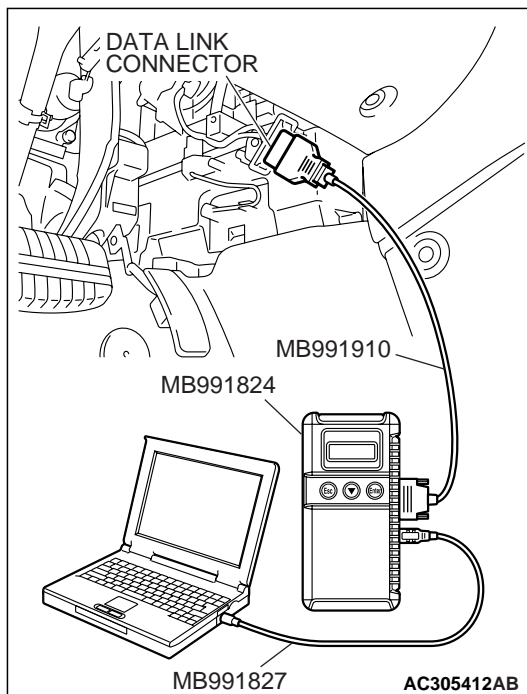
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

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 MUT-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:

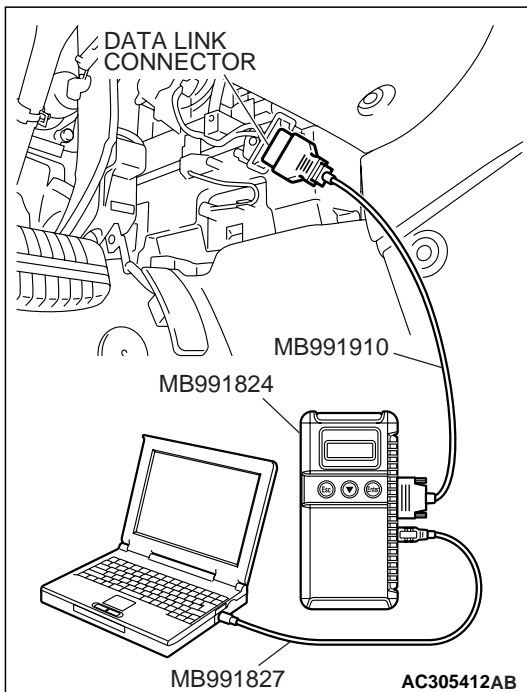
- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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.

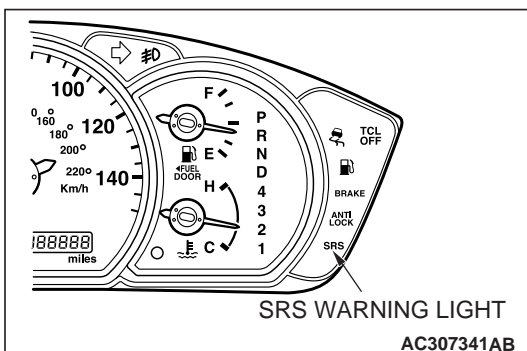
1. Connect scan tool MB991958 to the data link connector.
2. Turn the ignition switch to the "ON" position.
3. Select "Interactive Diagnosis" from the start-up screen.
4. Select "System select."
5. Select "MITSUBISHI."
6. Choose "SRS-AIR BAG" from the "BODY" tab.
7. Select "Diagnostic Trouble Code."
8. If a DTC is set, it is shown.
9. Choose "Erase DTCs" to erase the DTC.

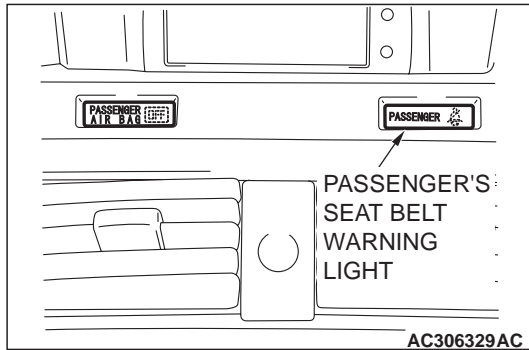


SRS WARNING LIGHT CHECK

M1524004300361

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

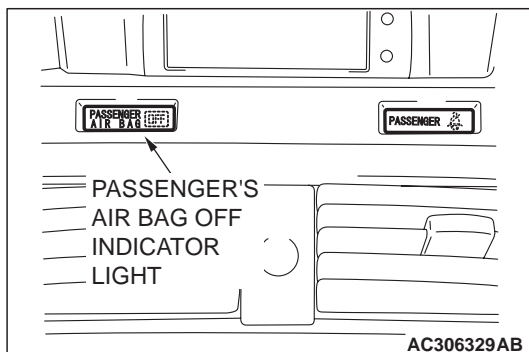




PASSENGER'S SEAT BELT WARNING LIGHT CHECK

M1524026200016

1. Check that the passenger's 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'S AIR BAG OFF INDICATOR LIGHT CHECK

M1524026300013

1. Check that the passenger's 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

M1524003300777

⚠ 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 (1st squib) short-circuited	P.52B-38
B1401*3	Driver's air bag (1st squib) open-circuited	P.52B-48
B1402*3	Driver's air bag (1st squib) drive circuit (ground side) short-circuited	P.52B-55
B1403*3	Driver's air bag (1st squib) drive circuit (power supply side) short-circuited	P.52B-63
B1404*3	Driver's air bag (1st squib) activating circuit short-circuited	P.52B-208
B1405*5	Driver's air bag (1st squib) activating circuit open-circuited	P.52B-208
B1406*5	G-sensor of front impact sensor (RH) failure	P.52B-70
B1407*3	Front impact sensor (RH) voltage error	P.52B-72
B1408*3	Front impact sensor (RH) communication error	P.52B-77
B1409*3	Front impact sensor (RH) communication impossible	P.52B-77
B1410*3	Passenger's (front) air bag (1st squib) short-circuited	P.52B-82
B1411*3	Passenger's (front) air bag (1st squib) open-circuited	P.52B-92
B1412*3	Passenger's (front) air bag (1st squib) drive circuit (ground side) short-circuited	P.52B-98
B1413*3	Passenger's (front) air bag (1st squib) drive circuit (power supply side) short-circuited	P.52B-105
B1414*5	Passenger's (front) air bag (1st squib) activating circuit short-circuited	P.52B-208
B1415*5	Passenger's (front) air bag (1st squib) activating circuit open-circuited	P.52B-208
B1416*5	G-sensor of front impact sensor (LH) failure	P.52B-70
B1417*3	Front impact sensor (LH) voltage error	P.52B-111
B1418*3	Front impact sensor (LH) communication error	P.52B-116
B1419*3	Front impact sensor (LH) communication impossible	P.52B-116
B1420*3	Side-airbag squib (RH) short-circuited	P.52B-120
B1421*3	Side-airbag squib (RH) open-circuited	P.52B-128
B1422*3	Side-airbag squib (RH) drive circuit (ground side) shorted	P.52B-132

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE
B1423 ^{*3}	Side-airbag squib (RH) drive circuit (power supply side) shorted	P.52B-138
B1424 ^{*5}	Side-airbag squib (RH) drive circuit shorted	P.52B-208
B1425 ^{*5}	Side-airbag squib (RH) drive circuit open	P.52B-208
B1426 ^{*5}	G-sensor of side impact sensor (RH) failure	P.52B-143
B1427 ^{*3}	Side impact sensor (RH) voltage error	P.52B-145
B1428 ^{*3}	Side impact sensor (RH) communication error	P.52B-149
B1429 ^{*3}	Side impact sensor (RH) communication impossible	P.52B-149
B1430 ^{*3}	Side-airbag squib (LH) short-circuited	P.52B-153
B1431 ^{*3}	Side-airbag squib (LH) open-circuited	P.52B-160
B1432 ^{*3}	Side-airbag squib (LH) drive circuit (ground side) shorted	P.52B-164
B1433 ^{*3}	Side-airbag squib (LH) drive circuit (power supply side) shorted	P.52B-170
B1434 ^{*5}	Side-airbag squib (LH) drive circuit shorted	P.52B-208
B1435 ^{*5}	Side-airbag squib (LH) drive circuit open	P.52B-208
B1436 ^{*5}	G-sensor of side impact sensor (LH) failure	P.52B-143
B1437 ^{*3}	Side impact sensor (LH) voltage error	P.52B-175
B1438 ^{*3}	Side impact sensor (LH) communication error	P.52B-179
B1439 ^{*3}	Side impact sensor (LH) communication impossible	P.52B-179
B1460 ^{*3}	Seat belt pre-tensioner (RH) squib short-circuited	P.52B-183
B1461 ^{*3}	Seat belt pre-tensioner (RH) squib open-circuited	P.52B-190
B1462 ^{*3}	Seat belt pre-tensioner (RH) squib drive circuit (ground side) short-circuited	P.52B-196
B1463 ^{*3}	Seat belt pre-tensioner (RH) squib drive circuit (power supply side) short-circuited	P.52B-202
B1464 ^{*5}	Seat belt pre-tensioner (RH) (squib ignition drive circuit) system detected short	P.52B-208
B1465 ^{*5}	Seat belt pre-tensioner (RH) (squib ignition drive circuit) system detected open	P.52B-208
B1466 ^{*5}	Analog G-sensor malfunction	P.52B-208
B1467 ^{*5}	Safing G-sensor open-circuited (for frontal collision)	P.52B-208
B1468 ^{*5}	Safing G-sensor short-circuited (for frontal collision)	P.52B-208
B1469 ^{*5}	Safing G-sensor malfunction (for side collision)	P.52B-208
B1470 ^{*3}	Seat belt pre-tensioner (LH) squib short-circuited	P.52B-211

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE	
B1471 ^{*3}	Seat belt pre-tensioner (LH) squib open-circuited	P.52B-218	
B1472 ^{*3}	Seat belt pre-tensioner (LH) squib (ground side) short-circuited	P.52B-224	
B1473 ^{*3}	Seat belt pre-tensioner (LH) squib (power supply side) short-circuited	P.52B-230	
B1474 ^{*5}	Seat belt pre-tensioner (LH) (squib ignition drive circuit) system detected short	P.52B-208	
B1475 ^{*5}	Seat belt pre-tensioner (LH) (squib ignition drive circuit) system detected open	P.52B-208	
B1476 ^{*2}	Power supply voltage (IG1 (A) voltage) drops abnormally.	P.52B-236	
B1477 ^{*2}	Power supply voltage (IG1 (B) voltage) drops abnormally.	P.52B-236	
B1478 ^{*5}	SRS-ECU capacitor circuit voltage too high	P.52B-208	
B1479 ^{*5}	SRS-ECU capacitor circuit voltage too low	P.52B-208	
B1480 ^{*3}	Driver's air bag (2nd squib) short-circuited	P.52B-38	
B1481 ^{*3}	Driver's air bag (2nd squib) open-circuited	P.52B-48	
B1482 ^{*3}	Driver's air bag (2nd squib) drive circuit (ground side) short-circuited	P.52B-55	
B1483 ^{*3}	Driver's air bag (2nd squib) drive circuit (power supply side) short-circuited	P.52B-63	
B1484 ^{*5}	Driver's air bag (2nd squib) activating circuit short-circuited	P.52B-208	
B1485 ^{*5}	Driver's air bag (2nd squib) activating circuit open-circuited	P.52B-208	
B1486 ^{*5}	Passenger's seat belt warning light circuit malfunction	P.52B-245	
B1487 ^{*3}	Passenger's seat belt warning light circuit open-circuited	Light does not illuminate ^{*2}	P.52B-248
		Light does not switch off	P.52B-256
B1488 ^{*5}	Passenger's air bag OFF indicator light circuit malfunction	P.52B-262	
B1489 ^{*3}	Passenger's air bag OFF indicator light circuit open-circuited	Light does not illuminate ^{*2}	P.52B-265
		Light does not switch off	P.52B-273
B1490 ^{*3}	Passenger's (front) air bag (2nd squib) short-circuited	P.52B-82	
B1491 ^{*3}	Passenger's (front) air bag (2nd squib) open-circuited	P.52B-92	
B1492 ^{*3}	Passenger's (front) air bag (2nd squib) drive circuit (ground side) short-circuited	P.52B-98	
B1493 ^{*3}	Passenger's (front) air bag (2nd squib) drive circuit (power supply side) short-circuited	P.52B-105	
B1494 ^{*5}	Passenger's (front) air bag (2nd squib) activating circuit short-circuited	P.52B-208	
B1495 ^{*5}	Passenger's (front) air bag (2nd squib) activating circuit open-circuited	P.52B-208	

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE
B1496 ^{*5}	SRS-ECU non-volatile memory (EEPROM)	P.52B-208
B1497 ^{*5}	SRS-ECU ASIC (for frontal activation)	P.52B-208
B1498 ^{*5}	SRS-ECU ROM or RAM	P.52B-208
B1499 ^{*5}	Collision decision	P.52B-278
B1506 ^{*3}	Seat slide sensor circuit open	P.52B-280
B1507 ^{*3}	Seat slide sensor circuit (ground side) shorted	P.52B-284
B1508 ^{*3}	Seat slide sensor circuit (power supply side) shorted	P.52B-290
B1509 ^{*2}	Incorrect SRS-ECU	P.52B-295
B1519 ^{*3}	SRS-ECU connector lock out of order	P.52B-296
B1520 ^{*3}	Seat belt switch (LH) malfunction	P.52B-301
B1521 ^{*3}	Seat belt switch (LH) circuit open (for N/C terminal)	P.52B-301
B1522 ^{*3}	Seat belt switch (LH) circuit (ground side) shorted (for N/C terminal)	P.52B-301
B1523 ^{*3}	Seat belt switch (LH) circuit (power supply side) shorted (for N/C terminal)	P.52B-301
B1524 ^{*3}	Seat belt switch (LH) circuit open (for N/O terminal)	P.52B-301
B1525 ^{*3}	Seat belt switch (LH) circuit (ground side) shorted (for N/O terminal)	P.52B-301
B1526 ^{*3}	Seat belt switch (LH) circuit (power supply side) shorted (for N/O terminal)	P.52B-301
B1527 ^{*3}	Seat belt switch (LH) circuit open (for COM terminal)	P.52B-301
B1528 ^{*3}	Seat belt switch (LH) circuit (ground side) shorted (for COM terminal)	P.52B-301
B1529 ^{*3}	Seat belt switch (LH) circuit (power supply side) shorted (for COM terminal)	P.52B-301
B1530 ^{*3}	Seat belt switch (RH) malfunction	P.52B-310
B1531 ^{*3}	Seat belt switch (RH) circuit open (for N/C terminal)	P.52B-310
B1532 ^{*3}	Seat belt switch (RH) circuit (ground side) shorted (for N/C terminal)	P.52B-310
B1533 ^{*3}	Seat belt switch (RH) circuit (power supply side) shorted (for N/C terminal)	P.52B-310
B1534 ^{*3}	Seat belt switch (RH) circuit open (for N/O terminal)	P.52B-310
B1535 ^{*3}	Seat belt switch (RH) circuit (ground side) shorted (for N/O terminal)	P.52B-310
B1536 ^{*3}	Seat belt switch (RH) circuit (power supply side) shorted (for N/O terminal)	P.52B-310
B1537 ^{*3}	Seat belt switch (RH) circuit open (for COM terminal)	P.52B-310

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE
B1538 ^{*3}	Seat belt switch (RH) circuit (ground side) shorted (for COM terminal)	P.52B-310
B1539 ^{*3}	Seat belt switch (RH) circuit (power supply side) shorted (for COM terminal)	P.52B-310
B1540 ^{*3}	Occupant classification-ECU malfunction	P.52B-319
B1541 ^{*3}	Occupant classification-ECU calibration malfunction	P.52B-319
B1542 ^{*3}	Occupant classification sensor (S1) malfunction	P.52B-319
B1543 ^{*3}	Occupant classification sensor (S2) malfunction	P.52B-319
B1545 ^{*3}	Occupant classification-ECU communication error	P.52B-321
B1546 ^{*3}	Occupant classification-ECU communication impossible	P.52B-321
B1547 ^{*4*5}	Cut OFF for passenger's front air bag	P.52B-328
B1552 ^{*5}	Changing circuit shorted	P.52B-208
B1553 ^{*5}	Changing circuit open	P.52B-208
B1554 ^{*5}	SG BY-PASS circuit malfunction	P.52B-208
B1555 ^{*5}	SG BY-PASS circuit (FET) open	P.52B-208
B1556 ^{*3}	Seat slide sensor malfunction	P.52B-331
B1557 ^{*5}	SRS-ECU ASIC	P.52B-208
B1558 ^{*3}	Occupant classification-ECU ID-cord malfunction	P.52B-319
U1073 ^{*2}	Bus-off	P.52B-332

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 will remain in memory when the front passenger's air bag is inactive condition in the event of an impact.

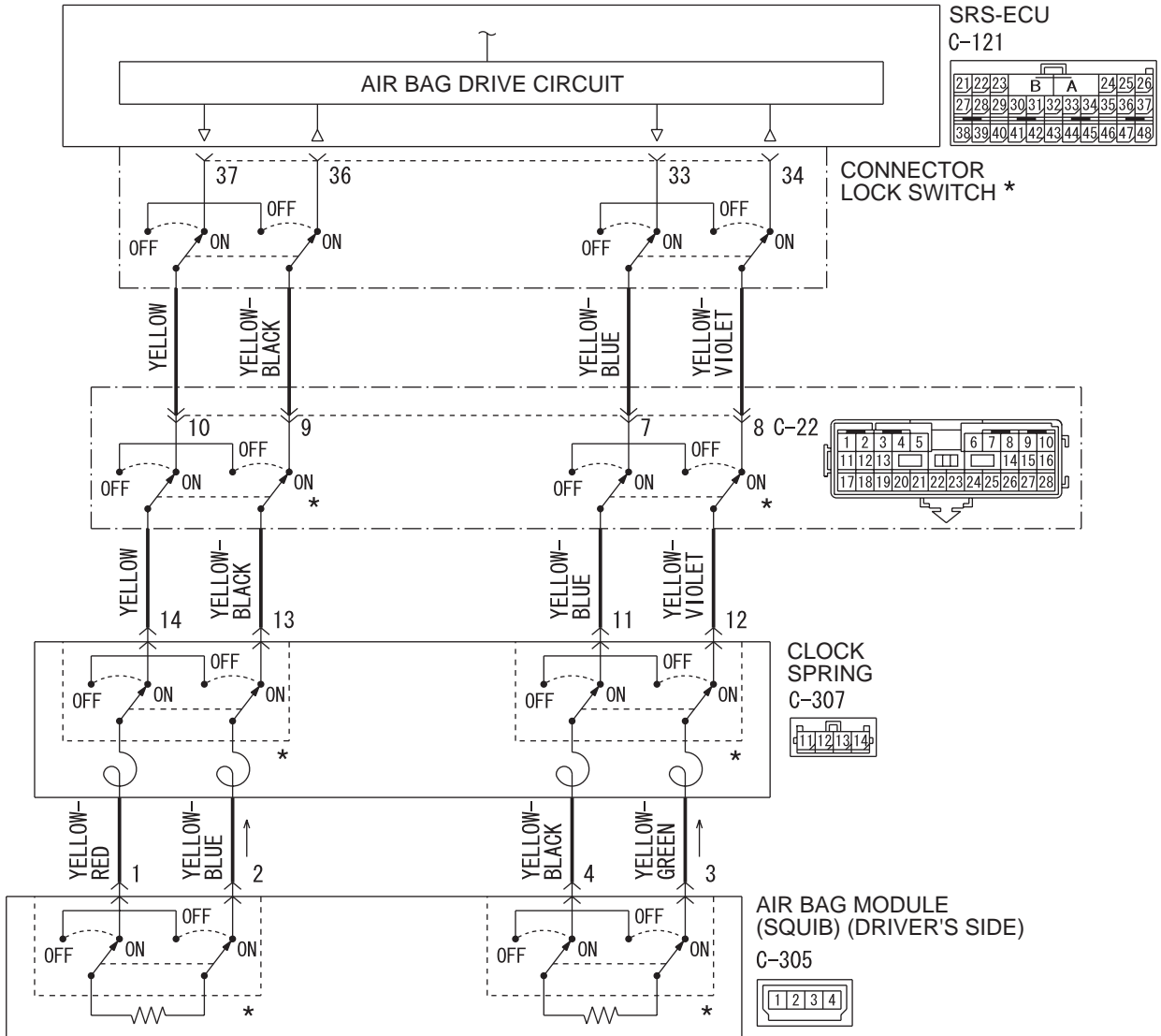
^{*5}: This DTC cannot be erased by "Erase DTCs" function.

DIAGNOSTIC TROUBLE CODE PROCEDURES

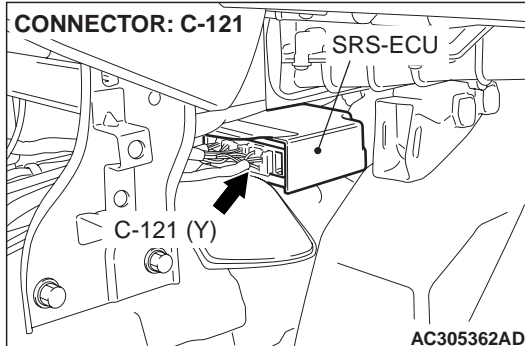
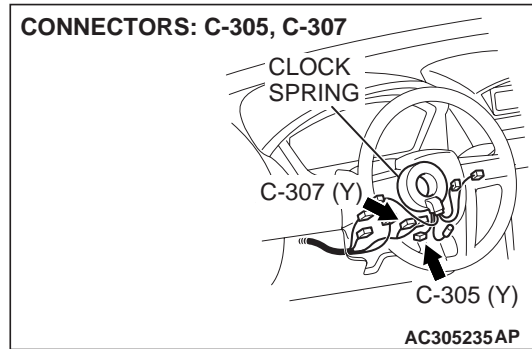
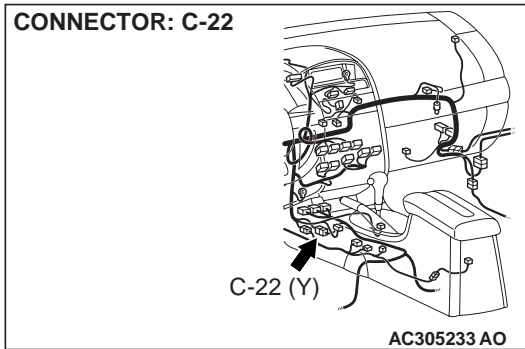
DTC B1400: Driver's Air Bag Module (1st Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

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



*: CONNECTOR LOCK SWITCH
CONNECTOR CONNECTED: ON
CONNECTOR DICONNECTED: OFF



⚠ 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
- However, if no DTC reset, the SRS warning light will be turned off (DTC will OK).

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-121, C-22, C-307 or C-305 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS**Required Special Tools:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

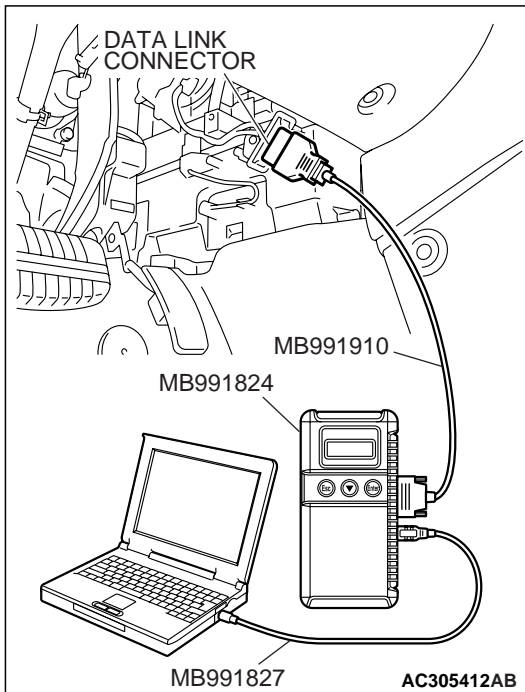
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

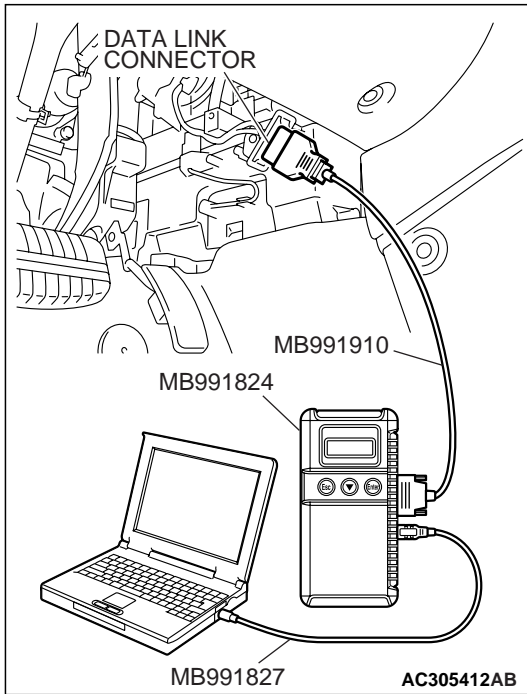
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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).

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

⚠ CAUTION

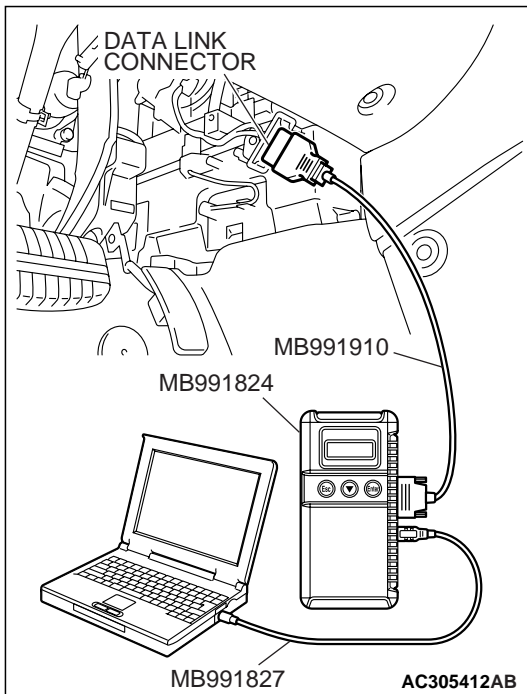
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

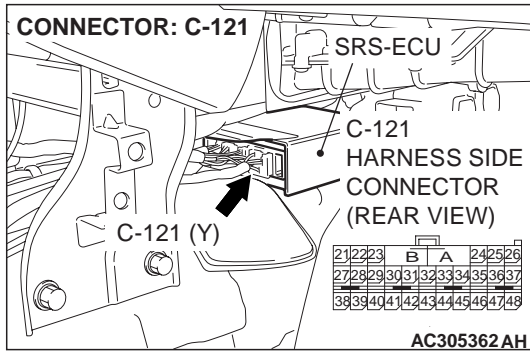
- (1) Turn the ignition switch to the "ON" position.
- (2) Check if the DTC is set.
- (3) Turn the ignition switch to the "LOCK (OFF)" position.

Q: Is DTC B1519 set?

YES : Go to Step 4.

NO : Go to Step 5.



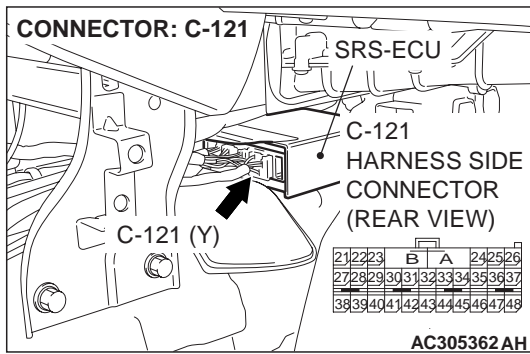


STEP 4. Check SRS-ECU connector C-121.

Q: Is the connector correctly engaged?

YES : Go to Step 5.

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



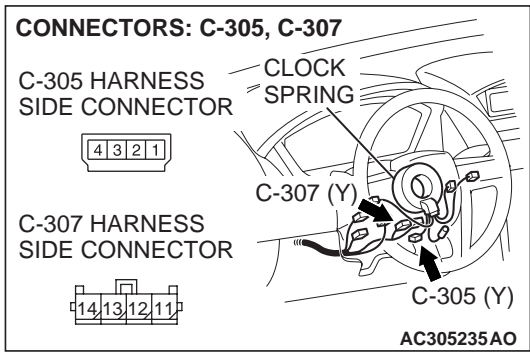
STEP 5. Check SRS-ECU connector C-121, clock spring connector C-307 and driver's air bag module connector C-305. (Using scan tool MB991958, read the diagnostic trouble code.)

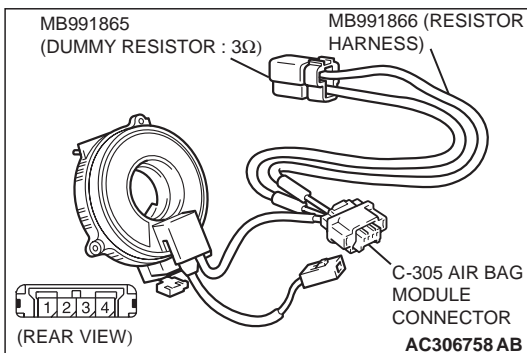
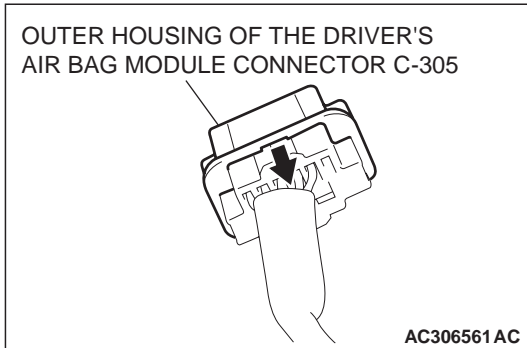
- (1) Disconnect the negative battery terminal.
- (2) Disconnect connectors C-121, C-307 and C-305, and then reconnect them.
- (3) Connect the negative battery terminal.
- (4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

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-121, 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

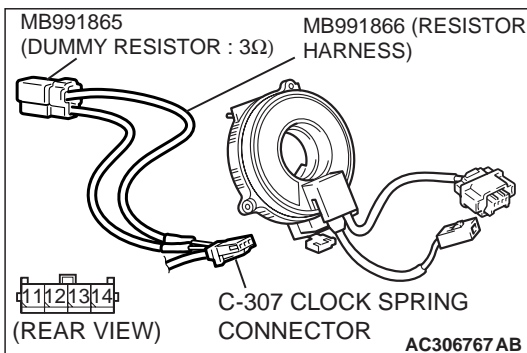
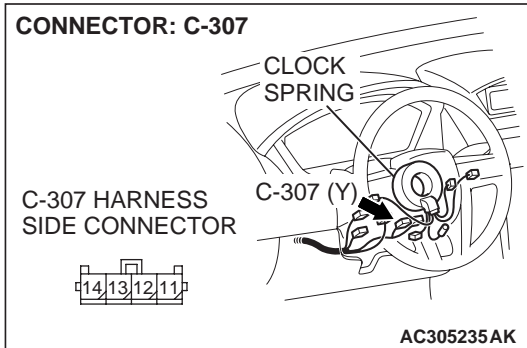
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

- (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.
- (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-368](#)). 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

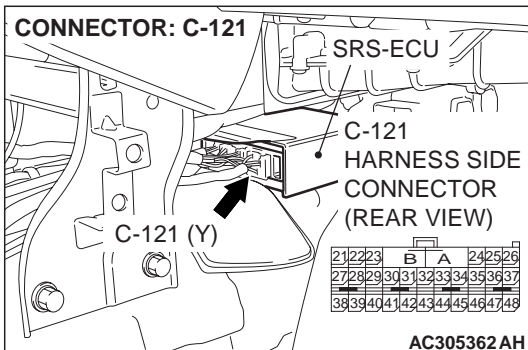
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into clock spring harness side connector C-307 (terminal No.36 and 37 <1st squib> or No.34 and 35 <2nd squib>) by backprobing.
- (5) Connect the negative battery terminal.
- (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-368](#)). Then go to Step 10.



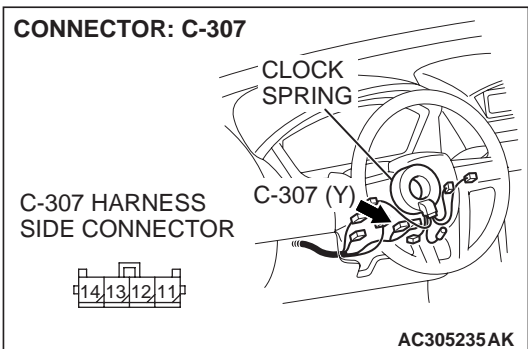
STEP 8. Check the driver's air bag module circuit. Measure the resistance at SRS-ECU connector C-121.

- (1) Disconnect SRS-ECU connector C-121.

⚠ DANGER

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

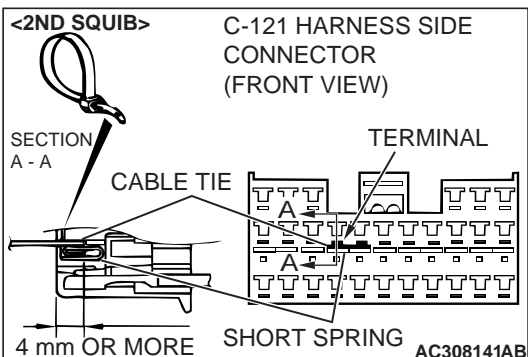
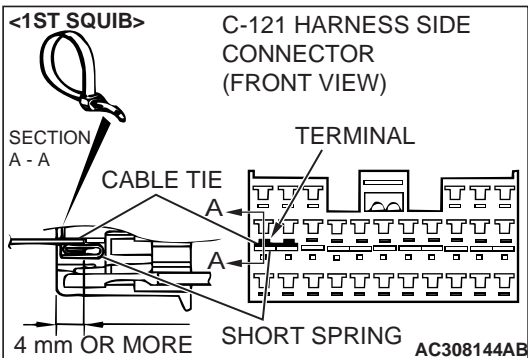
- (2) Disconnect clock spring connector C-307.

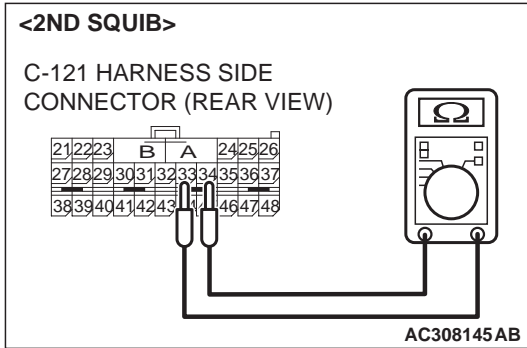
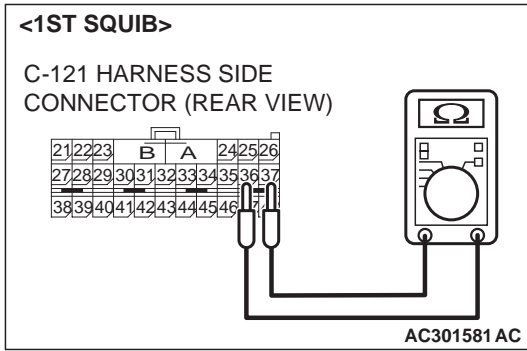


⚠ CAUTION

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.

- (3) 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.

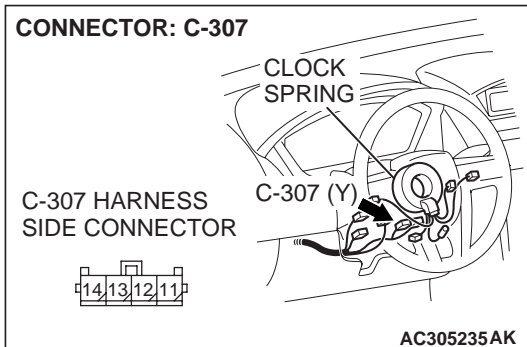
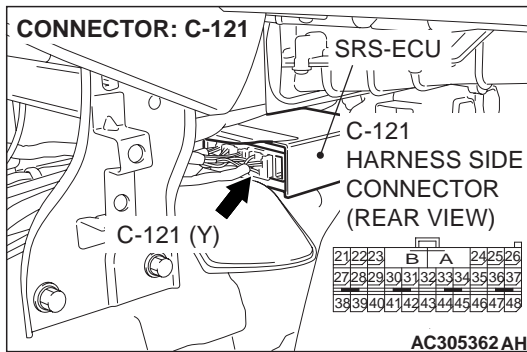
(4) Check for continuity between C-26 harness side connector terminals 36 and 37 <1st squib> or 33 and 34 <2nd squib>. It should be open circuit.

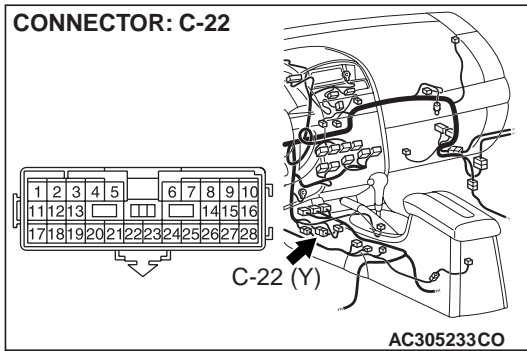
Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1400 <1st squib> or B1481 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 10.

NO : Go to Step 9.

STEP 9. Check the harness for short circuit between SRS-ECU connector C-121 (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>).



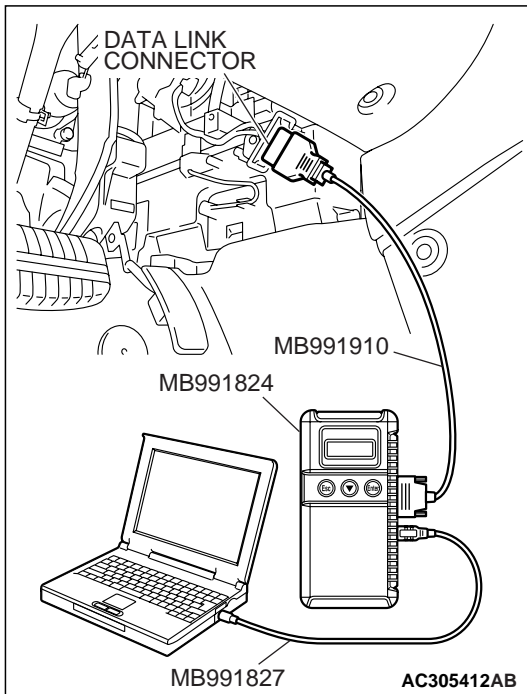


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If the intermediate connector C-22 is damaged, repair or replace it.

Q: Are harness wires between SRS-ECU connector C-121 (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 : Replace the harness wires between SRS-ECU connector C-121 and clock spring connector C-307. Then go to Step 10.



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.

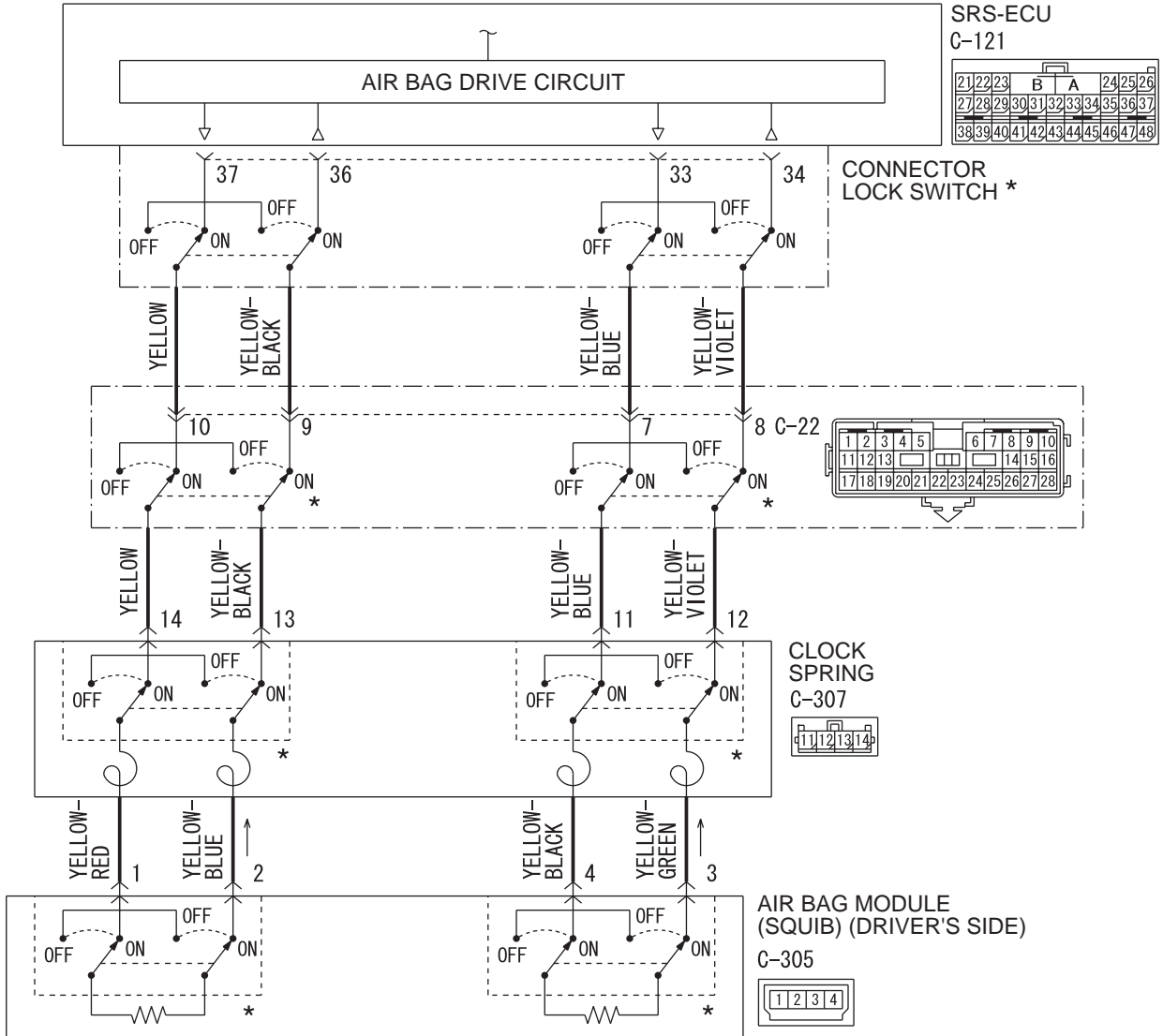
Q: Is DTC B1400 <1st squib> or B1480 <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

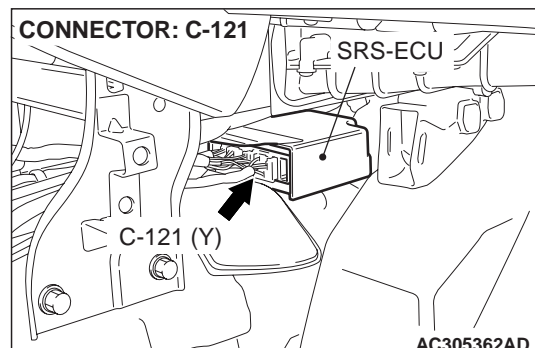
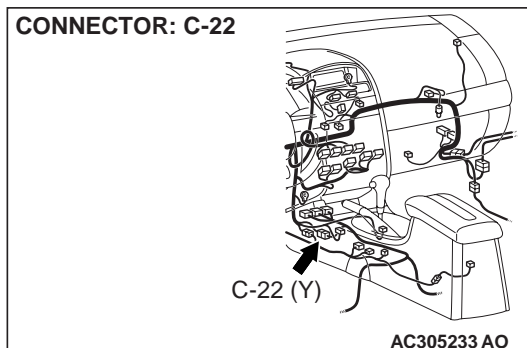
DTC B1401: Driver's Air Bag Module (1st Squib) System Fault 2 (Open in the Squib Circuit)
DTC B1481: Driver's Air Bag Module (2nd Squib) System Fault 2 (Open in the Squib Circuit)

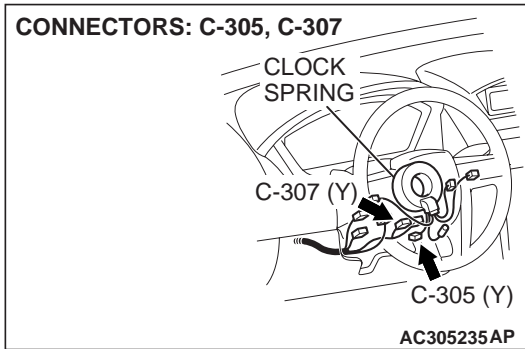
Driver's Air Bag Module (1st and 2nd Squib) Circuit



*: CONNECTOR LOCK SWITCH
CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF

W5P52M009A





CAUTION

If DTC B1401 <1st squib> or B1481 <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 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
- However, if no DTC reset, the SRS warning light will be switched off (DTC will be retained).

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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

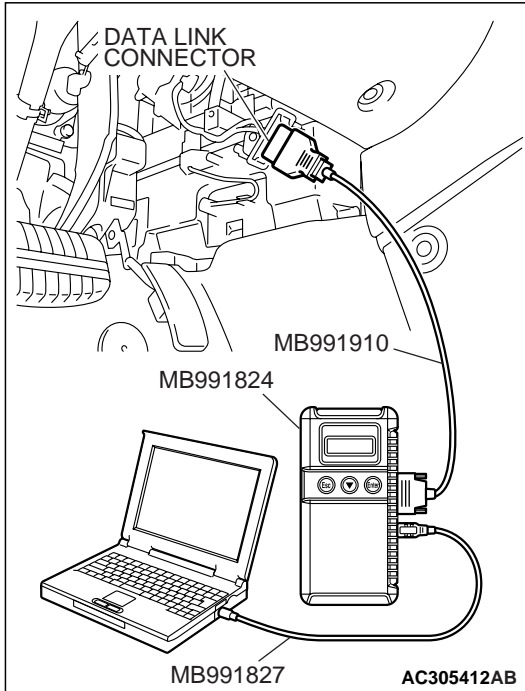
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

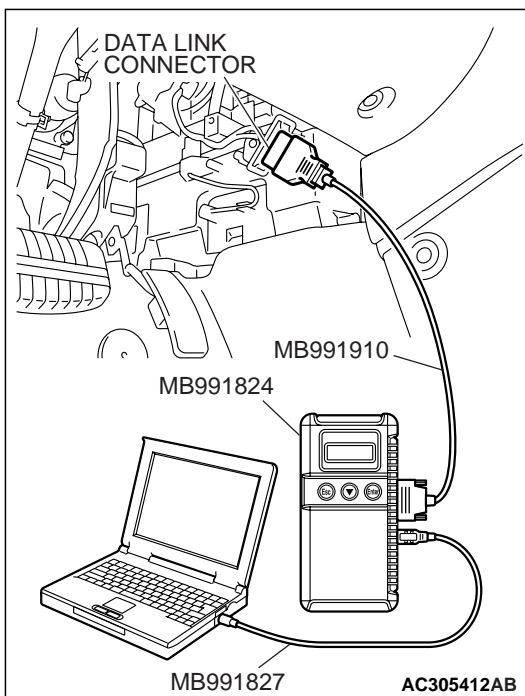
Check again if the DTC is set.

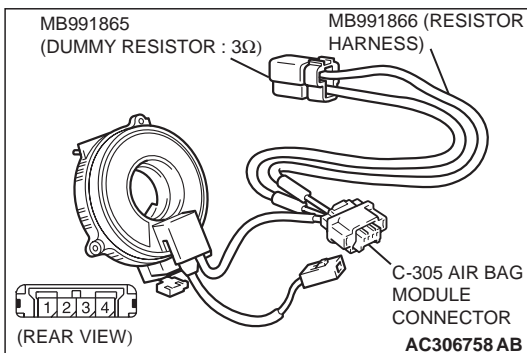
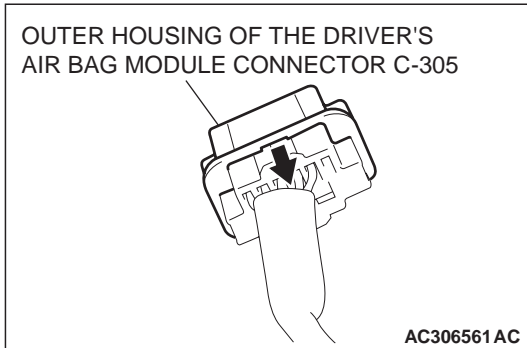
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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

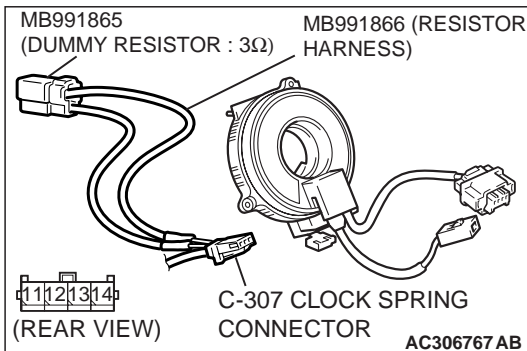
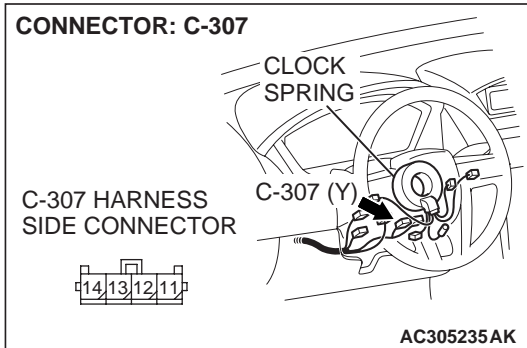
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (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.
- (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-368](#)). 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.14 and 13 <1st squib> or terminal No.11 and 12 <2nd squib>) by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

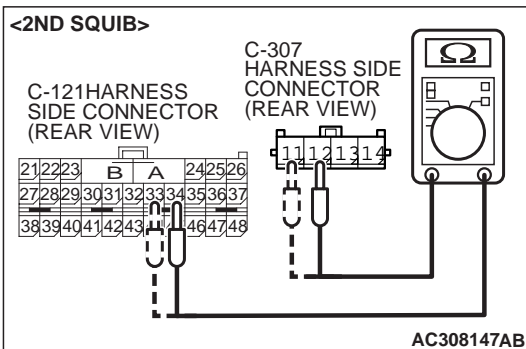
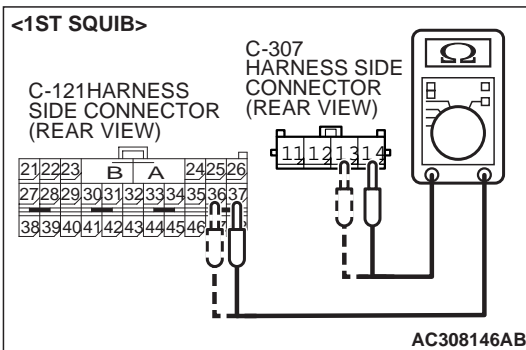
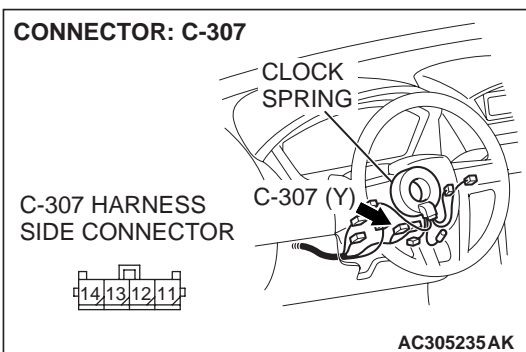
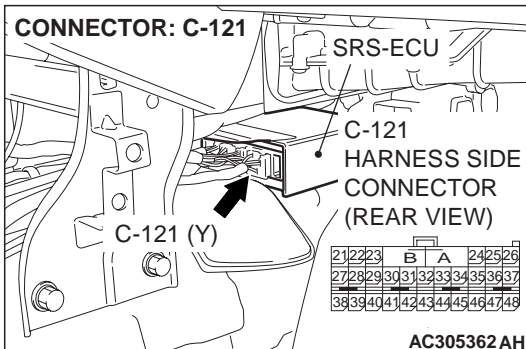
Q: Is DTC B1401 <1st squib> or B1481 <2nd squib> set?

YES : Go to Step 5.

NO : Replace the clock spring (Refer to [P.52B-368](#)). Then go to Step 6.

STEP 5. Check the harness between the SRS-ECU connector C-121 (terminal No.11 and 12) and the clock spring connector C-307 (terminal No.3 and 4) for open circuit.

- (1) Disconnect SRS-ECU connector C-121 and clock spring connector C-307.



CAUTION

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

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

<1st squib>

- SRS-ECU connector C-121 (terminal No.36) and the clock spring connector C-307 (terminal No.13)
- SRS-ECU connector C-121 (terminal No.37) and the clock spring connector C-307 (terminal No.14)

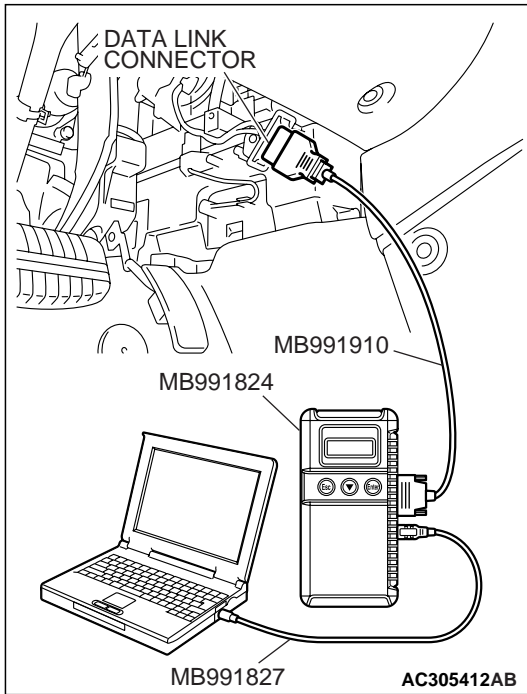
<2nd squib>

- SRS-ECU connector C-121 (terminal No.33) and the clock spring connector C-307 (terminal No.11)
- SRS-ECU connector C-121 (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-365). Then go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-121 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?

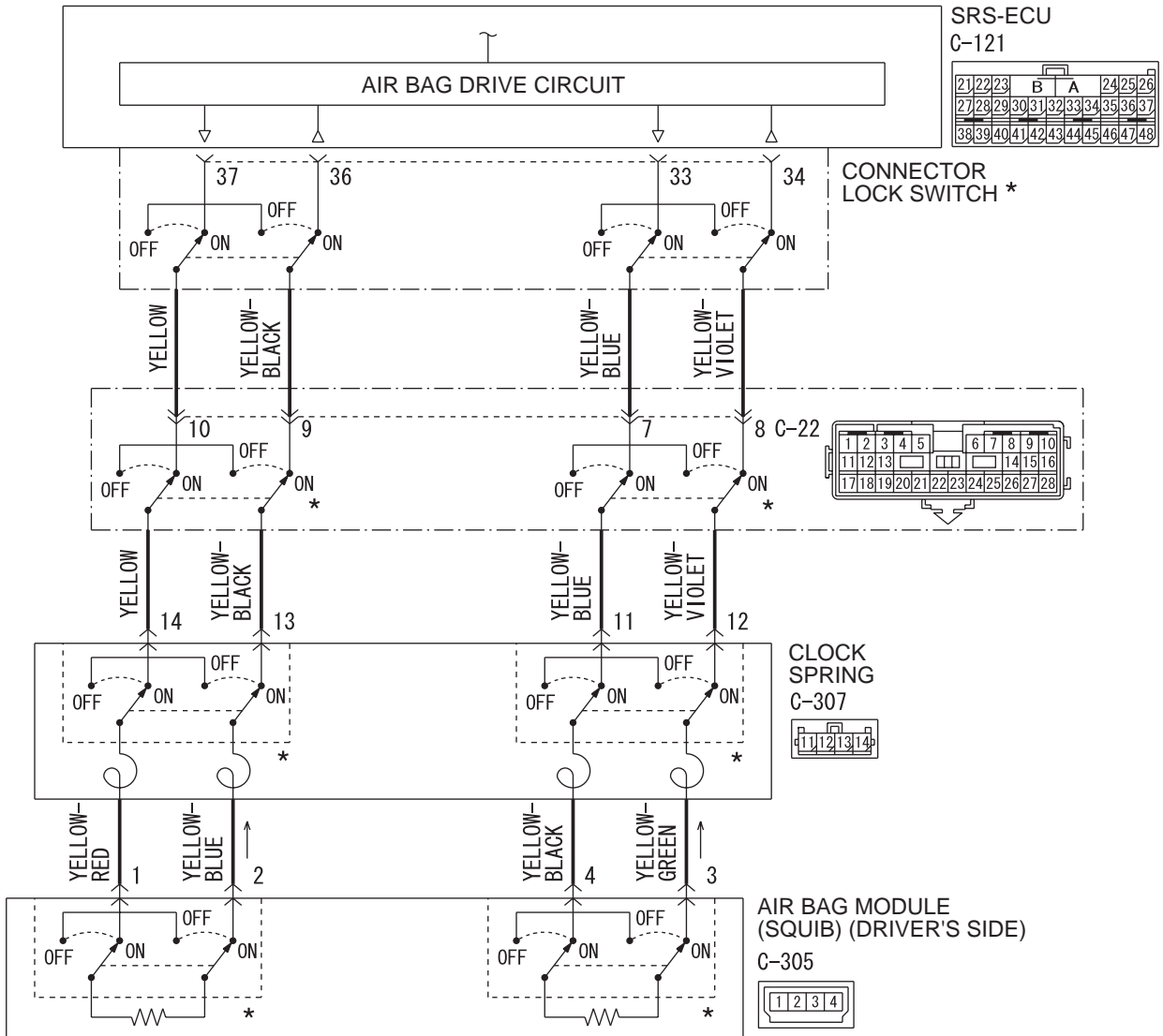
YES : Return to Step 1.

NO : The procedure is complete.

**DTC B1402: Driver's Air Bag Module (1st Squib) System Fault for Power Supply Circuit
(Short-Circuited to Power Supply)**

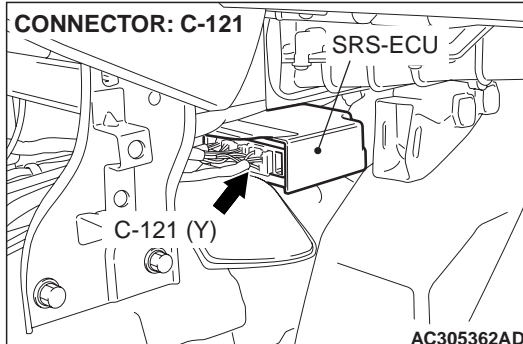
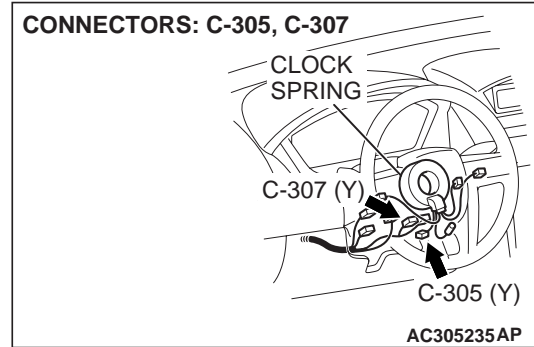
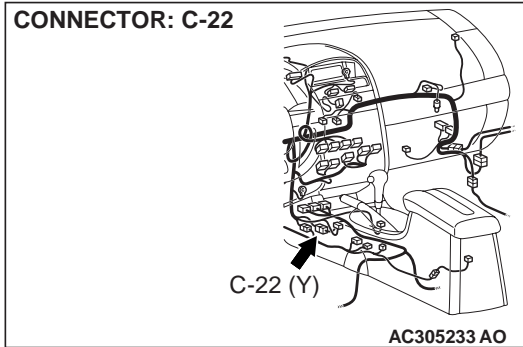
**DTC B1482: Driver's Air Bag Module (2nd Squib) System Fault for Power Supply Circuit
(Short-Circuited to Power Supply)**

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



*: CONNECTOR LOCK SWITCH
CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF

W5P52M009A



CAUTION

If DTC B1402 <1st squib> or B1482 <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 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). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

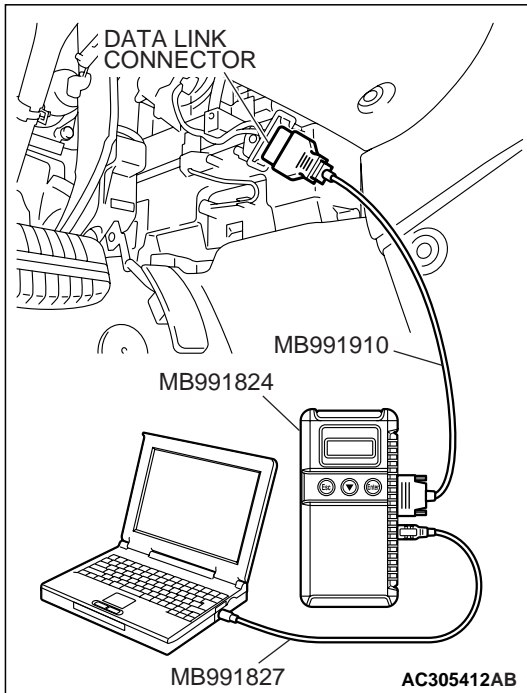
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

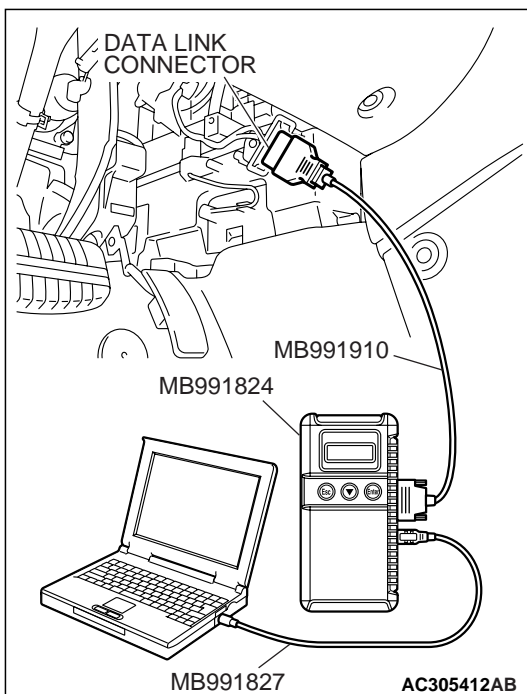
Check again if the DTC is set.

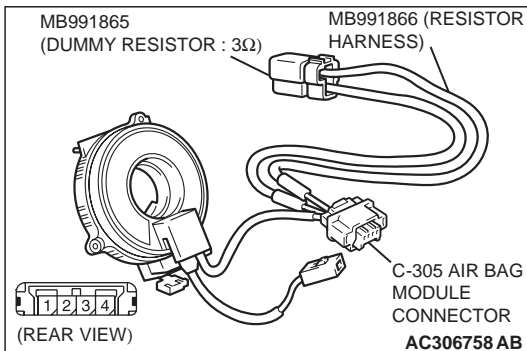
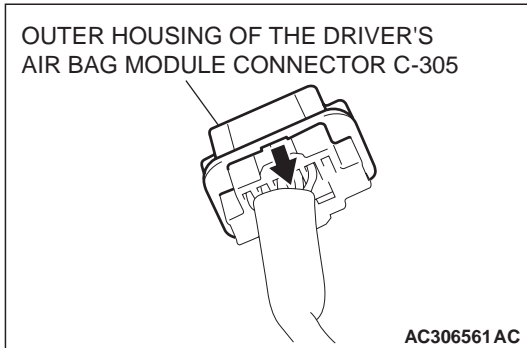
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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

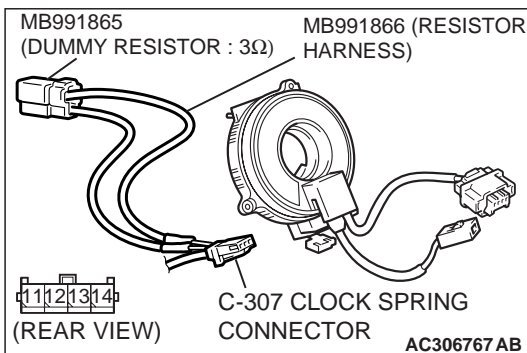
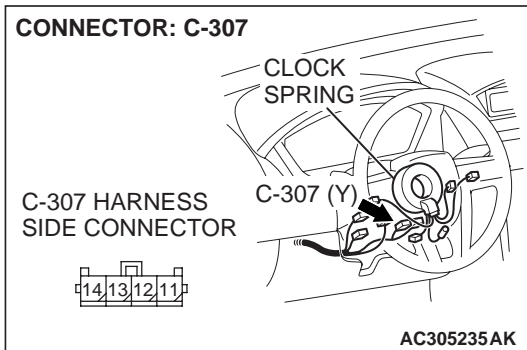
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (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.
- (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-368](#)). 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

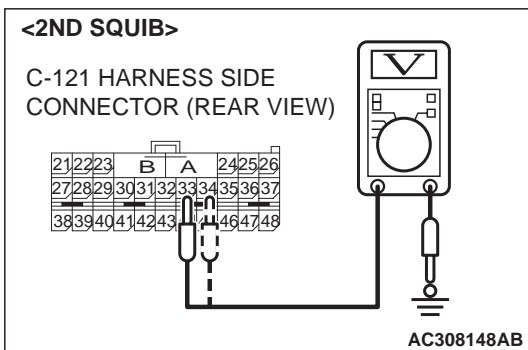
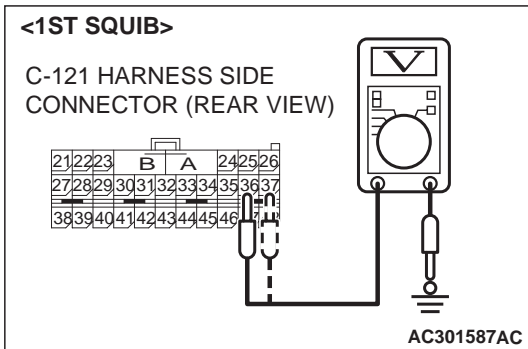
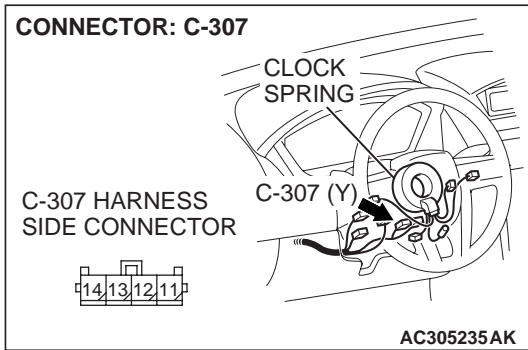
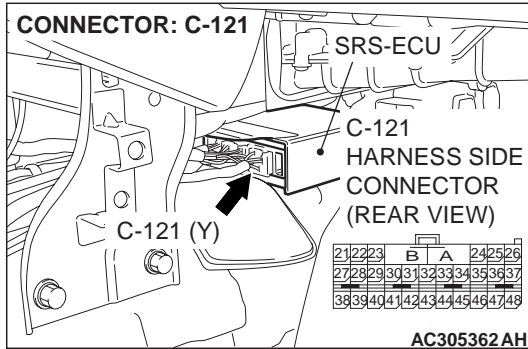
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (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.
- (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-368](#)). Then go to Step 7.



STEP 5. Check the driver's air bag module circuit. Measure the voltage at the SRS-ECU connector C-121.

(1) Disconnect SRS-ECU connector C-121.

⚠ DANGER

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

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

(3) 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.

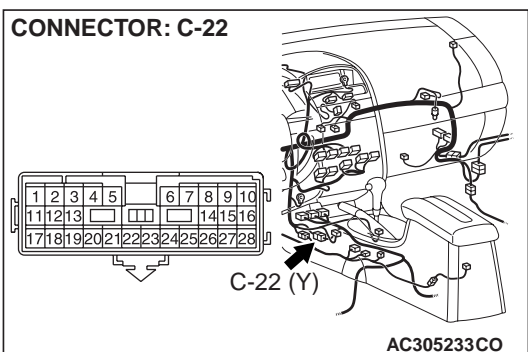
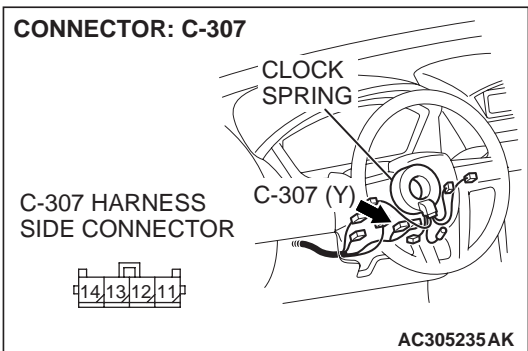
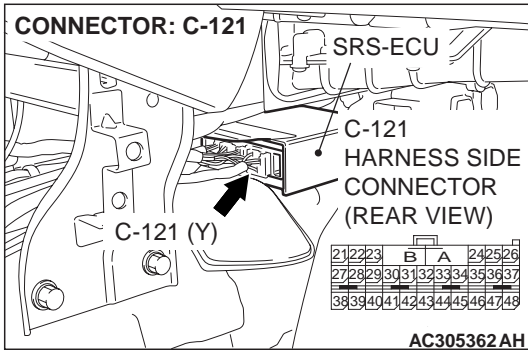
(4) Measure the voltage between C-121 harness side connector terminals 36 and 37 <1st squib> or 33 and 34 <2nd squib> and body ground. Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : 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-365). 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-121 (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>).

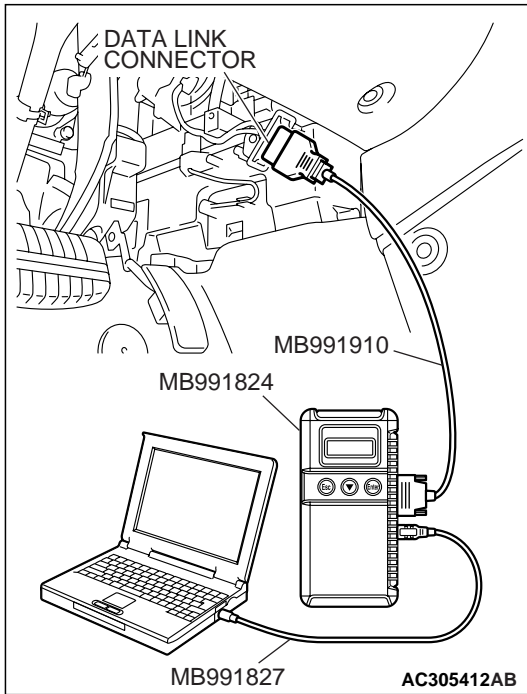


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If the intermediate connector C-22 is damaged, repair or replace it.

Q: Are harness wires between the SRS-ECU connector C-121 (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 : Replace the harness wires between SRS-ECU connector C-121 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?

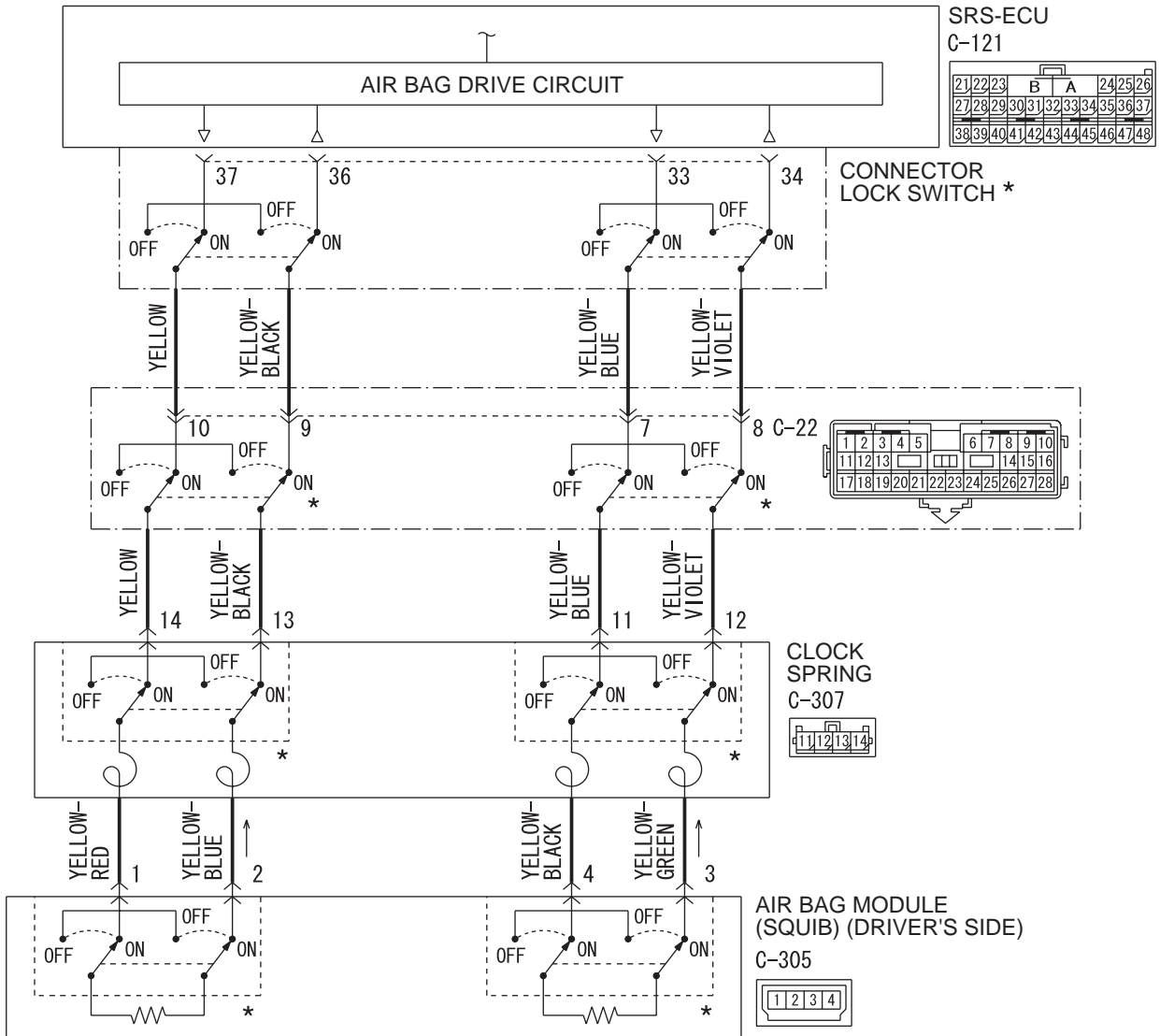
YES : Return to Step 1.

NO : The procedure is complete.

DTC 1403: Driver's Air Bag Module (1st Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

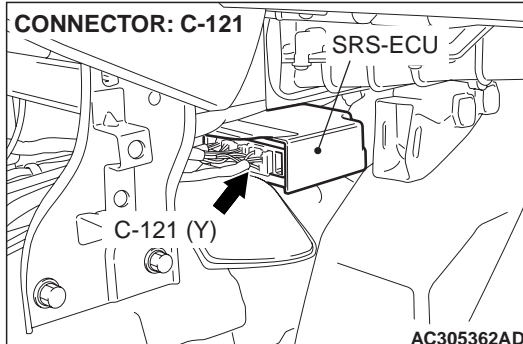
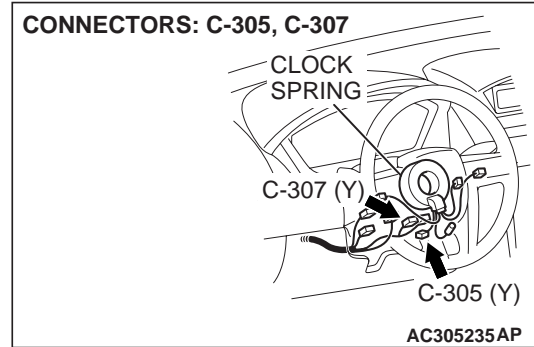
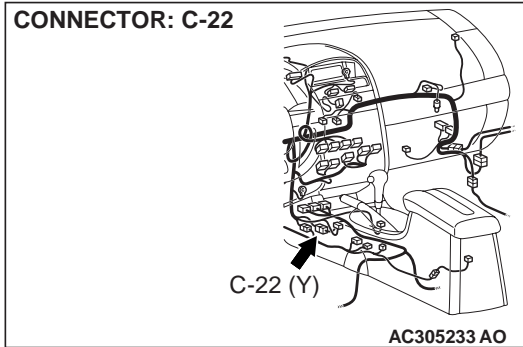
DTC 1483: Driver's Air Bag Module (2nd Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

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



*: CONNECTOR LOCK SWITCH
CONNECTOR CONNECTED: ON
CONNECTOR DICONNECTED: OFF

W5P52M009A



CAUTION

If DTC B1403 <1st squib> or B1483 <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 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). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

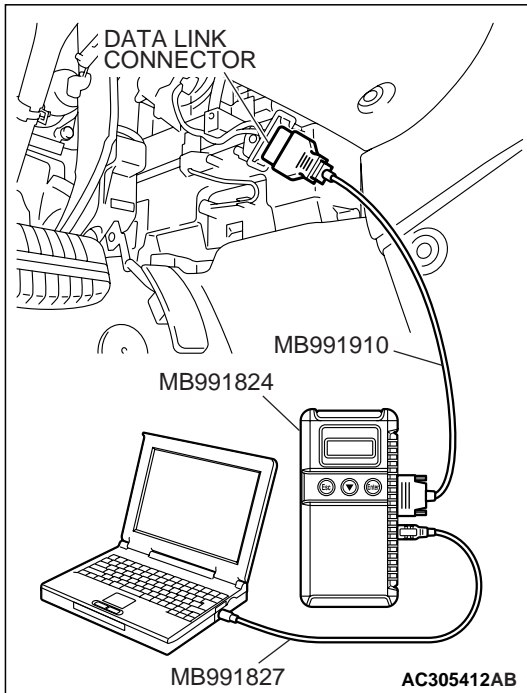
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

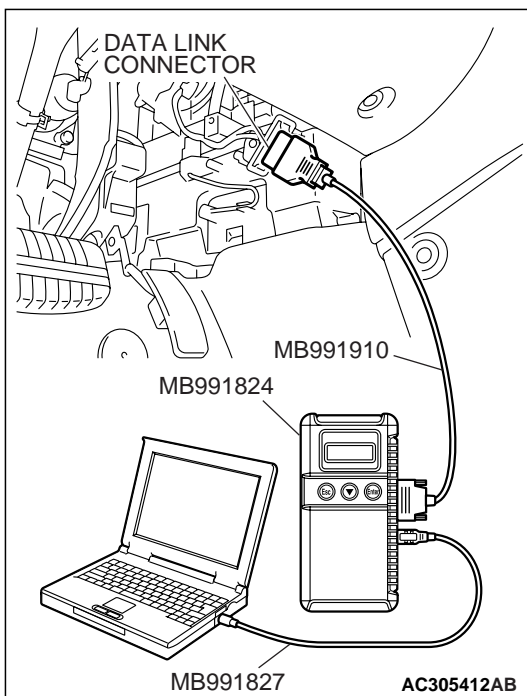
Check again if the DTC is set.

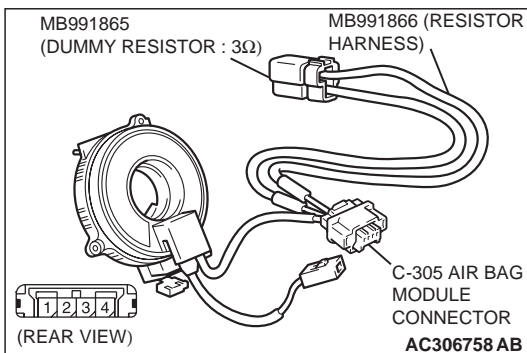
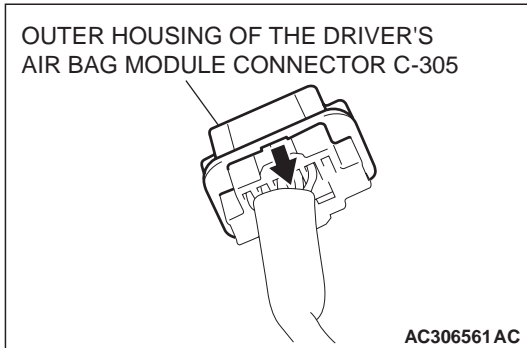
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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

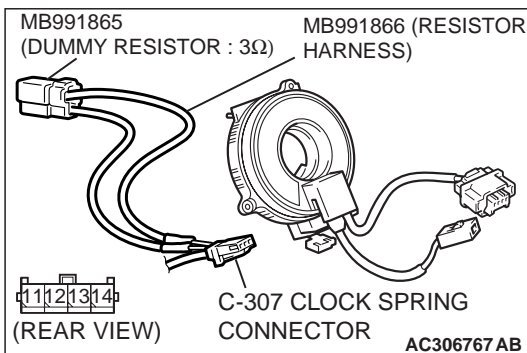
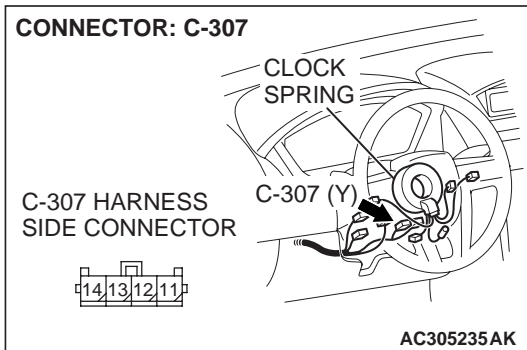
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (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.
- (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-368](#)). 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

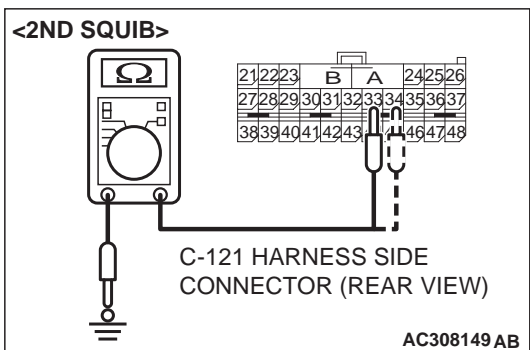
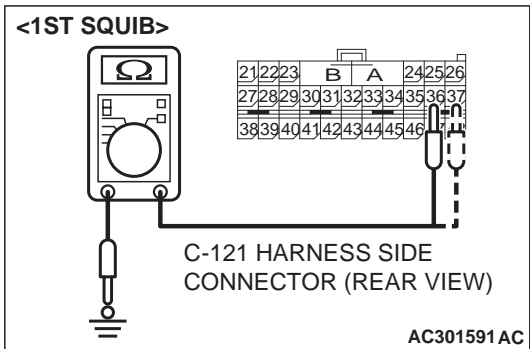
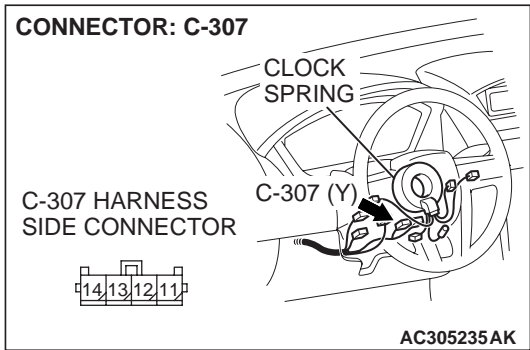
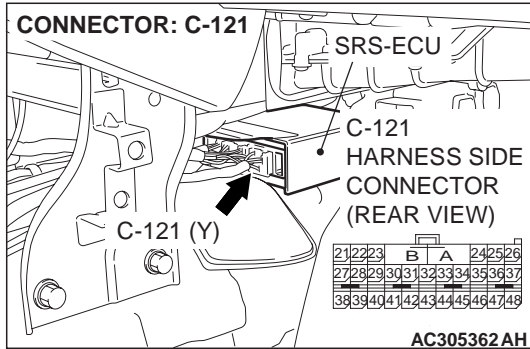
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (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.
- (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-368](#)). Then go to Step 7.



STEP 5. Check the driver's air bag module circuit. Measure the resistance at the SRS-ECU connector C-121.

(1) Disconnect SRS-ECU connector C-121.

⚠ DANGER

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

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

⚠ CAUTION

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

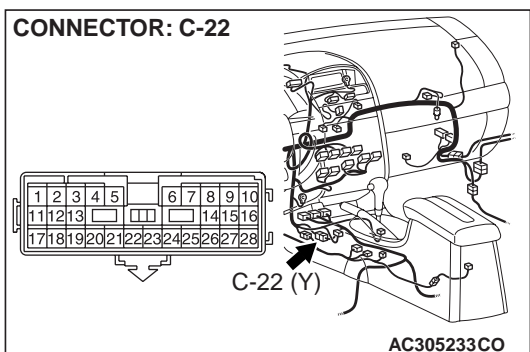
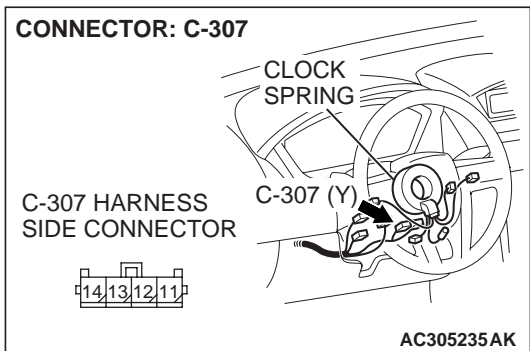
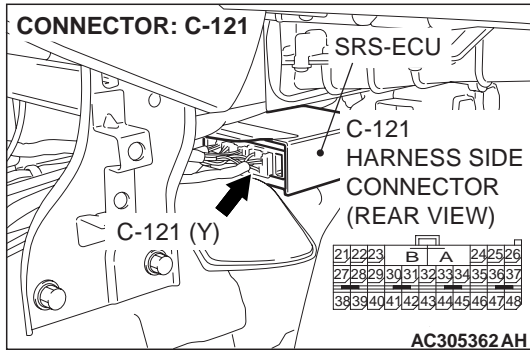
(3) Check for continuity between C-121 harness side connector terminals 36 and 37 <1st squib> or 33 and 34 <2nd squib> and body ground. It should be open circuit.

Q: Does continuity exist?

YES : 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-365). Then go to Step 6.

NO : Go to Step 7.

STEP 6. Check the harness for short circuit to ground between SRS-ECU connector C-121 (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>).

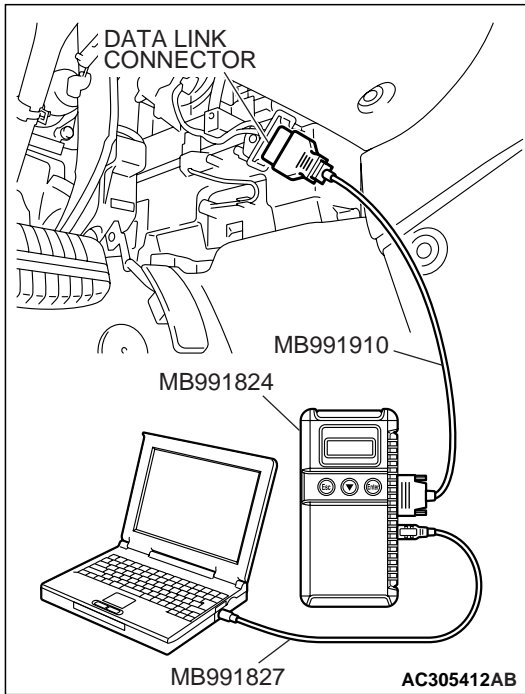


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If the intermediate connector C-22 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-121 (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 : Replace the harness wires between SRS-ECU connector C-121 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 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 Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

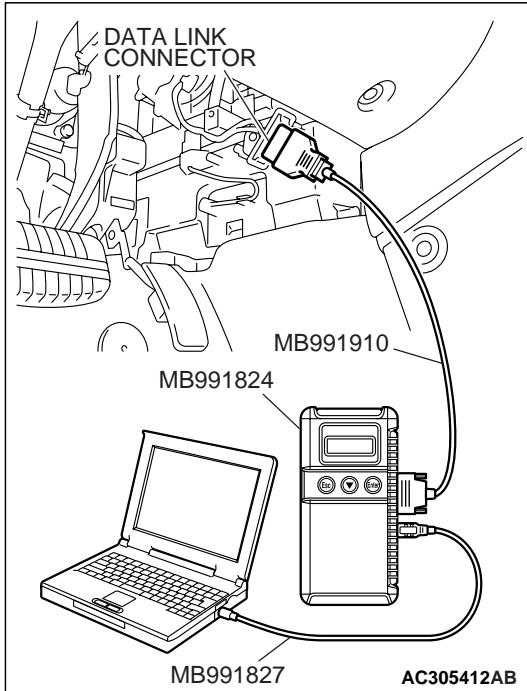
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

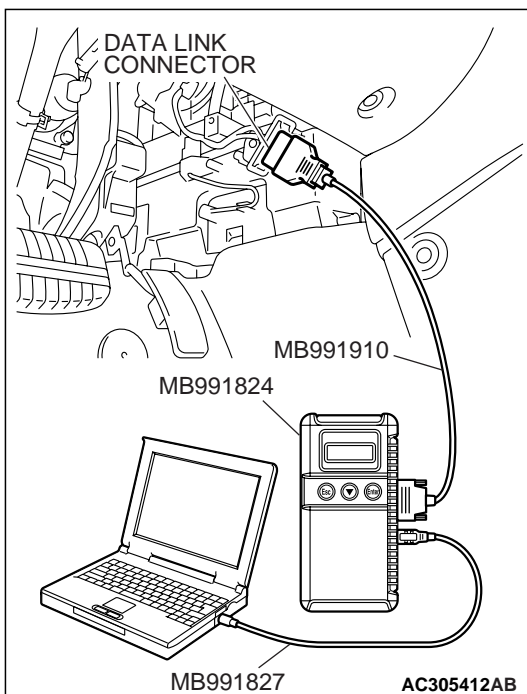
Check again if the DTC is set.

- (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).



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

Replace front impact sensor (RH) and front impact sensor (LH) (for DTC B1416) (Refer to P.52B-362).

Check the diagnostic trouble code.

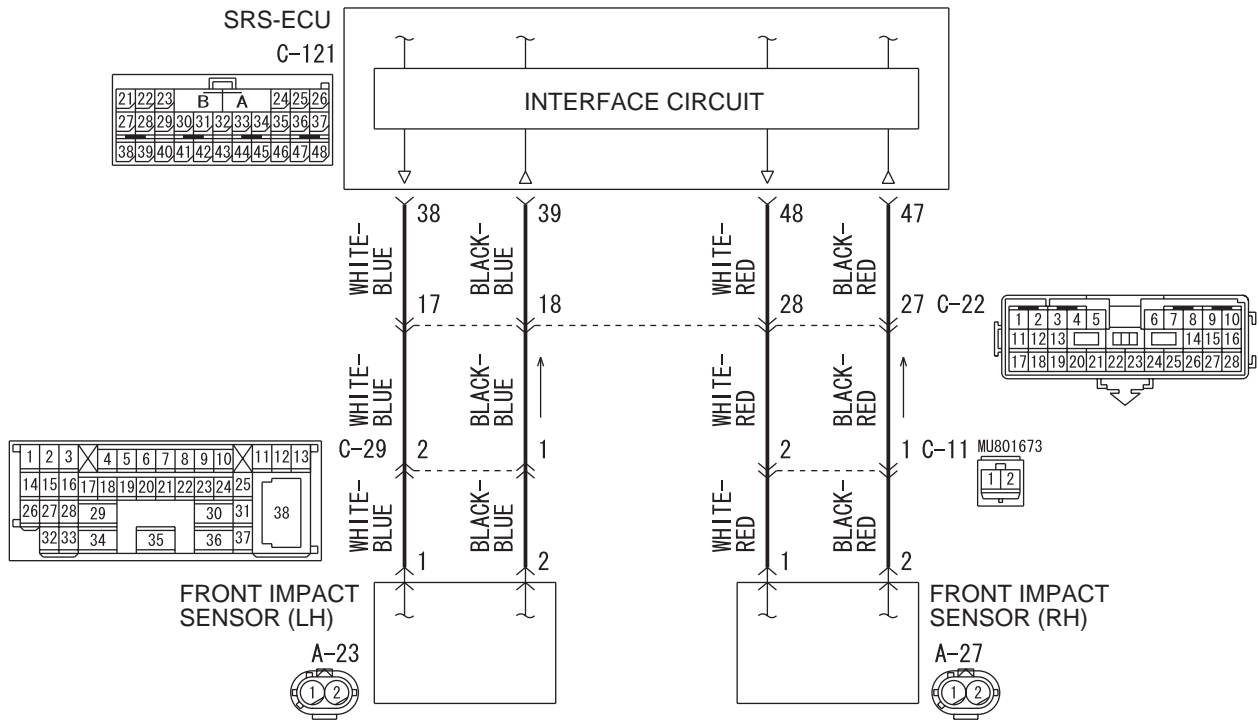
Q: Is either DTC B1406 or B1416 set?

YES : Replace the SRS-ECU (Refer to P.52B-365).

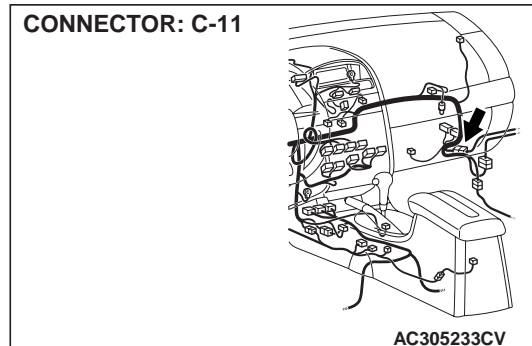
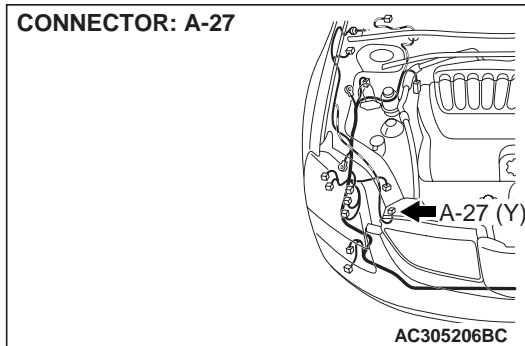
NO : The procedure is complete.

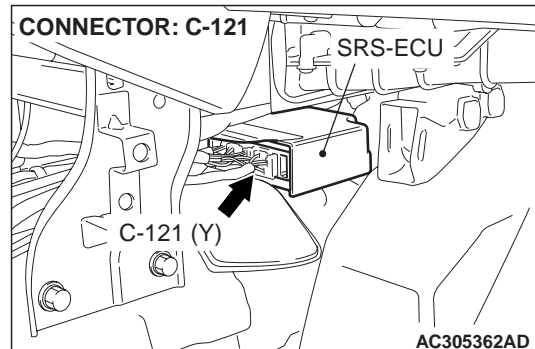
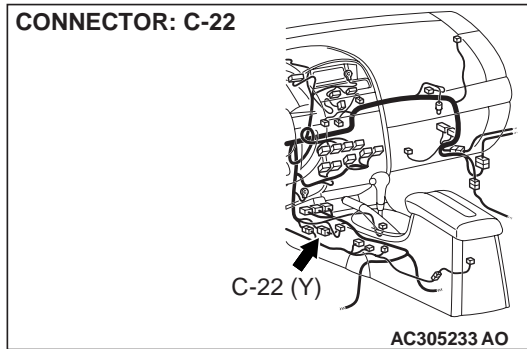
DTC B1407: Front Impact Sensor (RH) Power Supply Circuit System

Front Impact Sensor Circuit



W5P52M010A





⚠ CAUTION

If DTC B1407 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

This DTC will set when the power supply voltage to the front impact sensor (RH) remains less than a pre-determined value for five seconds. However, if the system returns to normal condition, code number B1407 will be erased automatically and the SRS warning light will go out.

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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991223 (MB991222): Harness set (Probe)

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

⚠ CAUTION

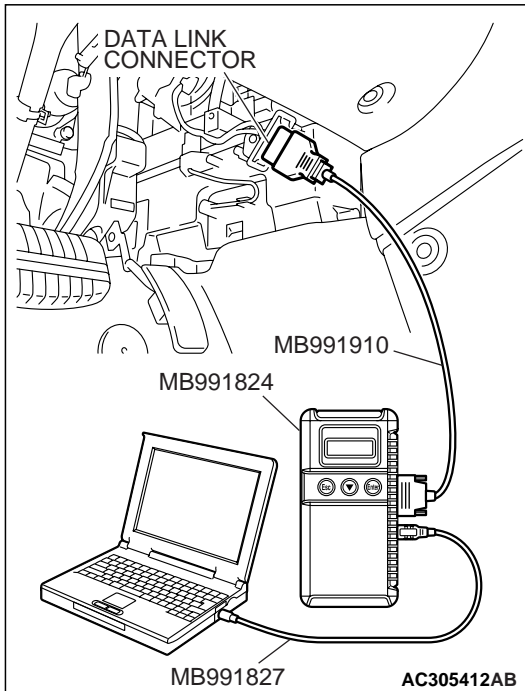
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

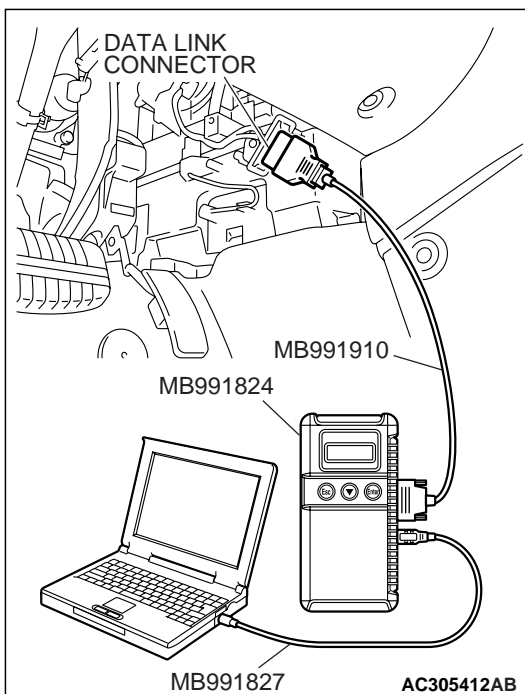
Check again if the DTC is set.

- (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?

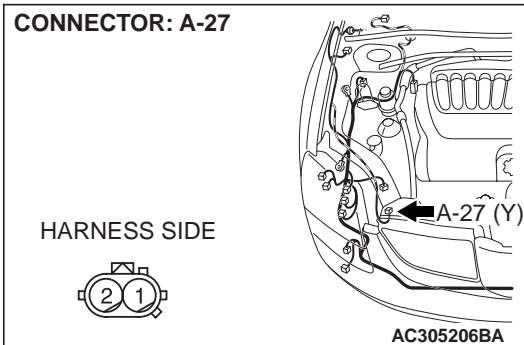
YES : Go to Step 3.

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).



STEP 3. Check the front impact sensor (RH) power supply circuit. Measure the voltage at the front impact sensor (RH) connector A-27.

- (1) Disconnect the negative battery terminal.
- (2) Disconnect front impact sensor (RH) connector A-27, and measure at the wiring harness side.
- (3) Connect the negative battery terminal.
- (4) Turn the ignition switch to the "ON" position.



CAUTION

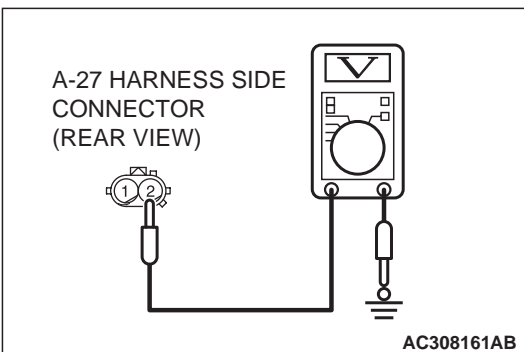
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (5) Measure the voltage between A-27 harness side connector terminal 2 and ground. Voltage should measure 9 volts or more

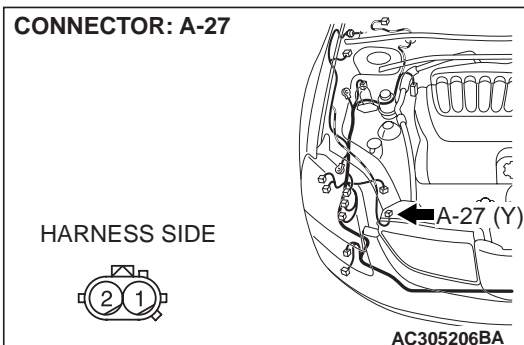
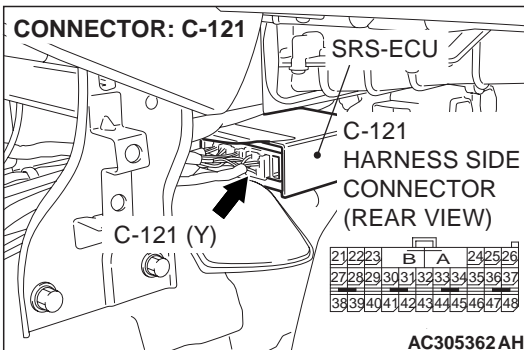
Q: Is the measured voltage within the specified range?

YES : Replace the front impact sensor (RH) (Refer to [P.52B-362](#)). Then go to Step 5.

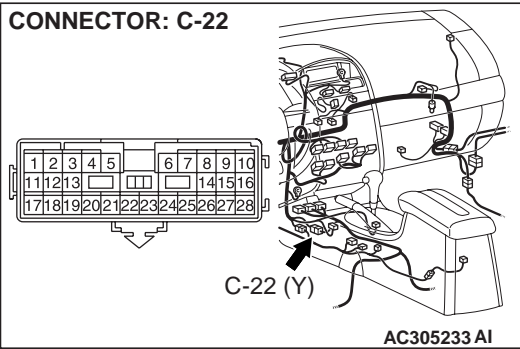
NO : Go to Step 4.



STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-121 (terminal No.47 and 48) and front impact sensor (RH) connector A-27 (terminal No.1 and 2).



CONNECTOR: C-22



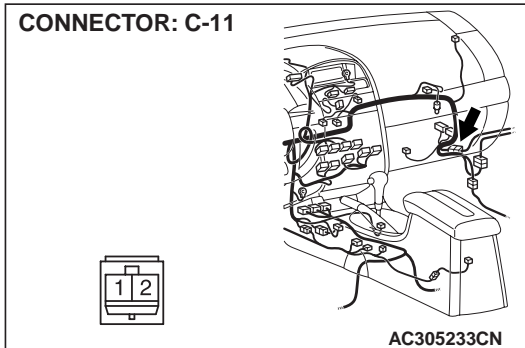
NOTE: After inspecting intermediate connectors C-22 and C-11 inspect the wiring harness. If the intermediate connectors C-22 and C-11 are damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.47 and 48) and front impact sensor (RH) connector A-27 (terminal No.1 and 2) 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-365](#)). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-121 and front impact sensor (RH) connector A-27. Then go to Step 5.

CONNECTOR: C-11

**STEP 5. Recheck for diagnostic trouble code.**

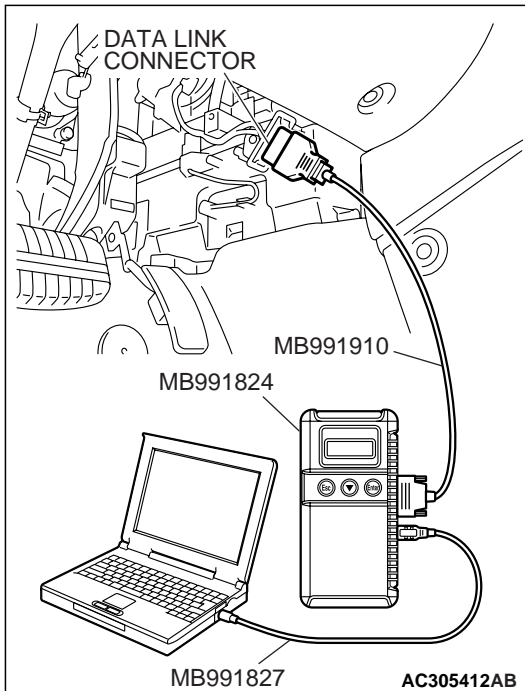
Check again if the DTC is set.

- (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.

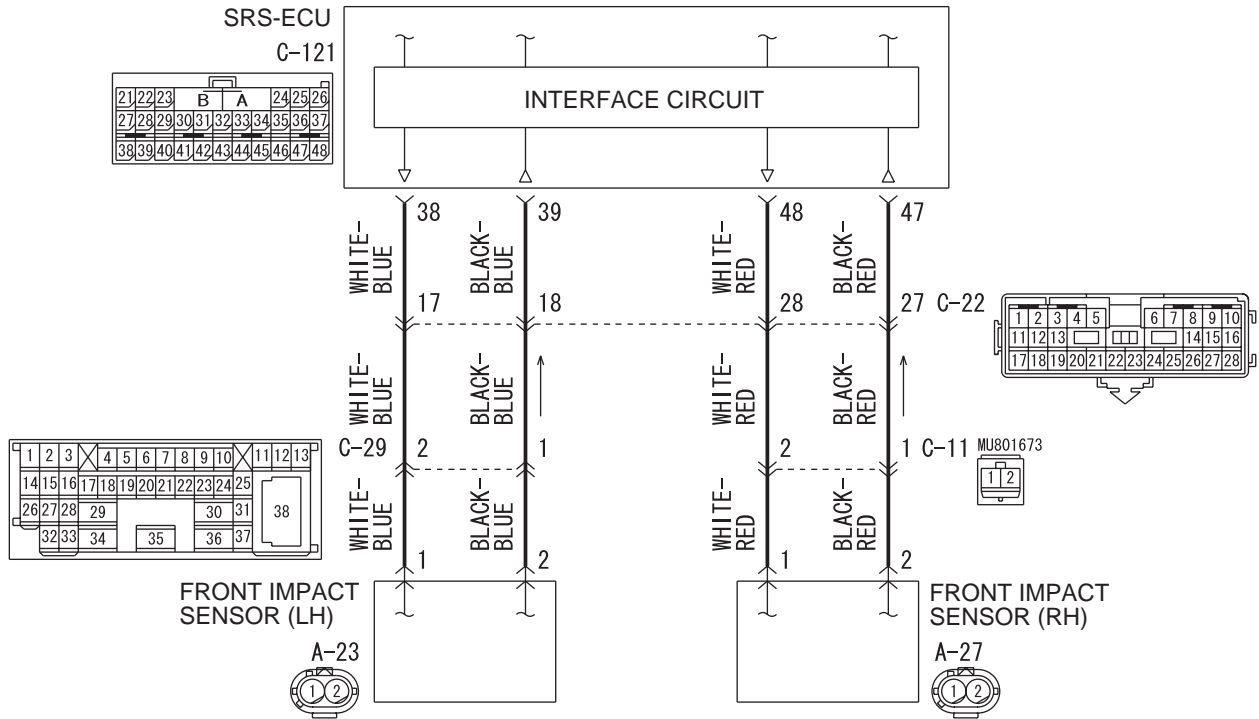
NO : The procedure is complete.



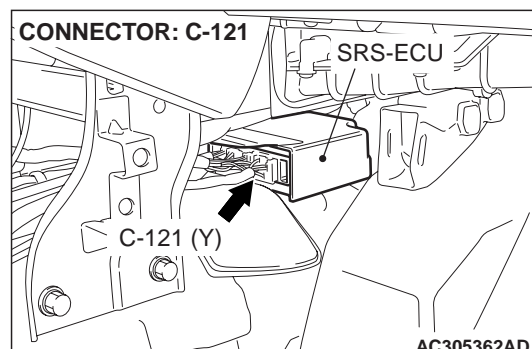
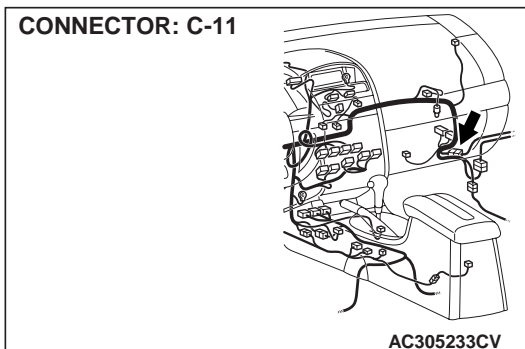
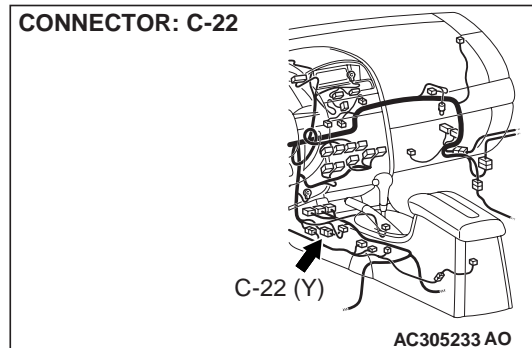
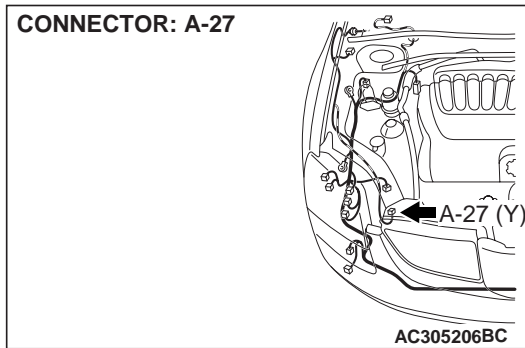
DTC B1408: Front Impact Sensor (RH) (Squib) for Power Supply Circuit

DTC B1409: Front Impact Sensor (RH) (Squib) for Communication System

Front Impact Sensor Circuit



W5P52M010A



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 Tool:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

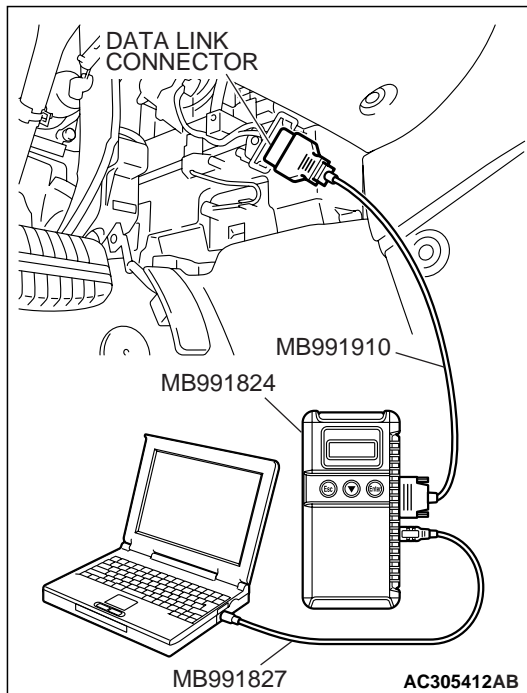
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

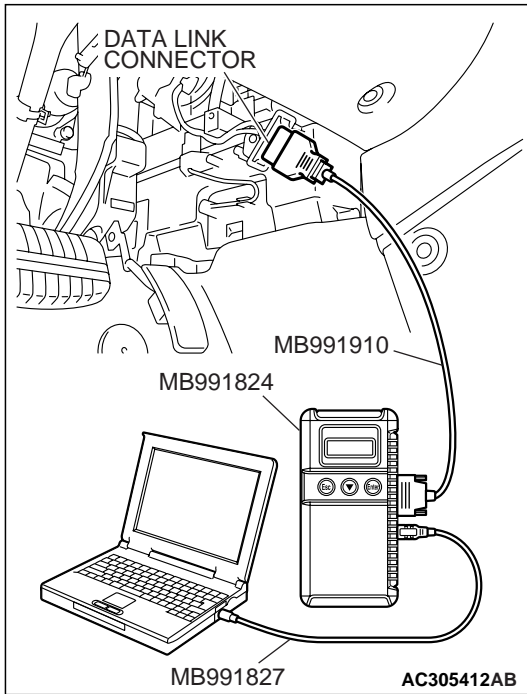
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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).

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

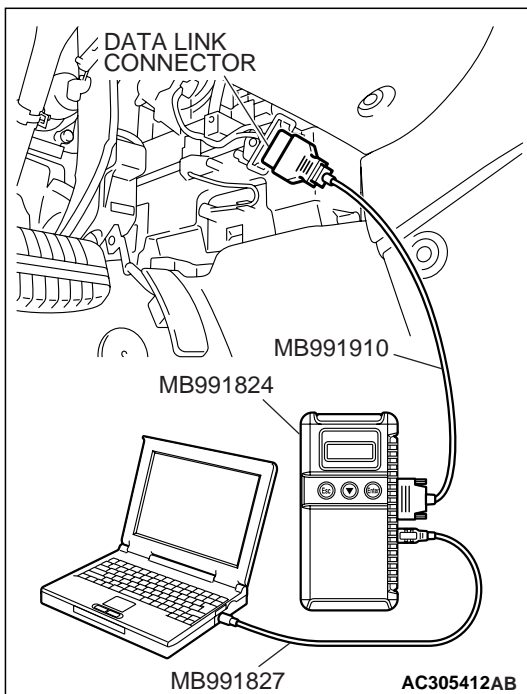
Check the front impact sensor (RH).

- (1) Disconnect the negative battery terminal.
- (2) 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.

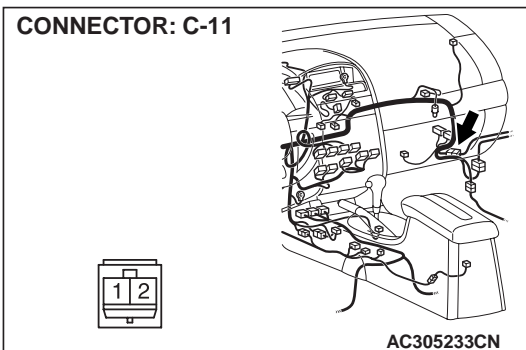
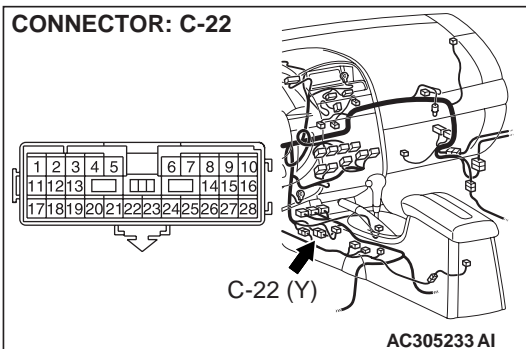
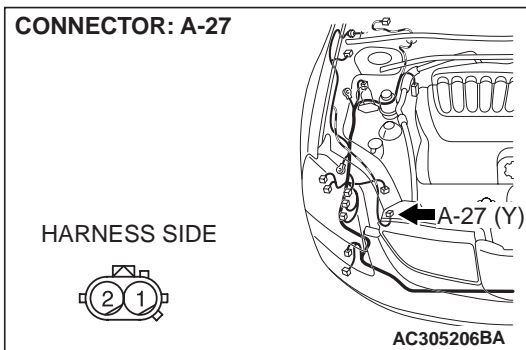
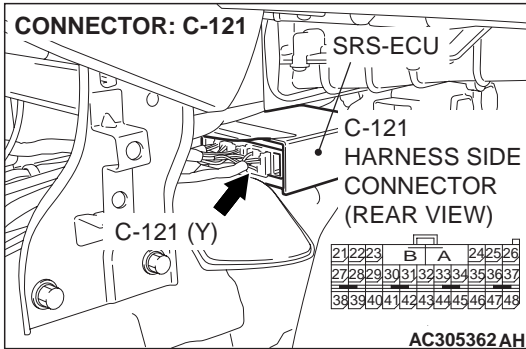
Q: Is DTC B1418 or B1419 set?

YES : Replace the front impact sensor (RH) with a new one (Refer to P.52B-377). 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-121 (terminal No.47 and 48) and front impact sensor (RH) connector A-27 (terminal No.1 and 2).

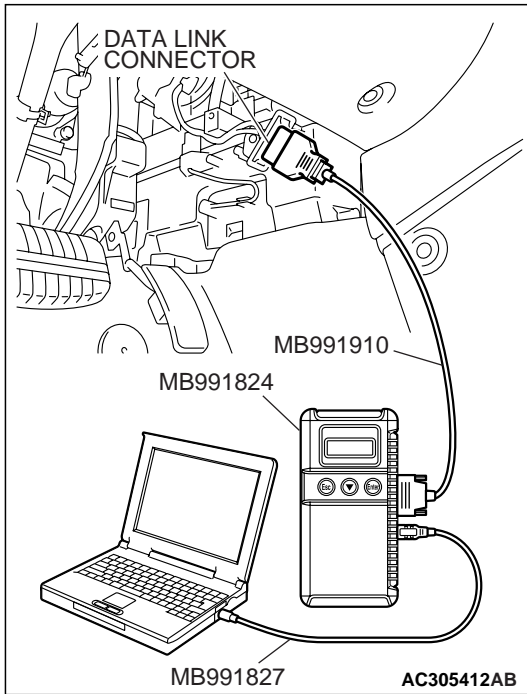


NOTE: After inspecting intermediate connectors C-22 and C-11 inspect the wiring harness. If the intermediate connectors C-22 and C-11 are damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.47 and 48) and front impact sensor (RH) connector A-27 (terminal No.1 and 2) 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-365). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-121 and front impact sensor (RH) connector A-27. 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?

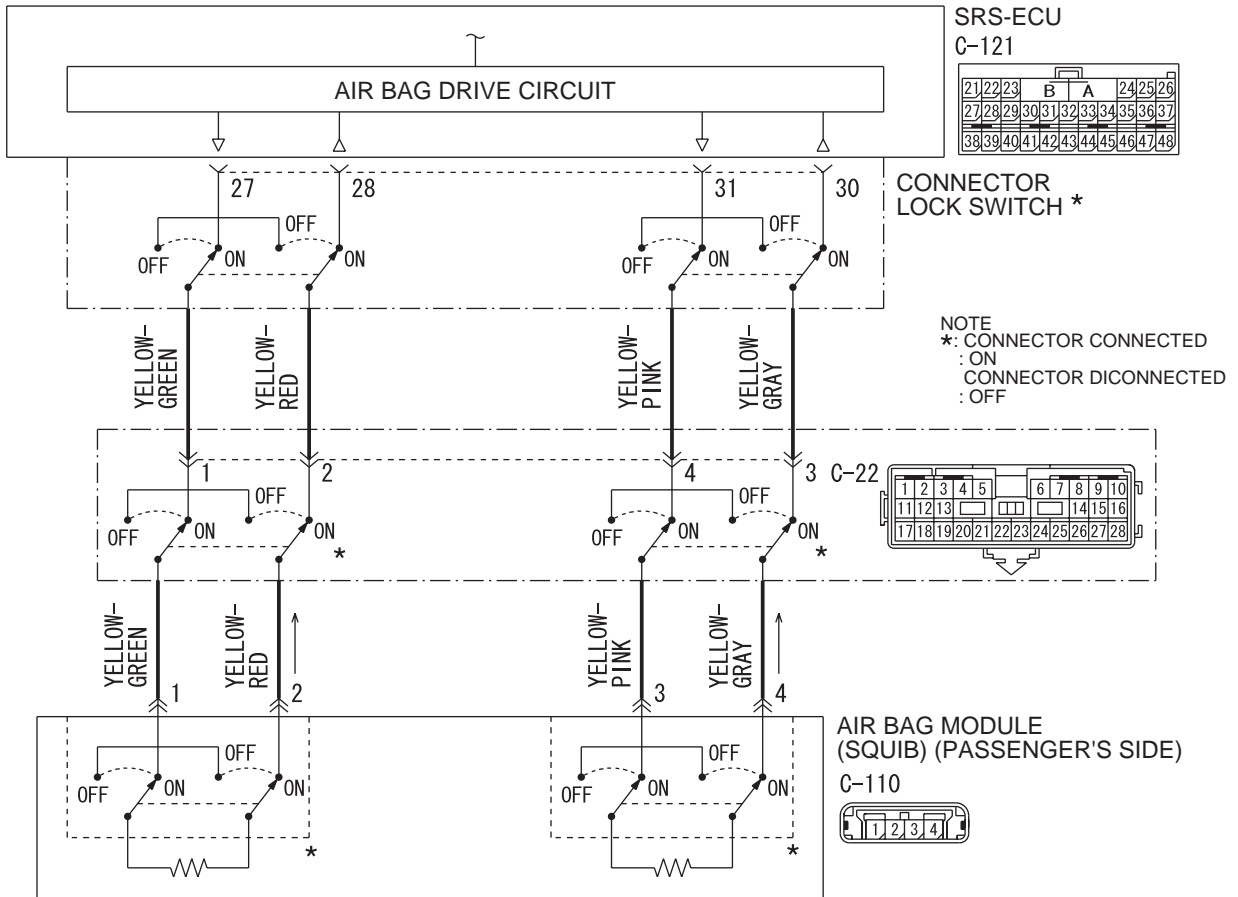
YES : Return to Step 1.

NO : The procedure is complete.

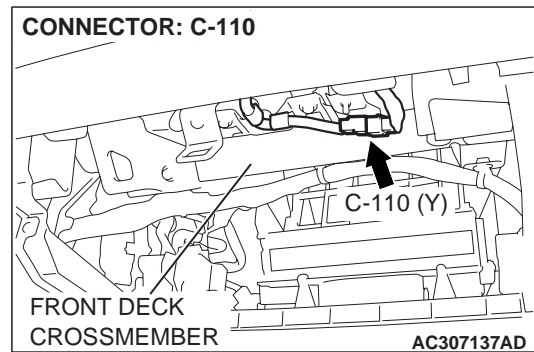
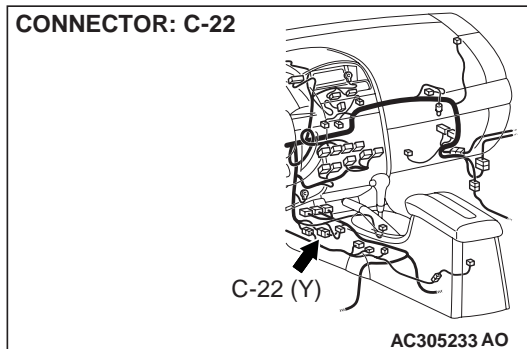
DTC B1410: Passenger's (Front) Air Bag Module (1st Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

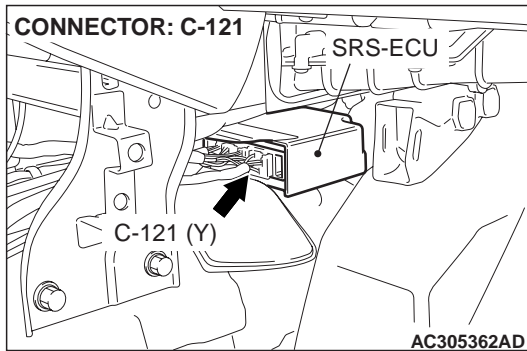
DTC B1490: Passenger's (Front) Air Bag Module (2nd Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

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



W5P52M008A





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 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 passenger's side air bag module (squib). However, if no DTC reset, the SRS warning light will be switched off (DTC will be retained).

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-121, C-22 or C-110 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

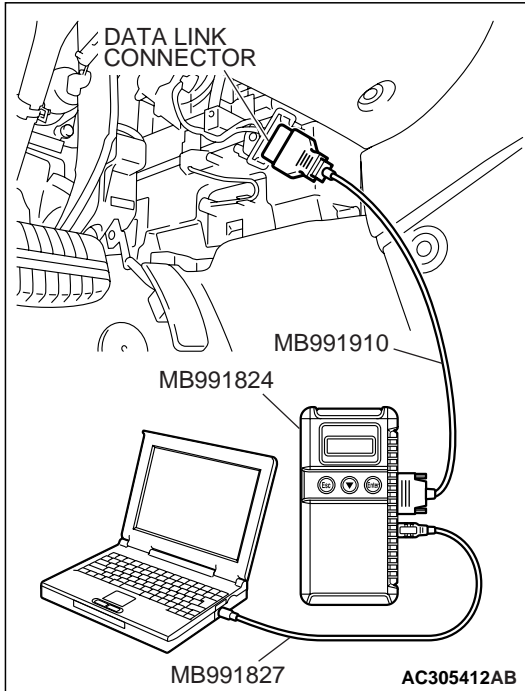
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

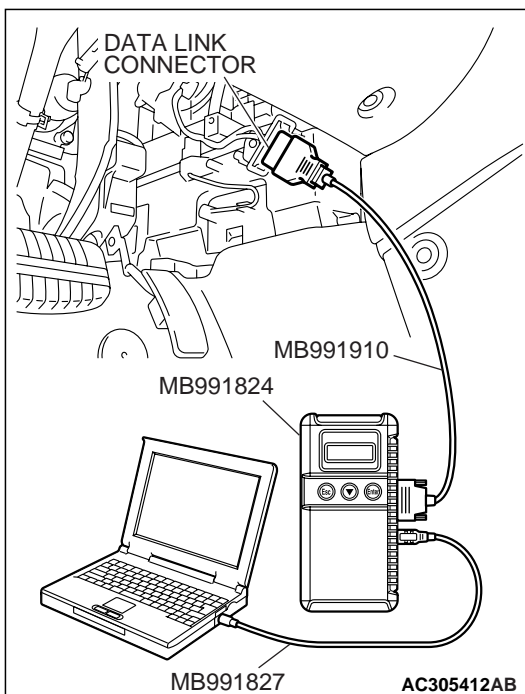
Check again if the DTC is set.

- (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).



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

⚠ CAUTION

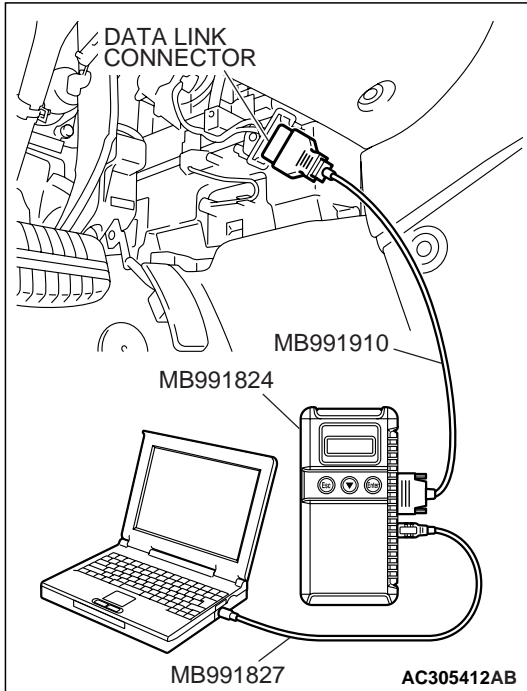
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (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.

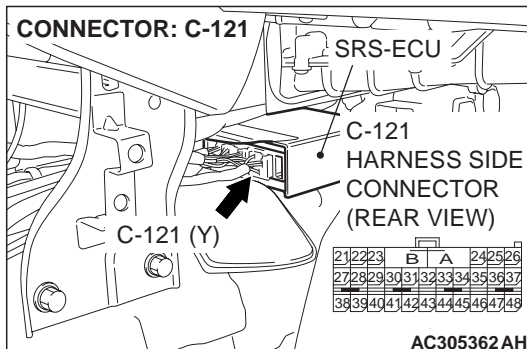


STEP 4. Check SRS-ECU connector C-121.

Q: Is the connector correctly engaged?

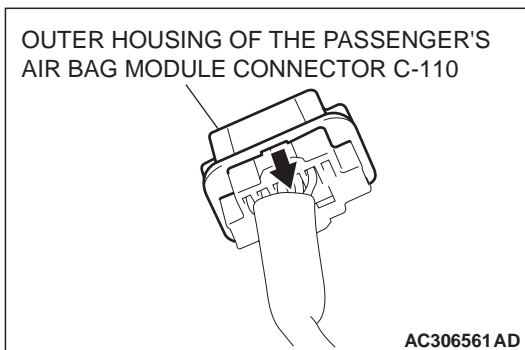
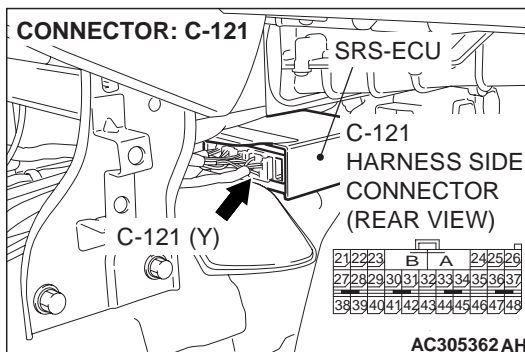
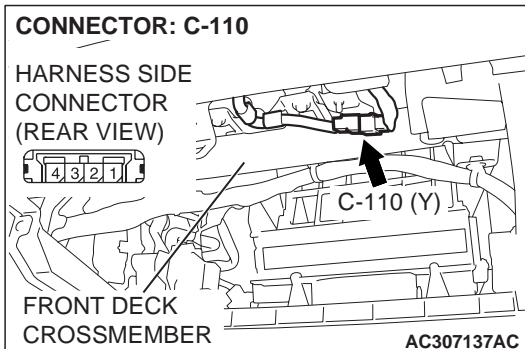
YES : Go to Step 5.

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



STEP 5. Check SRS-ECU connector C-121 and passenger's air bag module connector C-110. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect connectors C-121 and C-110, and then reconnect them.

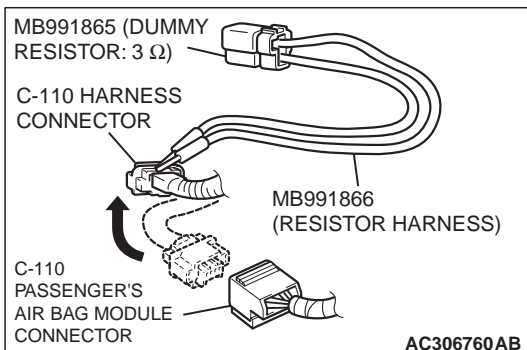
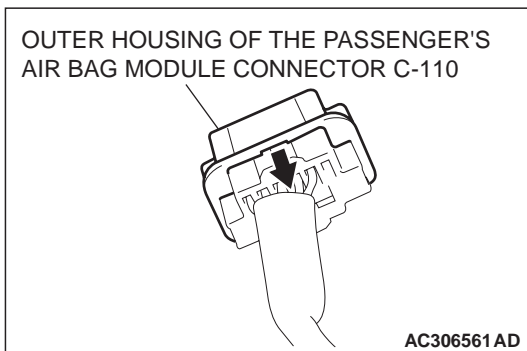
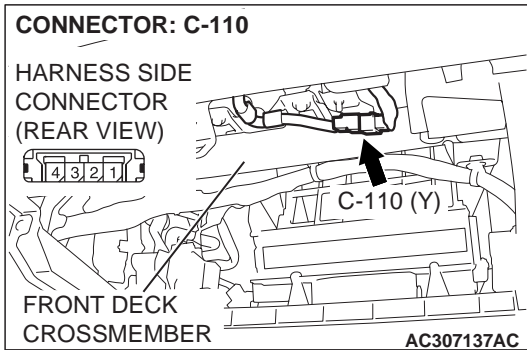


- (3) Slide the outer housing of the clock spring side of driver's air bag module connector C-110 in the arrow direction shown, and disconnect the connector.
- (4) Connect the negative battery terminal.
- (5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

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-121 or C-110 was engaged improperly.



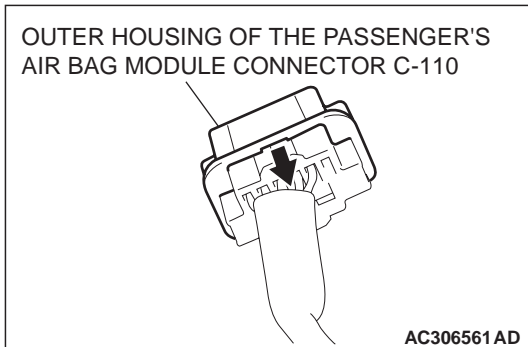
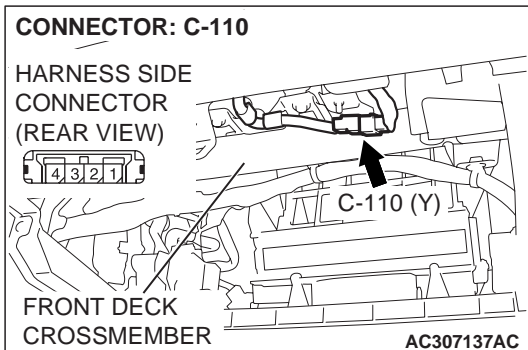
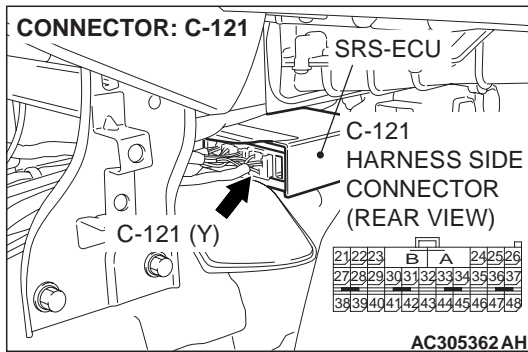
STEP 6. Check the passenger's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
 - (2) Disconnect the passenger's air bag module connector C-110.
 - (3) Slide the outer housing of the clock spring side of passenger's air bag module connector C-110 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-110 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
 - (6) Connect the negative battery terminal.
 - (7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

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

YES : Go to Step 7.

NO : Replace the passenger's air bag module (Refer to [P.52B-368](#)). Then go to Step 9.



STEP 7. Check the passenger's air bag module circuit at SRS-ECU connector C-121.

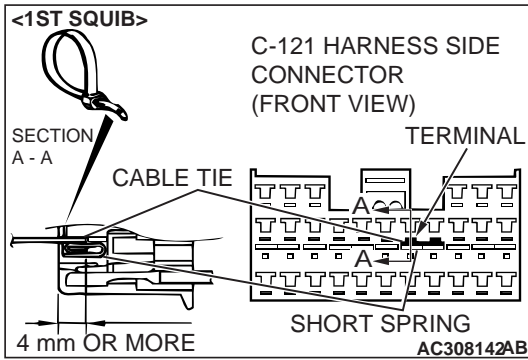
(1) Disconnect SRS-ECU connector C-121.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-110 to short the squib circuit.

(2) Disconnect the passenger's air bag module connector C-110.

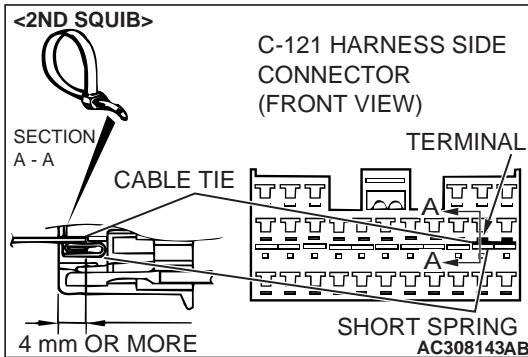
(3) Slide the outer housing of the clock spring side of driver's air bag module connector C-110 in the arrow direction shown, and disconnect the connector.



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.

- (4) 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

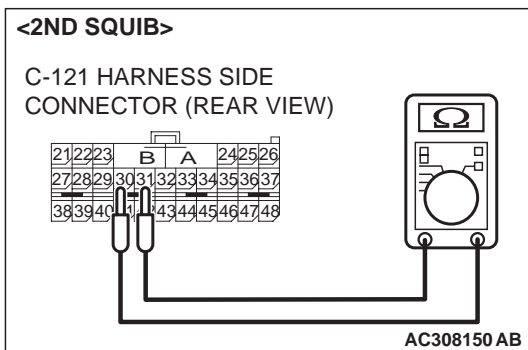
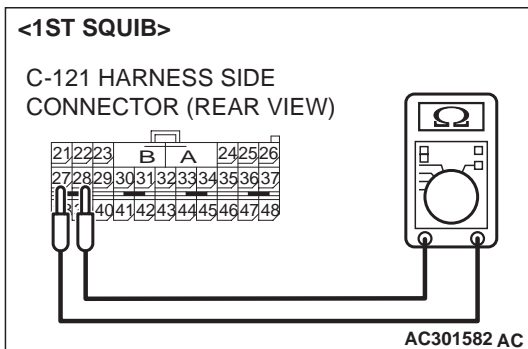
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

- (5) Check for continuity between C-121 harness side connector terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>. It should be open circuit.

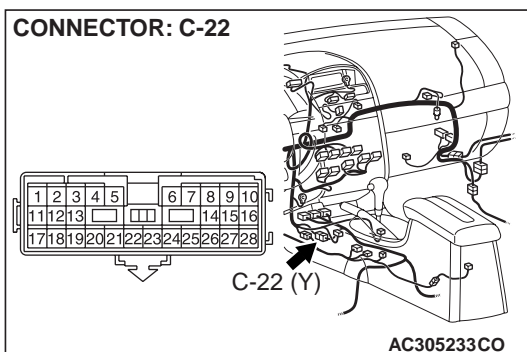
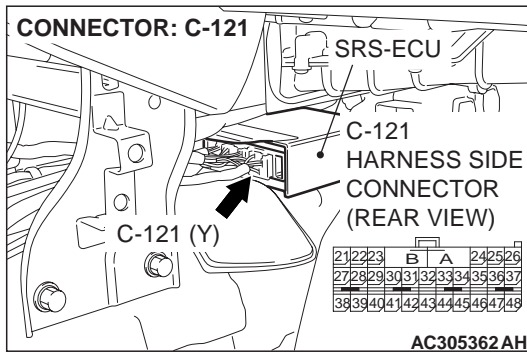
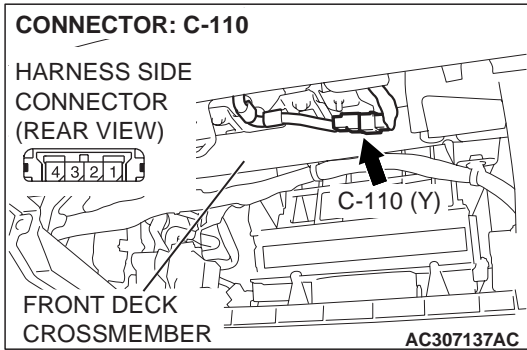
Q: Does continuity exist?

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-365). Then go to Step 9.



STEP 8. Check the harness for short circuit between SRS-ECU connector C-121 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-110 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>).

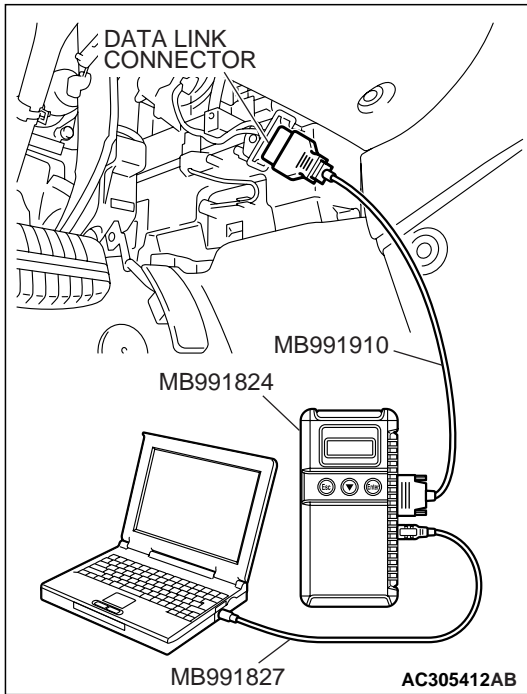


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If the intermediate connector C-22 is damaged, repair or replace it.

Q: Are harness wires between SRS-ECU connector C-121 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-110 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 9.

NO : Replace the harness wires between SRS-ECU connector C-121 and passenger's air bag module connector C-110. 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?

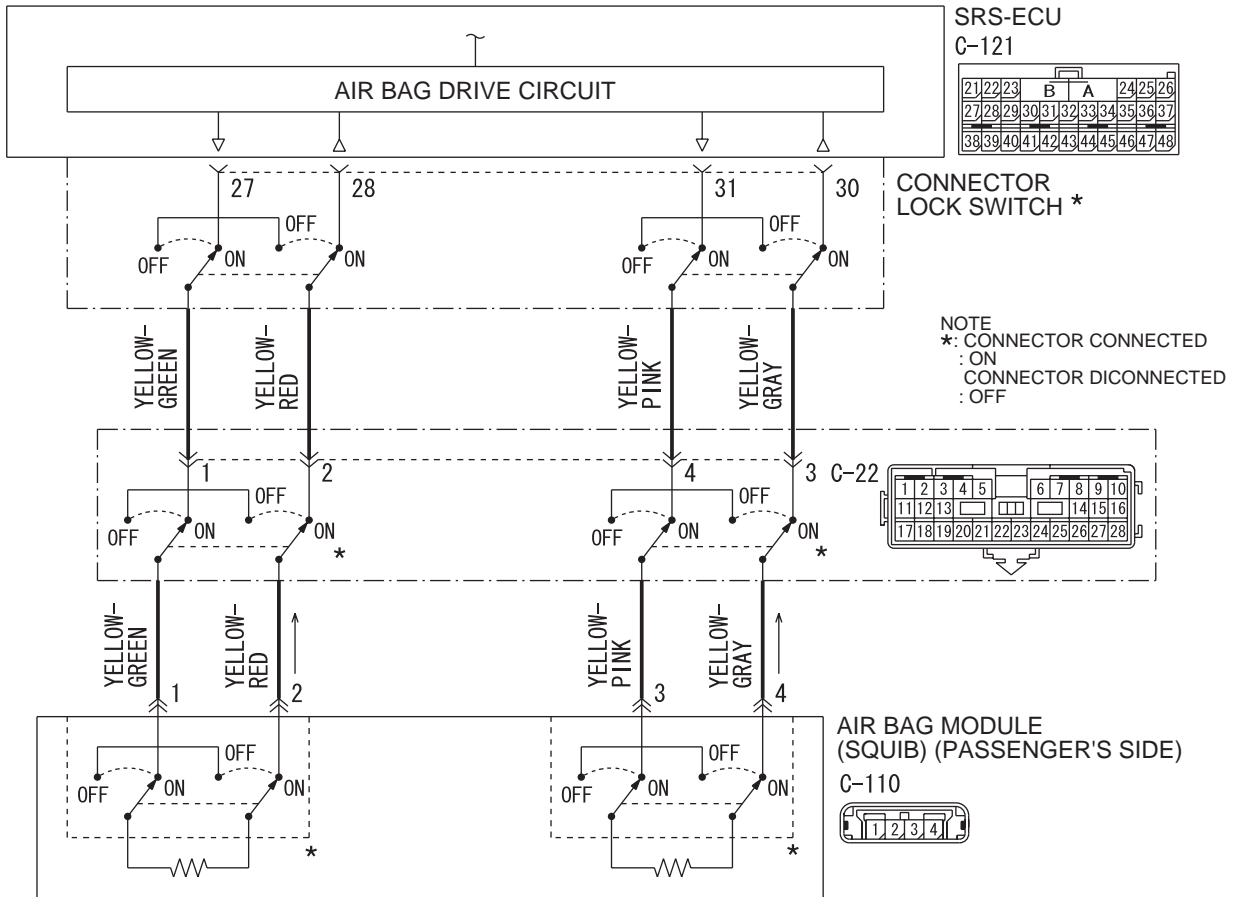
YES : Return to Step 1.

NO : The procedure is complete.

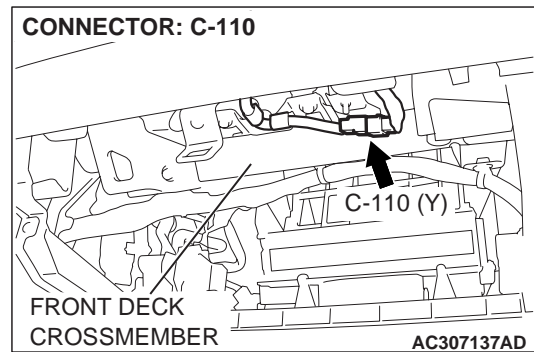
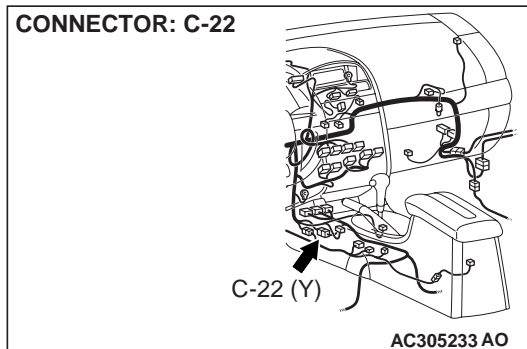
DTC B1411: Passenger's (Front) Air Bag Module (1st Squib) System Fault 2 (Open in the Squib Circuit)

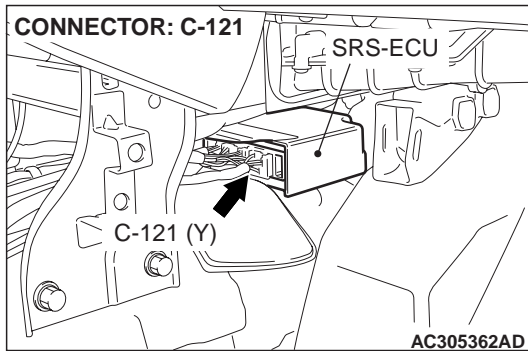
DTC B1491: Passenger's (Front) Air Bag Module (2nd Squib) System Fault 2 (Open in the Squib Circuit)

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



W5P52M008A





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 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 passenger's air bag module (squib). However, if no DTC reset, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resister
- MB991866: Resister harness

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

⚠ CAUTION

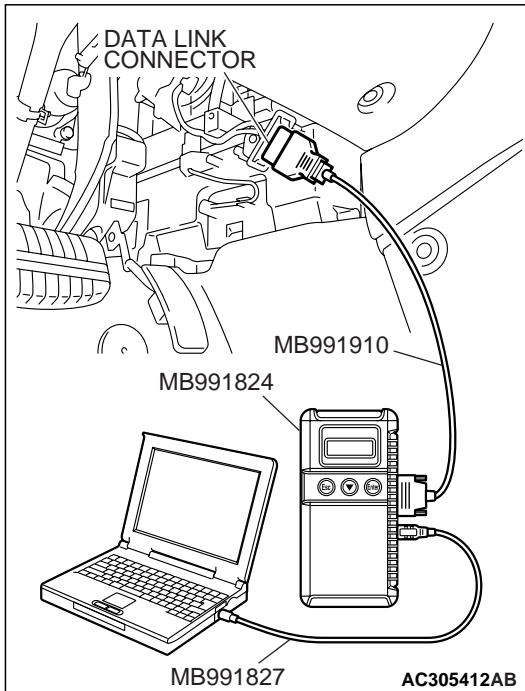
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

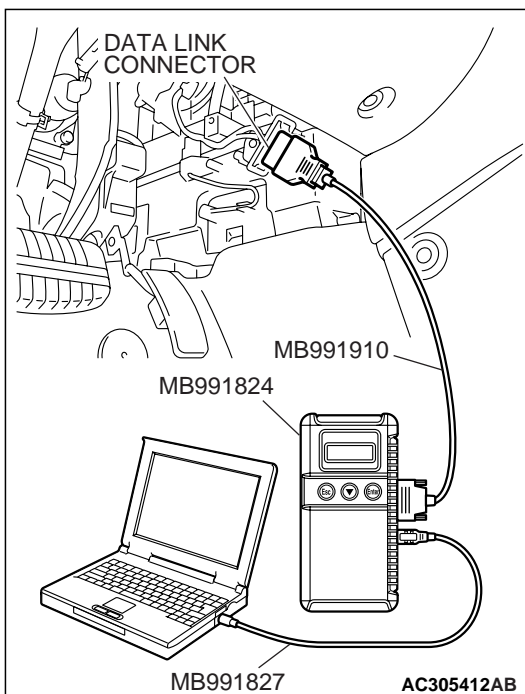
Check again if the DTC is set.

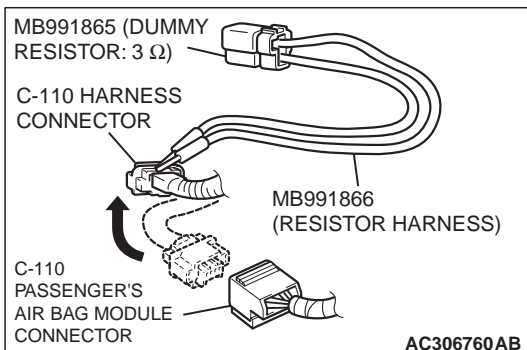
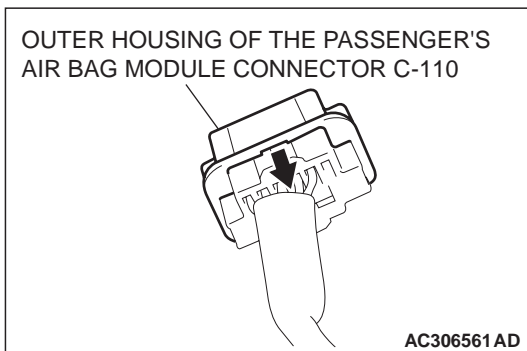
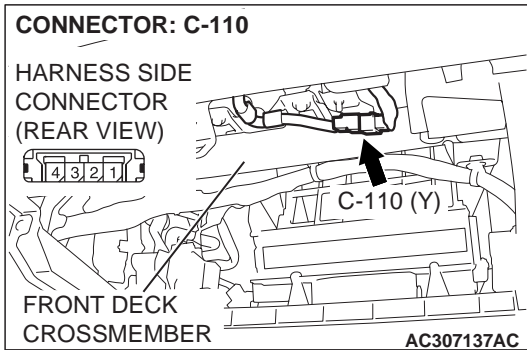
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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-110.
 - (3) Slide the outer housing of the clock spring side of passenger's air bag module connector C-110 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-110 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
 - (6) Connect the negative battery terminal.
 - (7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

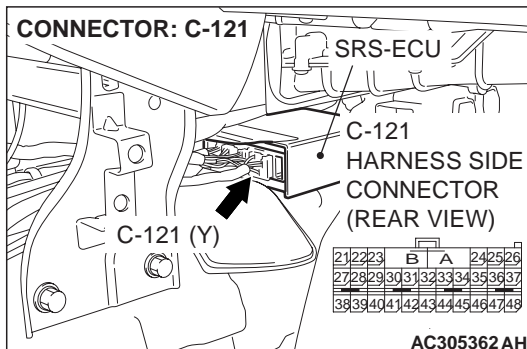
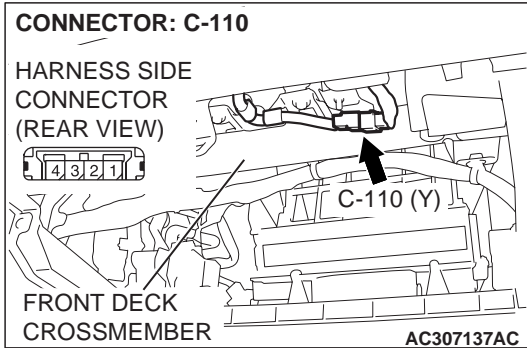
Q: Is DTC B1411 <1st squib> or B1491 <2nd squib> set?

YES : Go to Step 4.

NO : Replace the passenger's air bag module (Refer to [P.52B-368](#)). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-121 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and the passenger's air bag module connector C-110 (terminal No.1 and 2 <1st squib> or terminal No.4 and 3 <2nd squib>).

(1) Unclip passenger's air bag module connector C-110.

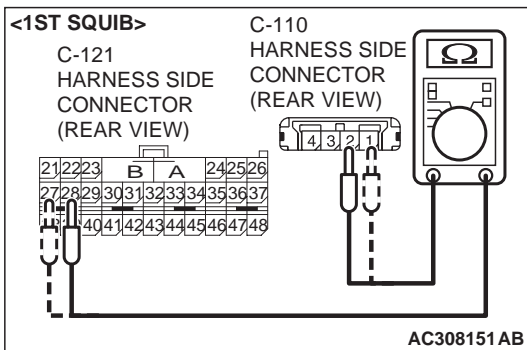


(2) Disconnect SRS-ECU connector C-121 and passenger's air bag module connector C-110.

CAUTION

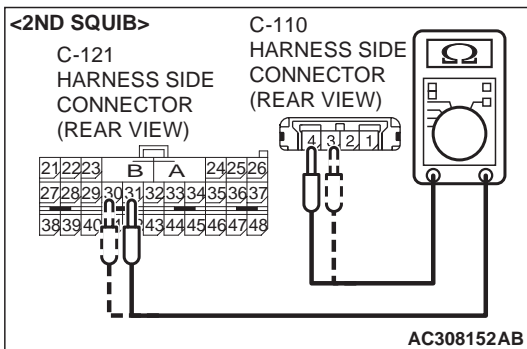
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

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



<1st squib>

- SRS-ECU connector C-121 (terminal No.27) and the passenger's air bag module connector C-110 (terminal No.1)
- SRS-ECU connector C-121 (terminal No.28) and the passenger's air bag module connector C-110 (terminal No.2)



<2nd squib>

- SRS-ECU connector C-121 (terminal No.30) and the passenger's air bag module connector C-110 (terminal No.3)
- SRS-ECU connector C-121 (terminal No.31) and the passenger's air bag module connector C-110 (terminal No.4)

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-365). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-121 and passenger's air bag module connector C-110. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

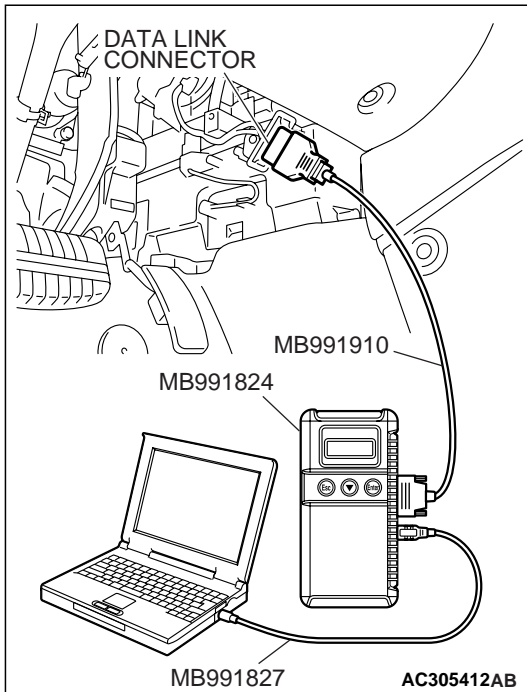
Check again if the DTC is set.

- (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 B1411 <1st squib> or B1491 <2nd squib> set?

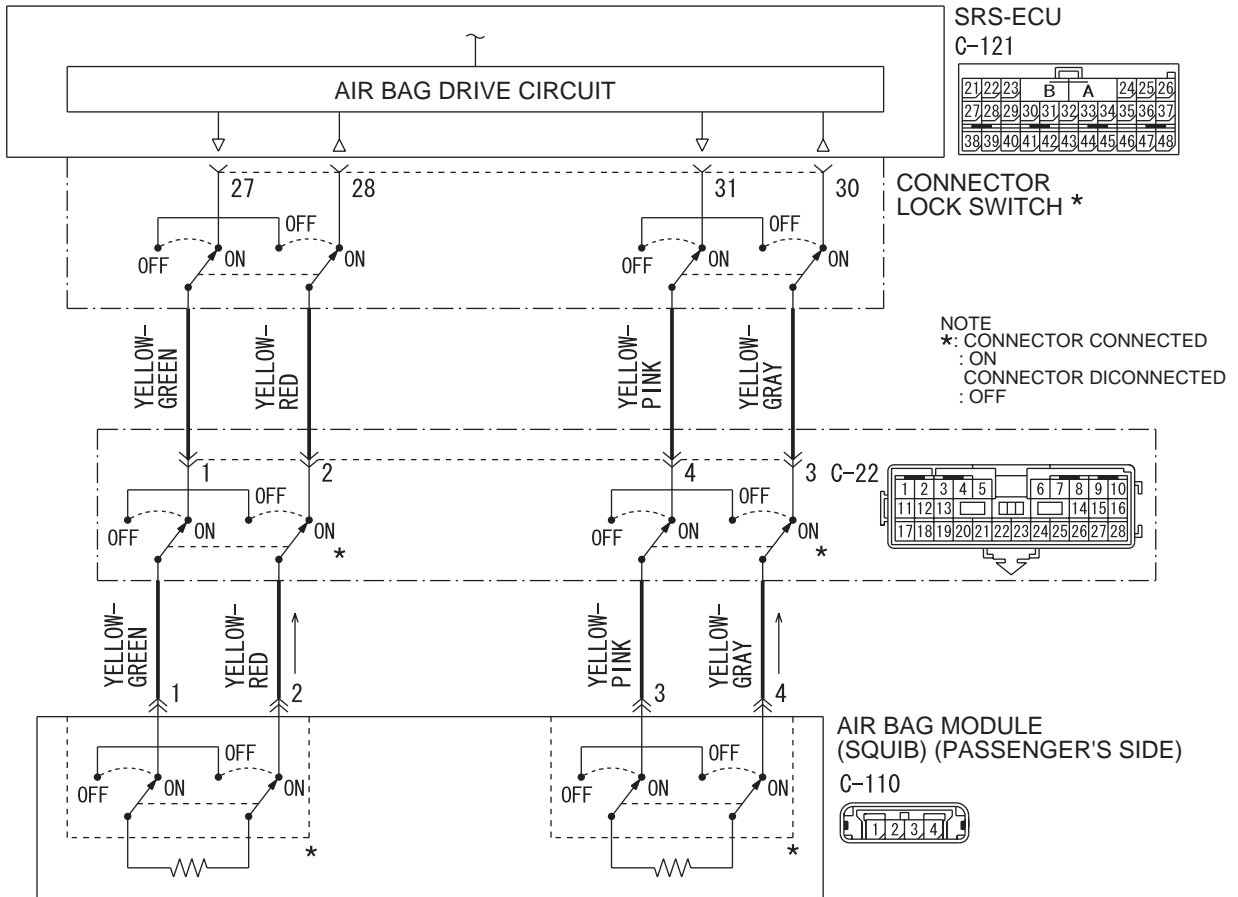
YES : Return to Step 1.

NO : The procedure is complete.

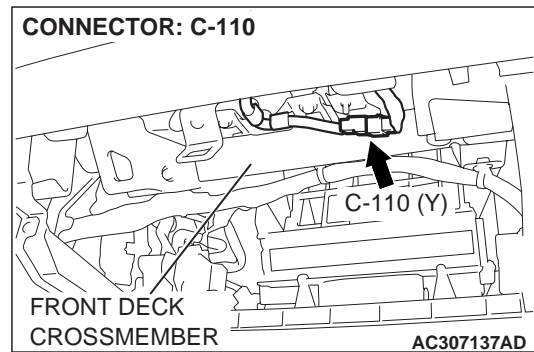
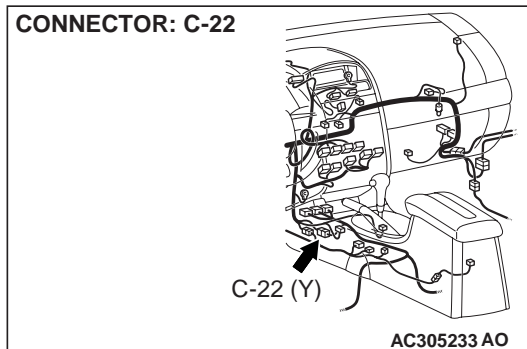


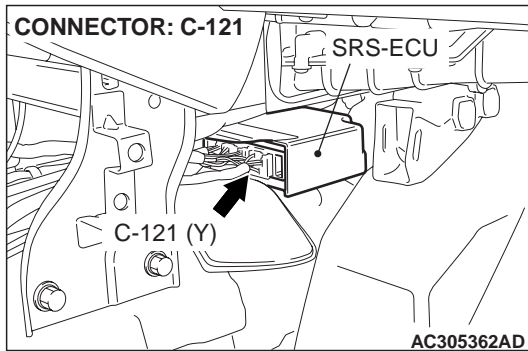
DTC B1412: Passenger's (Front) Air Bag Module (1st Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)
DTC B1492: Passenger's (Front) Air Bag Module (2nd Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)

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



W5P52M008A





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 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 passenger's air bag module (squib). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

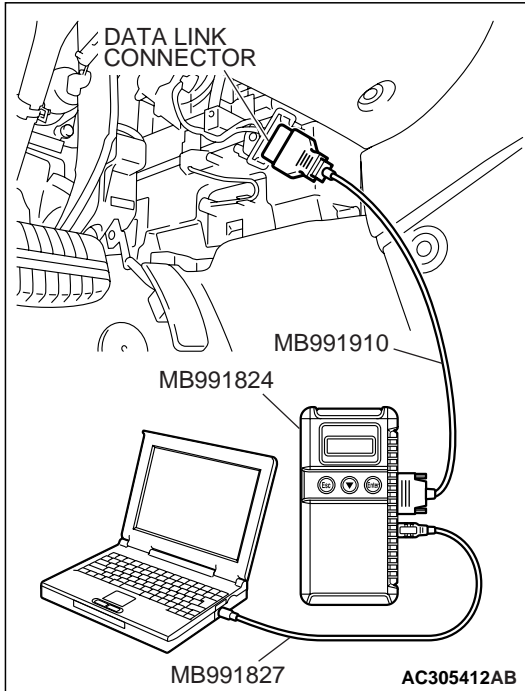
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

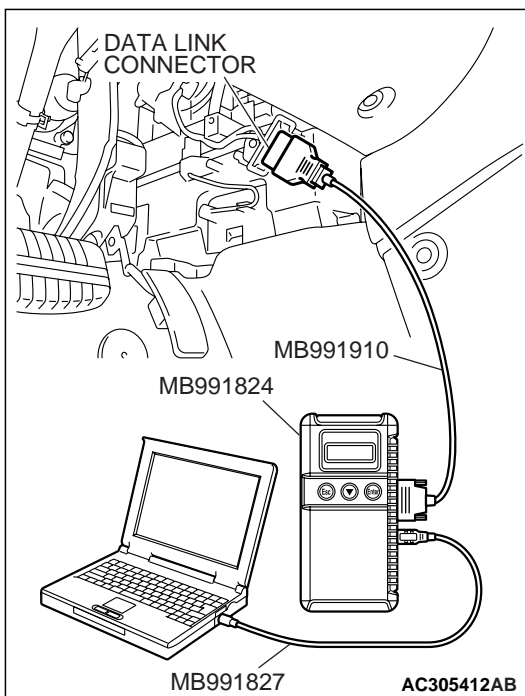
Check again if the DTC is set.

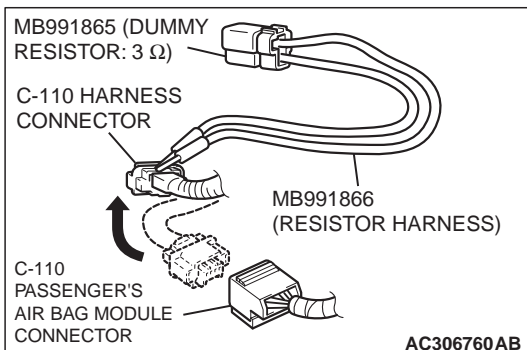
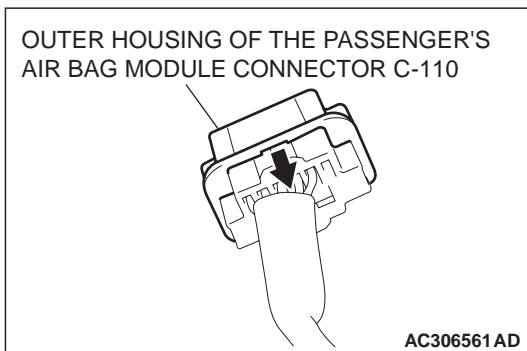
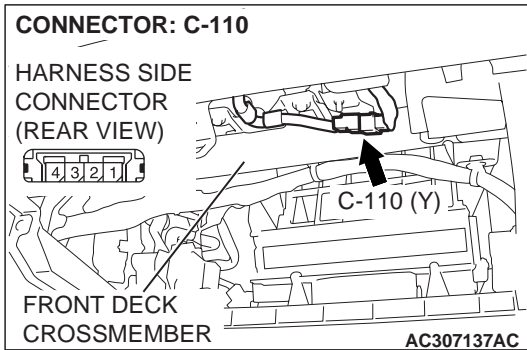
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





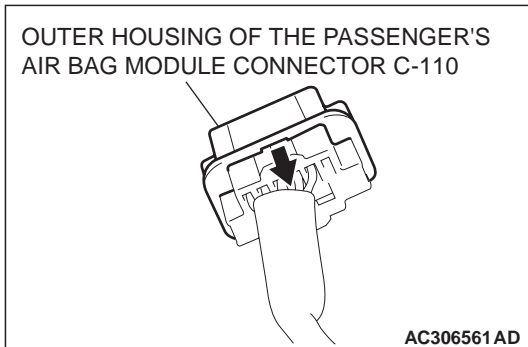
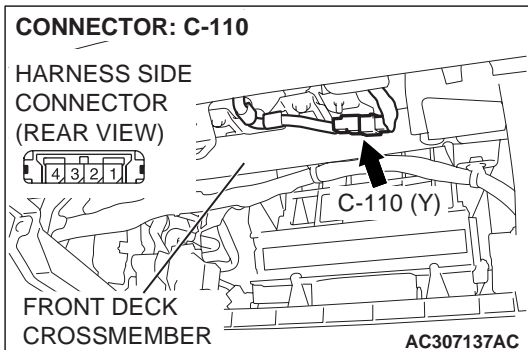
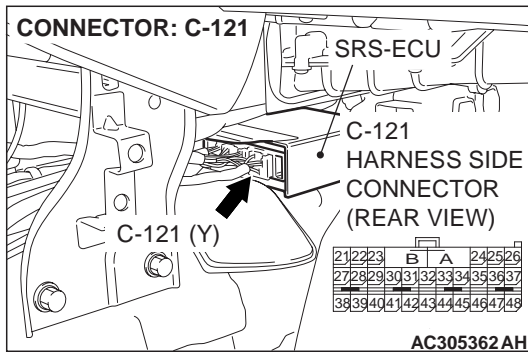
STEP 3. Check the passenger's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
 - (2) Disconnect the passenger's air bag module connector C-110.
 - (3) Slide the outer housing of the clock spring side of passenger's air bag module connector C-110 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-110 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
 - (6) Connect the negative battery terminal.
 - (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-368](#)). Then go to Step 6.



STEP 4. Check the passenger's air bag module circuit. Measure the voltage at the SRS-ECU connector C-121.

(1) Disconnect SRS-ECU connector C-121.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-110 to short the squib circuit.

(2) Disconnect the passenger's air bag module connector C-110.

(3) Slide the outer housing of the clock spring side of passenger's air bag module connector C-110 in the arrow direction shown, and disconnect the connector.

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

⚠ CAUTION

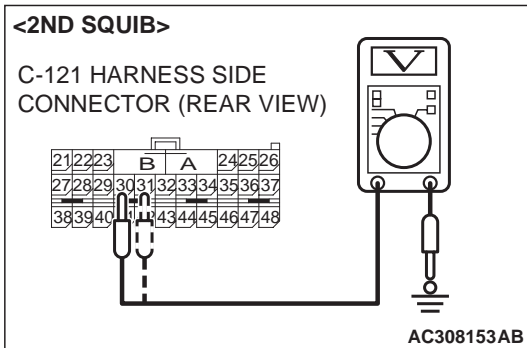
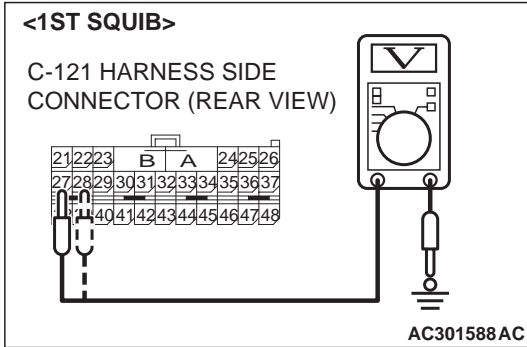
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (5) Measure the voltage between C-121 harness side connector terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib> and body ground. Voltage should measure 0 volt.

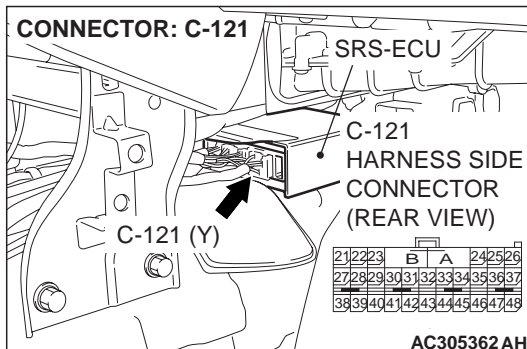
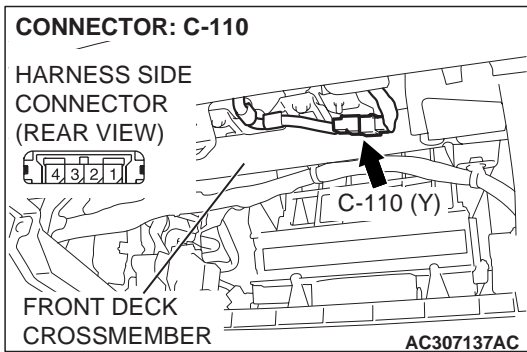
Q: Is the measured voltage within the specified range?

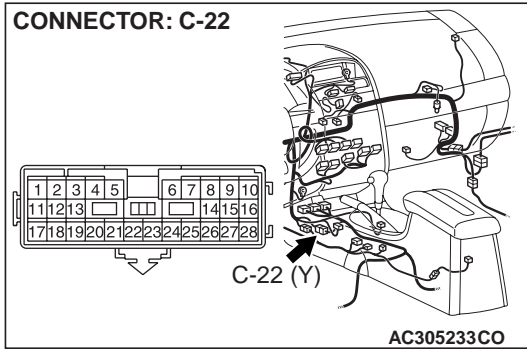
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1412 <1st squib> B1492 <2nd squib> sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 6.

NO : Go to Step 5.



STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-121 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-110 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>).



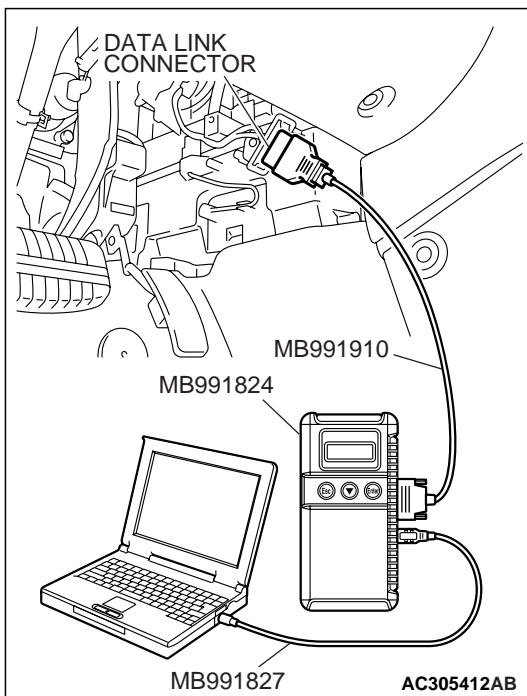


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If the intermediate connector C-22 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-110 (terminal No.1 and 2 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-121 and passenger's air bag module connector C-110. 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.

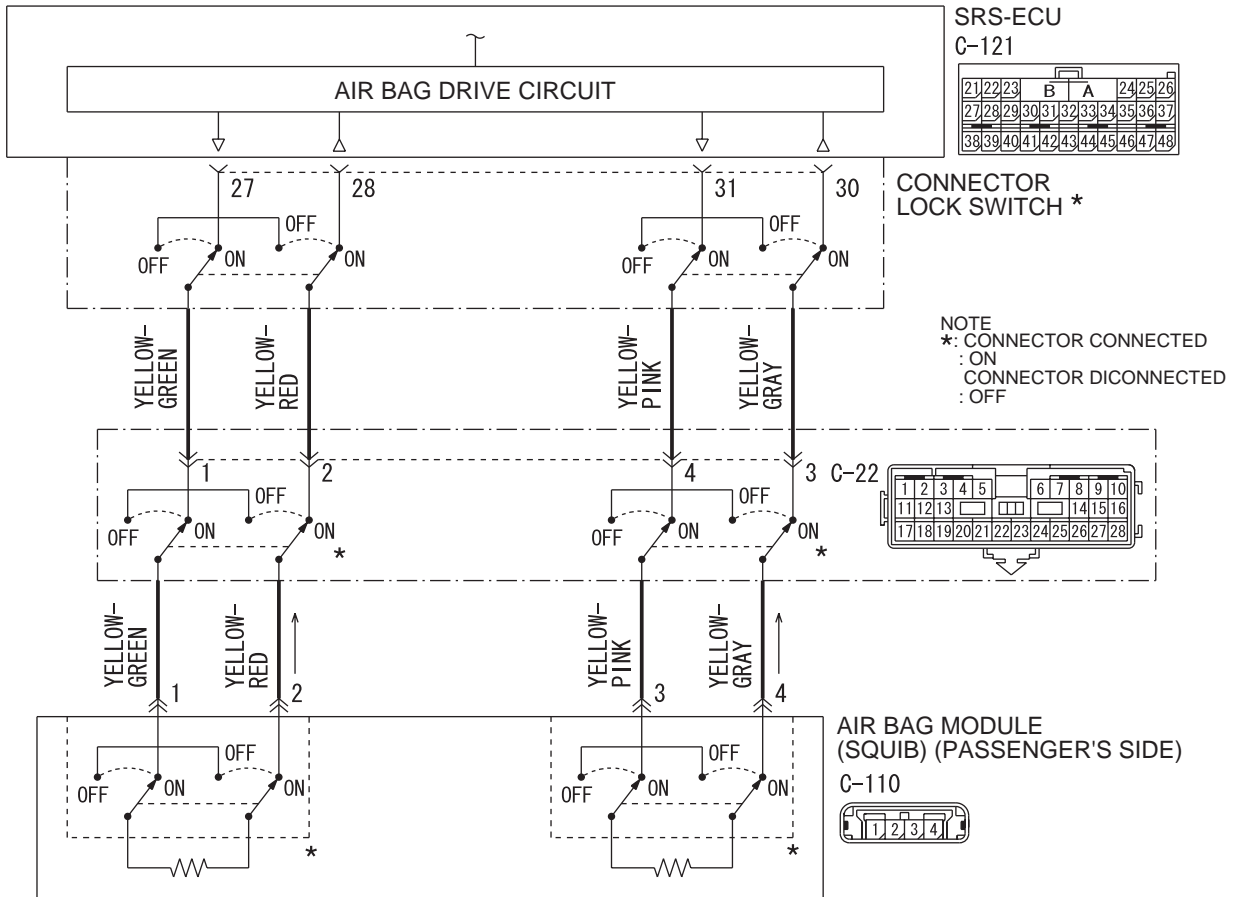
Q: Is DTC B1412 <1st squib> B1492 <2nd squib> set?

YES : Return to Step 1.

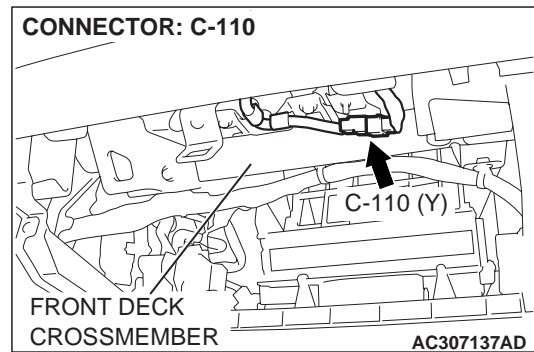
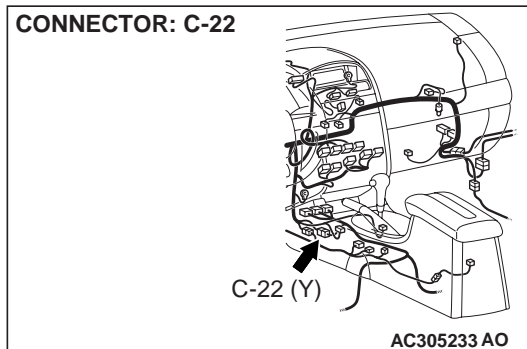
NO : The procedure is complete.

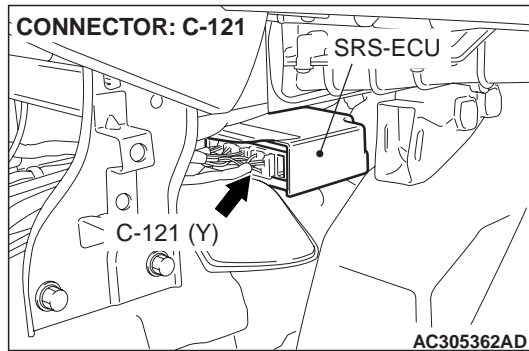
DTC B1413: Passenger's (Front) Air Bag Module (1st Squib) System Fault for Ground Circuit (Short-Circuited to Ground)
DTC B1493: Passenger's (Front) Air Bag Module (2nd Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

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



W5P52M008A





⚠ 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 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 passenger's air bag module (squib). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

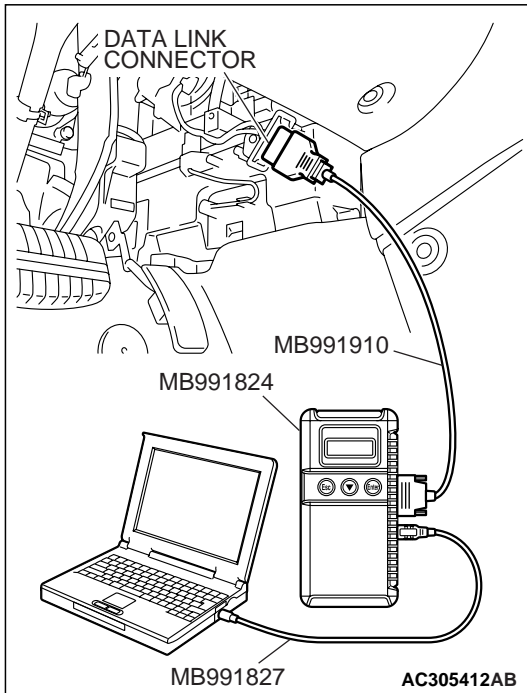
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

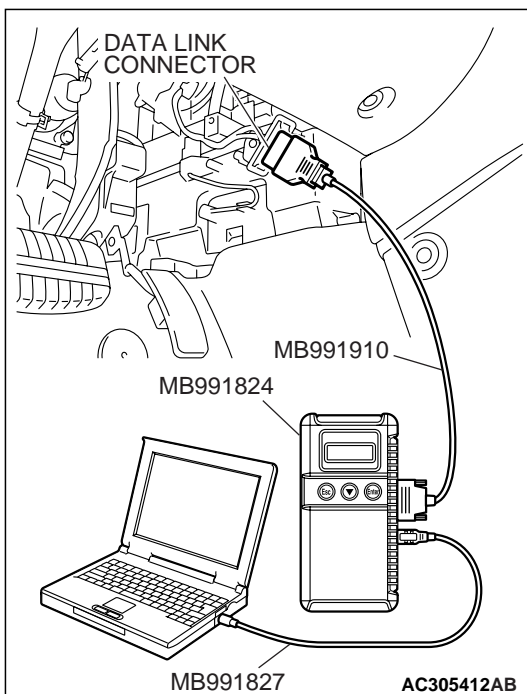
Check again if the DTC is set.

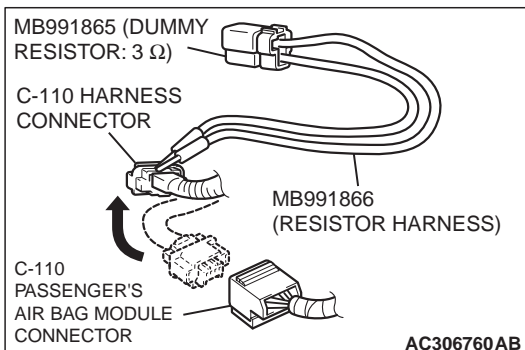
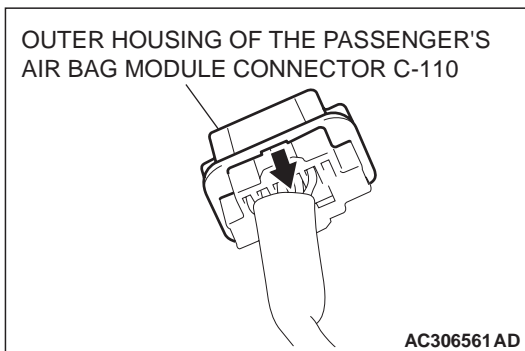
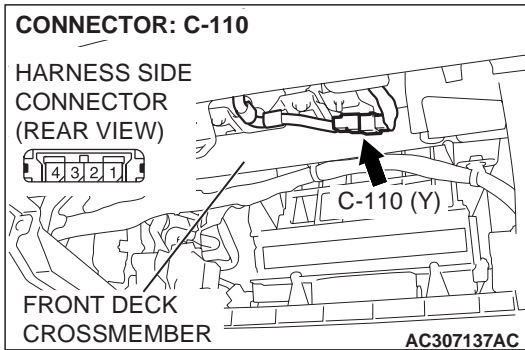
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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

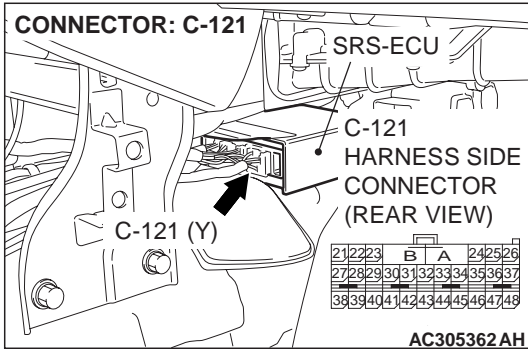
- (1) Disconnect the negative battery terminal.
 - (2) Disconnect the passenger's air bag module connector C-110.
 - (3) Slide the outer housing of the clock spring side of passenger's air bag module connector C-110 in the arrow direction shown, and disconnect the connector.
 - (4) Connect special tool 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-110 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
 - (6) Connect the negative battery terminal.
 - (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-368](#)). Then go to Step 6.

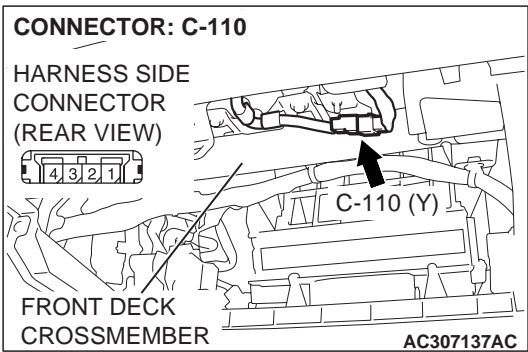
STEP 4. Check the passenger's air bag module circuit.
Measure the resistance at the SRS-ECU connector C-121.
(1) Disconnect SRS-ECU connector C-121.



⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-110 to short the squib circuit.

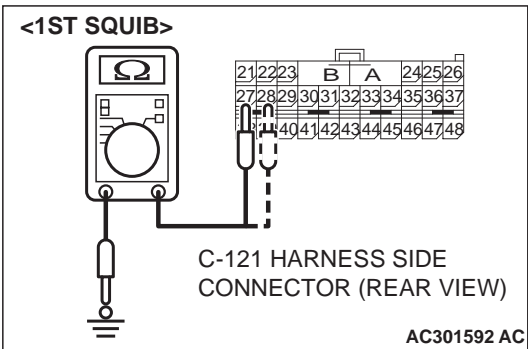
- (2) Unclip passenger's air bag module connector C-110.
- (3) Disconnect the passenger's air bag module connector C-110.



⚠ CAUTION

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

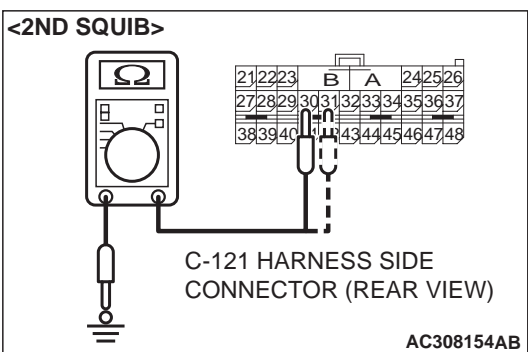
- (4) Check for continuity between C-121 harness side connector terminals 27 and 28 <1st squib> or 30 and 31 <2nd squib>, and body ground. It should be open circuit.



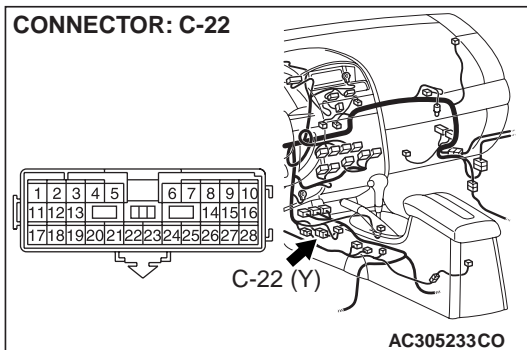
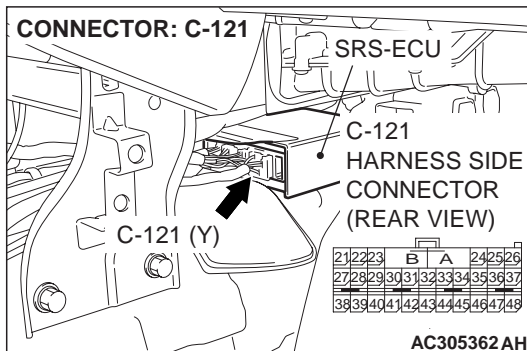
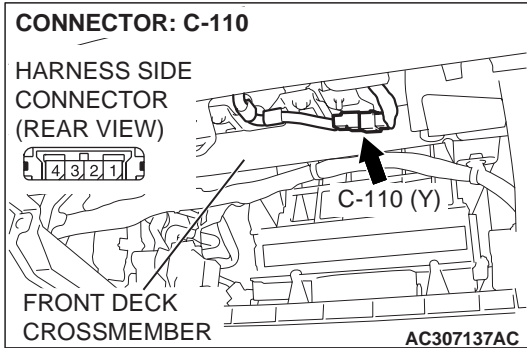
Q: Does continuity exist?

YES : Go to Step 5.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1413 <1st squib> B1493 <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 6.



STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-121 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-110 (terminal No.1 and 2 <1st squib> or terminal No.4 and 3 <2nd squib>).



NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If the intermediate connector C-22 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.27 and 28 <1st squib> or terminal No.30 and 31 <2nd squib>) and passenger's air bag module connector C-110 (terminal No.1 and 2 <1st squib> or terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-121 and passenger's air bag module connector C-110. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

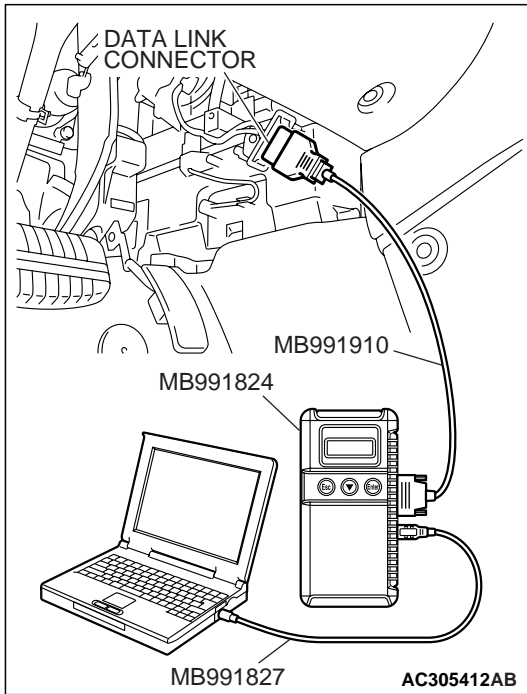
Check again if the DTC is set.

- (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?

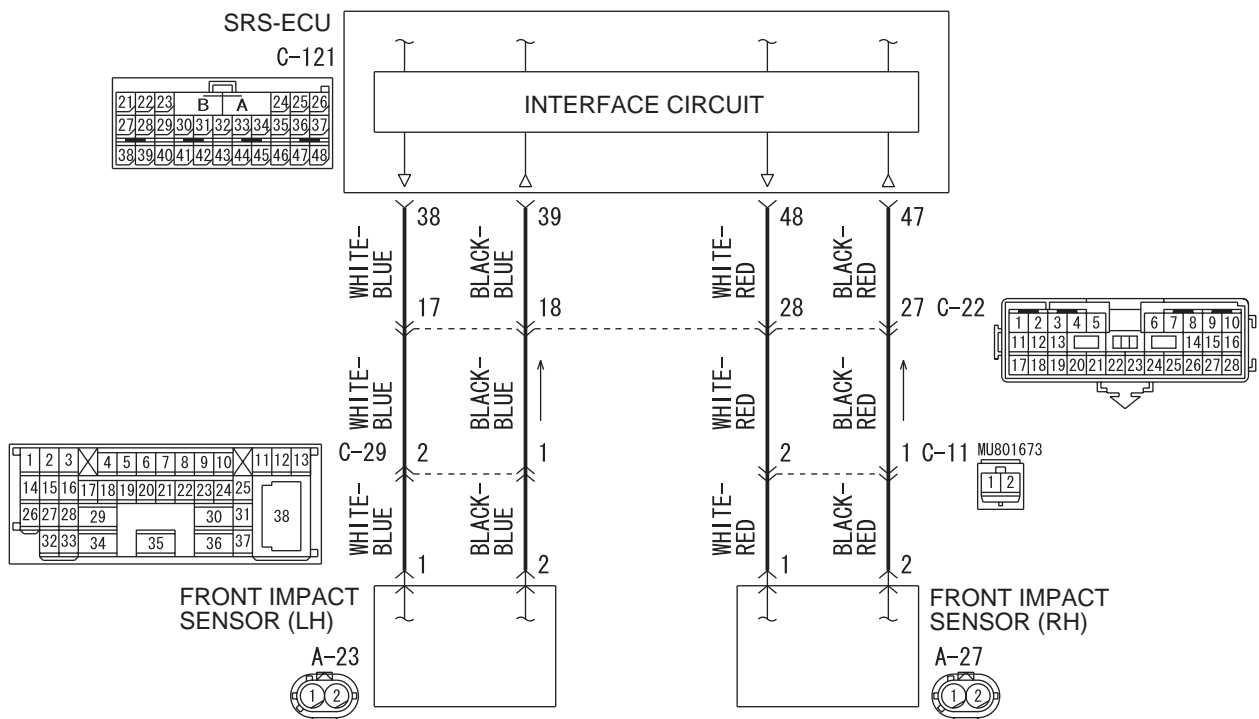
YES : Return to Step 1.

NO : The procedure is complete.

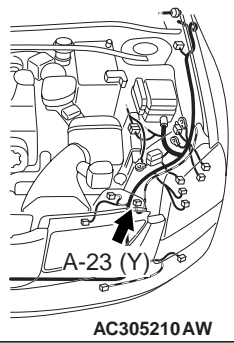


DTC B1417: Front Impact Sensor (LH) Power Supply Circuit System

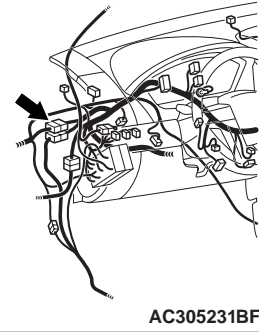
Front Impact Sensor Circuit



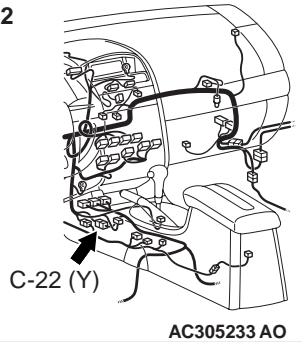
CONNECTOR: A-23



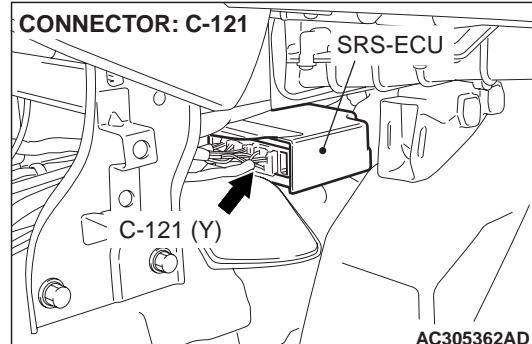
CONNECTOR: C-29



CONNECTOR: C-22



CONNECTOR: C-121

**⚠ CAUTION**

If DTC B1417 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

This DTC will set when the power supply voltage to the front impact sensor (LH) remains less than a pre-determined value for five seconds. However, if the system returns to normal condition, code number B1417 will be erased automatically and the SRS warning light will go out.

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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991223 (MB991222): Harness set (Probe)

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

⚠ CAUTION

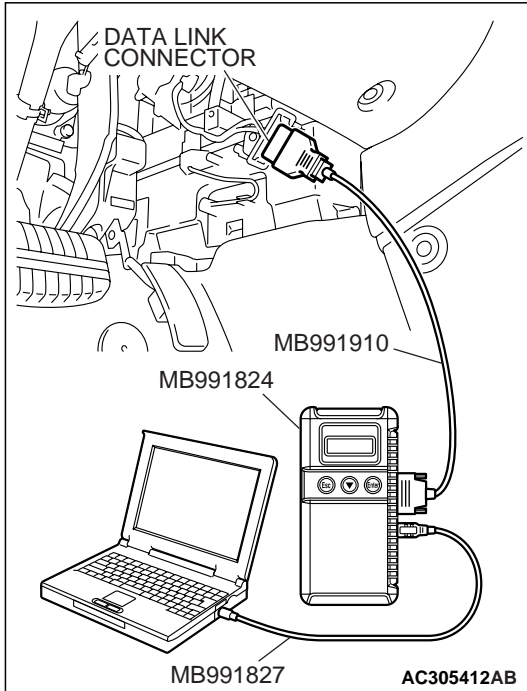
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

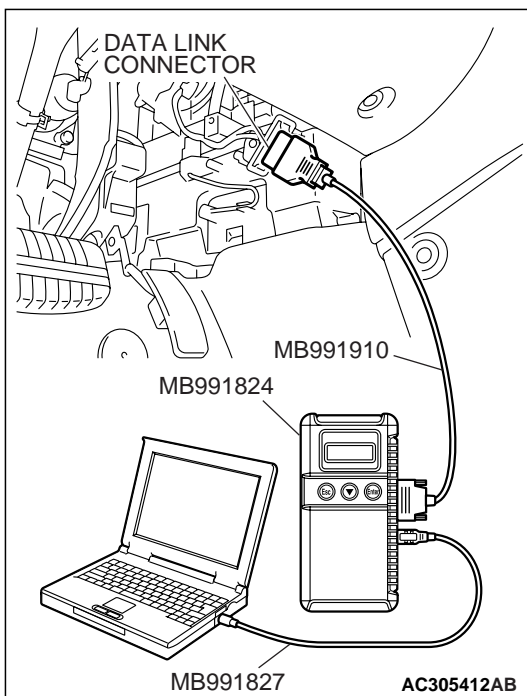
Check again if the DTC is set.

- (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?

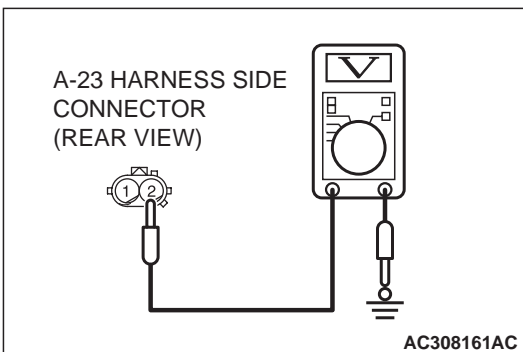
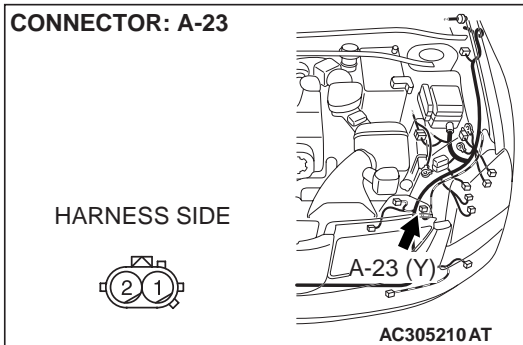
YES : Go to Step 3.

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).



STEP 3. Check the front impact sensor (LH) power supply circuit. Measure the voltage at the front impact sensor (LH) connector A-23.

- (1) Disconnect the negative battery terminal.
- (2) Disconnect front impact sensor (LH) connector A-23, and measure at the wiring harness side.
- (3) Connect the negative battery terminal.
- (4) 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.

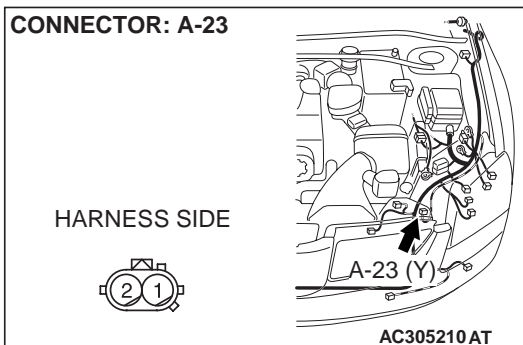
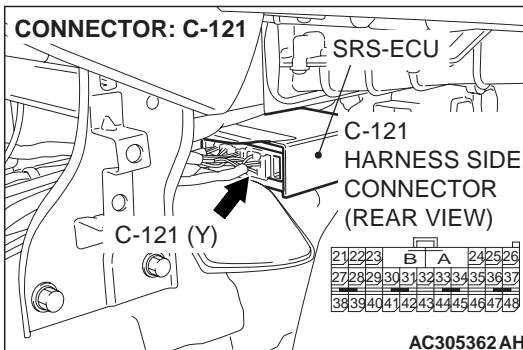
- (5) Measure the voltage between A-23 harness side connector terminal 2 and ground. Voltage should measure 9 volts or more

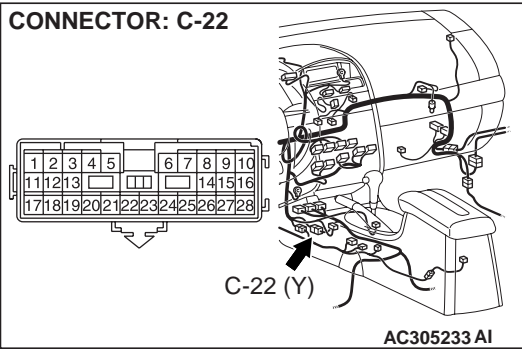
Q: Is the measured voltage within the specified range?

YES : Replace the front impact sensor (LH) (Refer to [P.52B-362](#)). 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-121 (terminal No.38 and 39) and front impact sensor (LH) connector A-23 (terminal No.1 and 2).



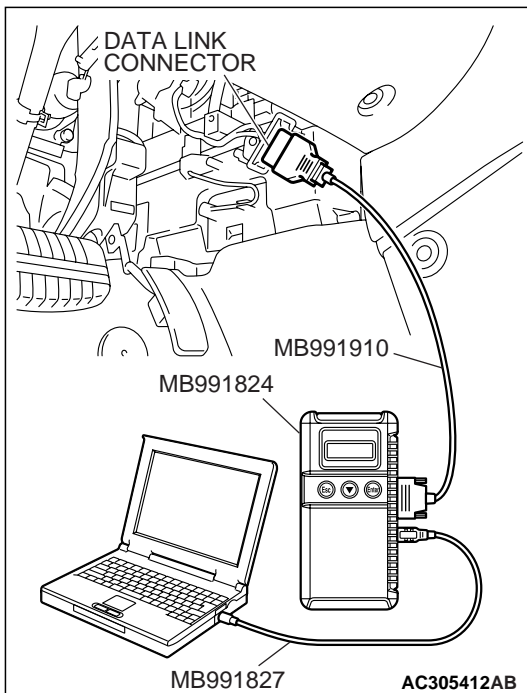
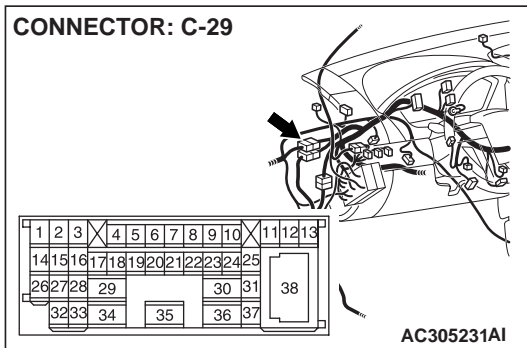


NOTE: After inspecting intermediate connectors C-22 and C-29 inspect the wiring harness. If the intermediate connectors C-22 and C-29 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.38 and 39) and front impact sensor (LH) connector A-23 (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-365](#)). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-121 and front impact sensor (LH) connector A-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 B1417 set?

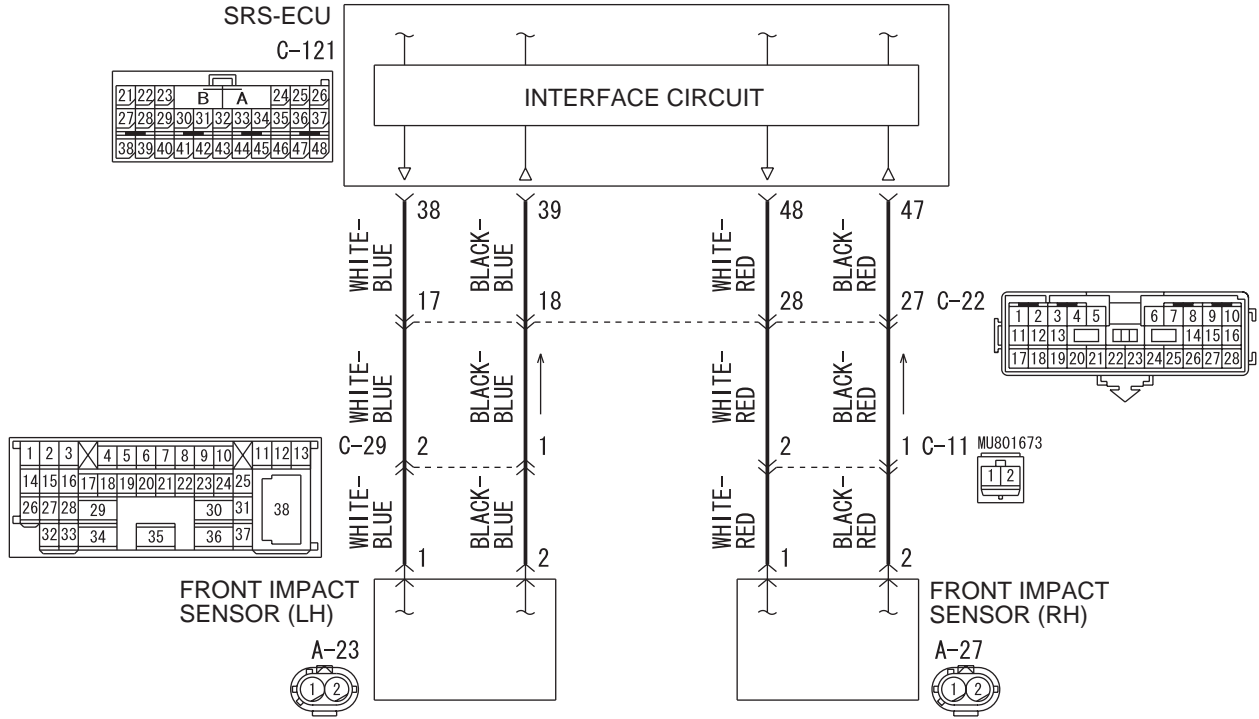
YES : Return to Step 1.

NO : The procedure is complete.

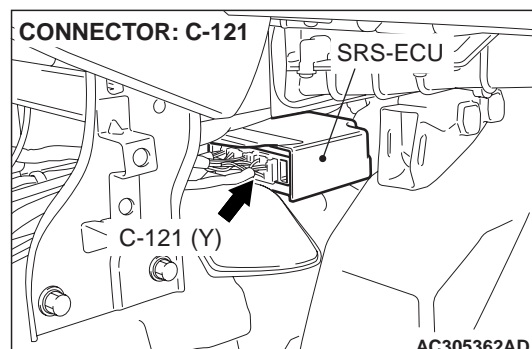
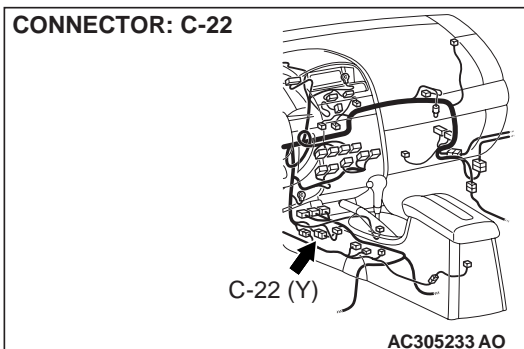
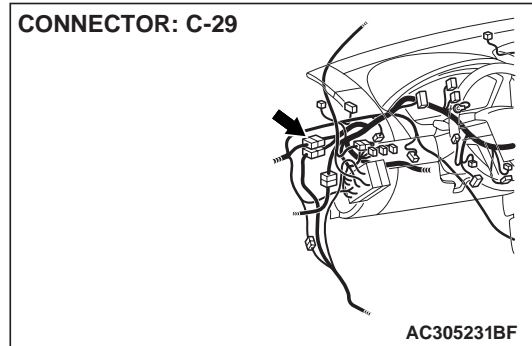
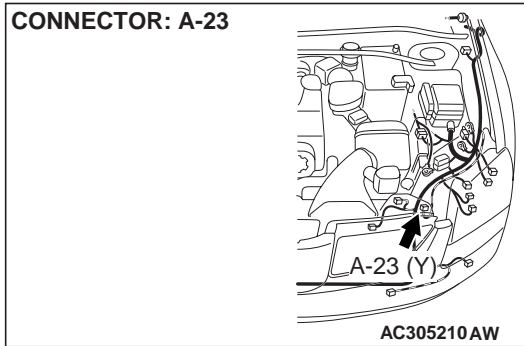
DTC B1418: Front Impact Sensor (LH) (Squib) for Power Supply Circuit

DTC B1419: Front Impact Sensor (LH) (Squib) for Communication System

Front Impact Sensor Circuit



W5P52M010A



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 Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991223 (MB991222): Harness set (Probe)

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

⚠ CAUTION

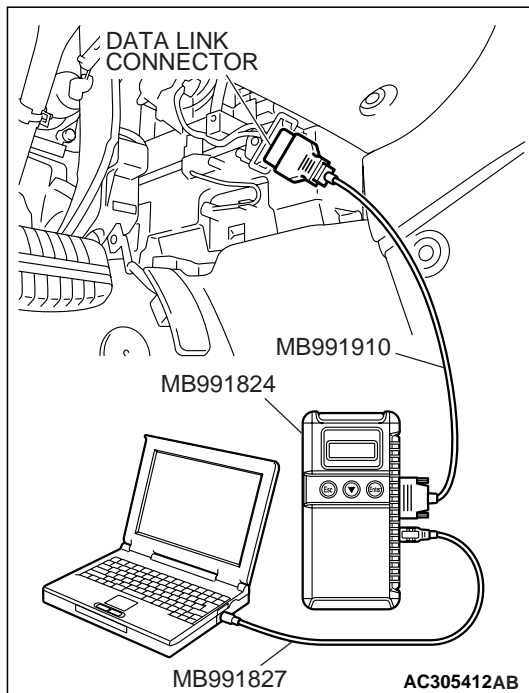
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

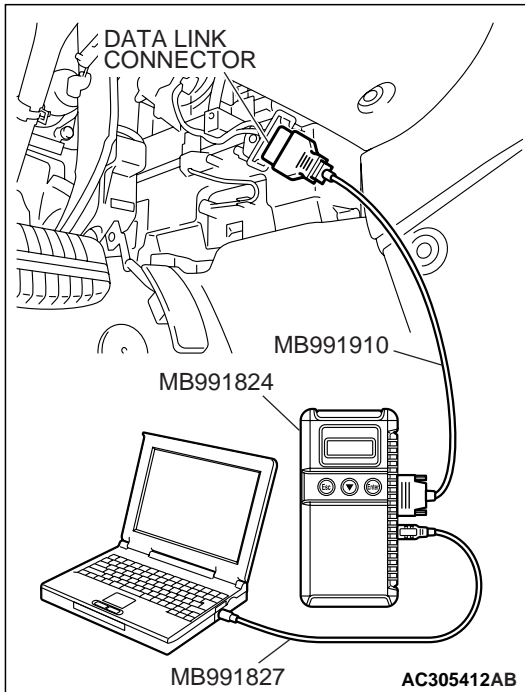
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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).

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

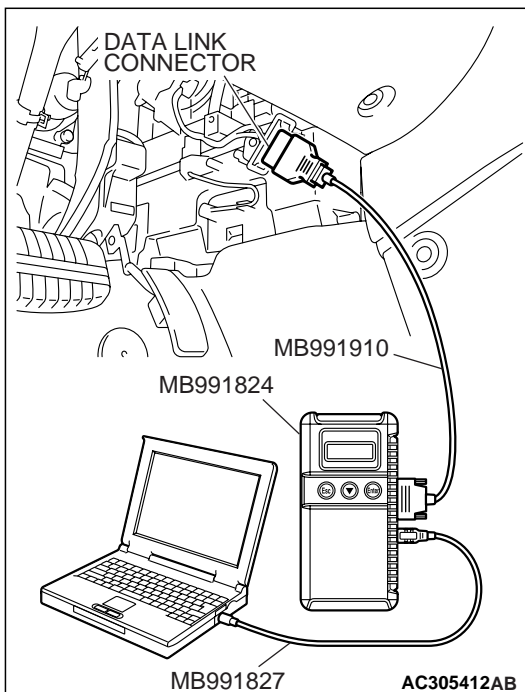
Check the front impact sensor (LH).

- (1) Disconnect the negative battery terminal.
- (2) 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.

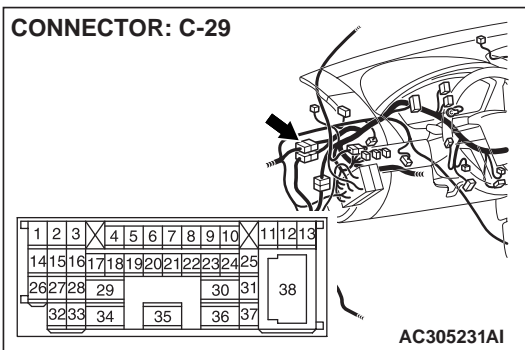
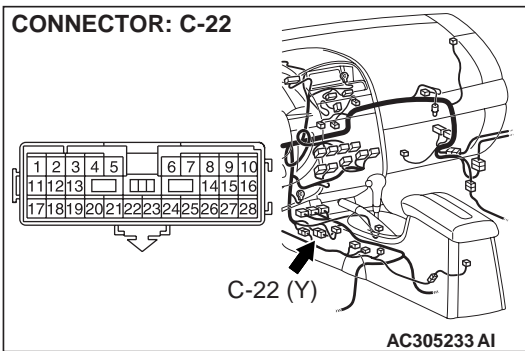
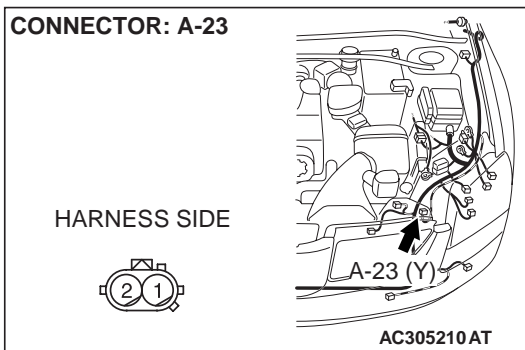
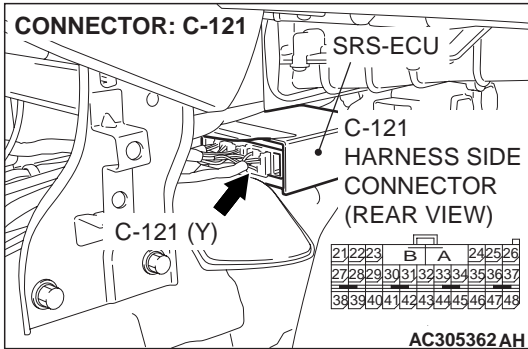
Q: Is DTC B1408 or B1409 set?

YES : Replace the front impact sensor (LH) with a new one (Refer to P.52B-377). 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-121 (terminal No.38 and 39) and front impact sensor (LH) connector A-23 (terminal No.1 and 2).

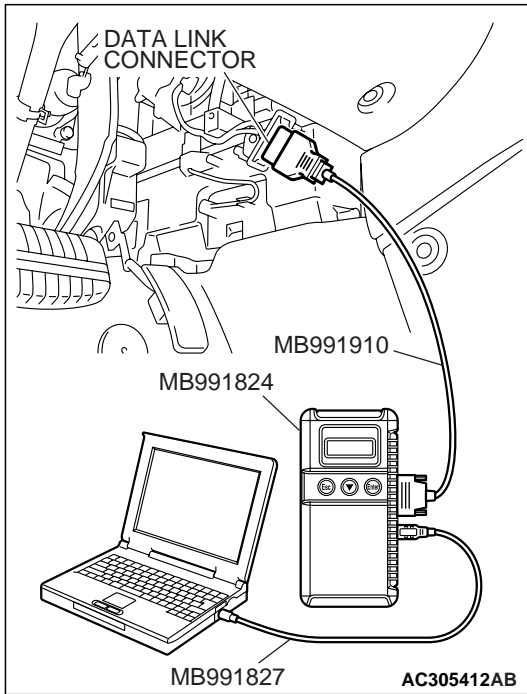


NOTE: After inspecting intermediate connectors C-22 and C-29 inspect the wiring harness. If the intermediate connectors C-22 and C-29 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.38 and 39) and front impact sensor (LH) connector A-23 (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-365](#)). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-121 and front impact sensor (LH) connector A-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.

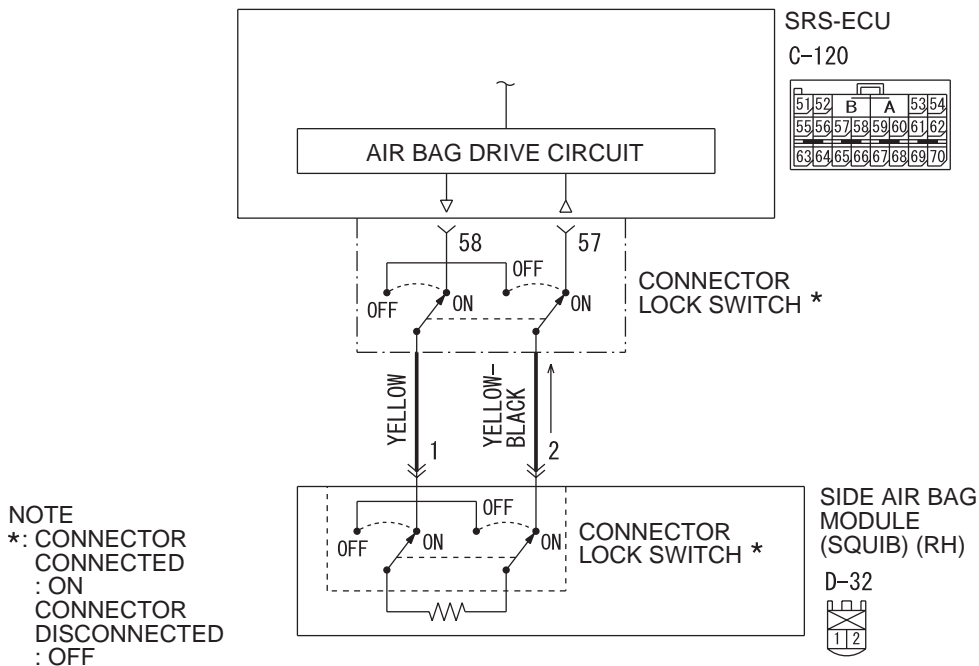
Q: Is DTC B1418 or B1419 set?

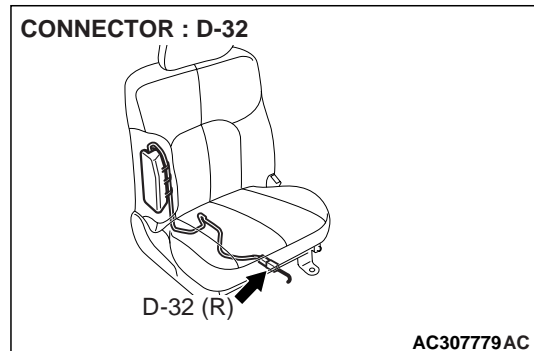
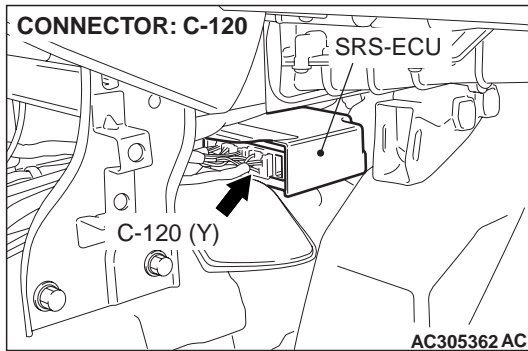
YES : Return to Step 1.

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

*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-120 or D-32 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

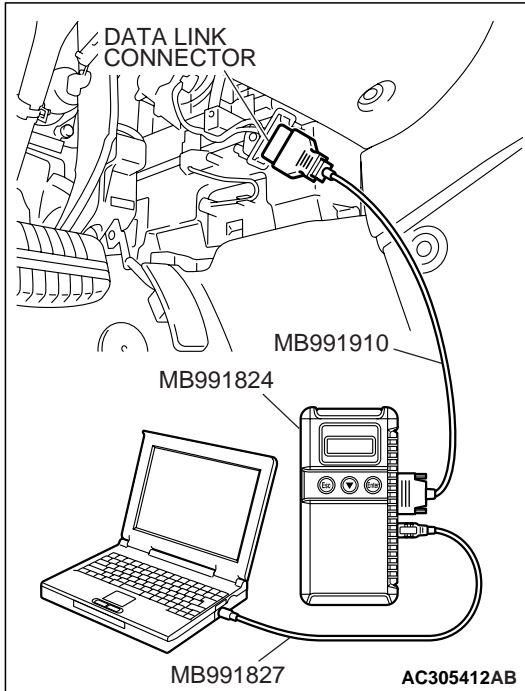
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

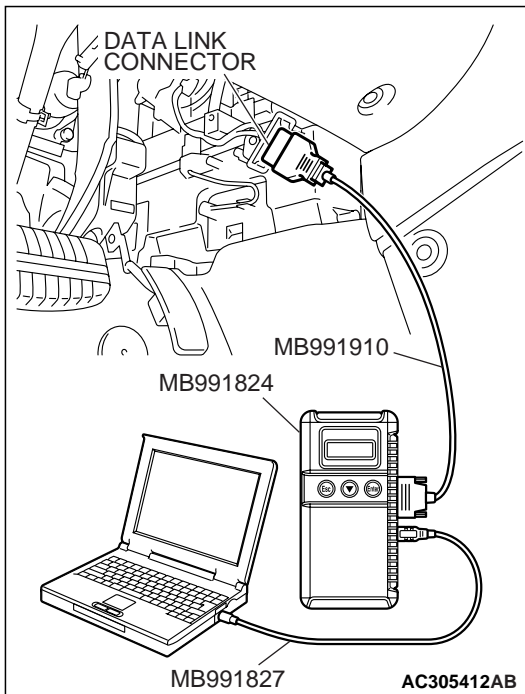
Check again if the DTC is set.

- (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).



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

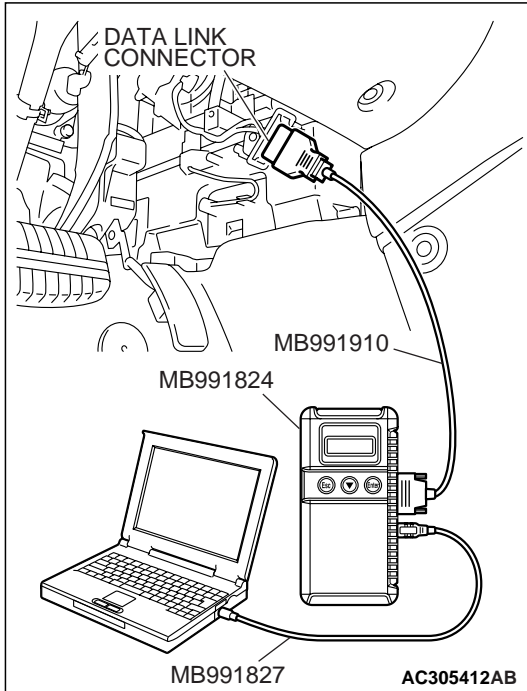
⚠ CAUTION

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?

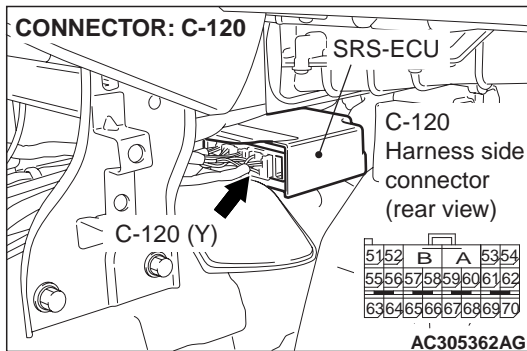
- YES :** Go to Step 4.
- NO :** Go to Step 5.



STEP 4. Check SRS-ECU connector C-120.

Q: Is the connector correctly engaged?

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



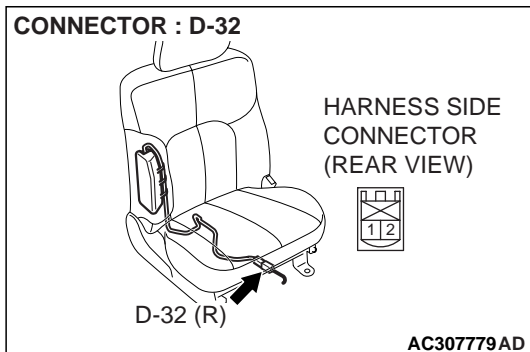
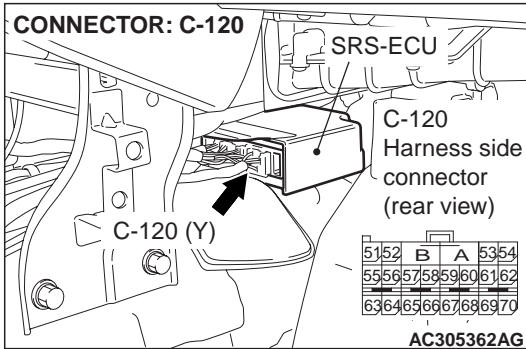
STEP 5. Check SRS-ECU connector C-120 and side-airbag module (RH) connector D-32. (Using scan tool MB991958, read the diagnostic trouble code.)

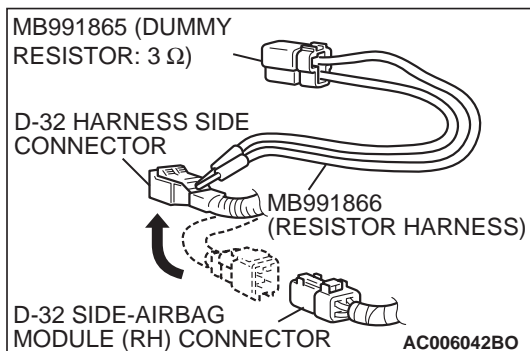
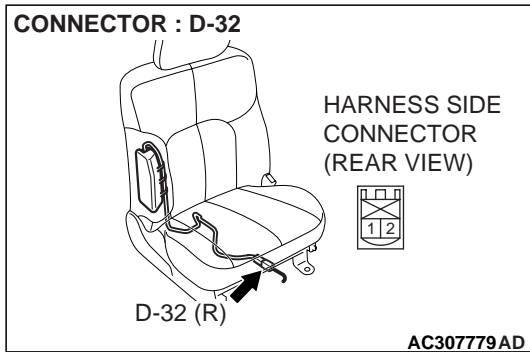
- (1) Disconnect the negative battery terminal.
- (2) Disconnect connectors C-120 and D-32, and then reconnect them.
- (3) Connect the negative battery terminal.
- (4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

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-120 or D-32 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-32.

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

CAUTION

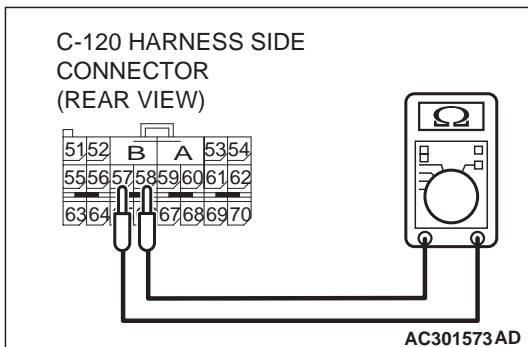
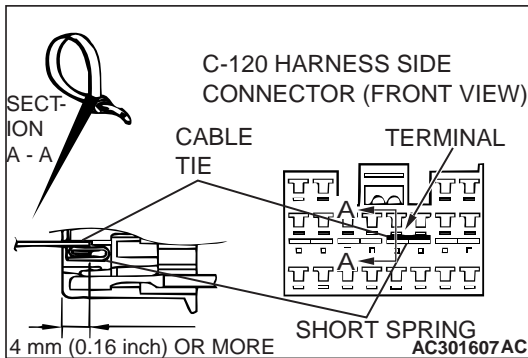
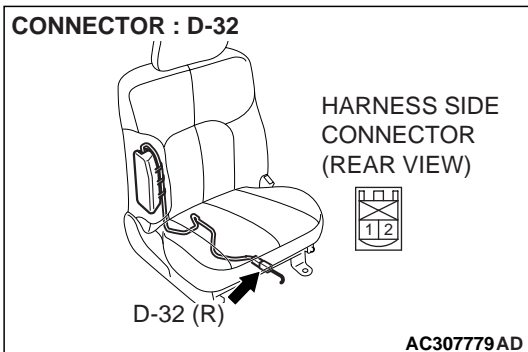
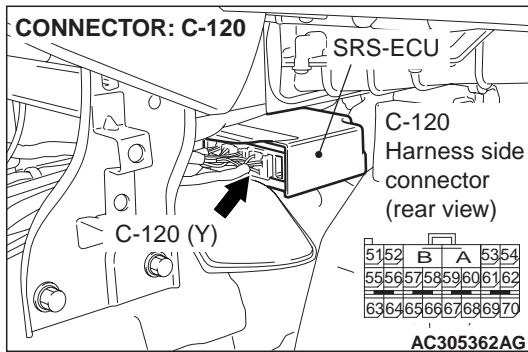
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC 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-25](#)). Then go to Step 9.



STEP 7. Check the side-airbag module (RH) circuit. Measure the resistance at the SRS-ECU connector C-120.

(1) Disconnect SRS-ECU connector C-120.

⚠ DANGER

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

(2) Disconnect side-airbag module connector D-32.

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

(4) 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.

(5) Check for continuity between C-120 harness side connector terminals 57 and 58. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.

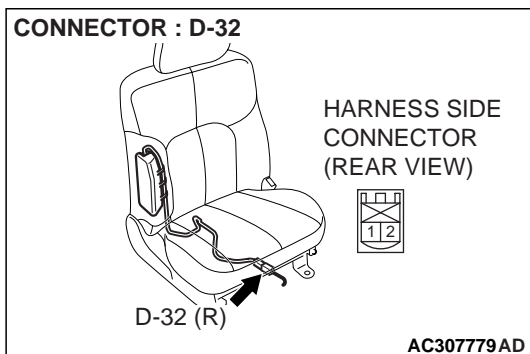
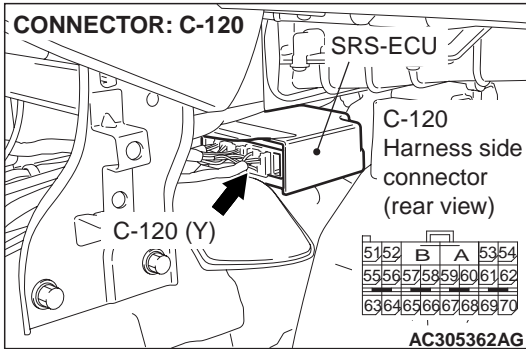
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1420 sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 7.

STEP 8. Check the harness wires for short circuit between SRS-ECU connector C-120 (terminal No.57 and 58) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.57 and 58) and side-airbag module (RH) connector D-32 (terminal No.1 and 2) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-120 and side-airbag module (RH) connector D-32. Then go to Step 9.



STEP 9. Recheck for diagnostic trouble code.

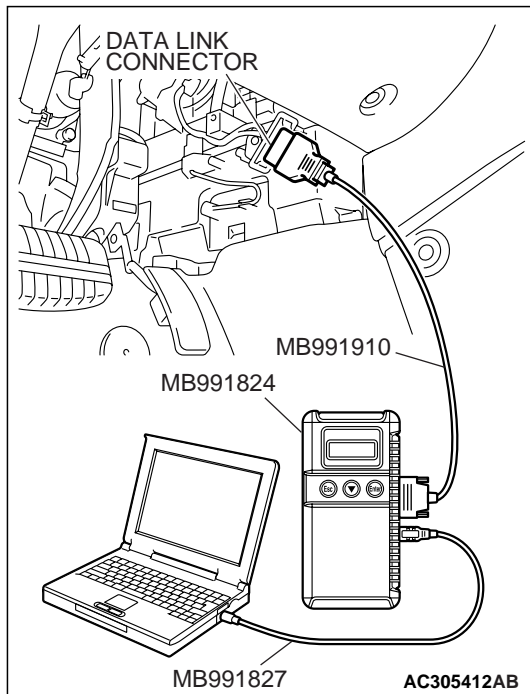
Check again if the DTC is set.

- (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?

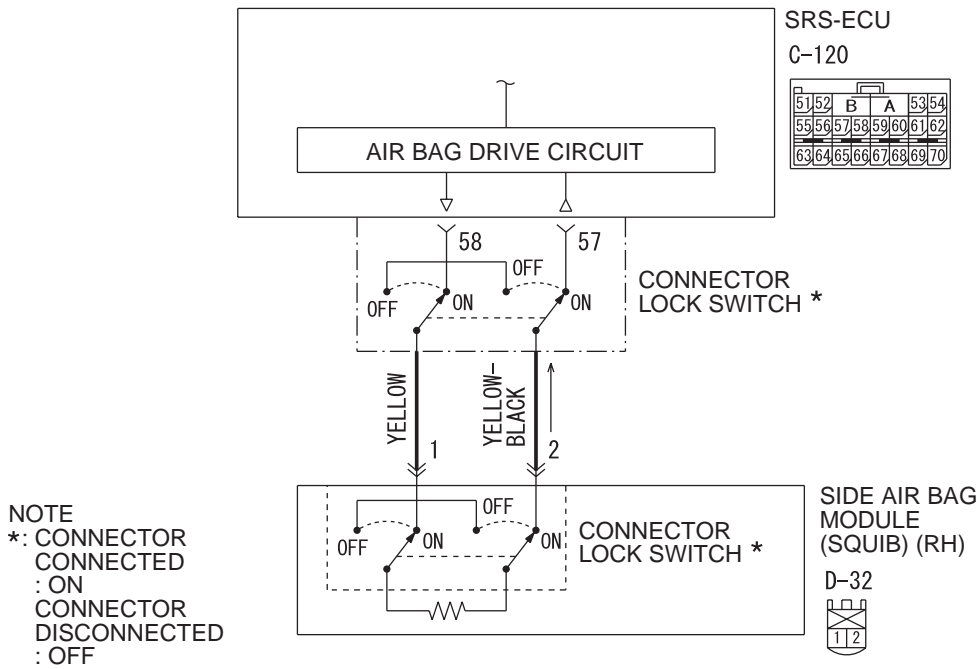
YES : Return to Step 1.

NO : The procedure is complete.

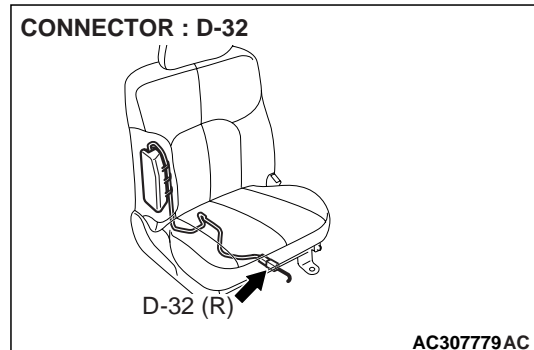
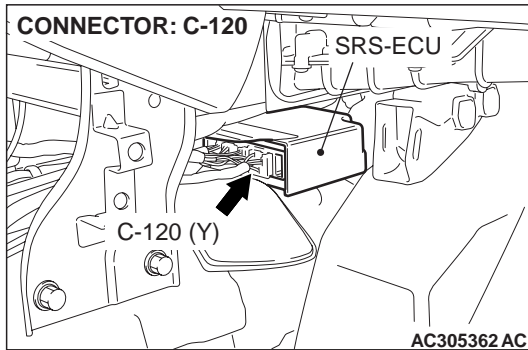


DTC B1421: Side-Airbag Module (RH) (Squib) System Fault 2 (Open in the Squib Circuit)

Side-Airbag Module (RH) (Squib) Circuit



W4P52M09AA



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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

CAUTION

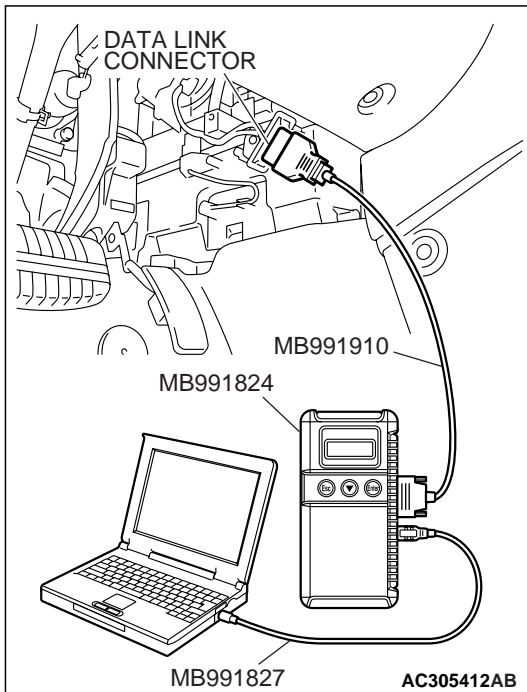
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

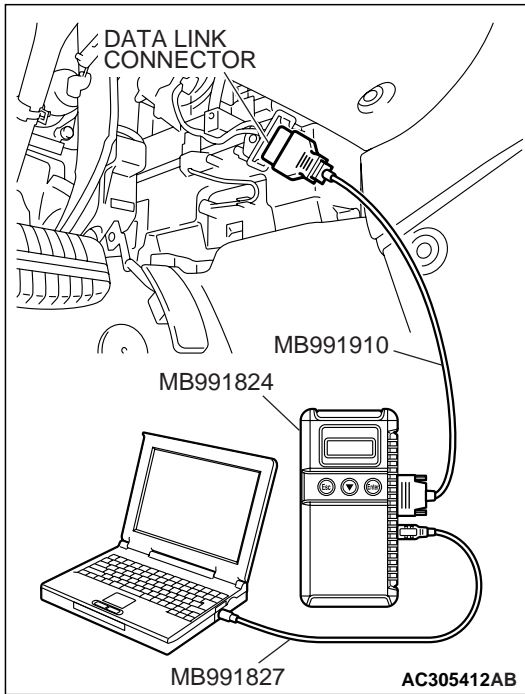
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2

NO : Repair the CAN bus lines (Refer to GROUP 54C, Diagnosis).



**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.

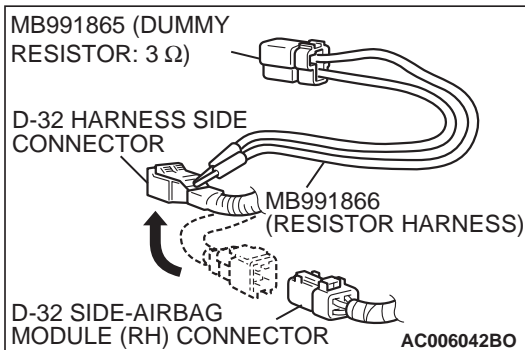
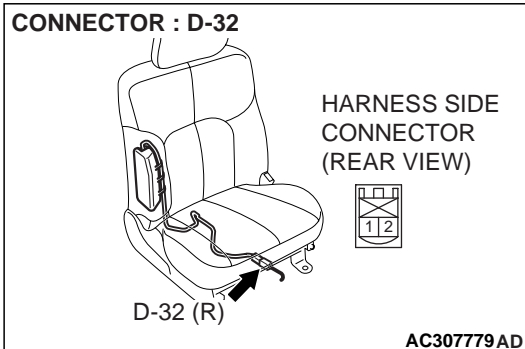
Q: Is the DTC set?

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).

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-32.



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

CAUTION

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

- (4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

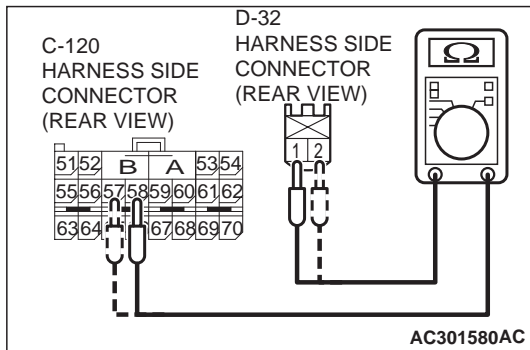
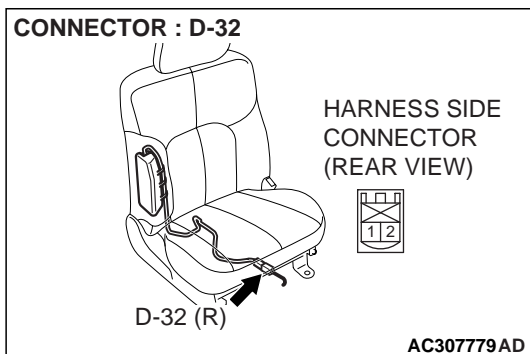
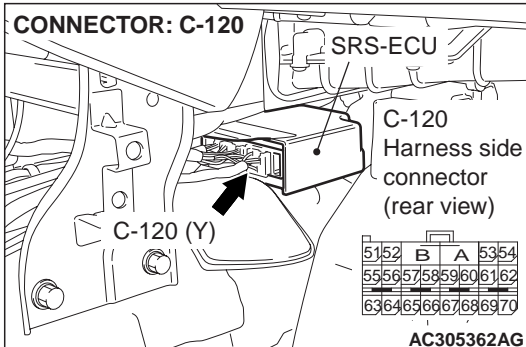
Q: Is DTC B1421 set?

YES : Go to Step 4.

NO : Replace the seatback frame of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-25). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-120 (terminal No.57 and 58) and the side-airbag module (RH) connector D-32 (terminal No.1 and 2).

- (1) Disconnect SRS-ECU connector C-120 and side-airbag module (RH) connector D-32.



⚠ CAUTION

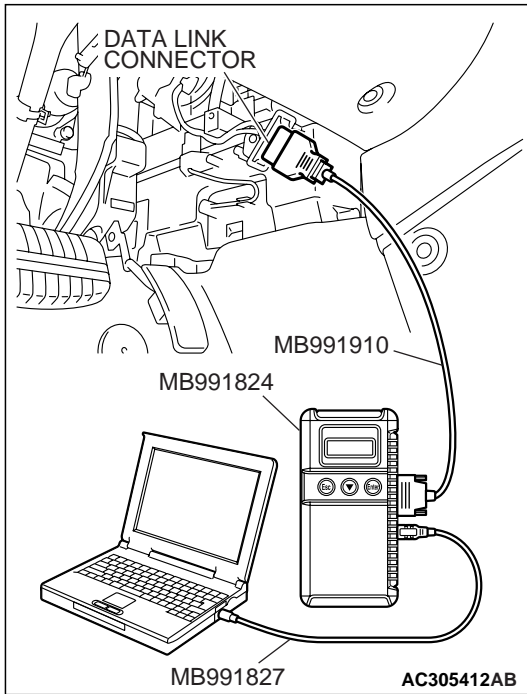
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (2) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-120 (terminal No.57) and the side-airbag module (RH) connector D-32 (terminal No.2)
 - SRS-ECU connector C-120 (terminal No.58) and the side-airbag module (RH) connector D-32 (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-365). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-120 and side-airbag module (RH) connector D-32. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

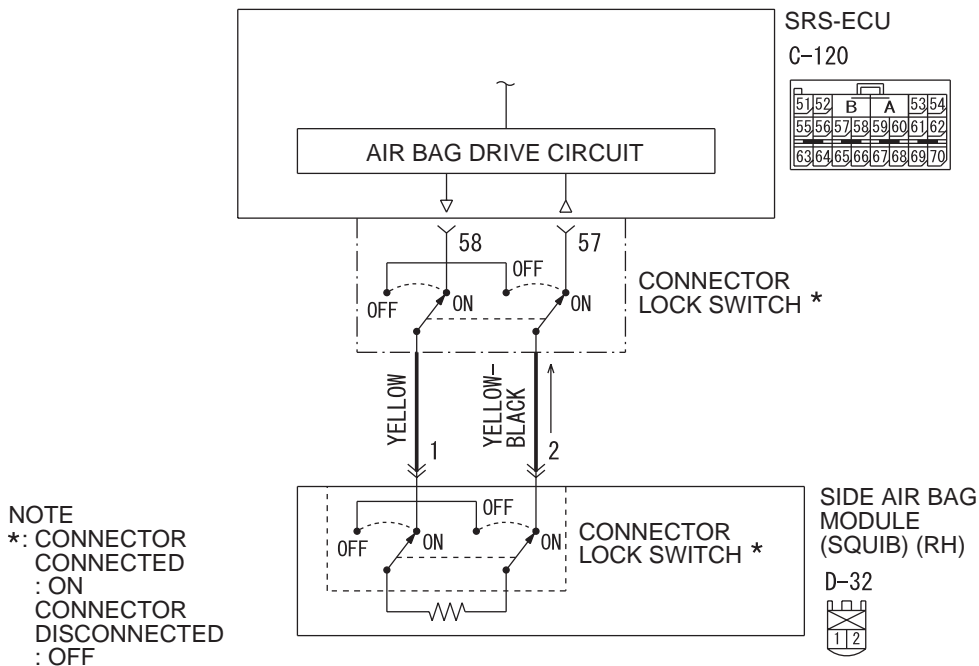
Q: Is DTC B1421 set?

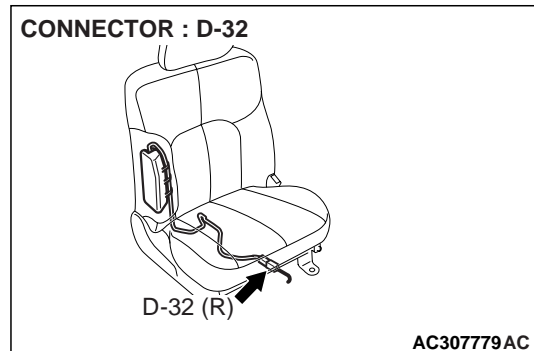
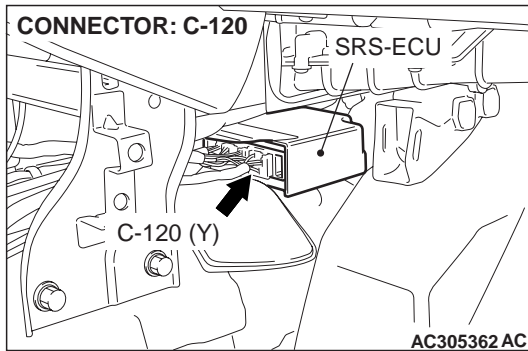
YES : Return to Step 1.

NO : The procedure is complete.

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

Side-Airbag Module (RH) (Squib) Circuit





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 the power supply in the side-airbag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

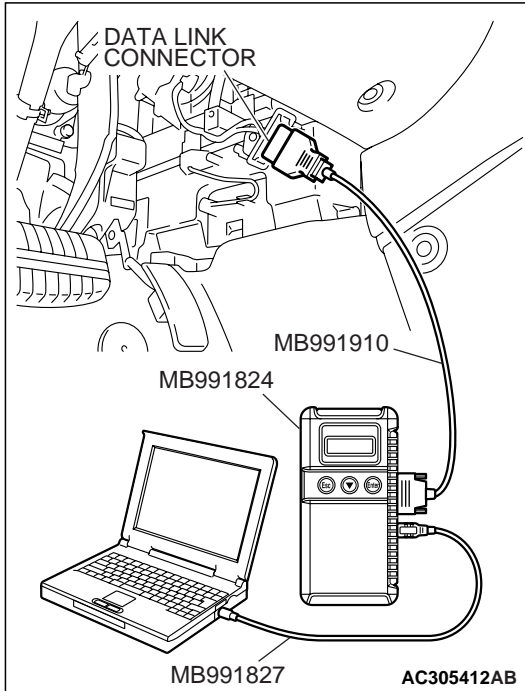
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

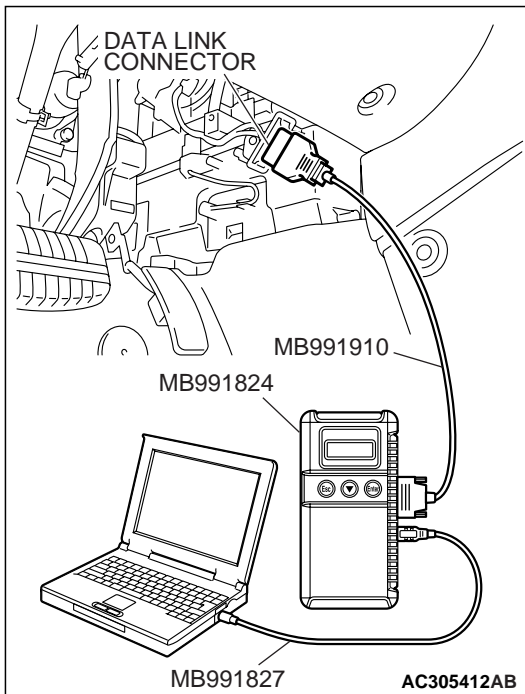
Check again if the DTC is set.

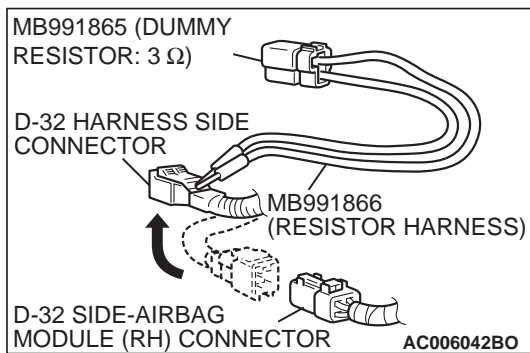
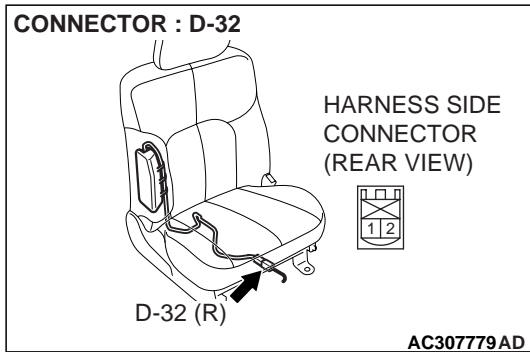
- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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-32.

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

CAUTION

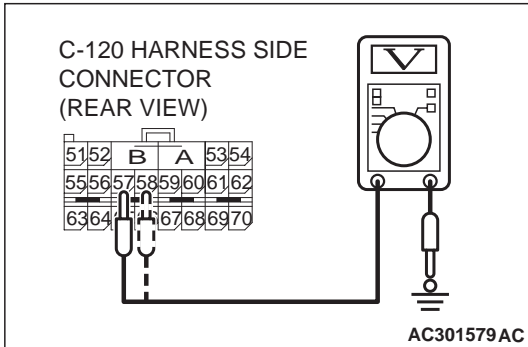
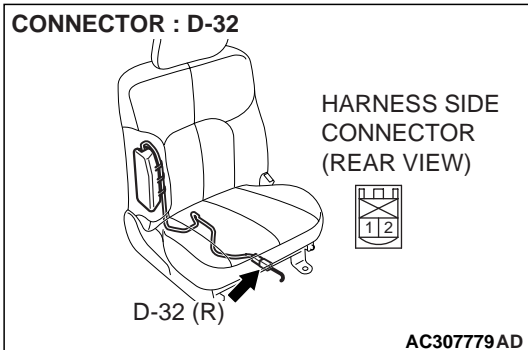
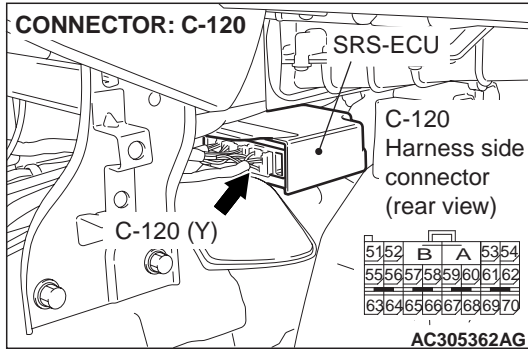
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC 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-25](#)). Then go to Step 5.



**STEP 4. Check the side-airbag module (RH) circuit.
Measure the voltage at the SRS-ECU connector C-120.**

(1) Disconnect SRS-ECU connector C-120.

⚠ DANGER

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

- (2) Disconnect side-airbag module (RH) connector D-32.
- (3) 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.

- (4) Measure the voltage between C-120 harness side connector terminals 57 and 58 and body ground. Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1422 sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 6.

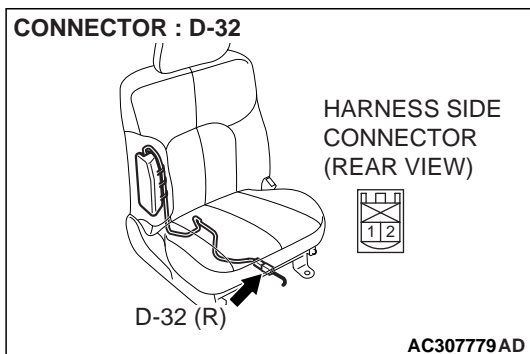
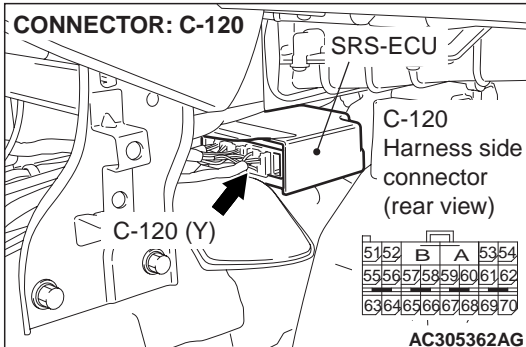
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-120 (terminal No.57 and 58) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.57 and 58) and side-airbag module (RH) connector D-32 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-120 and side-airbag module (RH) connector D-32. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

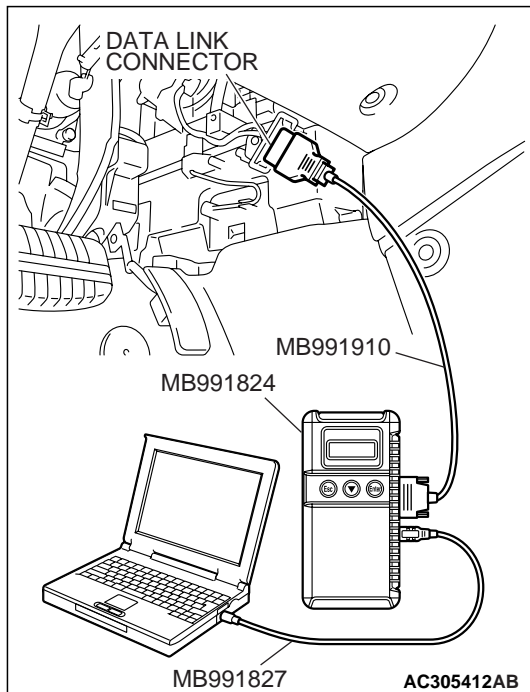
Check again if the DTC is set.

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

Q: Is DTC B1422 set?

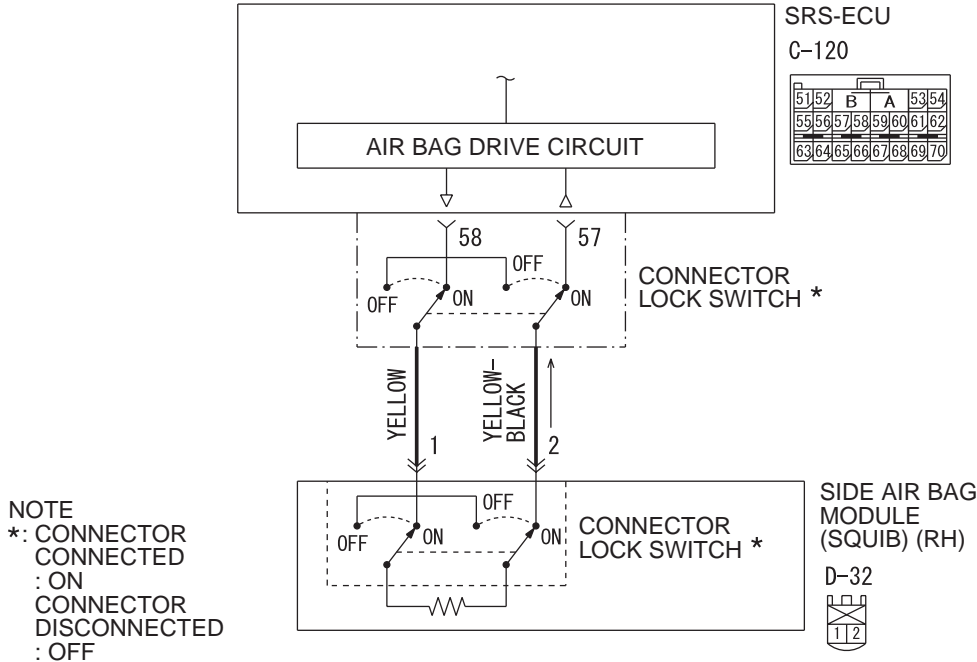
YES : Return to Step 1.

NO : The procedure is complete.

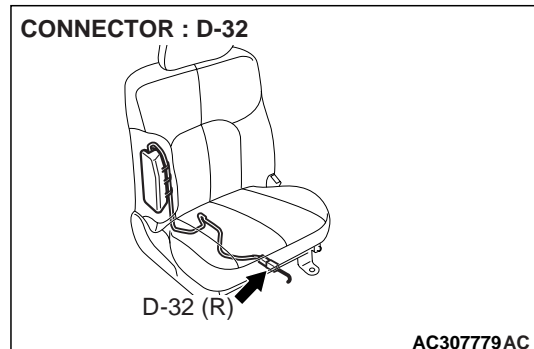
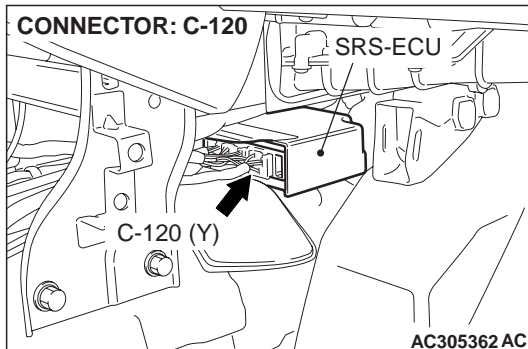


DTC B1423: Side-Airbag Module (RH) (Squib) System Fault Ground Circuit (Short-Circuited to Ground)

Side-Airbag Module (RH) (Squib) Circuit



W4P52M09AA



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 ground in the side-airbag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

CAUTION

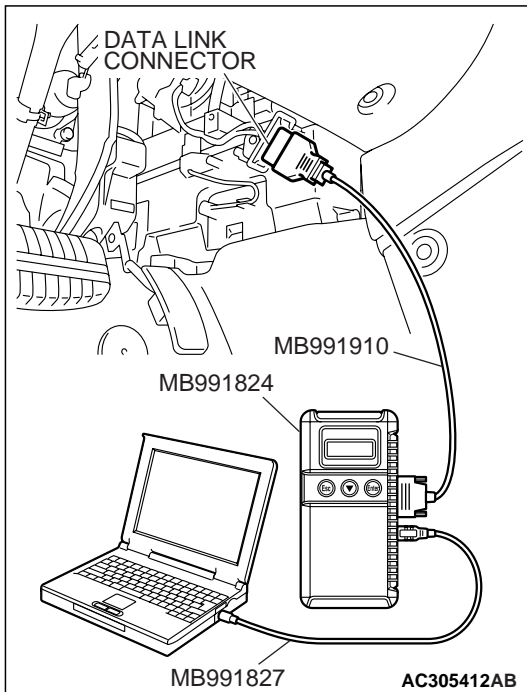
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

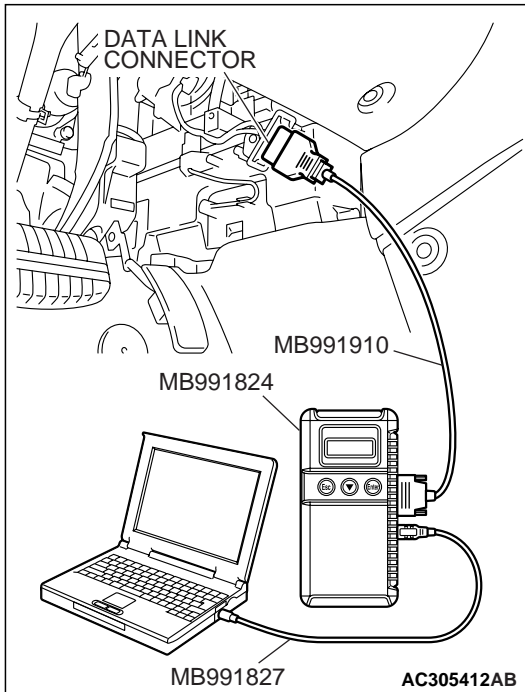
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

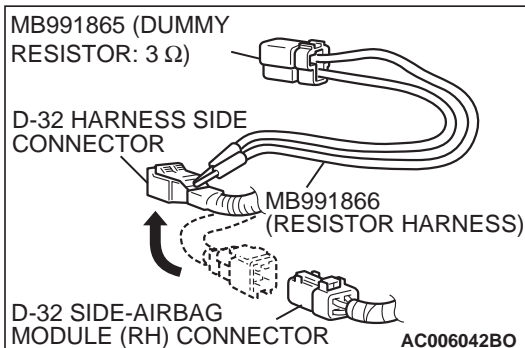
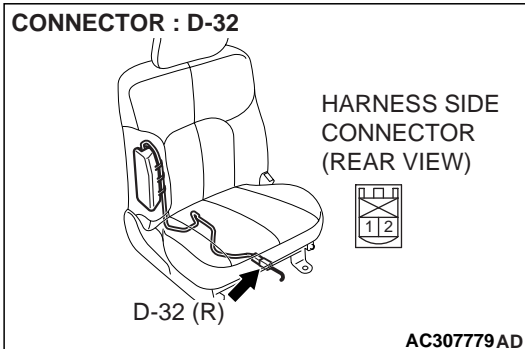
Q: Is the DTC set?

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).

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-32.



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

CAUTION

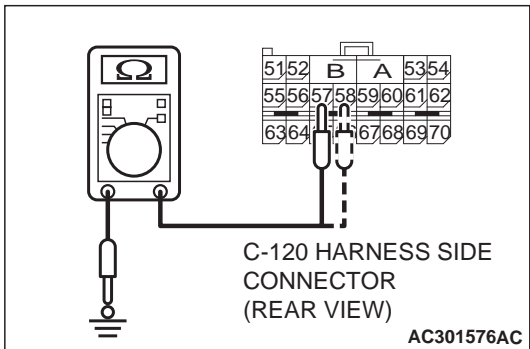
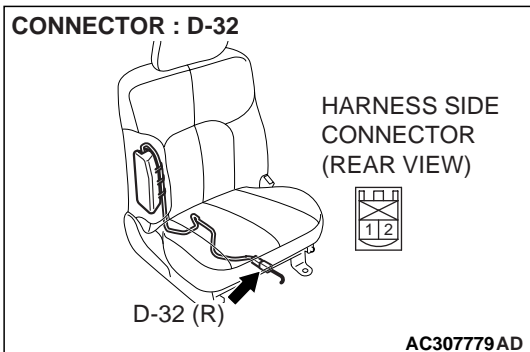
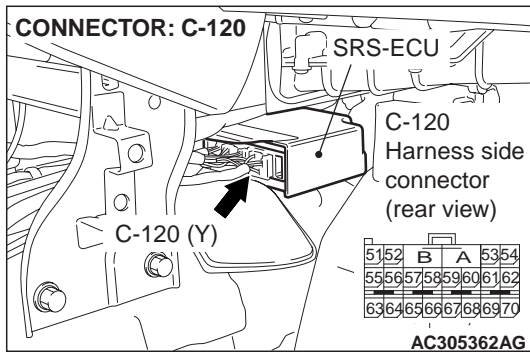
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC 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-25). Then go to Step 6.



STEP 4. Check the side-airbag module (RH) circuit.
Measure the resistance at the SRS-ECU connector C-120.
(1) Disconnect SRS-ECU connector C-120.

⚠ DANGER

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

(2) Disconnect side-airbag module (RH) connector D-32.

⚠ CAUTION

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

(3) Check for continuity between C-120 harness side connector terminals 57, 58 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

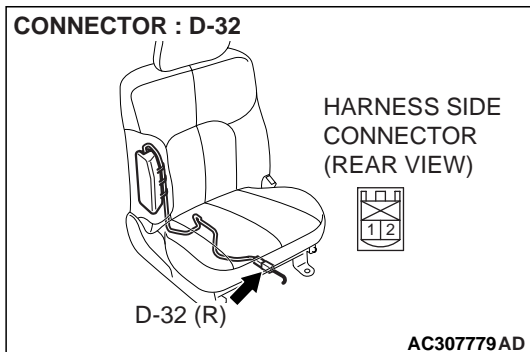
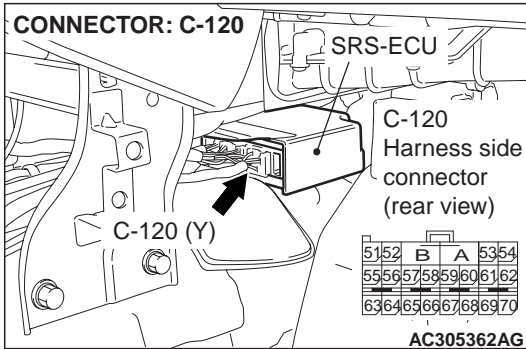
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1423 sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 6.

STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-120 (terminal No.57 and 58) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.57 and 58) and side-airbag module (RH) connector D-32 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-120 and side-airbag module (RH) connector D-32. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

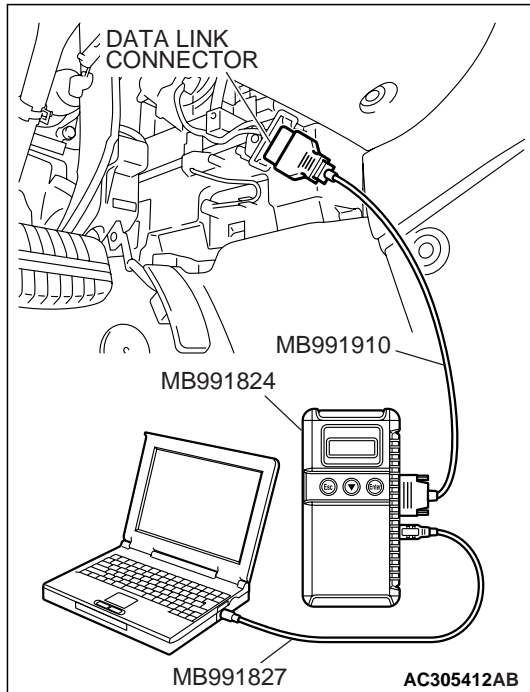
Check again if the DTC is set.

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

Q: Is DTC 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 Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

CAUTION

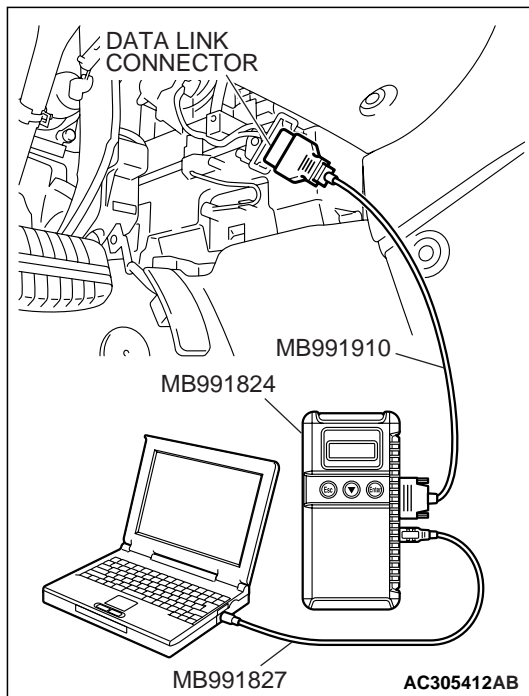
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

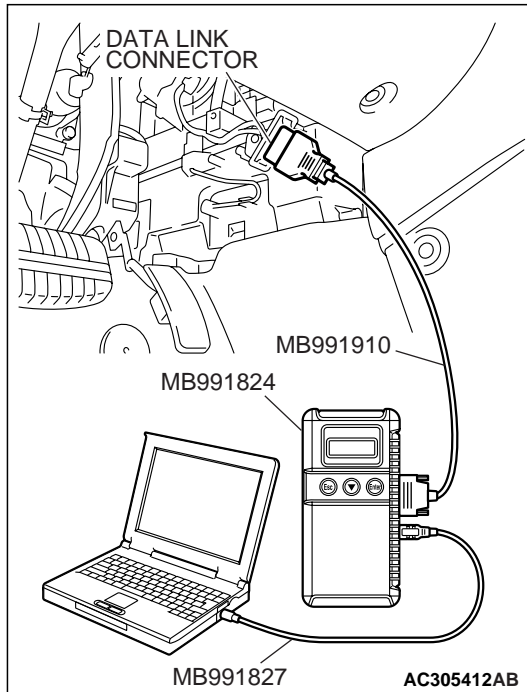
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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).

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

Replace side impact sensor (RH) (for DTC B1426) and side impact sensor (LH) (for DTC B1436) (Refer to P.52B-377). Check the diagnostic trouble code.

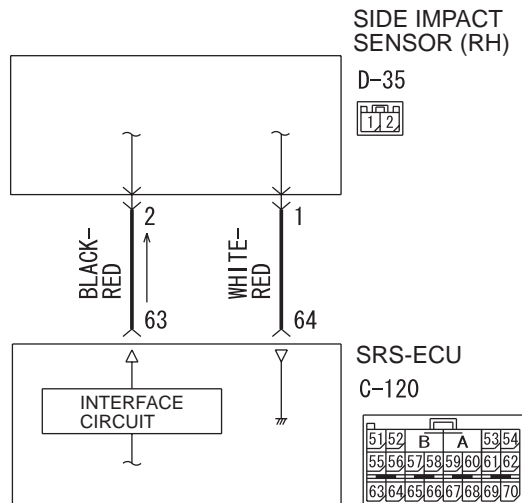
Q: Is either DTC B1426 or B1436 set?

YES : Replace the SRS-ECU (Refer to P.52B-365).

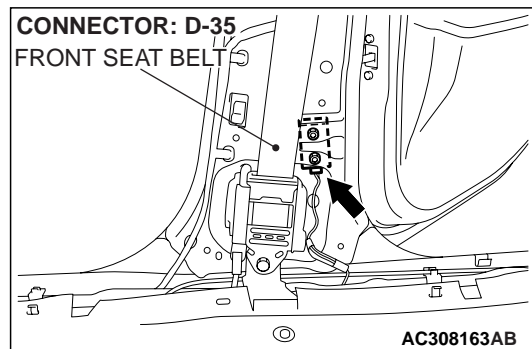
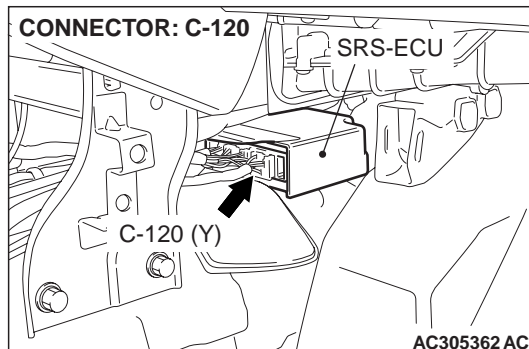
NO : The procedure is complete.

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

Side Impact Sensor (RH) Circuit



W4P52M06AA



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 pre-determined value for five seconds. However, if the system returns to normal condition, code number B1427 will be erased automatically and the SRS warning light will go out.

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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991223 (MB991222): Harness set (Probe)

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

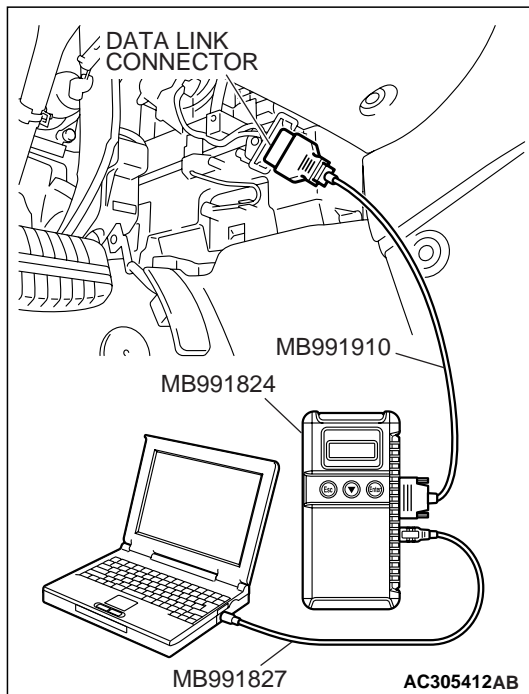
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

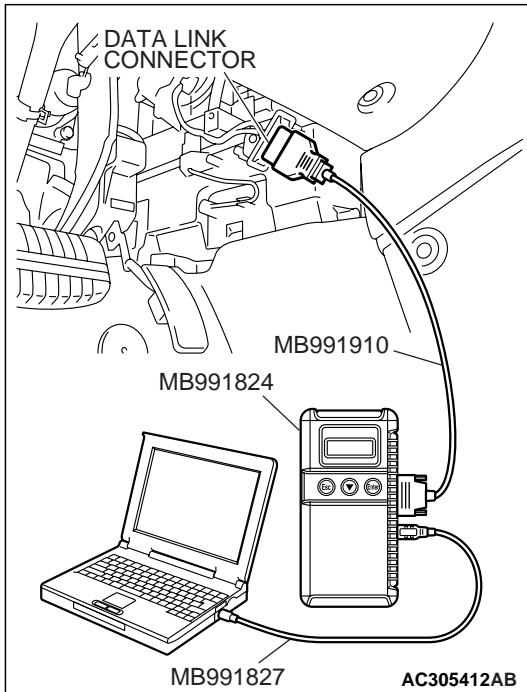
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





STEP 2. Recheck for diagnostic trouble code.

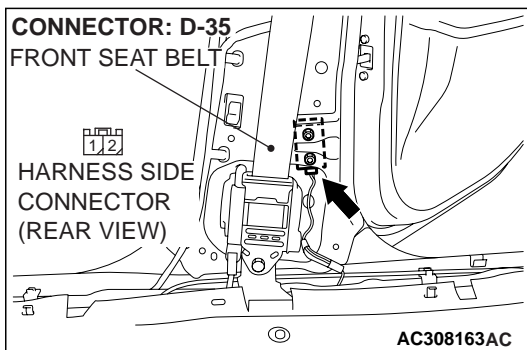
Check again if the DTC is set.

- (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?

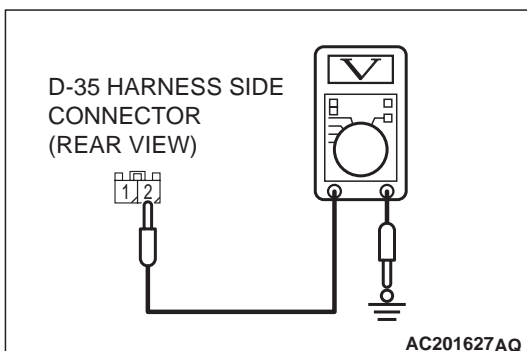
YES : Go to Step 3.

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).



STEP 3. Check the side impact sensor (RH) power supply circuit. Measure the voltage at the side impact sensor (RH) connector D-35.

- (1) Disconnect the negative battery terminal.
- (2) Disconnect side impact sensor (RH) connector D-35, and measure at the wiring harness side.
- (3) Connect the negative battery terminal.
- (4) Turn the ignition switch to the "ON" position.



CAUTION

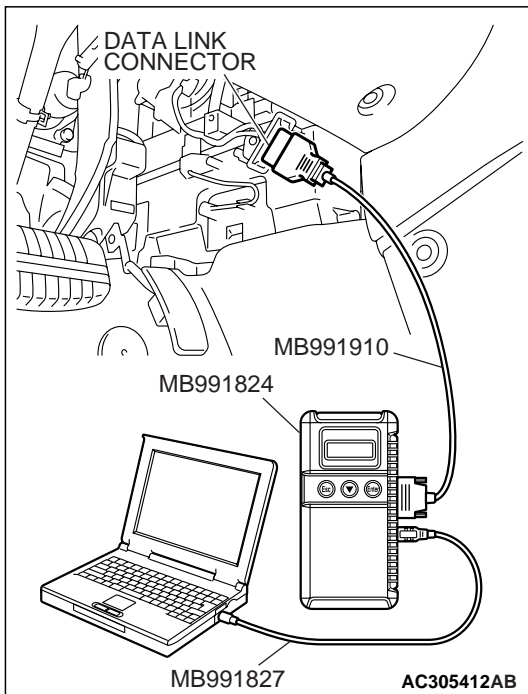
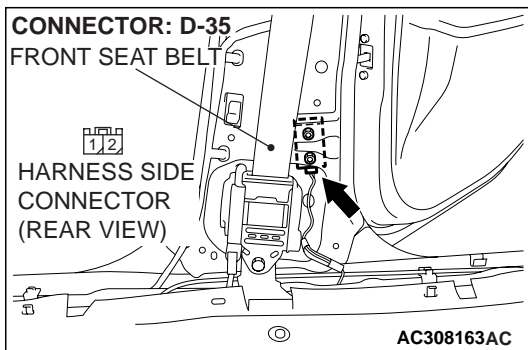
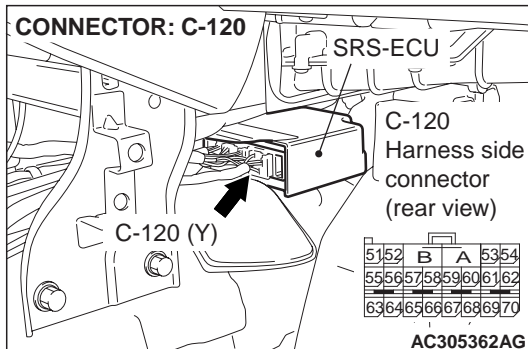
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (5) Measure the voltage between D-35 harness side connector terminal 2 and ground.
Voltage should measure 9 volts or more

Q: Is the measured voltage within the specified range?

YES : Replace the side impact sensor (RH) (Refer to P.52B-377). 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-120 (terminal No.63 and 64) and side impact sensor (RH) connector D-35 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.63 and 64) and side impact sensor (RH) connector D-35 (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-365). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-120 and side impact sensor (RH) connector D-35. 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.

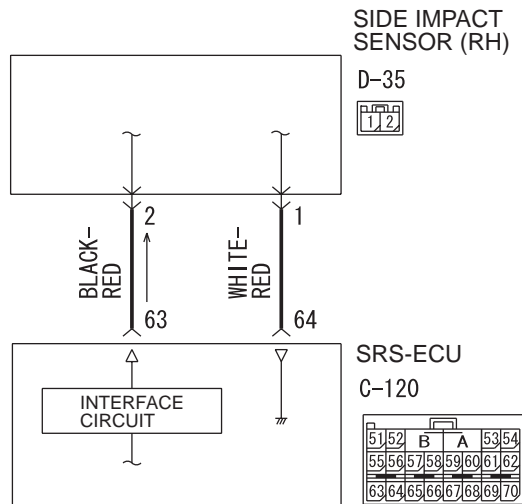
Q: Is DTC B1427 set?

YES : Return to Step 1.

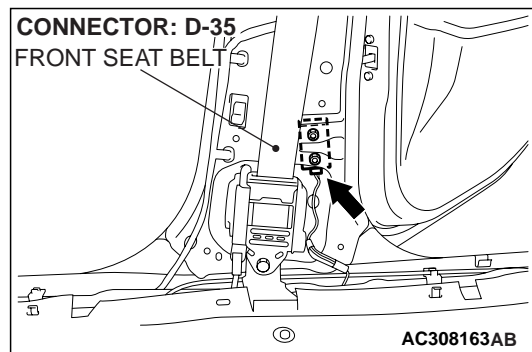
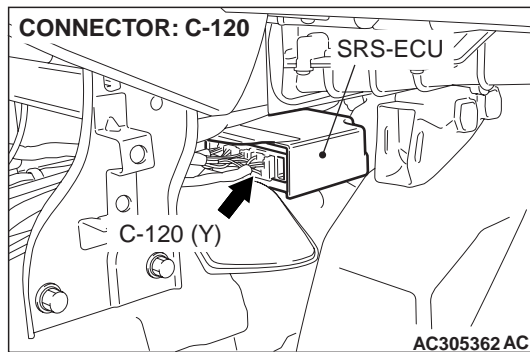
NO : The procedure is complete.

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



W4P52M06AA



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 Tool:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

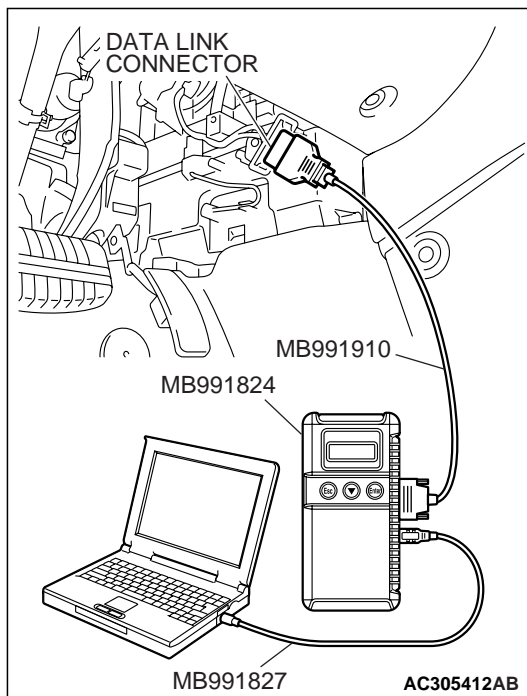
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

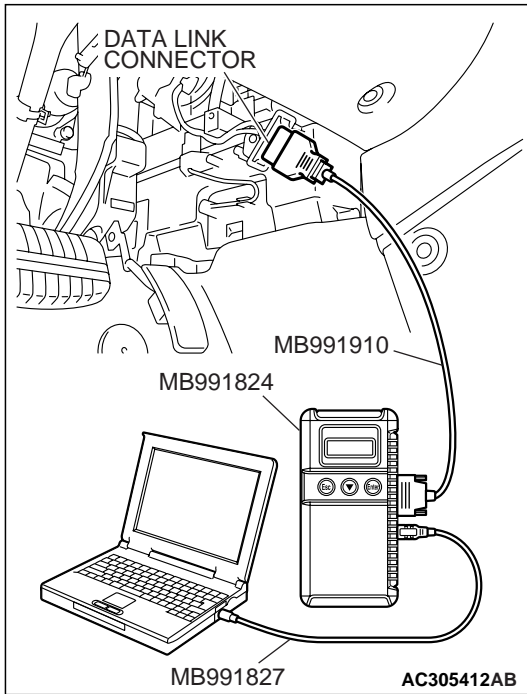
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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).

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

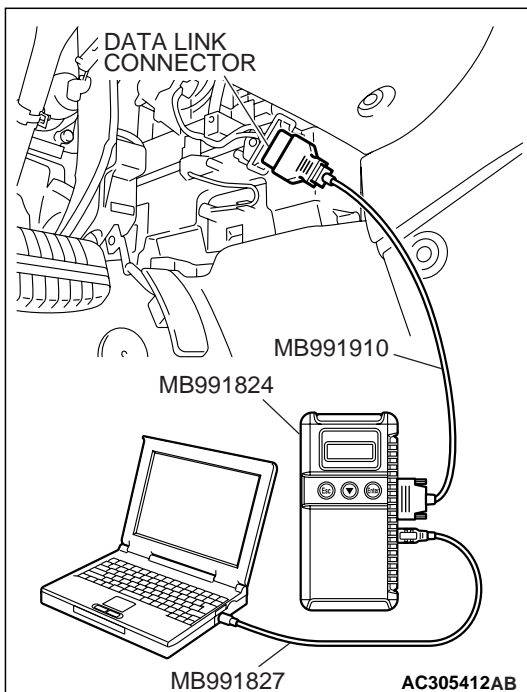
Check the side impact sensor (RH).

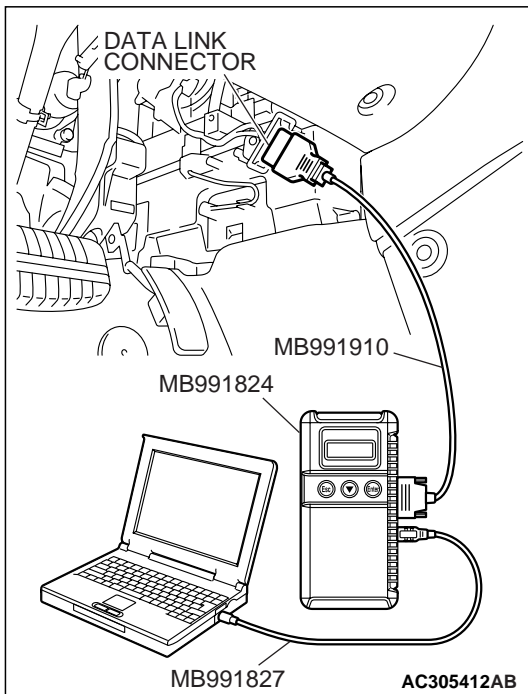
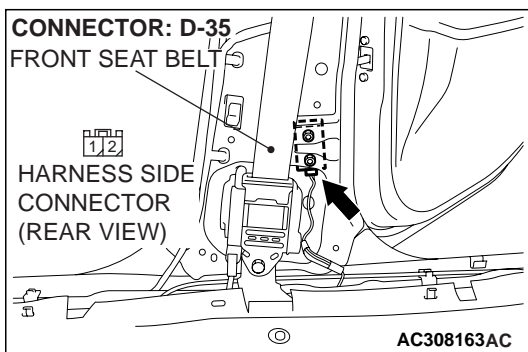
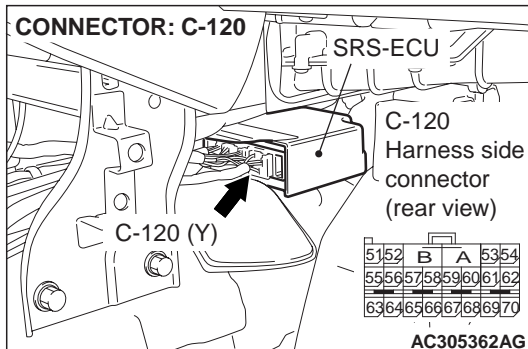
- (1) Disconnect the negative battery terminal.
- (2) Temporarily replace the side impact sensor (RH) with the side impact sensor (LH).
- (3) Connect the negative battery terminal.
- (4) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1438 or B1439 set?

YES : Replace the side impact sensor (RH) with a new one (Refer to P.52B-377). 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-120 (terminal No.63 and 64) and side impact sensor (RH) connector D-35 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.63 and 64) and side impact sensor (RH) connector D-35 (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-365](#)). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-120 and side impact sensor (RH) connector D-35. 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.

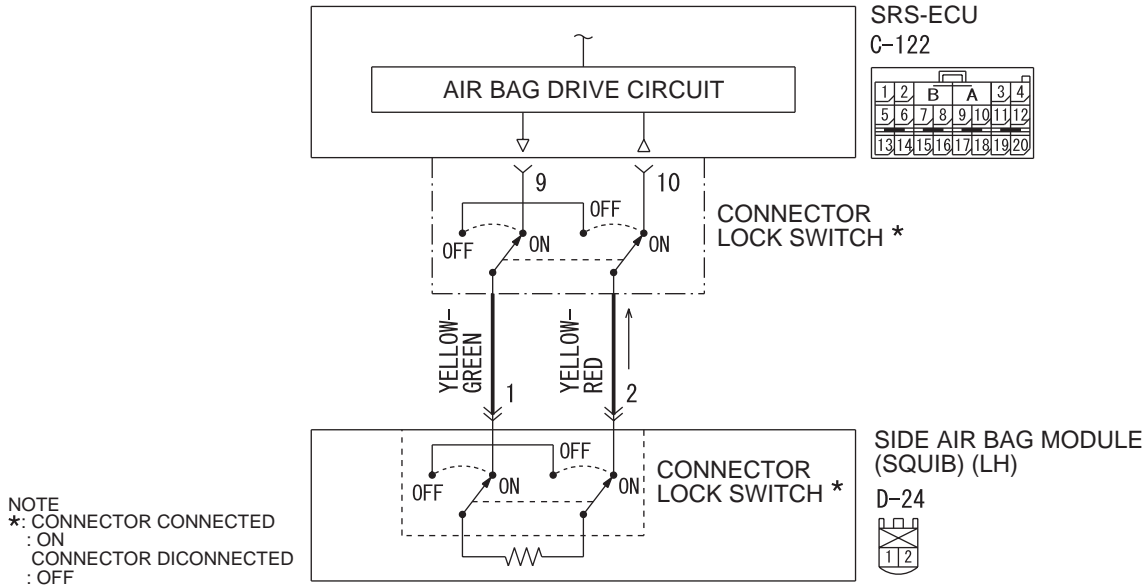
Q: Is DTC B1428 or B1429 set?

YES : Return to Step 1.

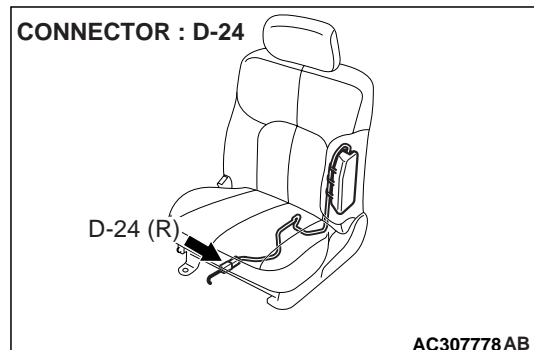
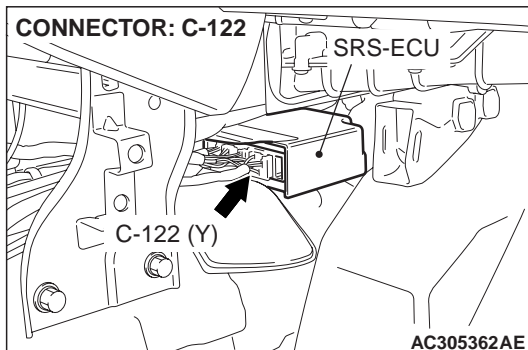
NO : The procedure is complete.

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

Side-Airbag Module (LH) (Squid) Circuit



W5P52M011A



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-24 is damaged or improperly engaged, the short spring may not be released when the connector is connected.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

CAUTION

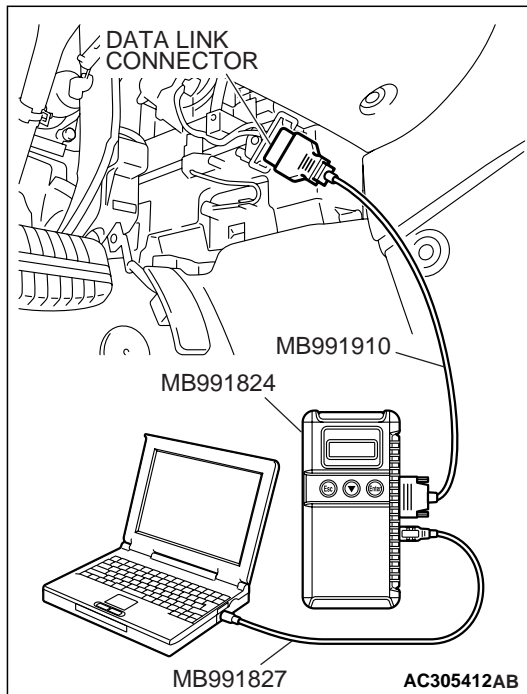
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

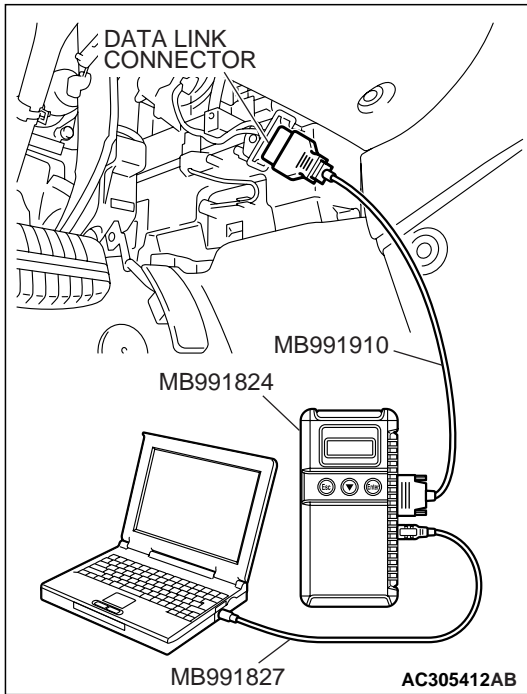
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Connect scan tool MB991958 to the data link connector.
- (3) Turn the ignition switch to "ON" position.
- (4) Diagnose the CAN bus line.

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).





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).

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

CAUTION

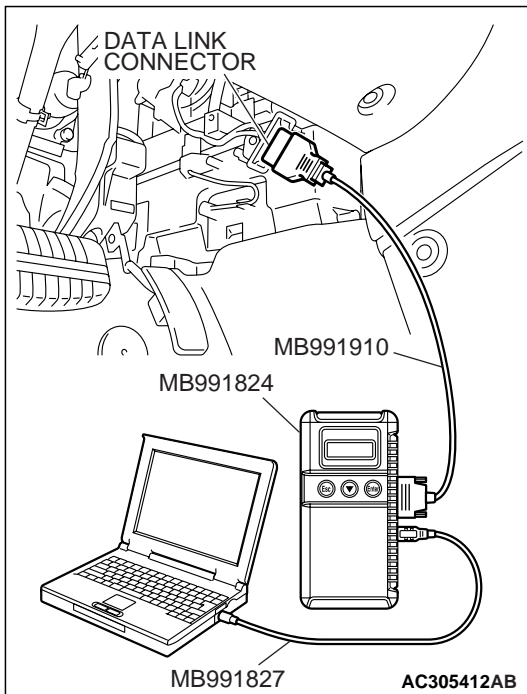
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

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

Q: Is DTC B1519 set?

YES : Go to Step 4.

NO : Go to Step 5.

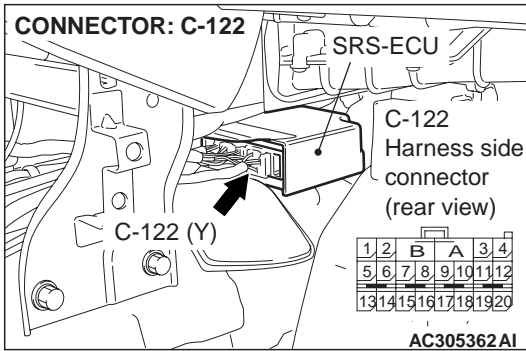


STEP 4. Check SRS-ECU connector C-122.

Q: Is the connector correctly engaged?

YES : Go to Step 5.

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



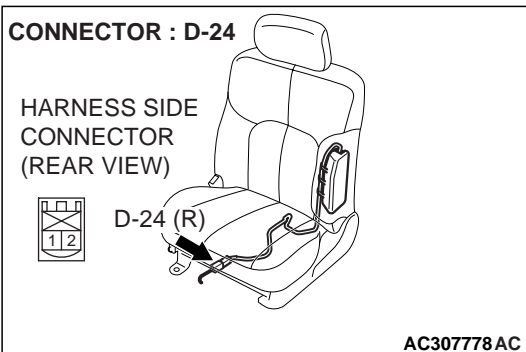
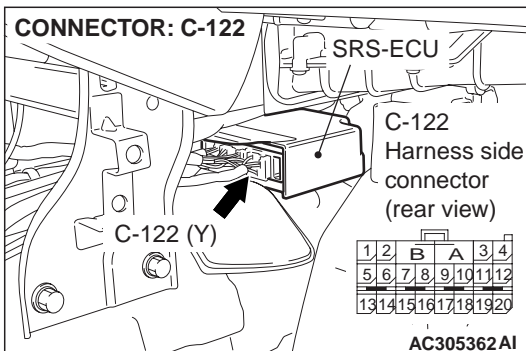
STEP 5. Check SRS-ECU connector C-122 and side-airbag module (LH) connector D-24. (Using scan tool MB991958, read the diagnostic trouble code.)

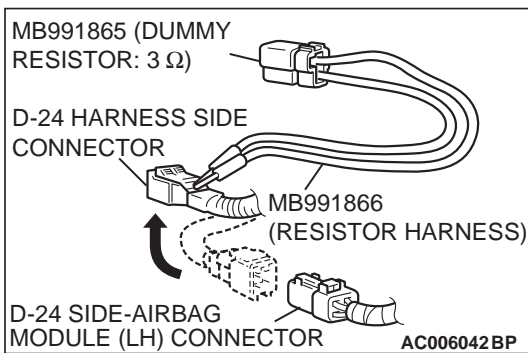
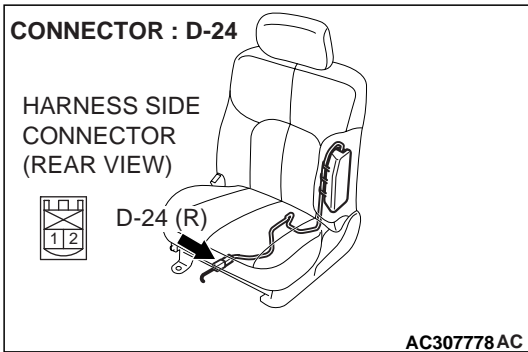
- (1) Disconnect the negative battery terminal.
- (2) Disconnect connectors C-122 and D-24, and then reconnect them.
- (3) Connect the negative battery terminal.
- (4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

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-24 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-24.

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

CAUTION

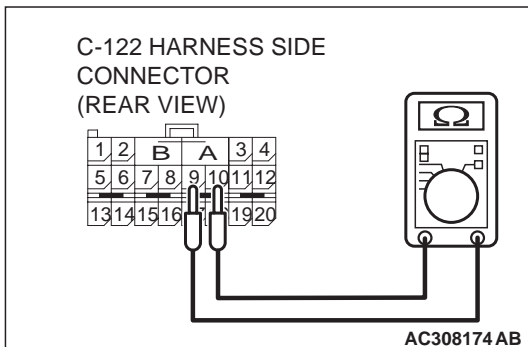
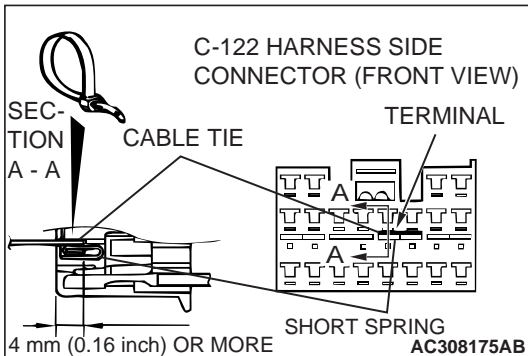
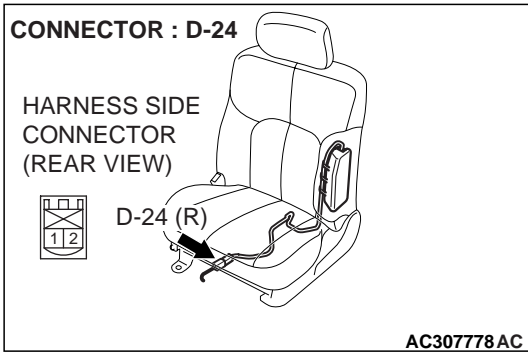
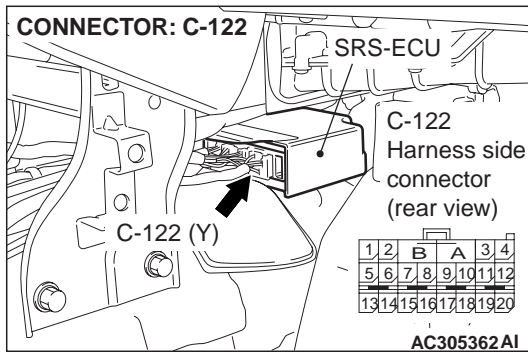
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into the D-24 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-25). 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 SRS-ECU connector C-122.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-24 to short the squib circuit.

(2) Disconnect left hand side-airbag module (LH) connector D-24.

⚠ 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.

⚠ CAUTION

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

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

Q: Is the circuit normal?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1430 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 9.

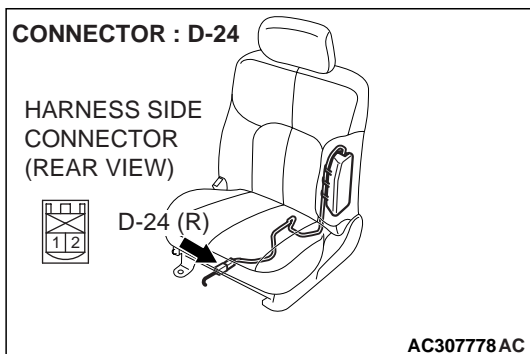
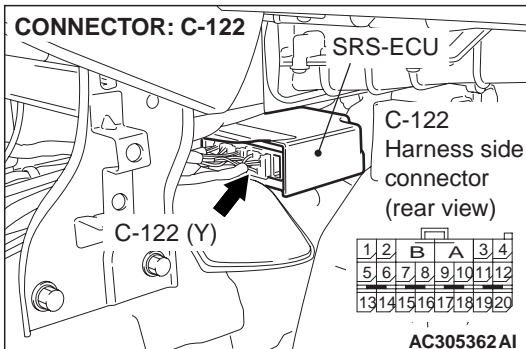
NO : Go to Step 8.

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-24 (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-24 (terminal No.1 and 2) in good condition?

YES : Go to Step 9.

NO : Replace the harness wires between SRS-ECU connector C-110 and side-airbag module (LH) connector D-24. Then go to Step 9.



STEP 9. Recheck for diagnostic trouble code.

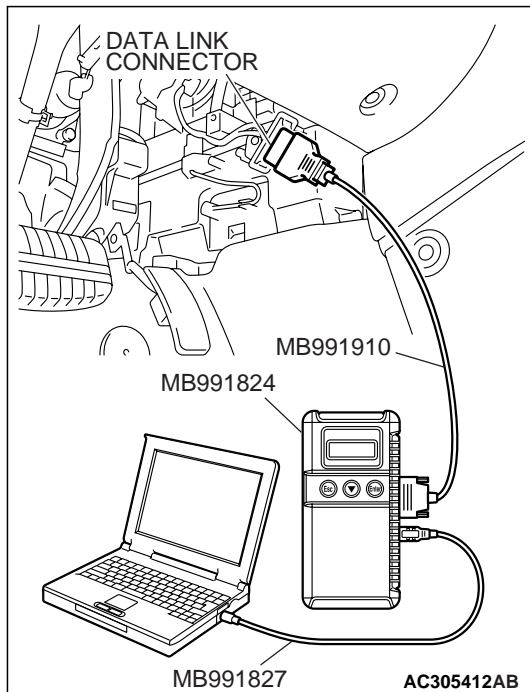
Check again if the DTC is set.

- (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?

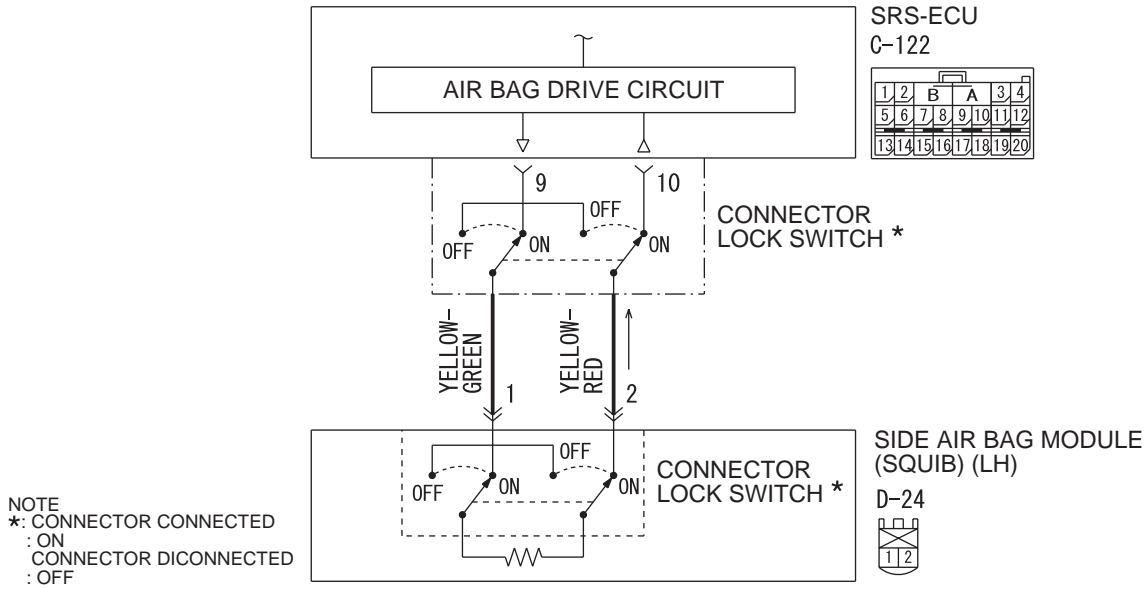
YES : Return to Step 1.

NO : The procedure is complete.

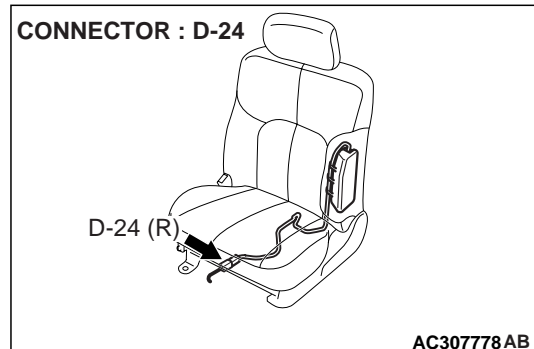
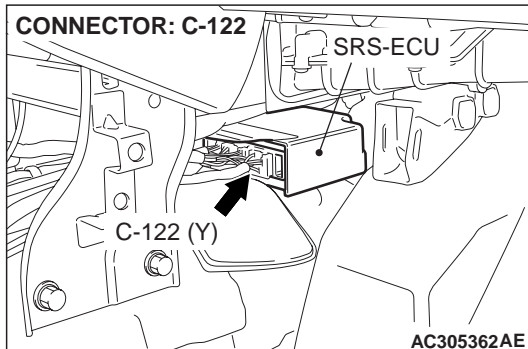


DTC B1431: Side-Airbag Module (LH) (Squib) System Fault 2 (Open in the Squib Circuit)

Side-Airbag Module (LH) (Squid) Circuit



W5P52M011A



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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

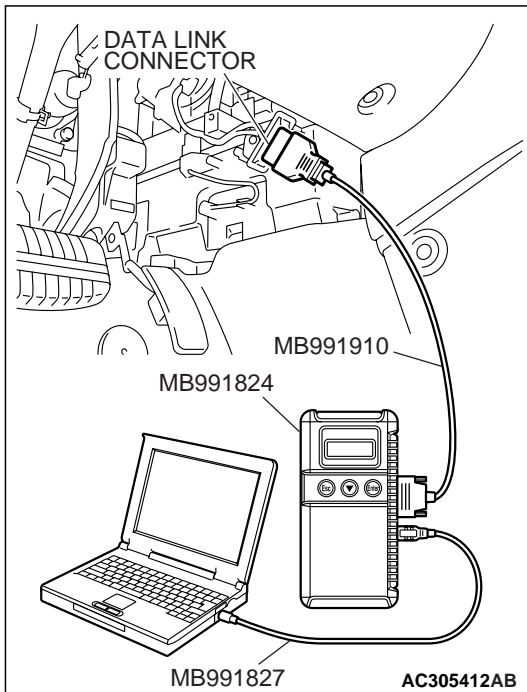
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

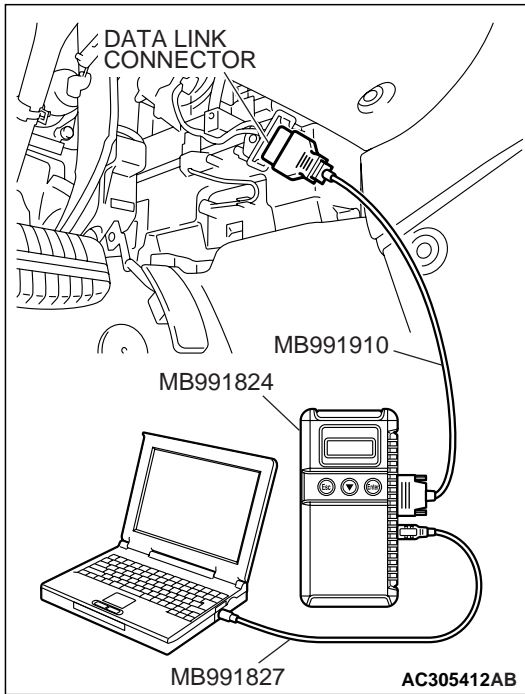
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

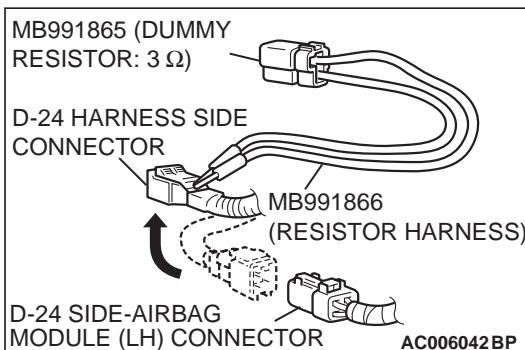
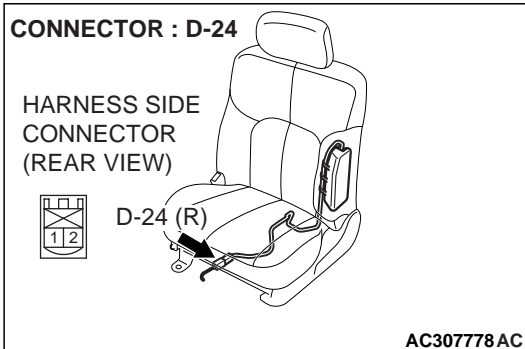
Q: Is the DTC set?

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).

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-24.



- (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-24 harness side connector by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

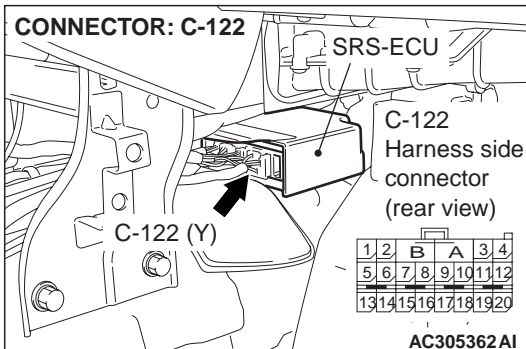
Q: Is DTC B1431 set?

YES : Go to Step 4.

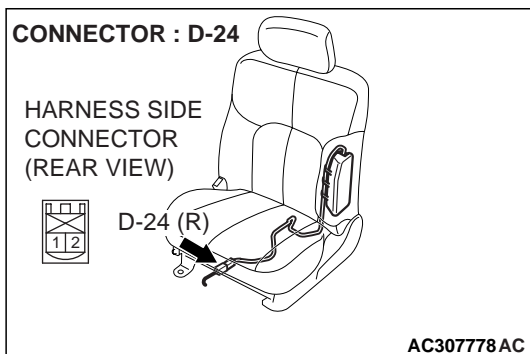
NO : Replace the seatback frame of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-25). Then go to Step 5.

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-24 (terminal No.1 and 2).

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



(2) Disconnect side-airbag module (LH) connector D-24.



⚠ CAUTION

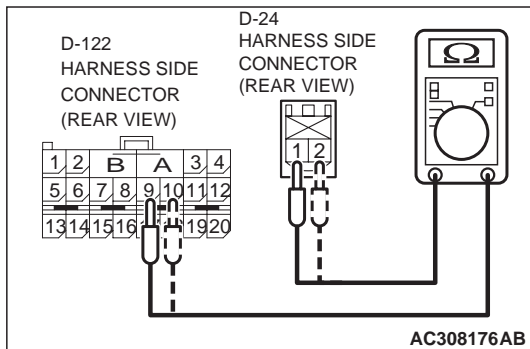
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

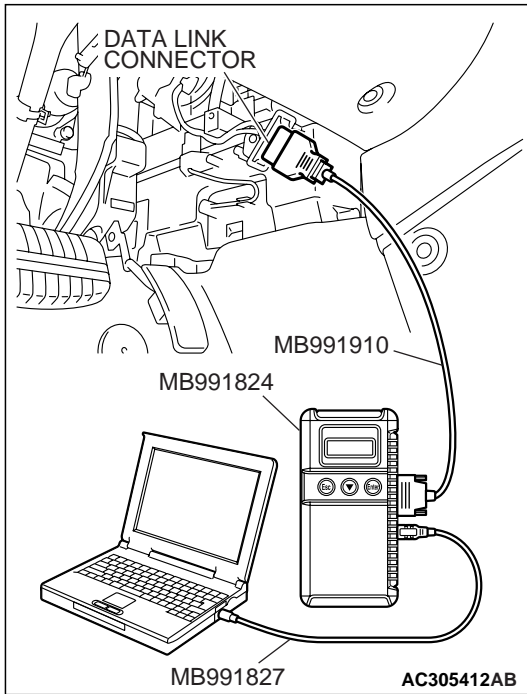
- (3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.9) and the side-airbag module (LH) connector D-24 (terminal No.1)
 - SRS-ECU connector C-122 (terminal No.10) and the side-airbag module (LH) connector D-24 (terminal No.2)

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-365](#)). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-122 and side-airbag module (LH) connector D-24. 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.

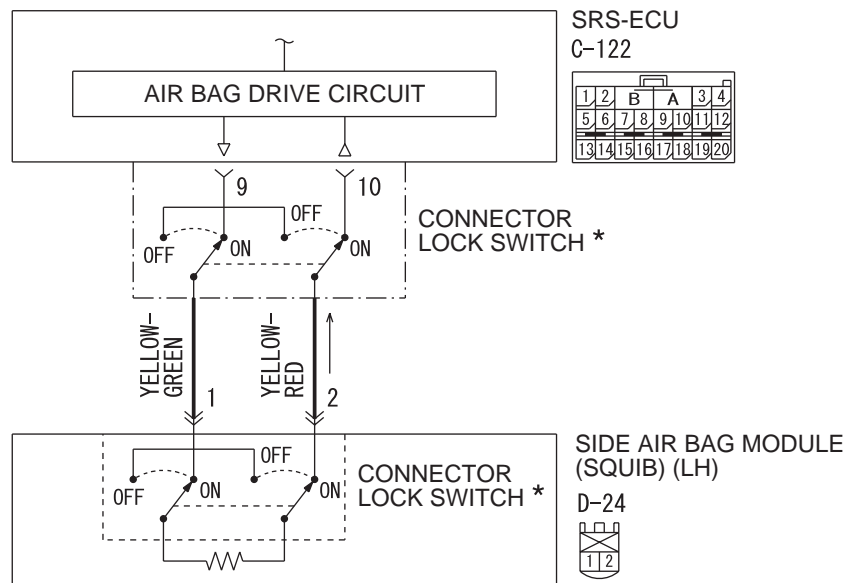
Q: Is DTC B1431 set?

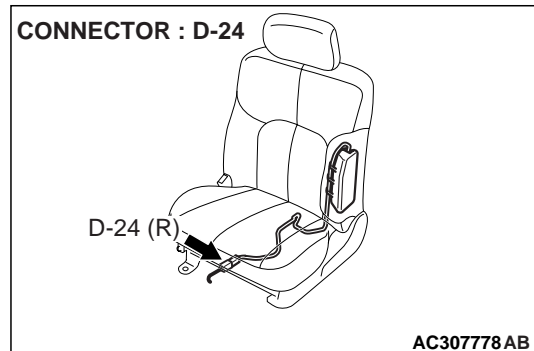
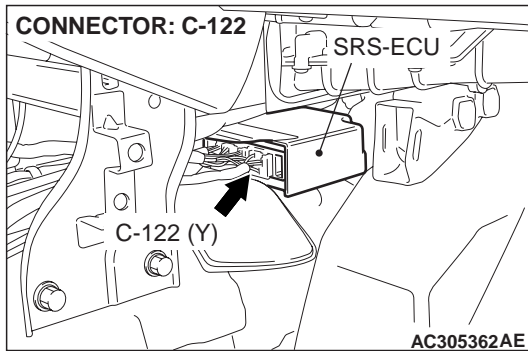
YES : Return to Step 1.

NO : The procedure is complete.

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

Side-Airbag Module (LH) (Squid) Circuit





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 the power supply in the side-airbag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

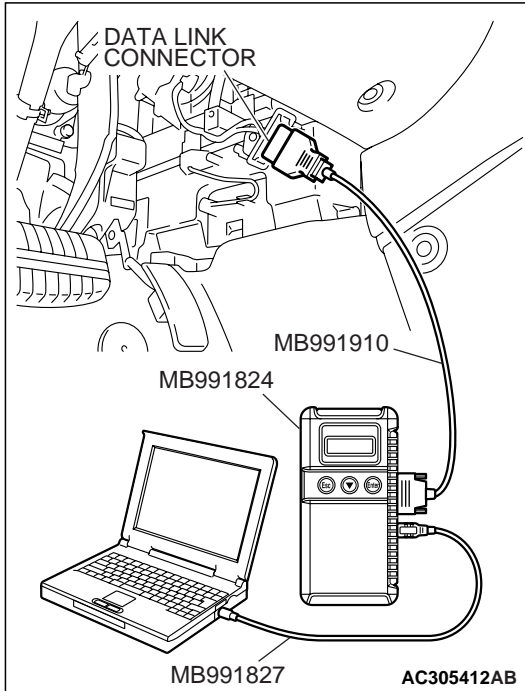
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

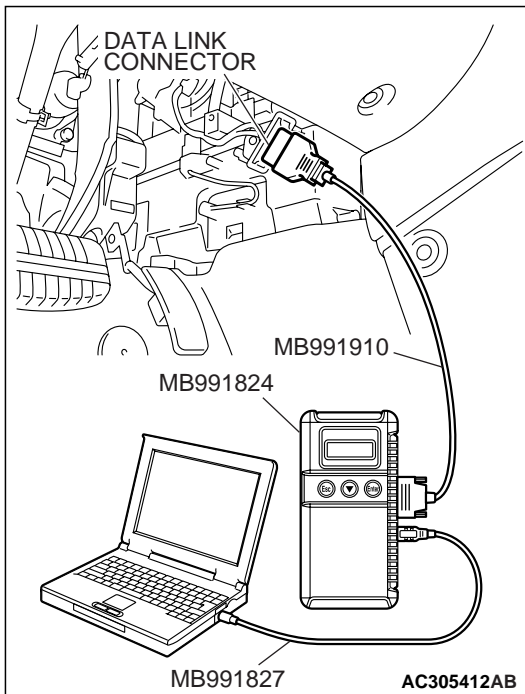
Check again if the DTC is set.

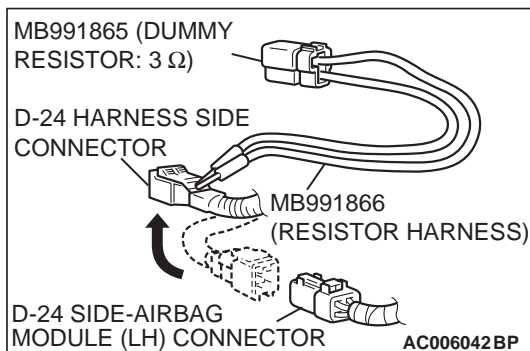
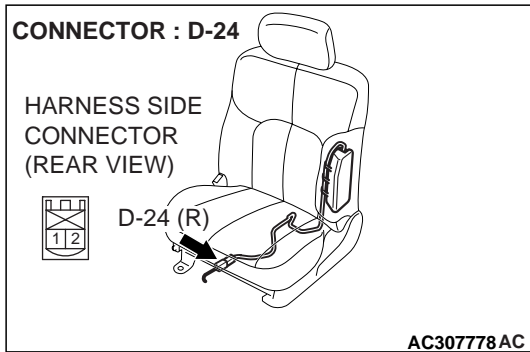
- (1) Erase the DTC.
- (2) Turn the ignition switch to "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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-24.

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

CAUTION

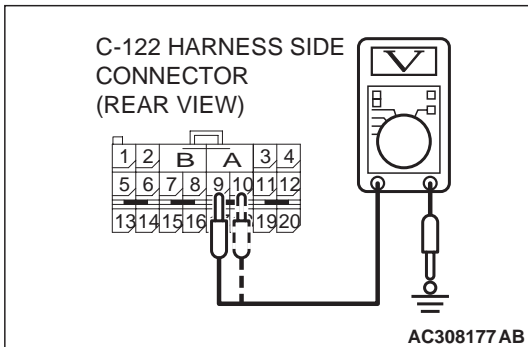
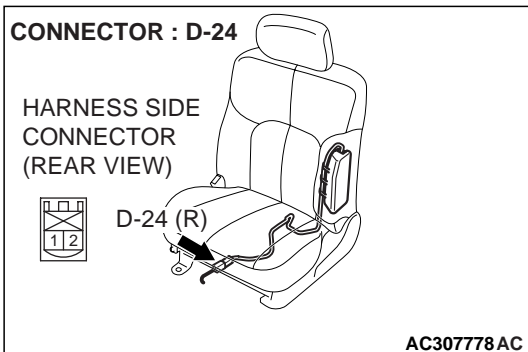
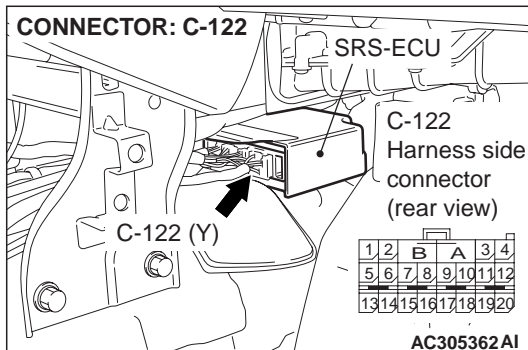
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into the D-24 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-25](#)). Then go to Step 6.



**STEP 4. Check the side-airbag module (RH) circuit.
Measure the voltage at the SRS-ECU connector C-122.**

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

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-24 to short the squib circuit.

(2) Disconnect left hand side-airbag module (LH) connector D-24.

(3) 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.

(4) 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 within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1432 sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 6.

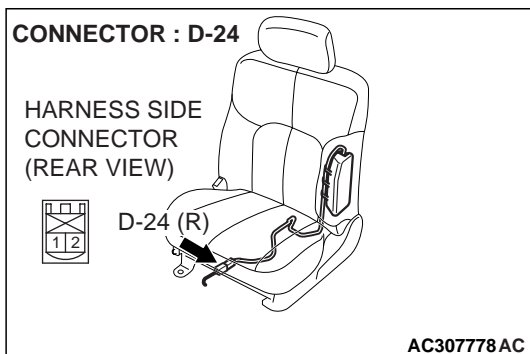
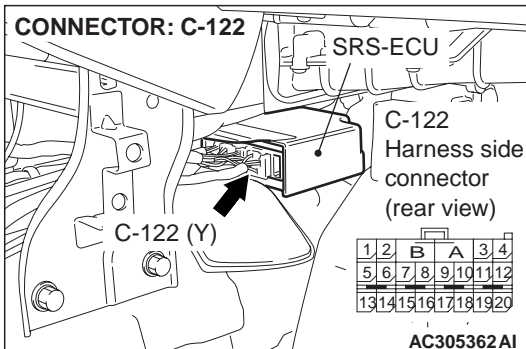
NO : Go to Step 5.

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-24 (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-24 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and side-airbag module (LH) connector D-24. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

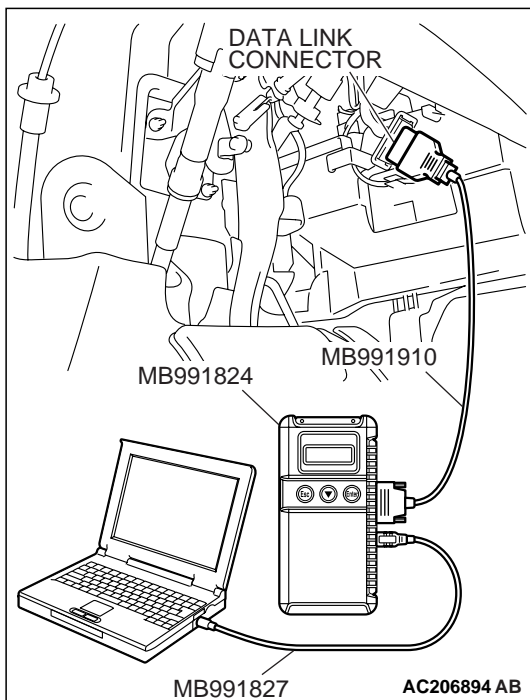
Check again if the DTC is set.

- (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?

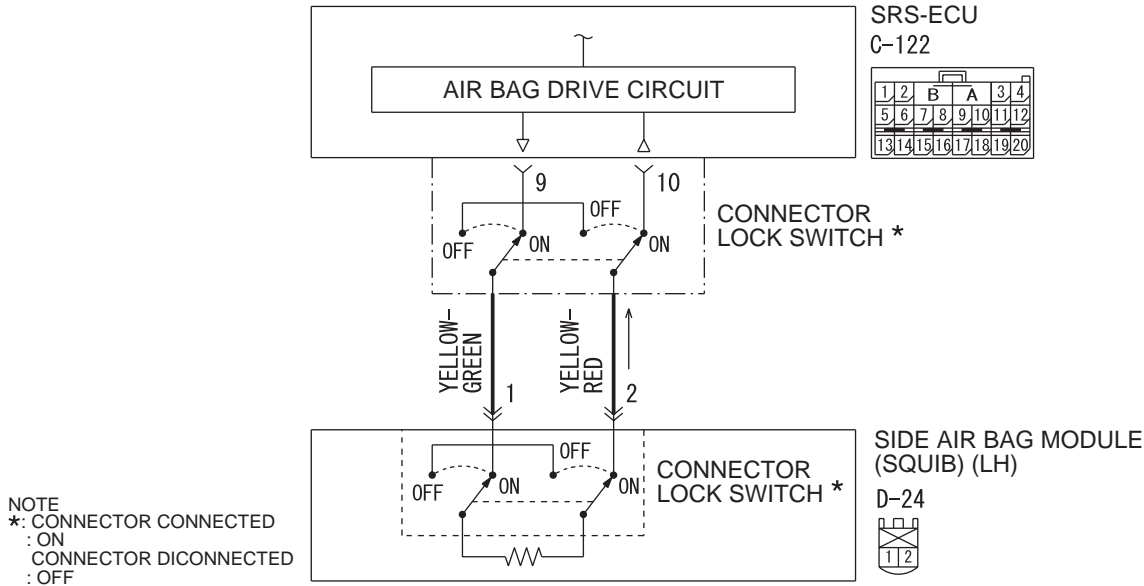
YES : Return to Step 1.

NO : The procedure is complete.

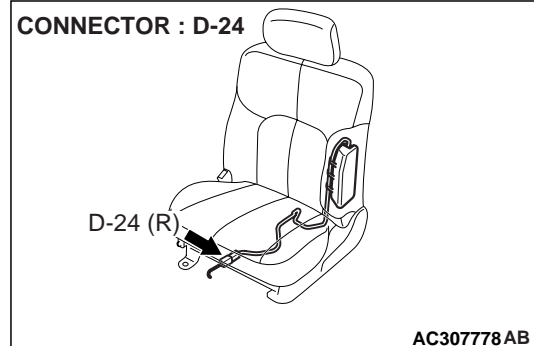
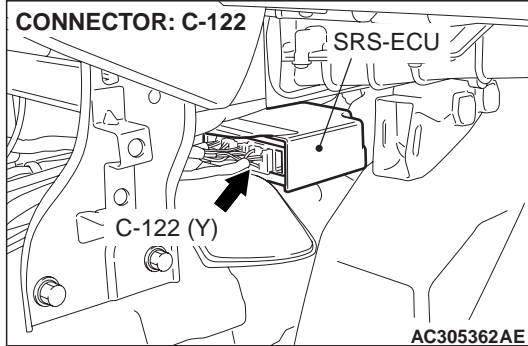


DTC B1433: Side-Airbag Module (LH) (Squib) System Fault Ground Circuit (Short-Circuited to Ground)

Side-Airbag Module (LH) (Squid) Circuit



W5P52M011A



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 ground in the left hand side-airbag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958 : Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

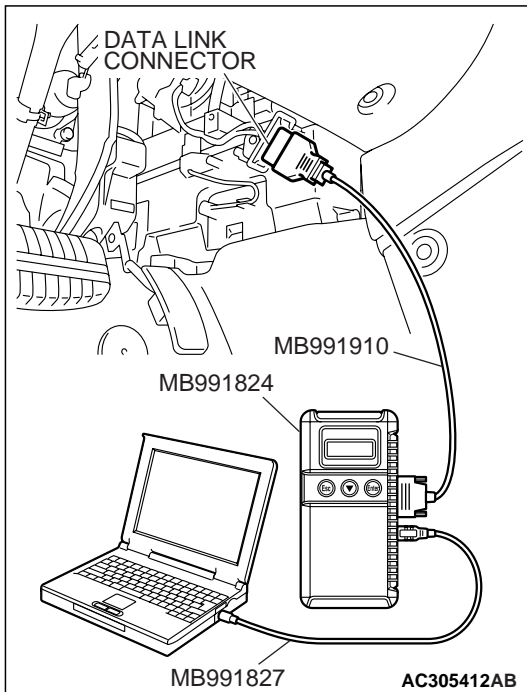
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

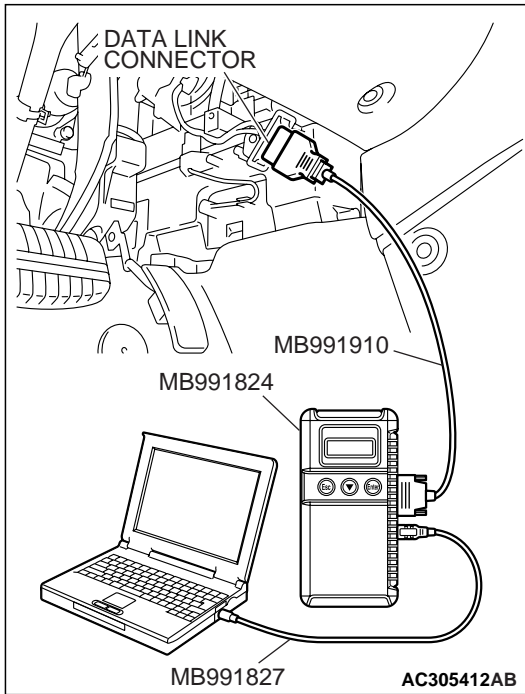
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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) . .



**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.

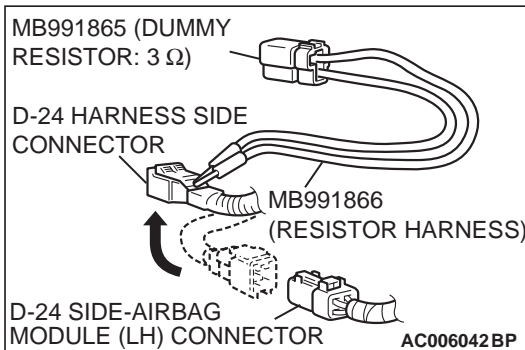
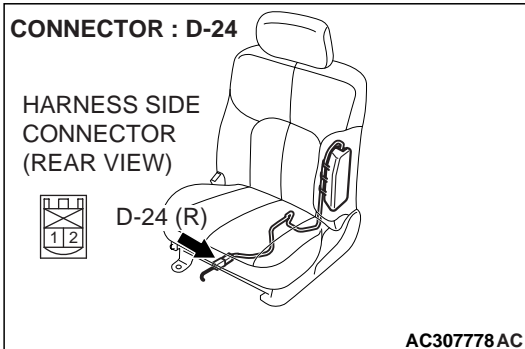
Q: Is the DTC set?

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).

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-24.



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

CAUTION

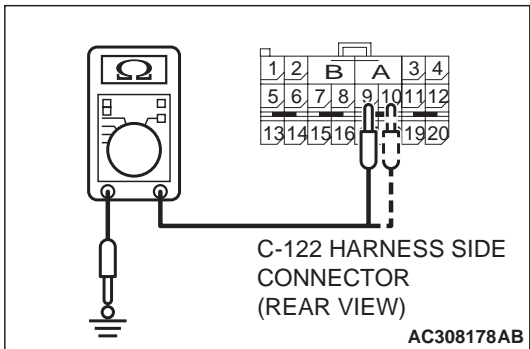
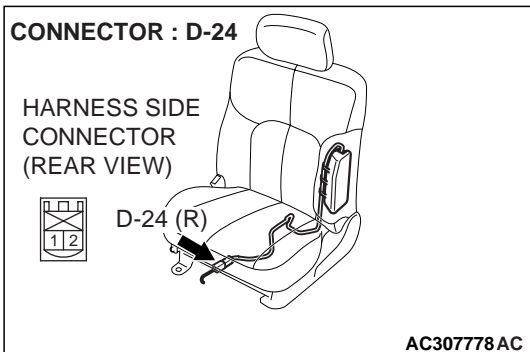
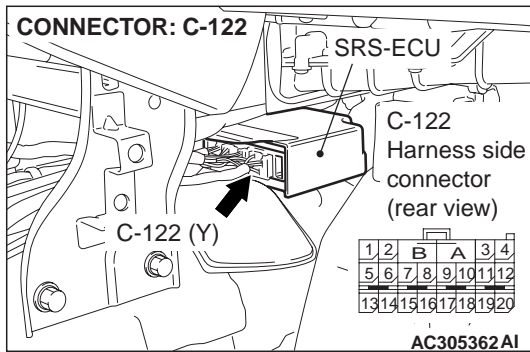
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into the D-24 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-25). 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 SRS-ECU connector C-122.

(2) Disconnect side-airbag module (LH) connector D-24.

CAUTION

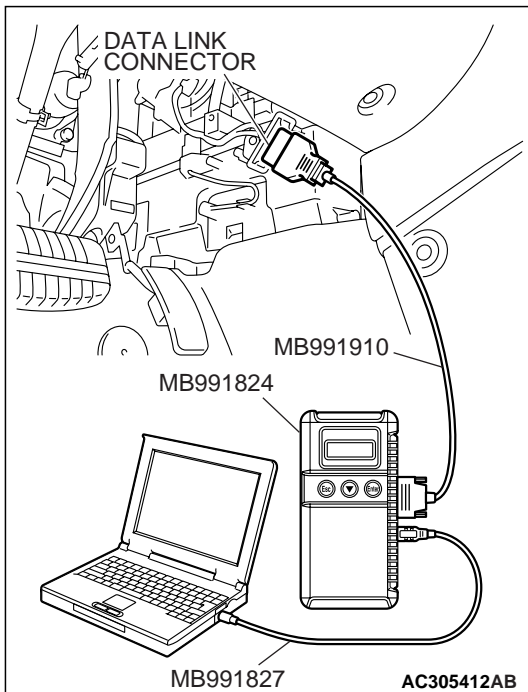
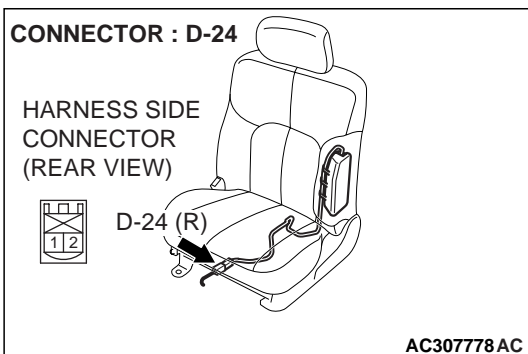
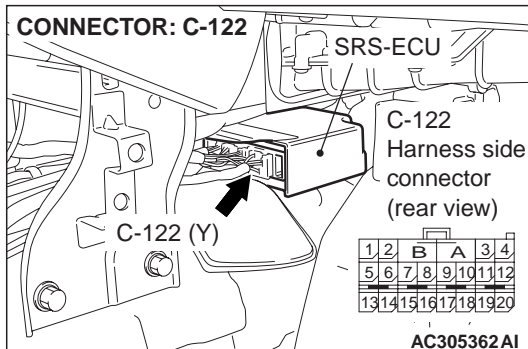
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) 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 B1433 sets, replace the SRS-ECU (Refer to P.52B-365). 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-24 (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-24 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and side-airbag module (LH) connector D-24. 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.

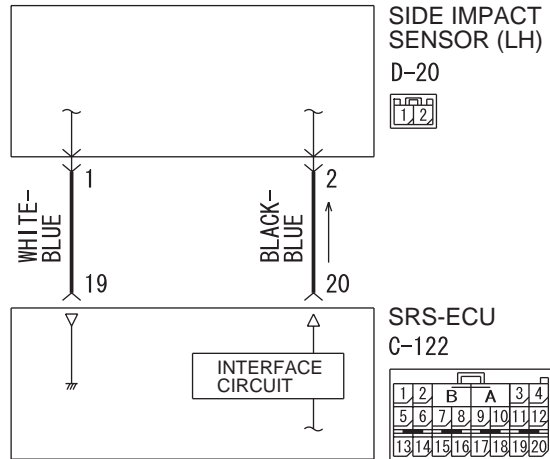
Q: Is DTC B1433 set?

YES : Return to Step 1.

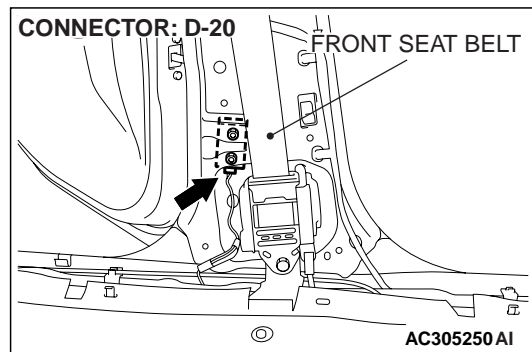
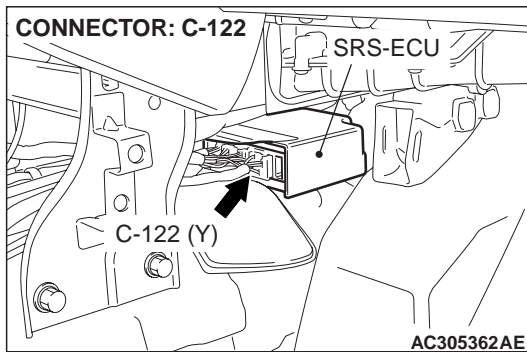
NO : The procedure is complete.

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

Side Impact Sensor (LH) Circuit



W5P52M020A



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.

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. However, DTC B1437 will be automatically cleared and the SRS warning light will switch off if the condition returns to normal.

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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

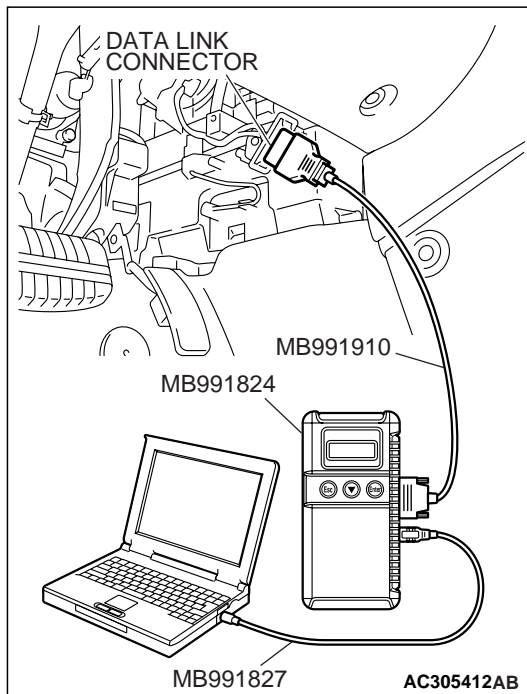
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

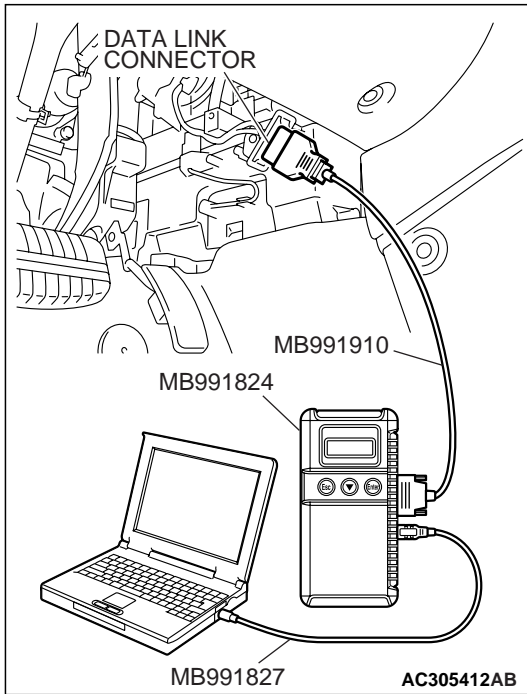
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





STEP 2. Recheck for diagnostic trouble code.

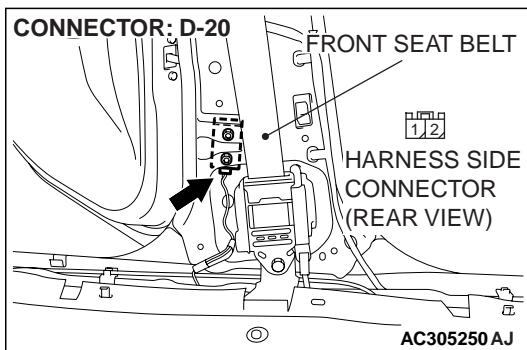
Check again if the DTC is set.

- (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?

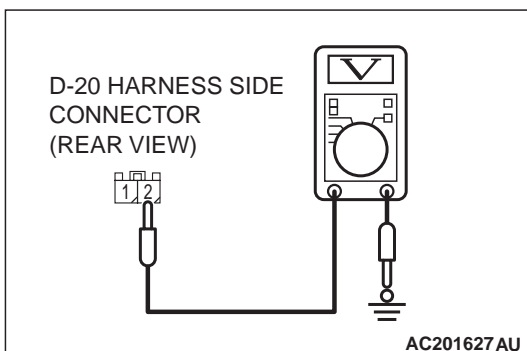
YES : Go to Step 3.

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).



STEP 3. Check the side impact sensor (LH) power supply circuit. Measure the voltage at the side impact sensor (LH) connector D-20.

- (1) Disconnect the negative battery terminal.
- (2) Disconnect side impact sensor (LH) connector D-20, and measure at the wiring harness side.
- (3) Connect the negative battery terminal.
- (4) Turn the ignition switch to the "ON" position.



⚠ CAUTION

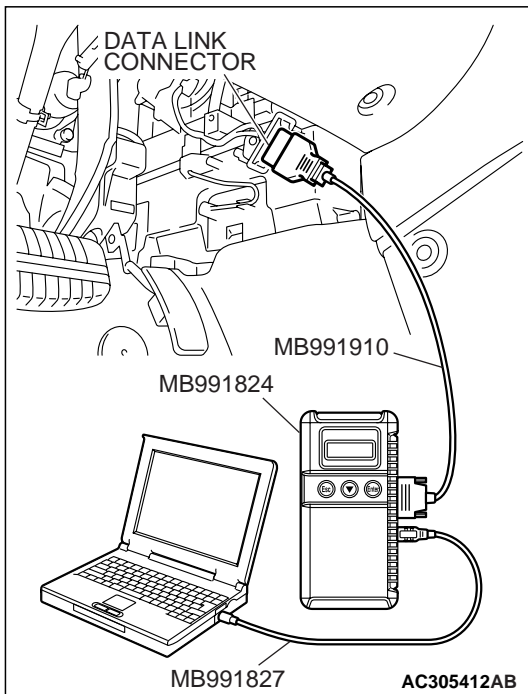
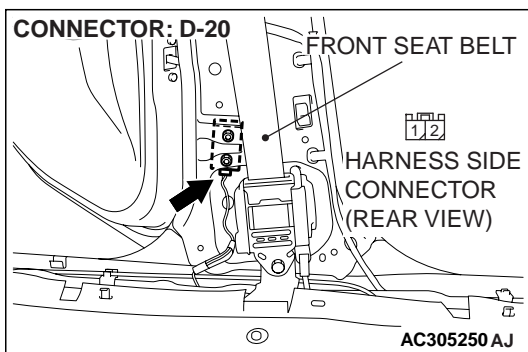
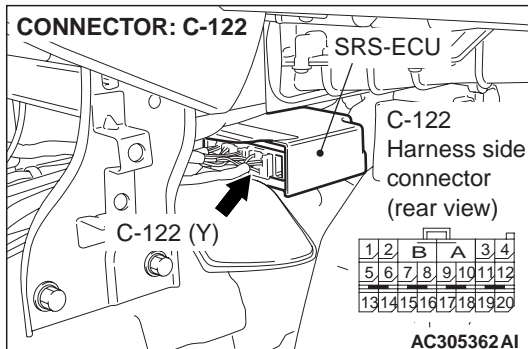
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (5) Measure the voltage between the D-20 harness side connector terminal 2 and body ground. Voltage should measure 9 volts or more.

Q: Is the measured voltage within the specified range?

YES : Replace the side impact sensor (LH) (Refer to P.52B-377). 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-20 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.19 and 20) and side impact sensor (LH) connector D-20 (terminal No.1 and 2) 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-365). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-122 and side impact sensor (LH) connector D-20. 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.

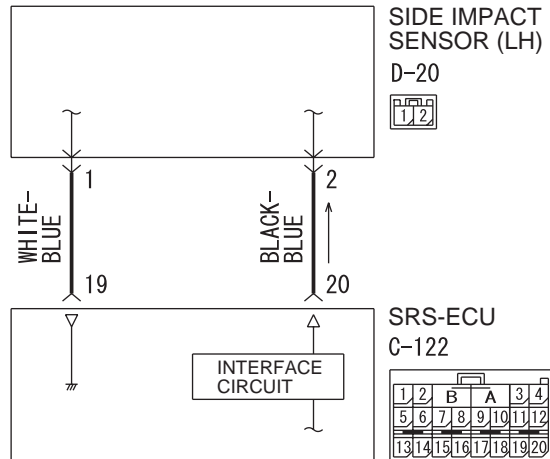
Q: Is DTC B1437 set?

YES : Return to Step 1.

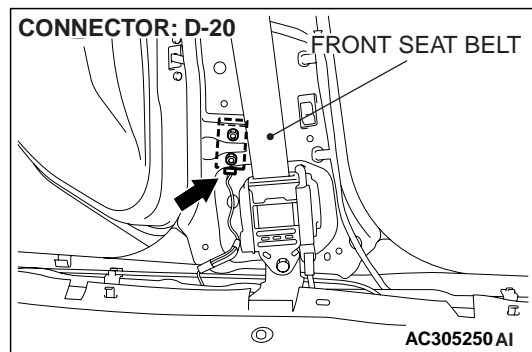
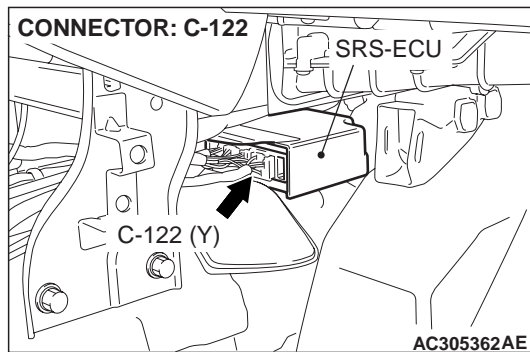
NO : The procedure is complete.

**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



W5P52M020A



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 (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

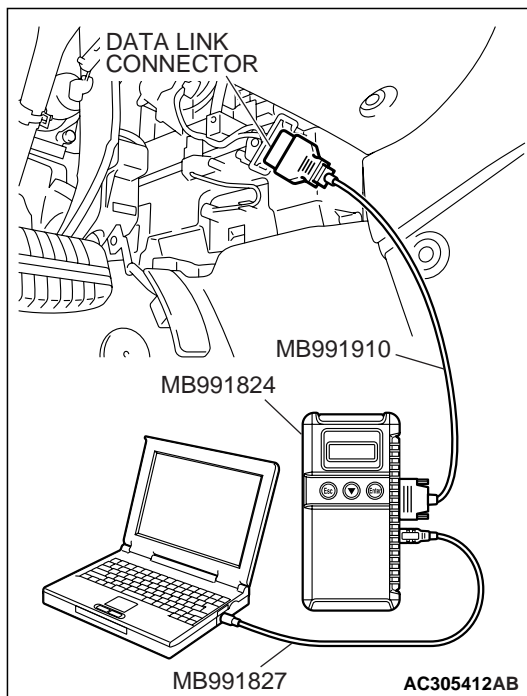
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

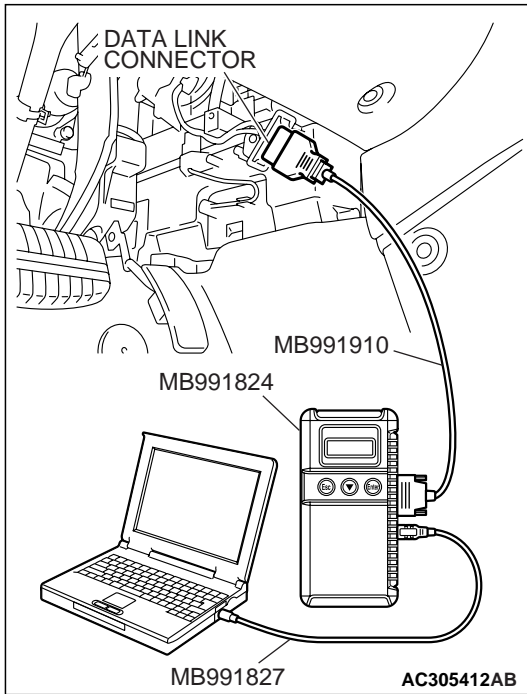
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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).

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

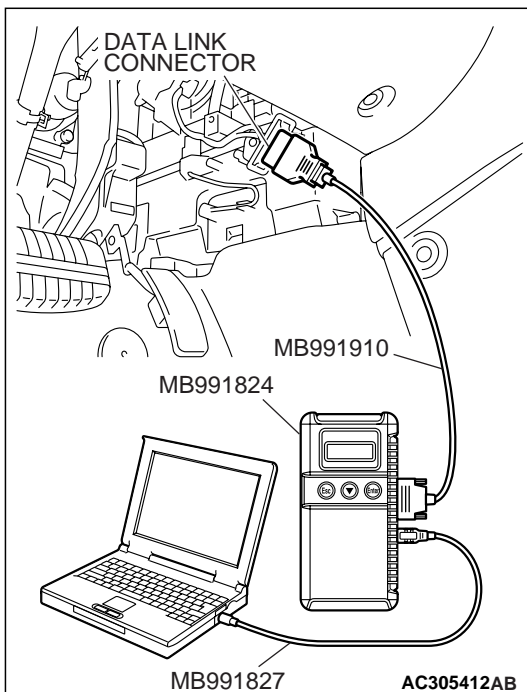
Check the side impact sensor (LH).

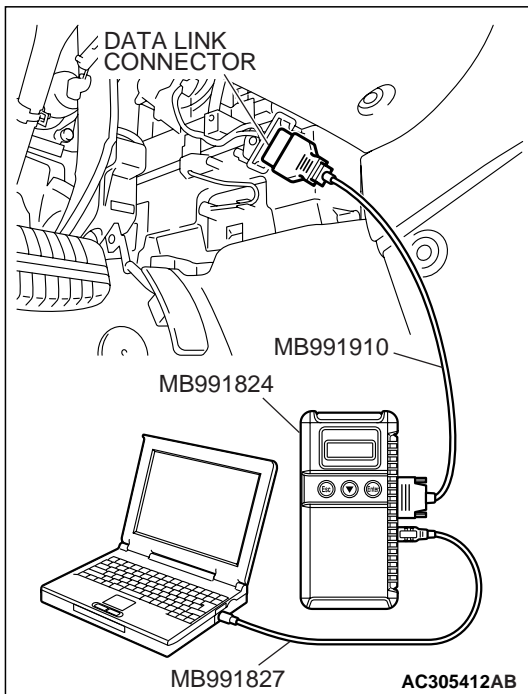
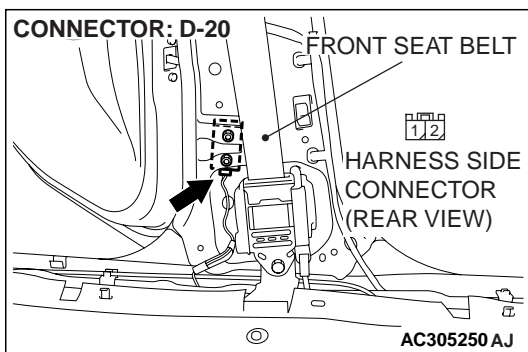
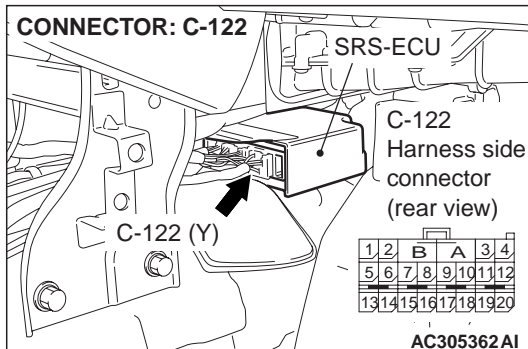
- (1) Disconnect the negative battery terminal.
- (2) Replace the side impact sensor (LH) with the side impact sensor (RH).
- (3) Connect the negative battery terminal.
- (4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q: Is DTC B1428 or B1429 set?

YES : Replace the side impact sensor (LH) with a new one (Refer to P.52B-377). 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-20 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.19 and 20) and side impact sensor (LH) connector D-20 (terminal No.1 and 2) 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-365](#)). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-122 and side impact sensor (LH) connector D-20. 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.

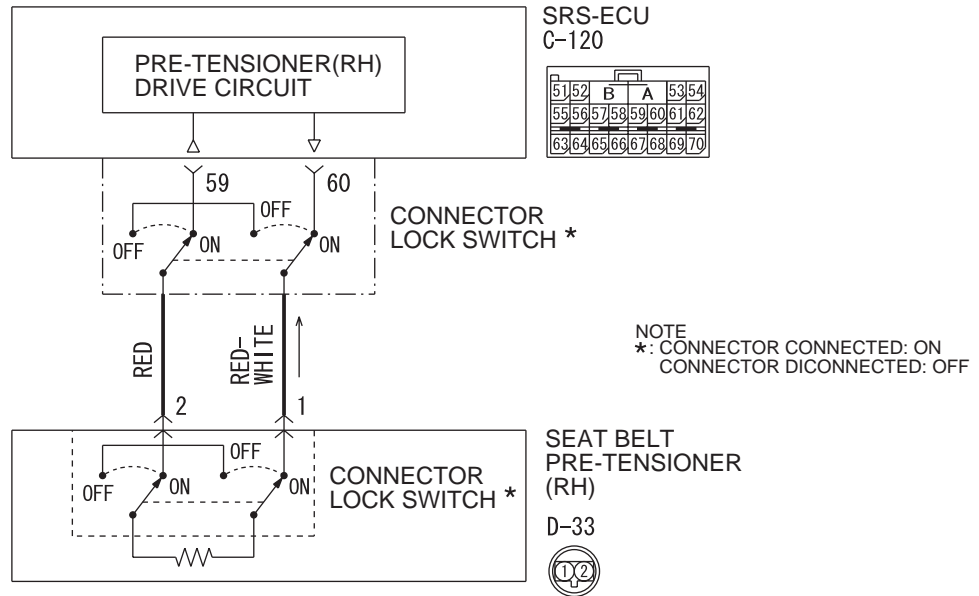
Q: Is DTC B1438 or B1439 set?

YES : Return to Step 1.

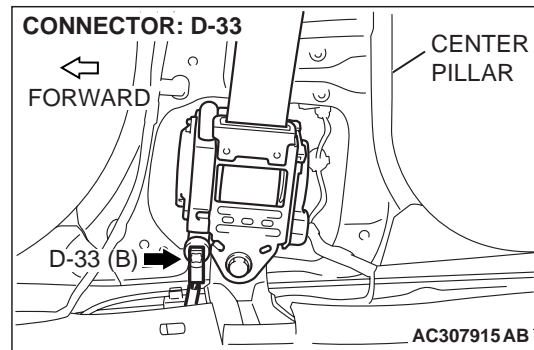
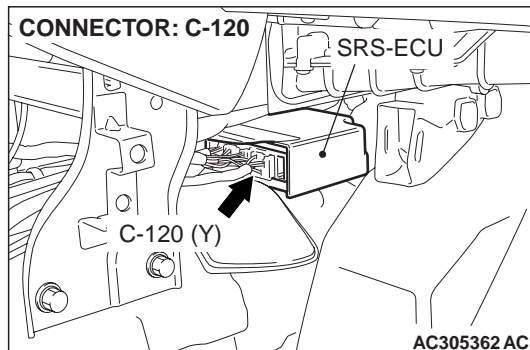
NO : The procedure is complete.

DTC B1460: Seat Belt Pre-Tensioner (RH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit



W5P52M019A



CAUTION

If DTC B1460 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the passenger's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to [P.52B-3](#)). Therefore, if connector C-120 or D-33 is damaged or improperly engaged, the short spring may not be released when the connector is connected.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For Pre-tensioner)

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

CAUTION

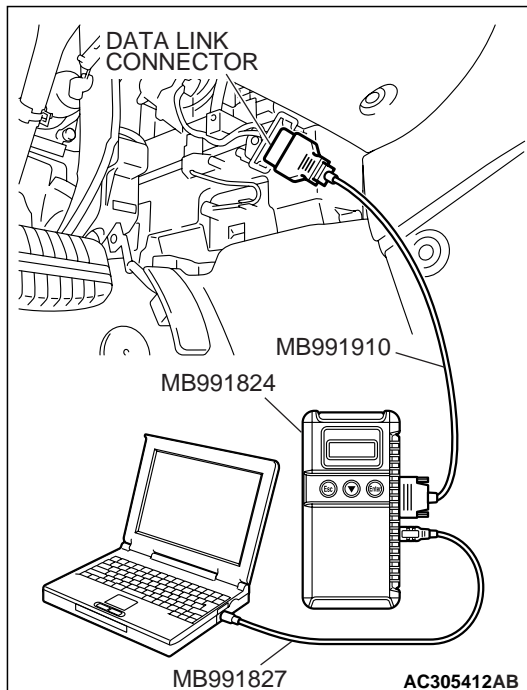
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

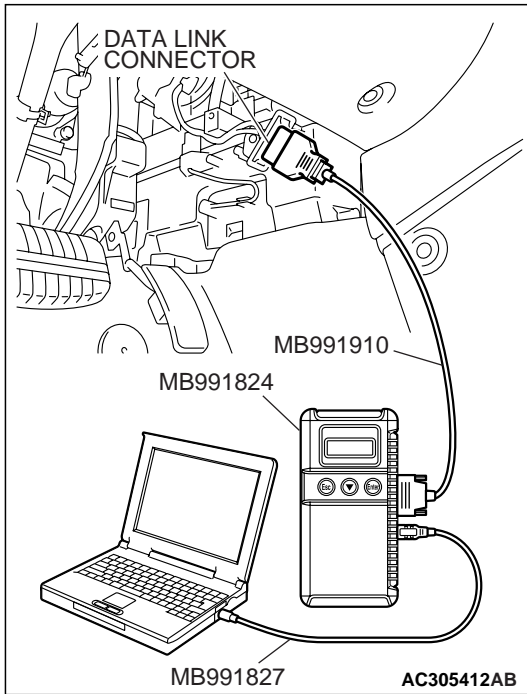
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-30](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





STEP 2. Recheck for diagnostic trouble code.

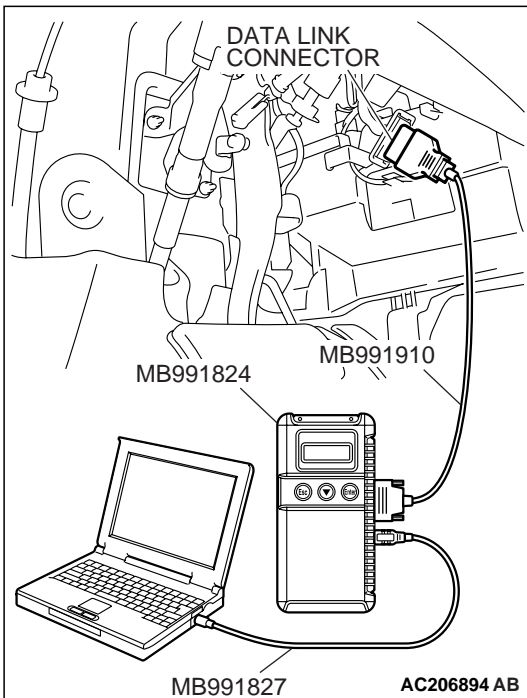
Check again if the DTC is set.

- (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).



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

CAUTION

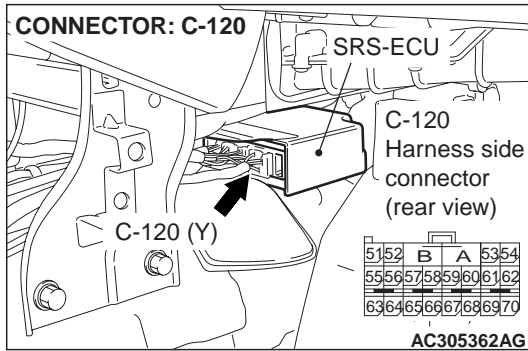
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (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.

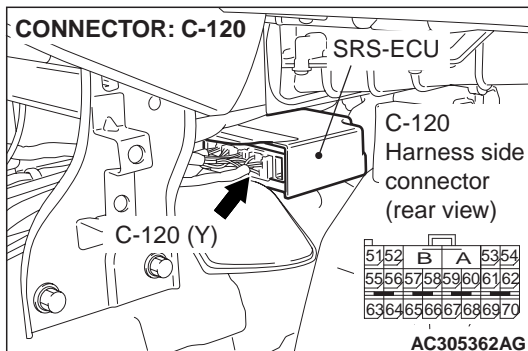


STEP 4. Check the SRS-ECU connector C-120.

Q: Is connector correctly engaged?

YES : Go to Step 5.

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



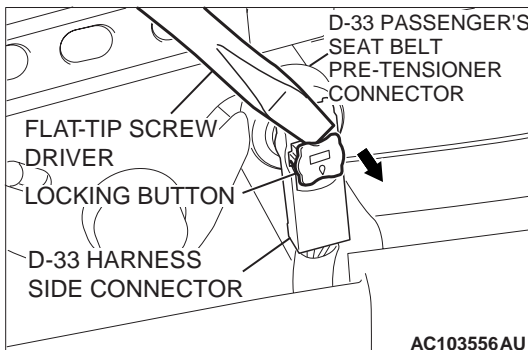
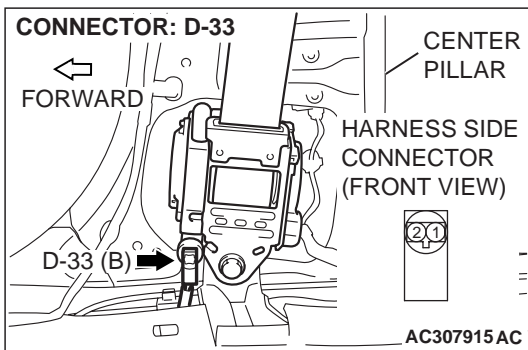
STEP 5. Check SRS-ECU connector C-120 and passenger's seat belt pre-tensioner connector D-33. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect connectors C-120 and D-33, and then reconnect them. For connector D-33, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
- (3) Connector the negative battery terminal.
- (4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1460 set?

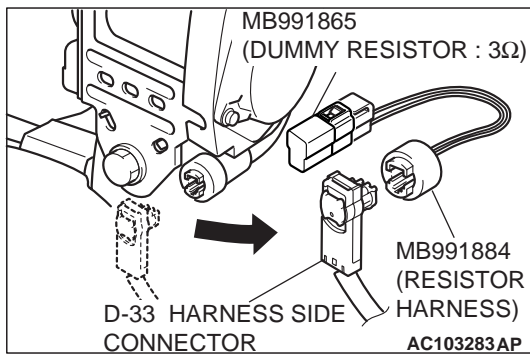
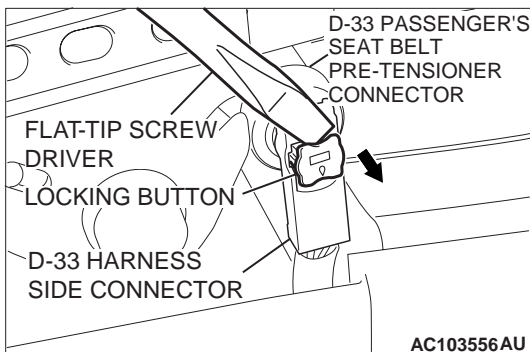
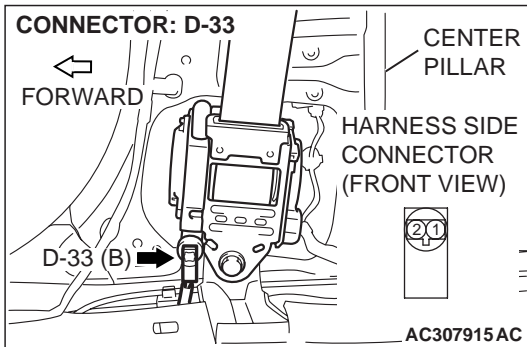
YES : Go to Step 6.

NO : The procedure is complete. It is assumed that DTC B1460 set because connector C-120 or D-33 was engaged improperly.



STEP 6. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect passenger's seat belt pre-tensioner connector D-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

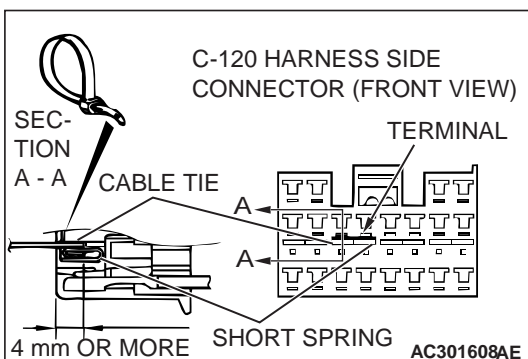
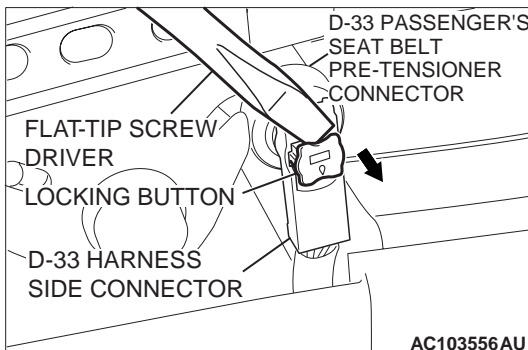
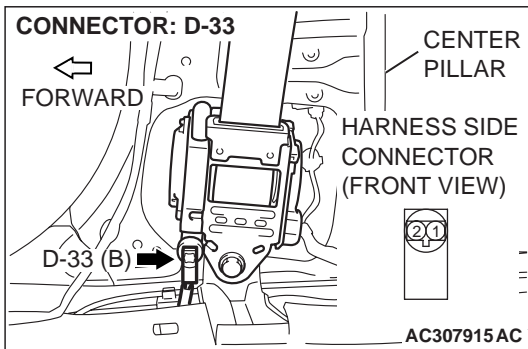
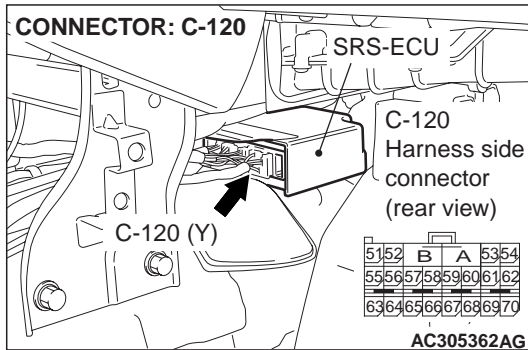


- (3) Connect special tool MB991865 to special tool MB991884.
- (4) Connect special tool MB991884 to the D-33 harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1460 set?

YES : Go to Step 7.

NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-380). Then go to Step 9.



STEP 7. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-120.

(1) Disconnect SRS-ECU connector C-120.

⚠ DANGER

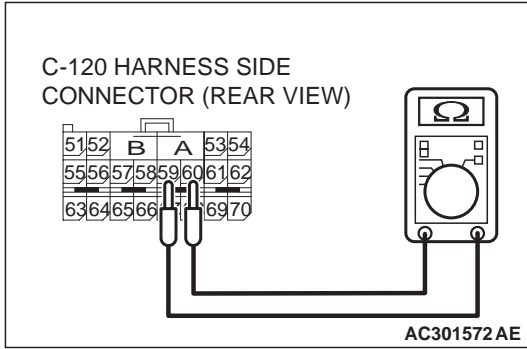
To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-33 to short the squib circuit.

(2) Disconnect passenger's seat belt pre-tensioner connector D-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

⚠ CAUTION

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

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 59, 60 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.

- (4) Check for continuity between C-120 harness side connector terminals 59 and 60.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 8.

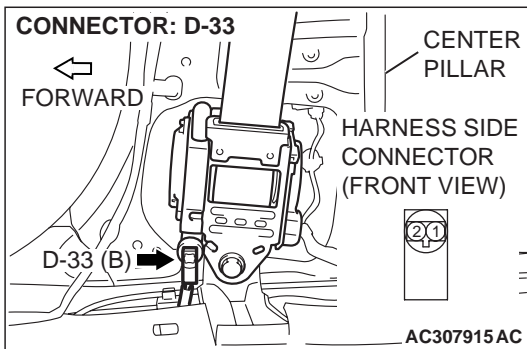
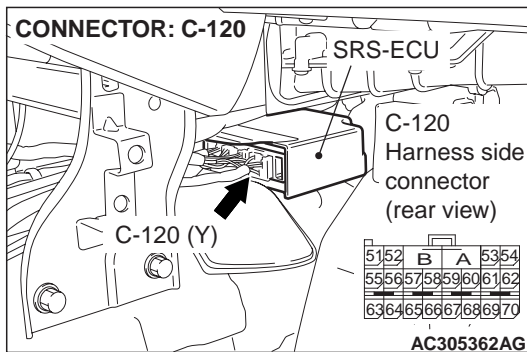
NO : Erase the diagnostic trouble code memory, and check diagnostic trouble code. If DTC B1460 set, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 9.

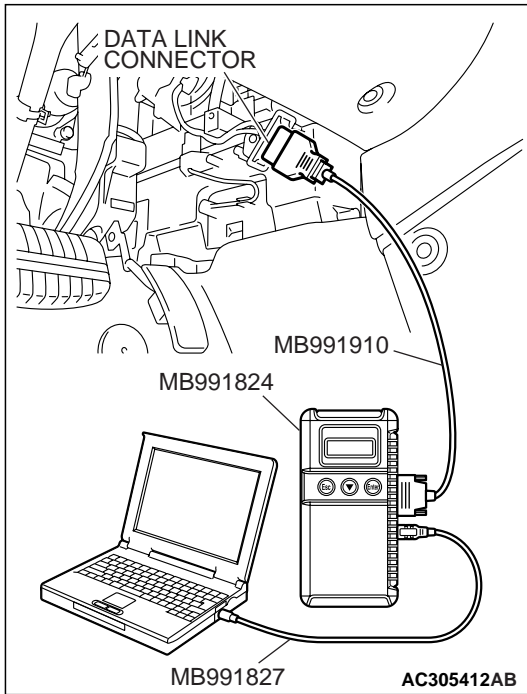
STEP 8. Check the harness for short circuit between SRS-ECU connector C-120 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-33 (terminal No.1 and 2).

Q: Are harness wires between SRS-ECU connector C-120 (terminal No.59 and 60) connector and passenger's seat belt pre-tensioner connector (terminal No.1 and 2) in good condition?

YES : Go to Step 9.

NO : Replace the harness wires between SRS-ECU connector C-120 and passenger's seat belt pre-tensioner connector D-33. 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.

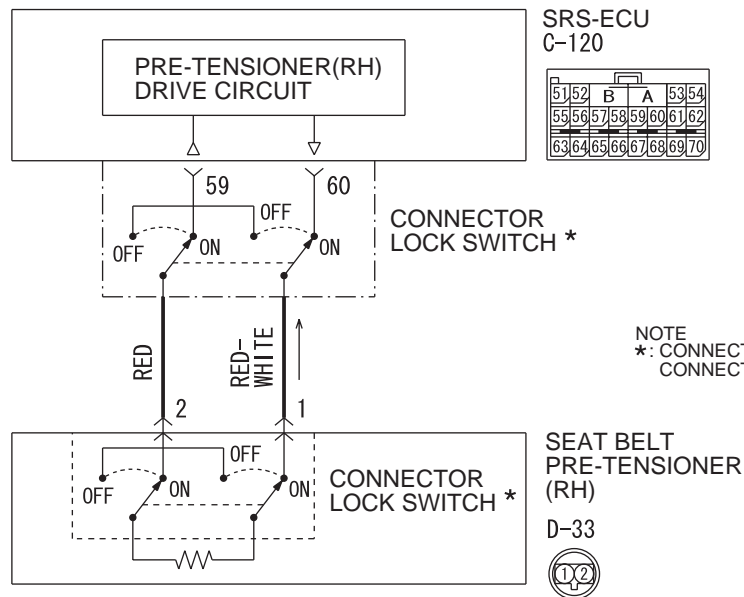
Q: Is DTC B1460 set?

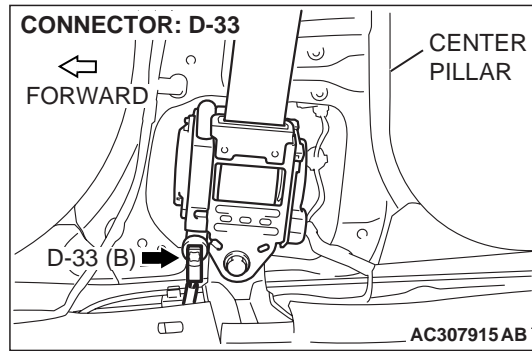
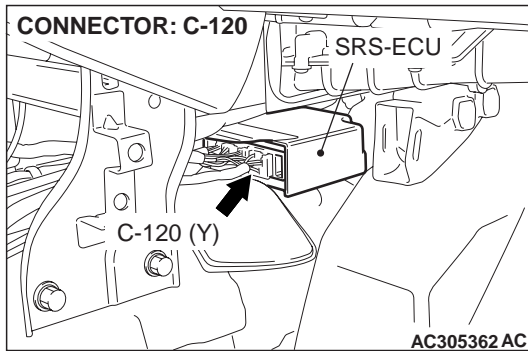
YES : Return to Step 1.

NO : The procedure is complete.

DTC B1461: Seat Belt Pre-Tensioner (RH) (Squib) System Fault 2 (Open in the Squib Circuit)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit





CAUTION

If DTC B1461 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Open circuit in the passenger's seat belt pre-tensioner (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For Pre-tensioner)

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

⚠ CAUTION

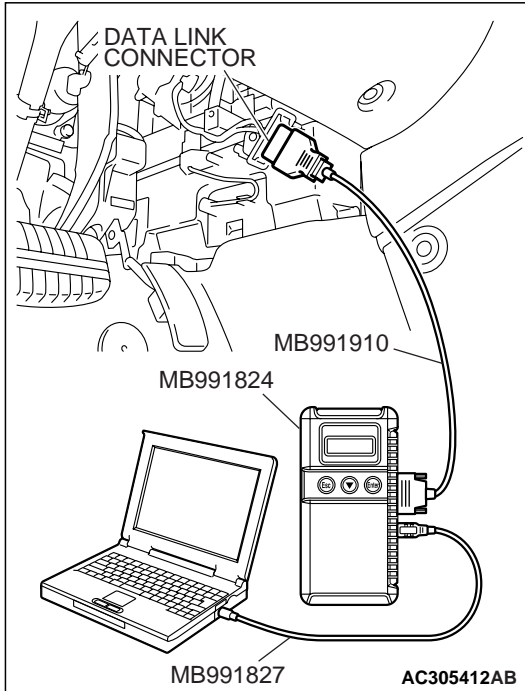
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

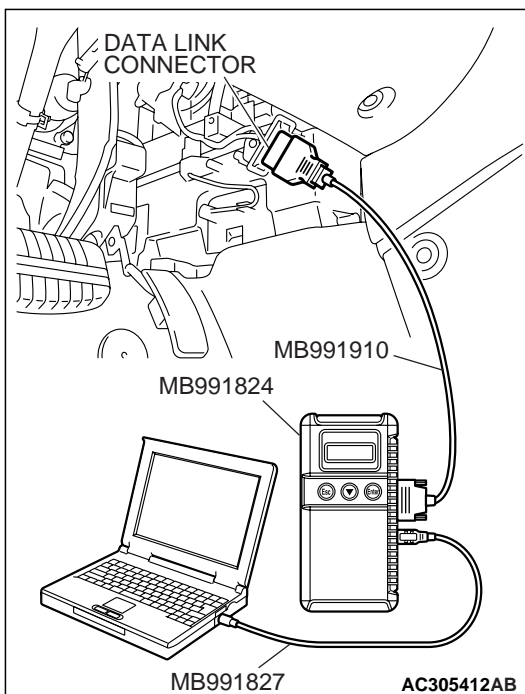
Check again if the DTC is set.

- (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?

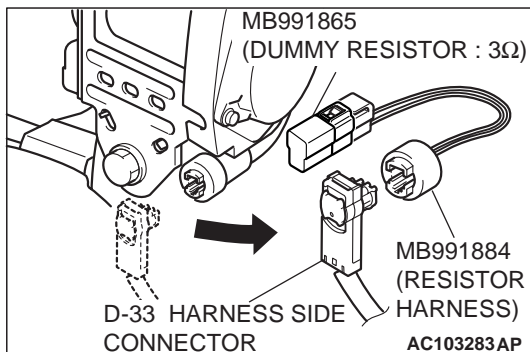
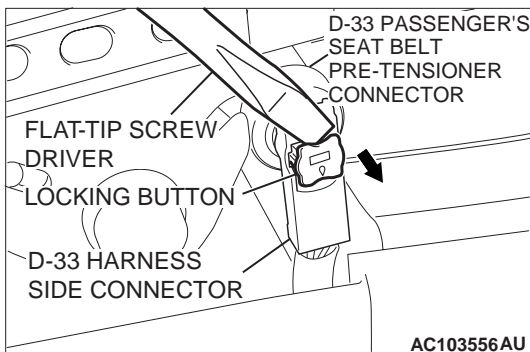
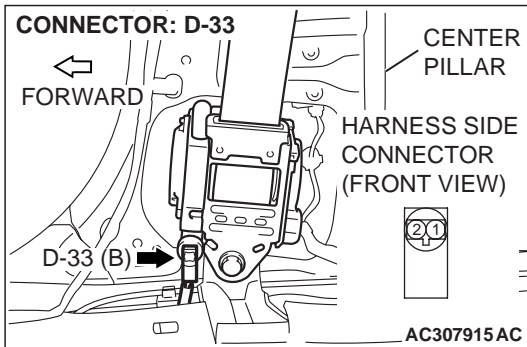
YES : Go to Step 3.

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).



STEP 3. Check the passenger's seat belt pre-tensioner.
(Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect passenger's seat belt pre-tensioner connector D-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



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

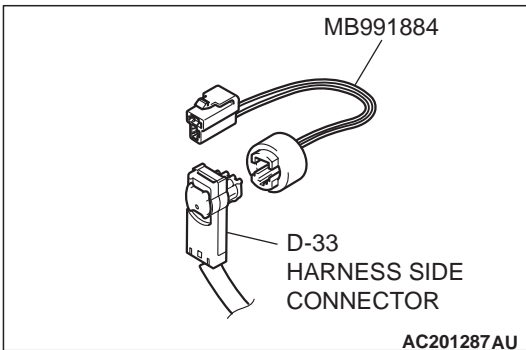
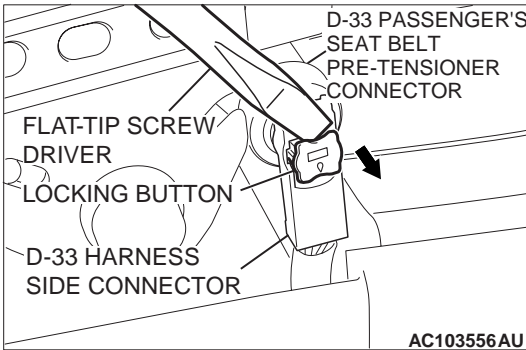
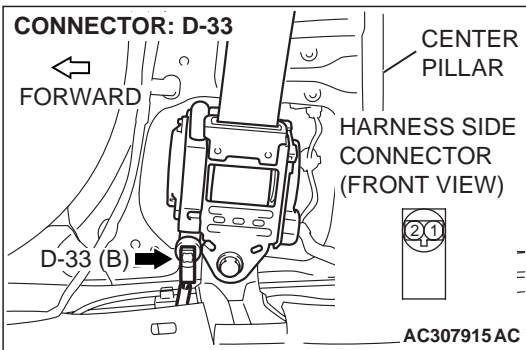
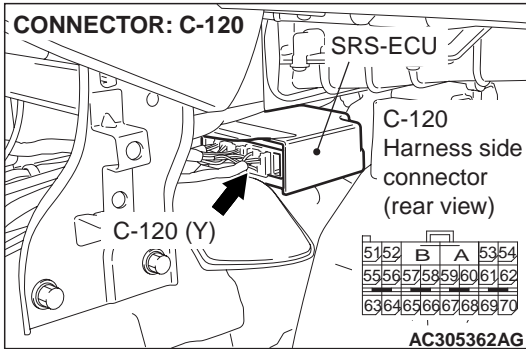
Q: Is DTC B1461 set?

YES : Go to Step 4.

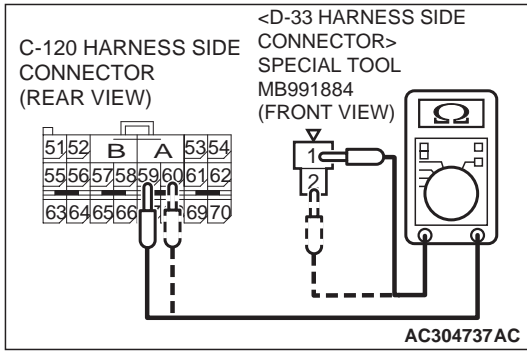
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-380). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-120 (terminal No.59 and 60) and the passenger's seat belt pre-tensioner connector D-33 (terminal No.1 and 2).

- (1) Disconnect SRS-ECU connector C-120 and passenger's seat belt pre-tensioner connector D-33. For connector D-33, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



- (2) Connect D-33 harness side connector to special tool MB991884.



⚠ CAUTION

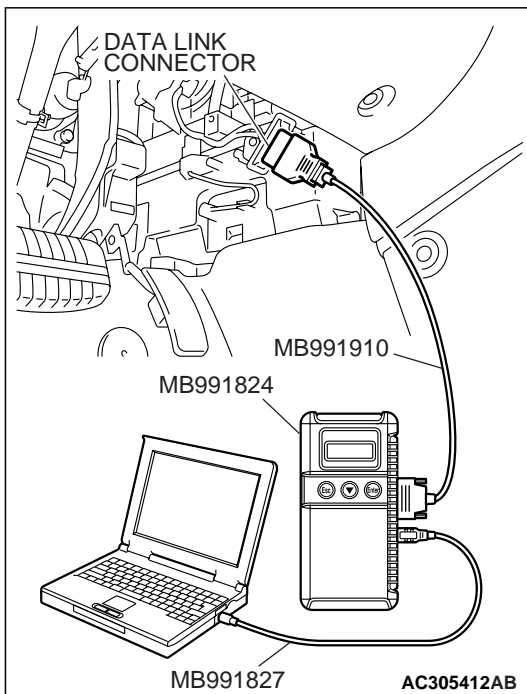
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

- (3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-120 (terminal No.59) and the special tool (terminal No.1)
 - SRS-ECU connector C-120 (terminal No.60) and the special tool (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1461 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-120 passenger's seat belt pre-tensioner 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.

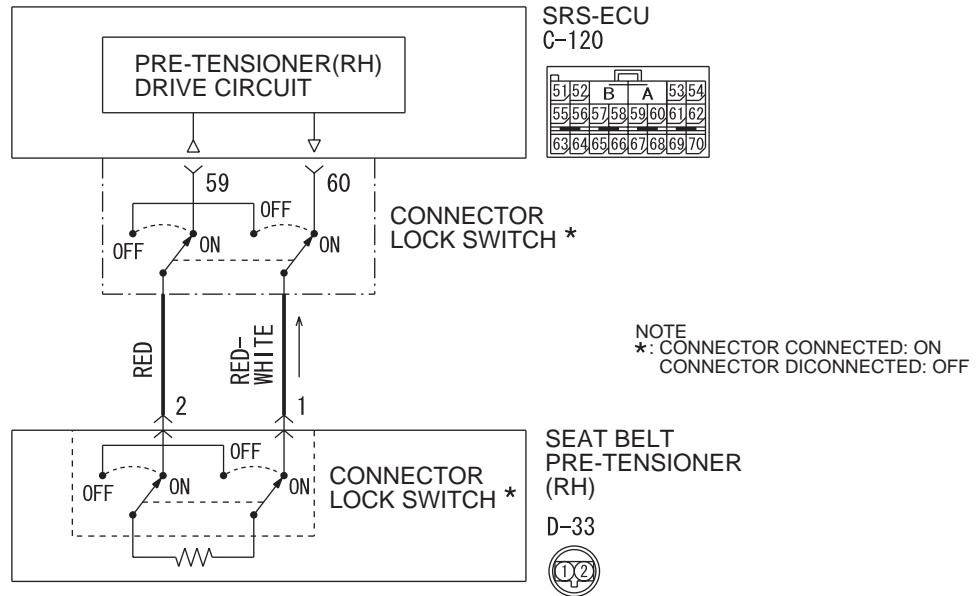
Q: Is DTC B1461 set?

YES : Return to Step 1.

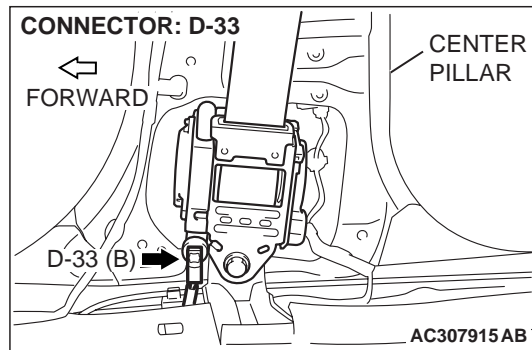
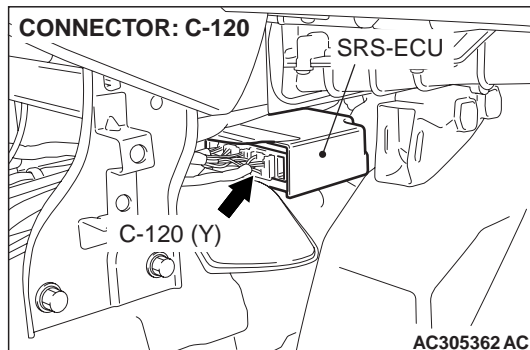
NO : The procedure is complete.

DTC B1462: Seat Belt Pre-Tensioner (RH) (Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit



W5P52M019A



CAUTION

If DTC B1462 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For Pre-tensioner)

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

CAUTION

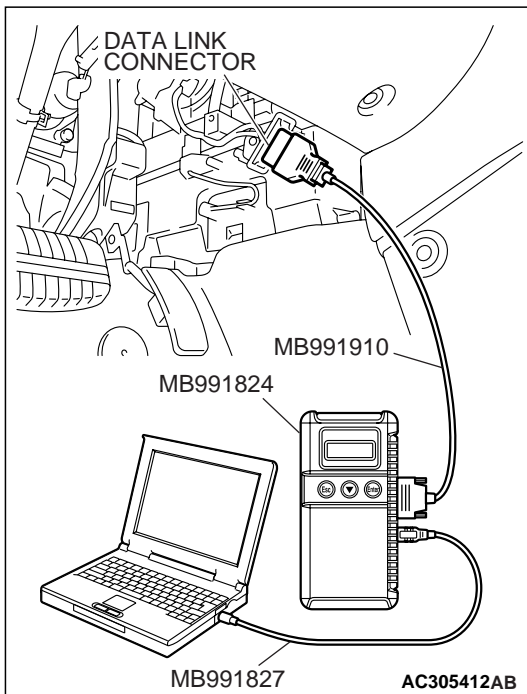
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

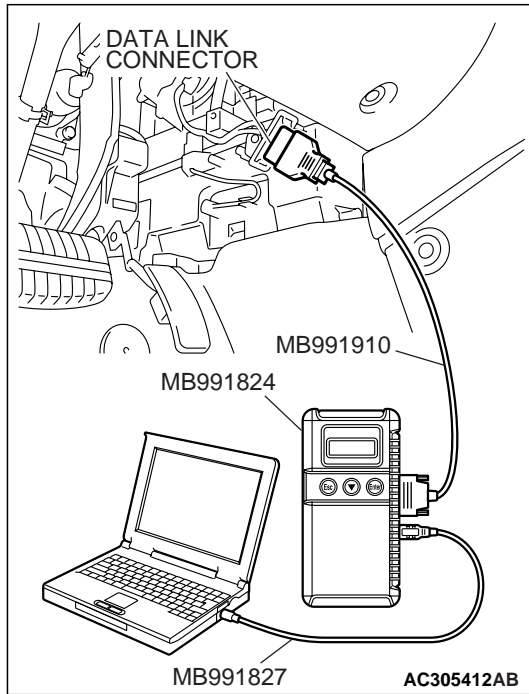
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

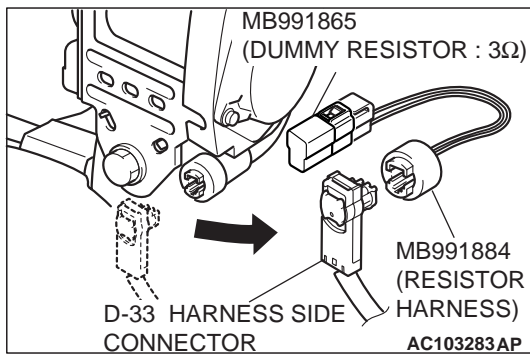
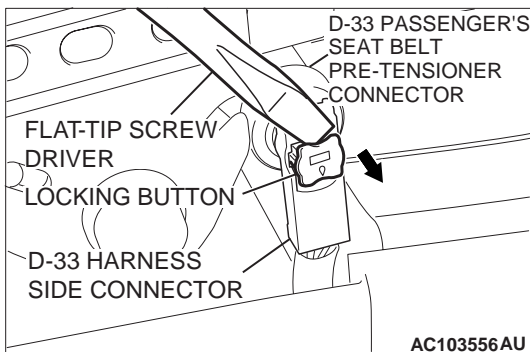
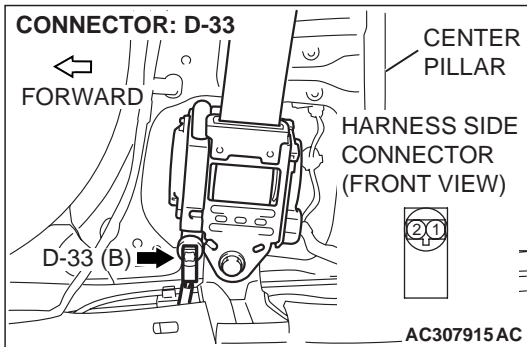
Q: Is the DTC set?

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).

STEP 3. Check the passenger's seat belt pre-tensioner.
(Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect passenger's seat belt pre-tensioner connector D-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

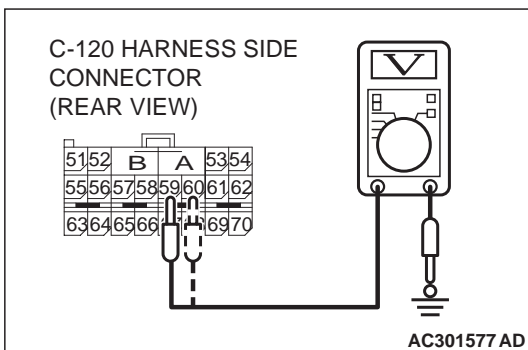
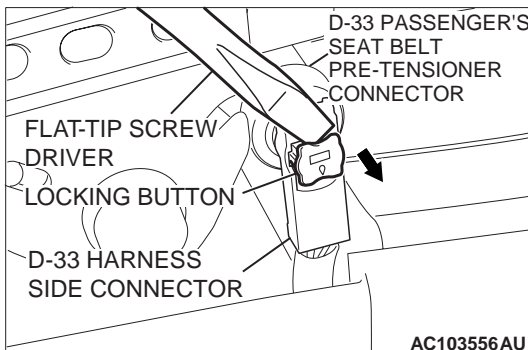
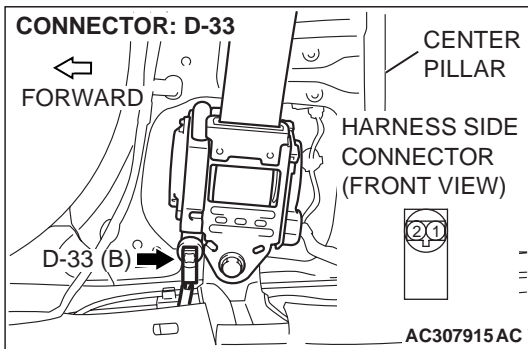
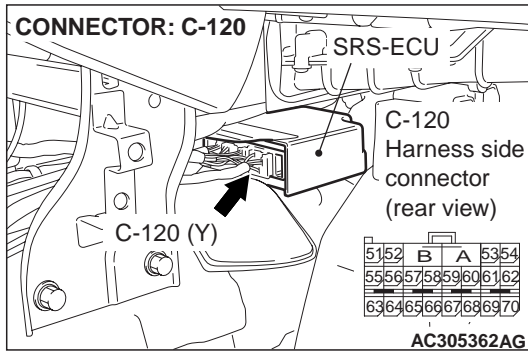


- (3) Connect special tool MB991865 to special tool MB991884.
- (4) Connect special tool MB991884 to the D-33 harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1462 set?

YES : Go to Step 4.

NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-380). Then go to Step 6.



STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-120.

(1) Disconnect SRS-ECU connector C-120.

(2) Disconnect passenger's seat belt pre-tensioner connector D-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) 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.

(4) Measure the voltage between C-120 harness side connector terminals 59, 60 and body ground. Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1462 sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 6.

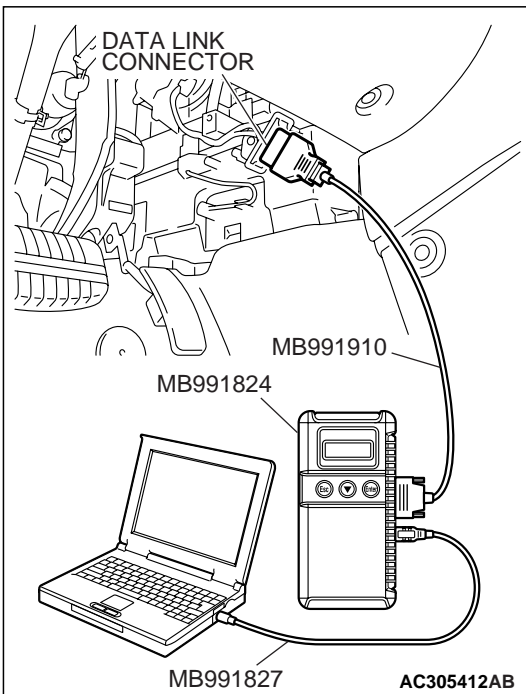
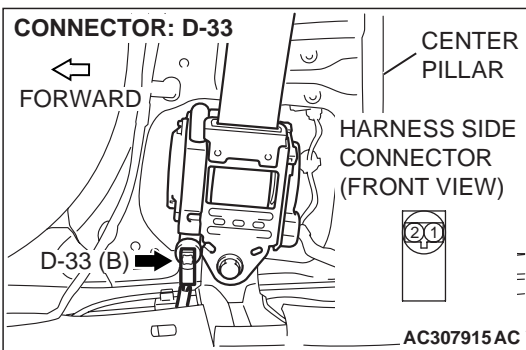
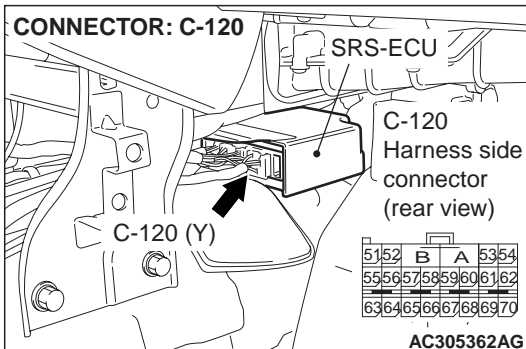
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-120 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-33 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-33 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-120 and passenger's seat belt pre-tensioner connector D-33. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

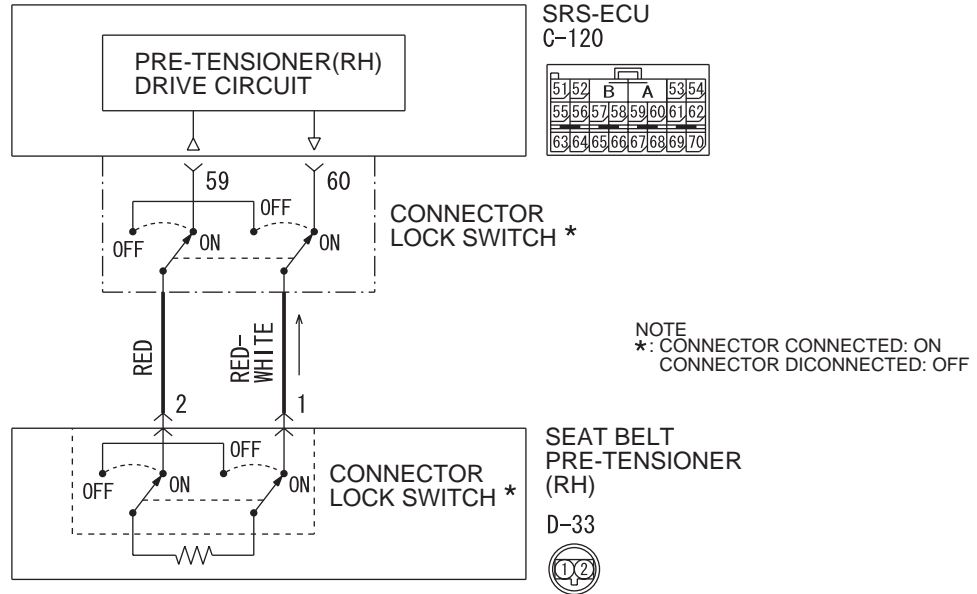
Q: Is DTC B1462 set?

YES : Return to Step 1.

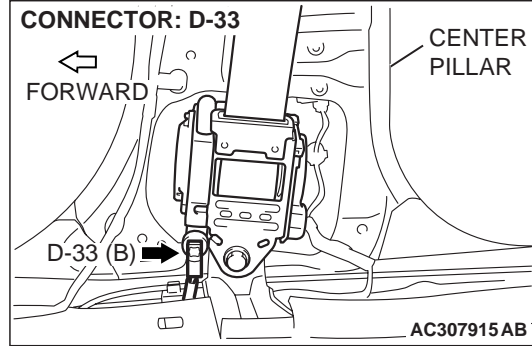
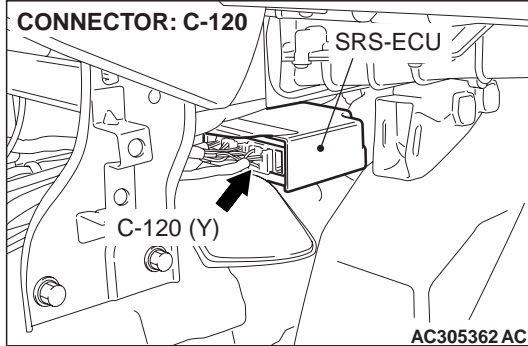
NO : The procedure is complete.

DTC B1463: Seat Belt Pre-Tensioner (RH) (Squib) System Fault for Ground Circuit (Short-Circuit to Ground)

Passenger's (Front) Seat Belt Pre-Tensioner (Squib) Circuit



W5P52M019A



CAUTION

If DTC B1463 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For Pre-tensioner)

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

CAUTION

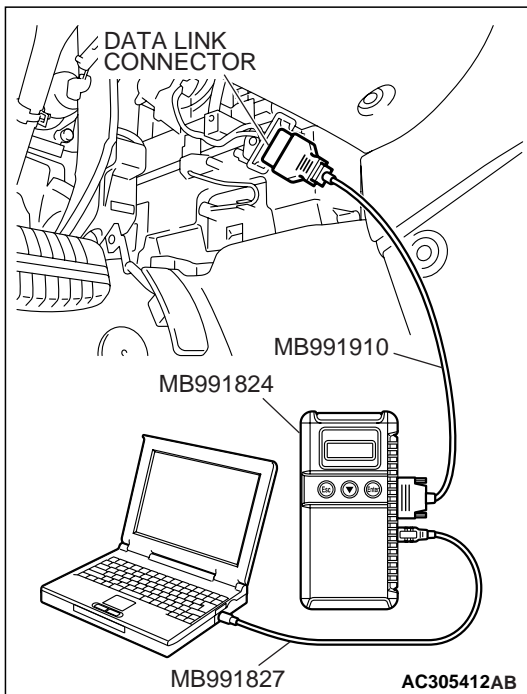
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

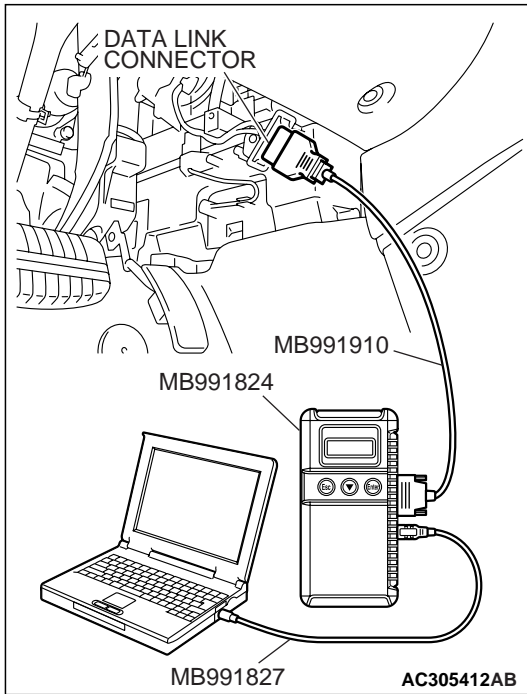
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

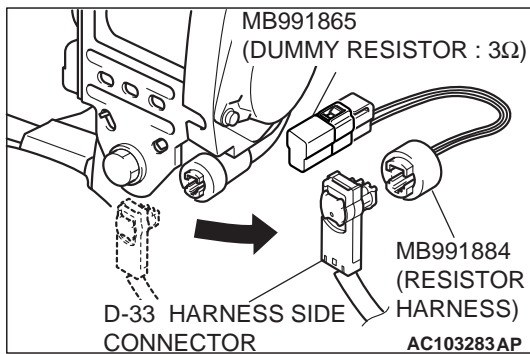
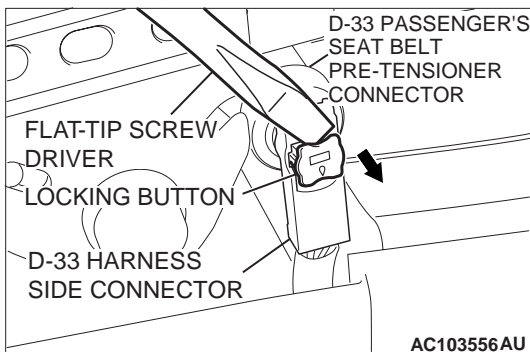
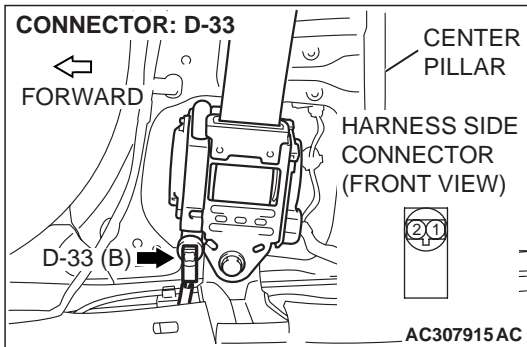
Q: Is the DTC set?

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).

STEP 3. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect passenger's seat belt pre-tensioner connector D-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

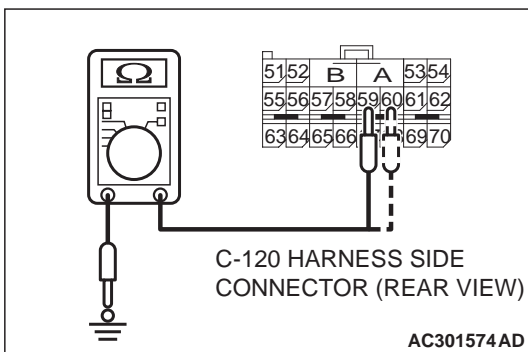
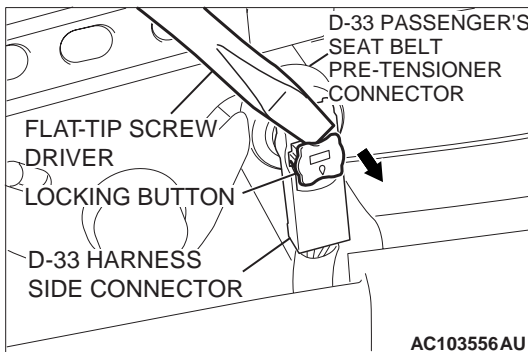
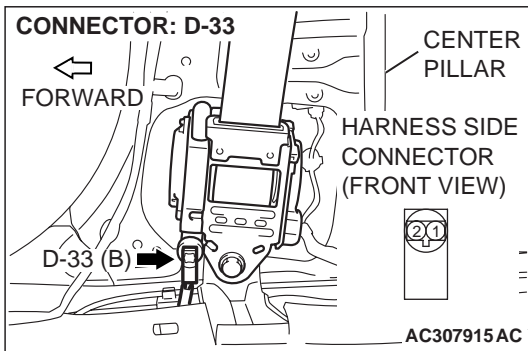
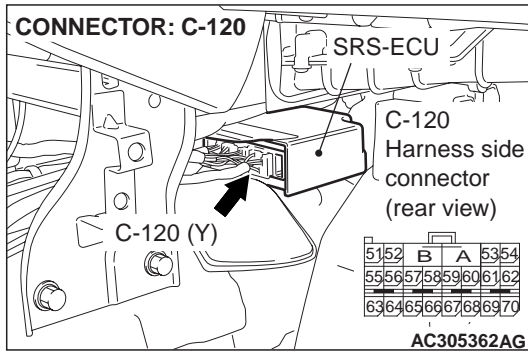


- (3) Connect special tool MB991865 to special tool MB991884.
- (4) Connect special tool MB991884 to the D-33 harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1463 set?

YES : Go to Step 4.

NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-380). Then go to Step 6.



STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-120.

(1) Disconnect SRS-ECU connector C-120.

(2) Disconnect passenger's seat belt pre-tensioner connector D-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

CAUTION

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

(3) Check for continuity between C-120 harness side connector terminals 59, 60 and body ground. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

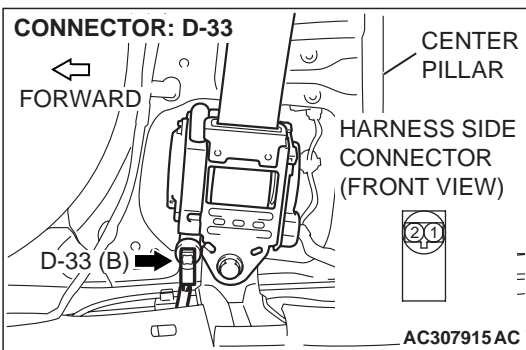
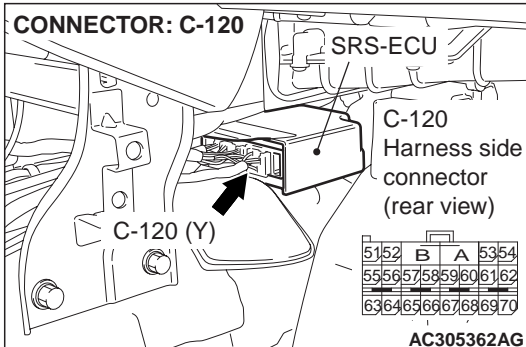
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1463 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-120 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-33 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.59 and 60) and passenger's seat belt pre-tensioner connector D-33 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-120 and passenger's seat belt pre-tensioner connector D-33. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

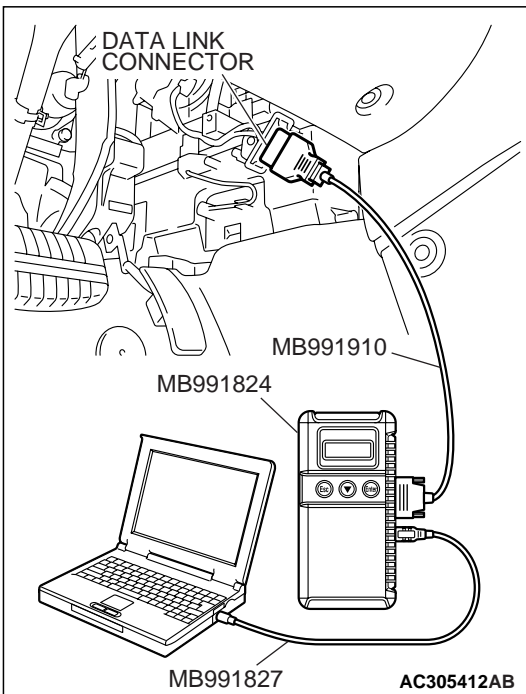
Check again if the DTC is set.

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

Q: Is DTC B1463 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 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 ASIC (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 (FET) Open
 DTC B1557: SRS-ECU ASIC

⚠ 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
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
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	<ul style="list-style-type: none"> • 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

CODE NO.	PART/CIRCUIT INTEGRAL TO SRS-ECU	SYMPTOM
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)	<ul style="list-style-type: none"> • 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	ASIC (for frontal activation)	• When the ASIC (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
B1554	SG-BYPASS	• When the ASIC (frontal activation) are abnormal
B1555		• When the ROM or RAM are abnormal
B1557	ASIC	• When the ASIC are abnormal

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

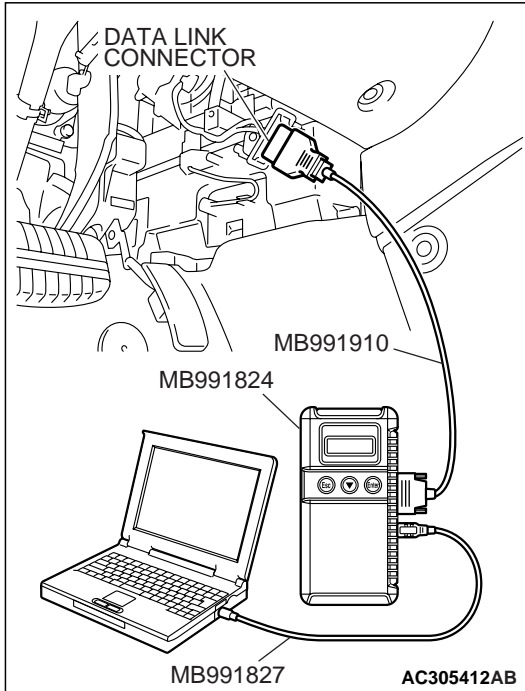
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

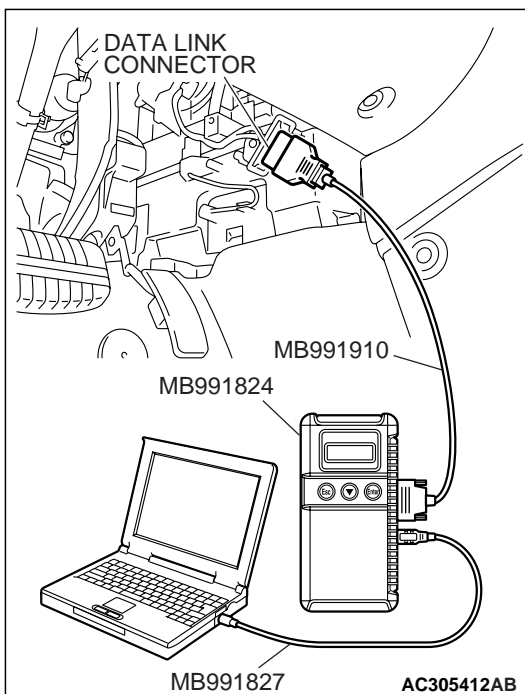
Check again if the DTC is set.

- (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 DTCs set?

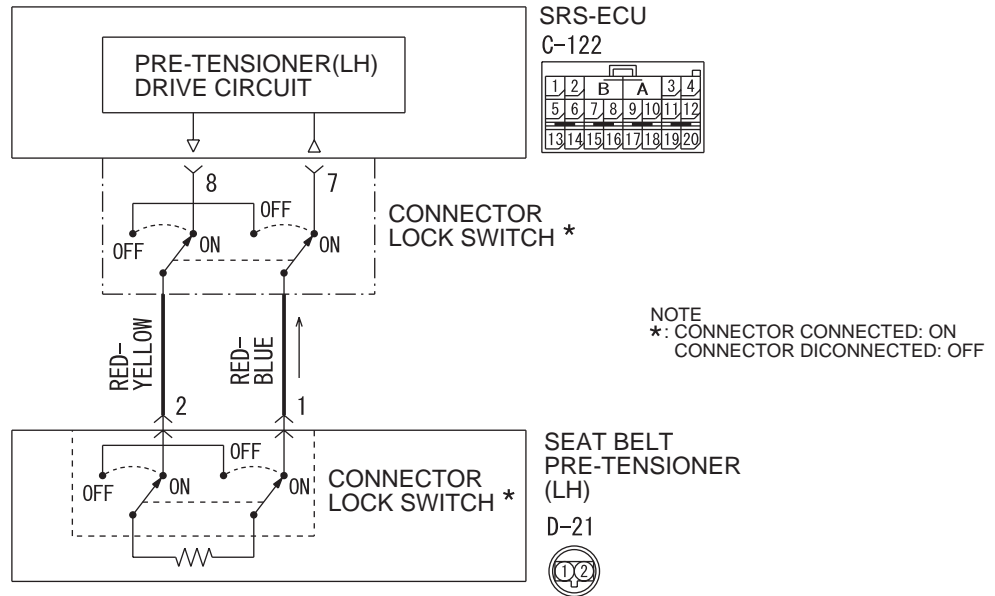
YES : Replace the SRS-ECU (Refer to P.52B-365).

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).

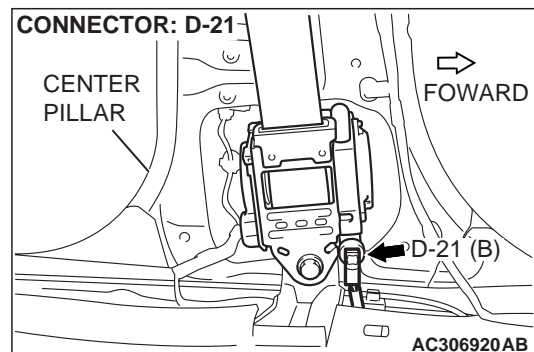
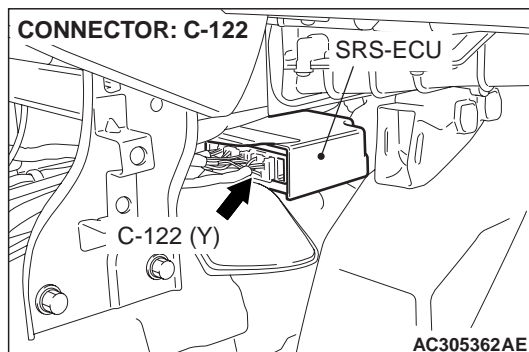


DTC B1470: Seat Belt Pre-Tensioner (LH) (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit



W5P52M018A



CAUTION

If DTC B1470 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the driver's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-122 or D-21 is damaged or improperly engaged, the short spring may not be released when the connector is connected.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For Pre-tensioner)

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

CAUTION

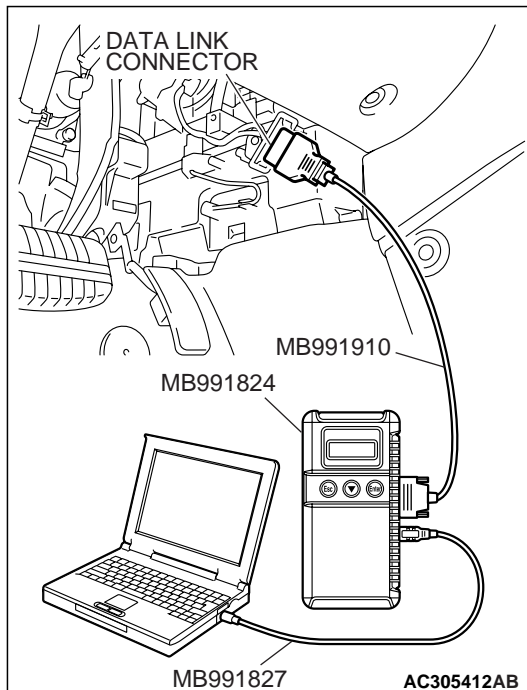
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

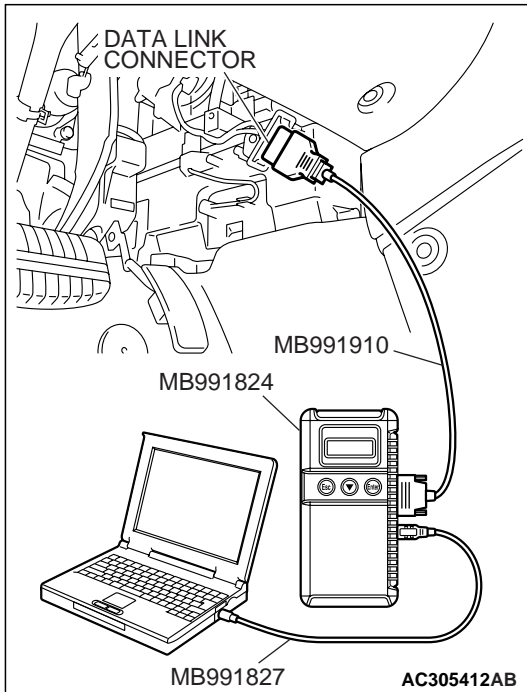
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





STEP 2. Recheck for diagnostic trouble code.

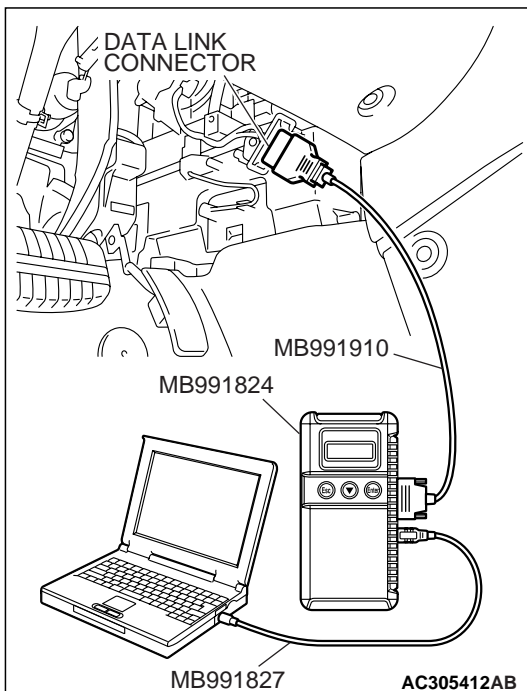
Check again if the DTC is set.

- (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).



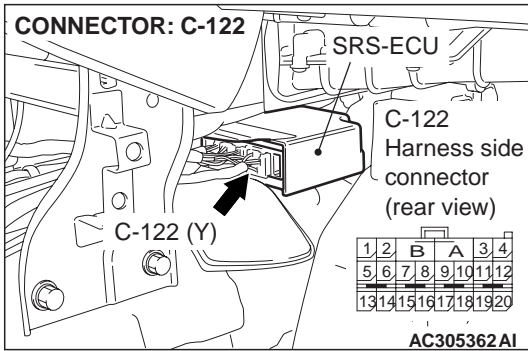
STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

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

Q: Is DTC B1519 set?

YES : Go to Step 4.

NO : Go to Step 5.

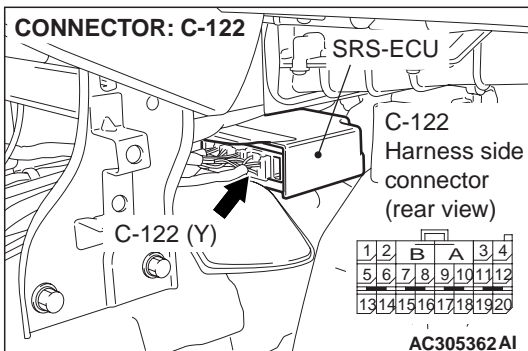


STEP 4. Check the SRS-ECU connector C-122.

Q: Is the connector correctly engaged?

YES : Go to Step 5.

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



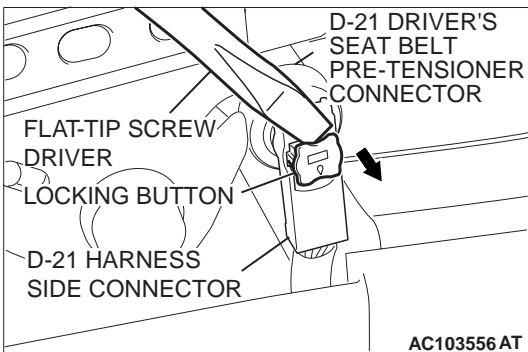
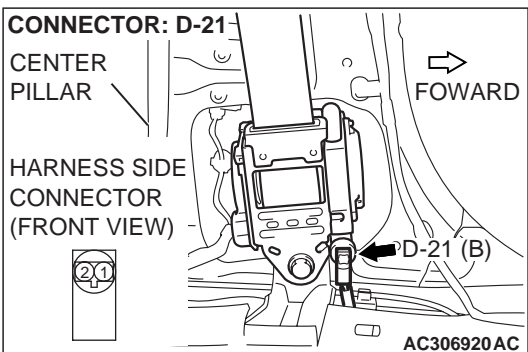
STEP 5. Check SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-21. (Using scan tool MB991958, read the diagnostic trouble code.)

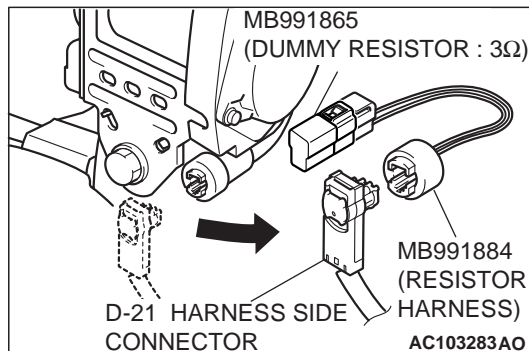
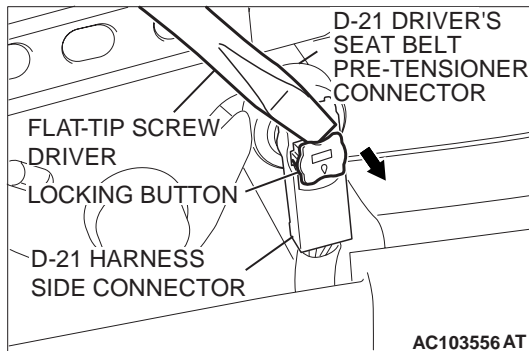
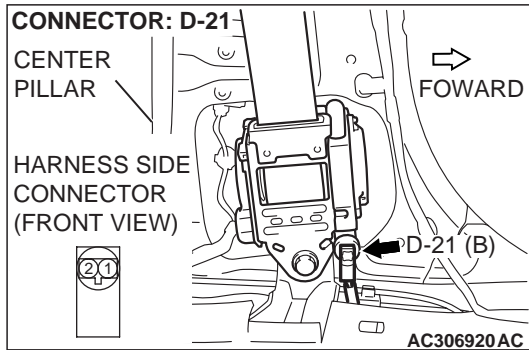
- (1) Disconnect the negative battery terminal.
- (2) Disconnect connectors C-122 and D-21, and then reconnect them. For connector D-21, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
- (3) Connector the negative battery terminal.
- (4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1470 set?

YES : Go to Step 6.

NO : The procedure is complete. It is assumed that DTC B1470 set because connector C-122 or D-21 was engaged improperly.





STEP 6. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

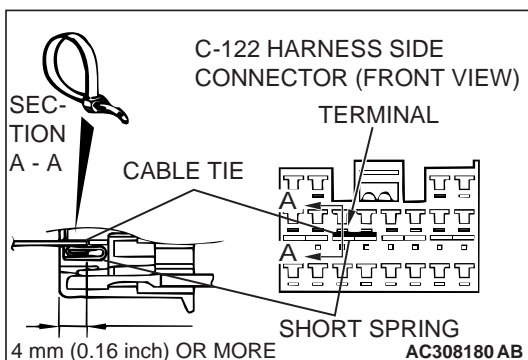
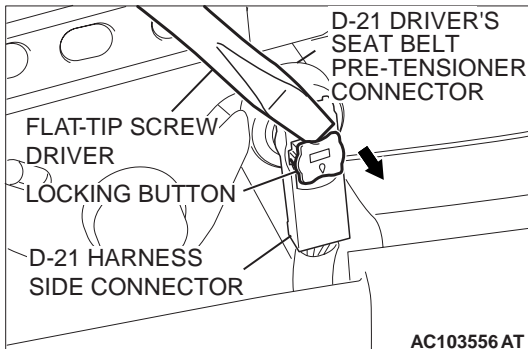
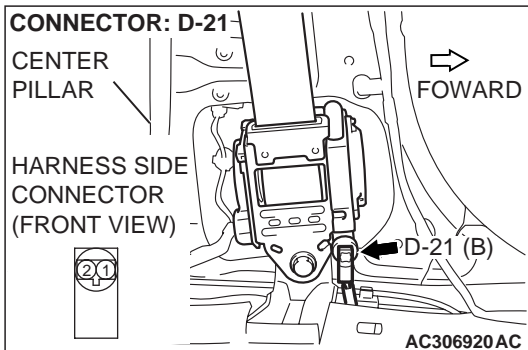
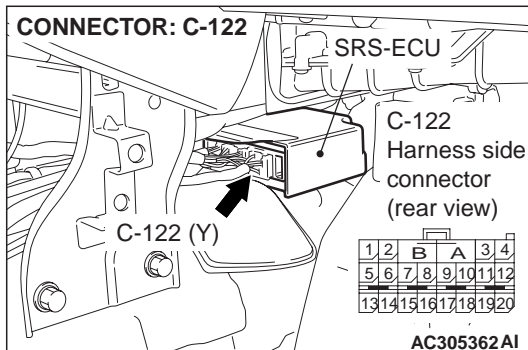
- (1) Disconnect the negative battery terminal.
- (2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

- (3) Connect special tool MB991865 to special tool MB991884.
- (4) Connect special tool MB991884 to the D-21 harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1470 set?

YES : Go to Step 7.

NO : Replace the driver's seat belt pre-tensioner (Refer to [P.52B-380](#)). Then go to Step 9.



STEP 7. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-122.

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

⚠ DANGER

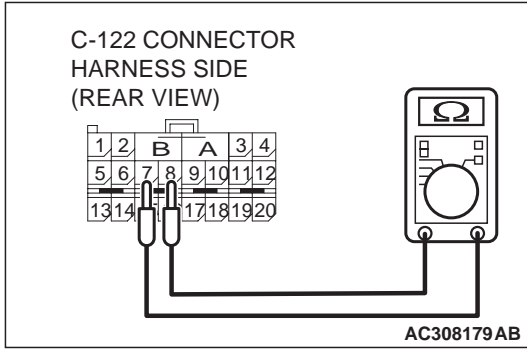
To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-21 to short the squib circuit.

(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

⚠ 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 7, 8 and the short spring to release the short spring.



⚠ CAUTION

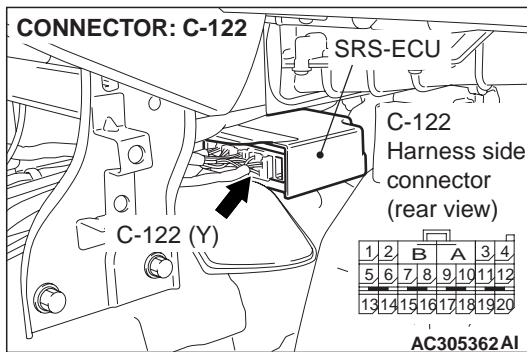
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Check for continuity between C-122 harness side connector terminals 7 and 8.
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 B1470 sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 9.

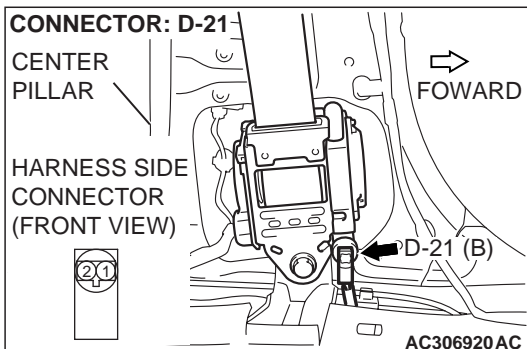


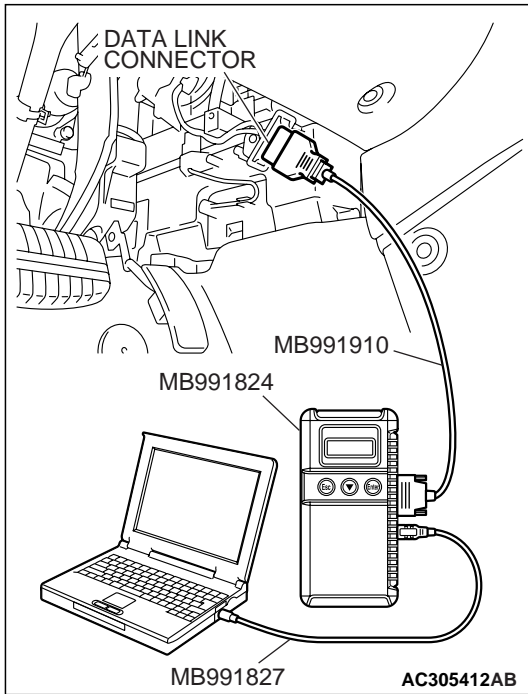
STEP 8. Check the harness for short circuit between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Are harness wires between SRS-ECU connector C-122 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 9.

NO : Replace the harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-21. 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.

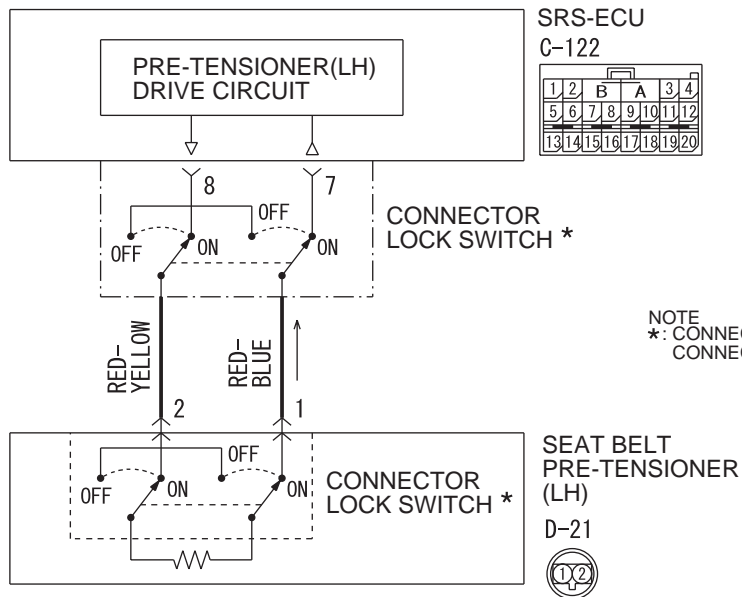
Q: Is DTC B1470 set?

YES : Return to Step 1.

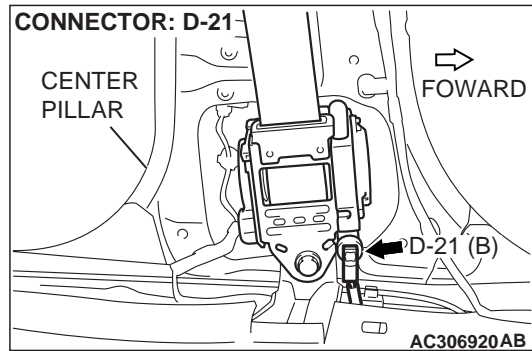
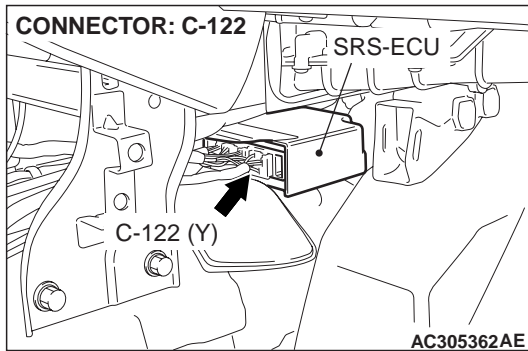
NO : The procedure is complete.

DTC B1471: Seat Belt Pre-Tensioner (LH) (Squib) System Fault 2 (Open in the Squib Circuit)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit



W5P52M018A



CAUTION

If DTC B1471 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the driver's seat belt pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For pre-tensioner)

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

⚠ CAUTION

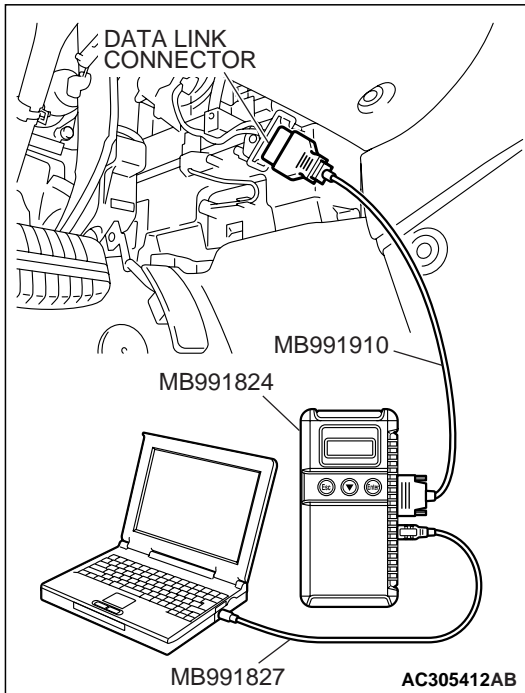
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

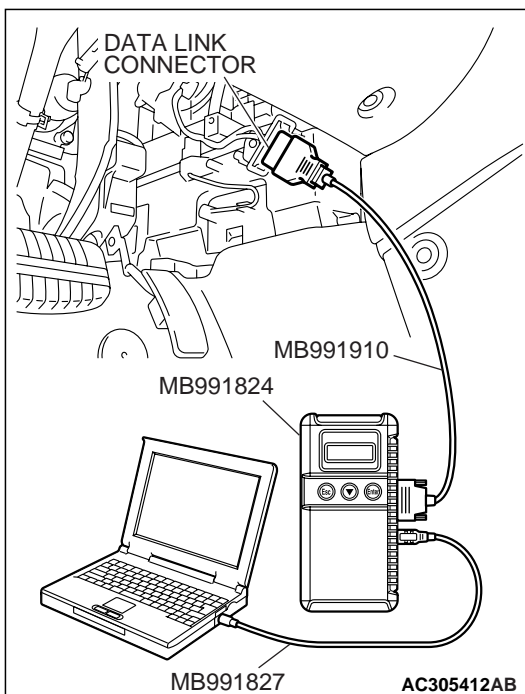
Check again if the DTC is set.

- (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?

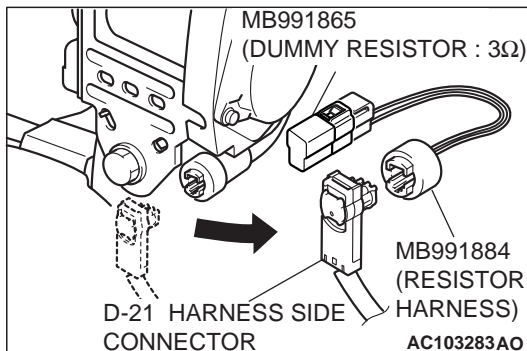
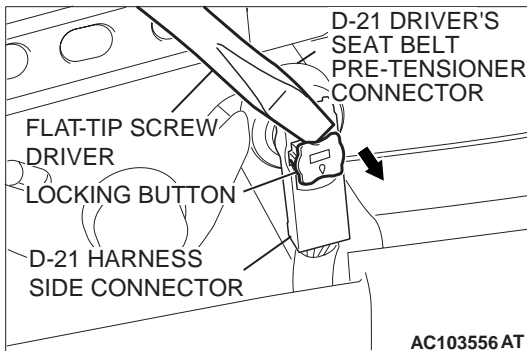
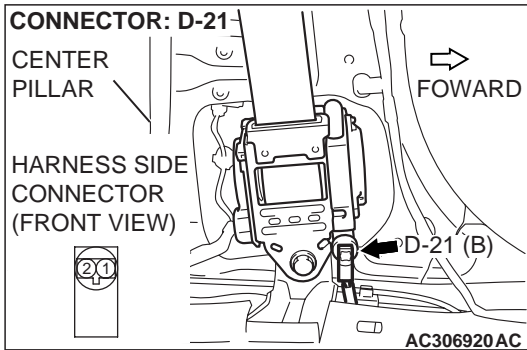
YES : Go to Step 3.

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).



STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



- (3) Connect special tool MB991865 to special tool MB991884.
- (4) Connect special tool MB991884 to the D-21 harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

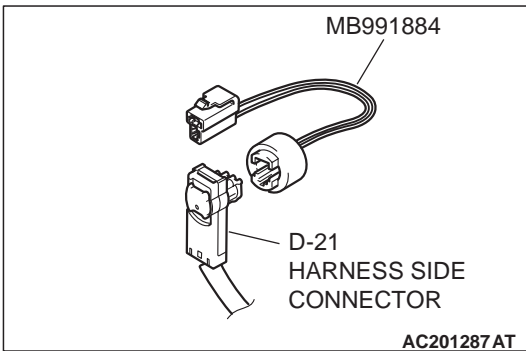
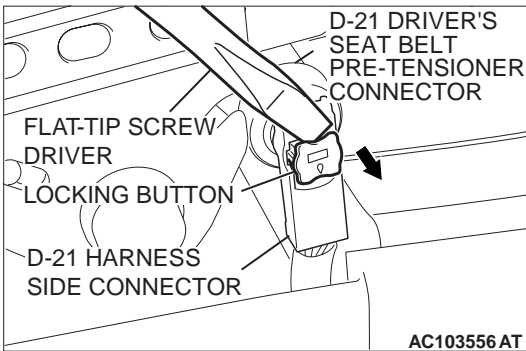
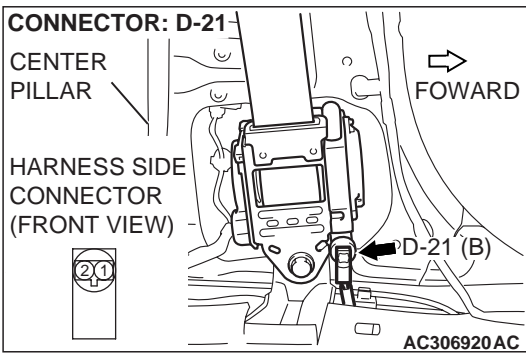
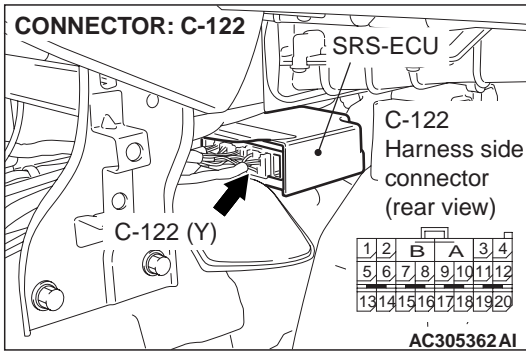
Q: Is DTC B1471 set?

YES : Go to Step 4.

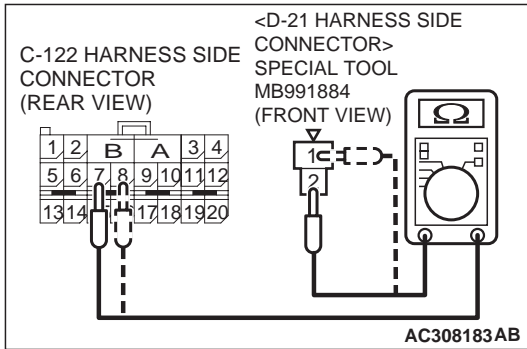
NO : Replace the driver's seat belt pre-tensioner (Refer to [P.52B-380](#)). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.7 and 8) and the driver's seat belt pre-tensioner D-21 (terminal No.1 and 2).

- (1) Disconnect SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-21, and measure at the wiring harness side. For connector D-21, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



- (2) Connect D-21 harness side connector to special tool MB991884.



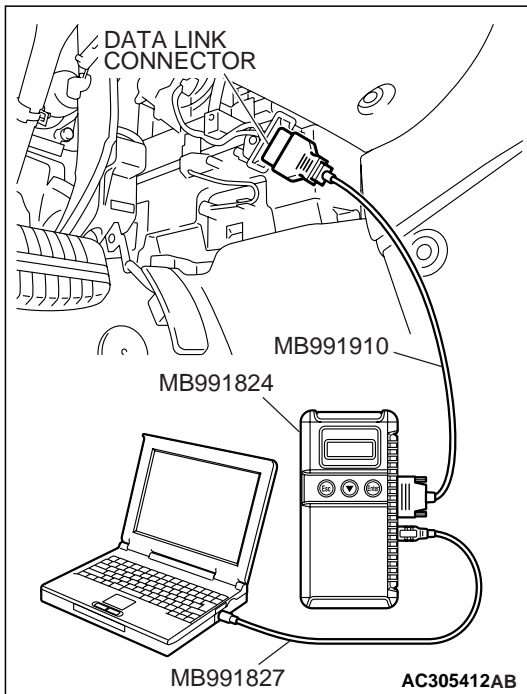
CAUTION

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

- (3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.7) and the special tool (terminal No.2)
 - SRS-ECU connector C-122 (terminal No.8) and the special tool (terminal No.1)

Q: Does continuity exist?

- YES :** Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1471 set, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 5.
- NO :** Replace harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-21. Then go to Step 5.



STEP 5. Check for diagnostic trouble code.

Check again if the DTC is set.

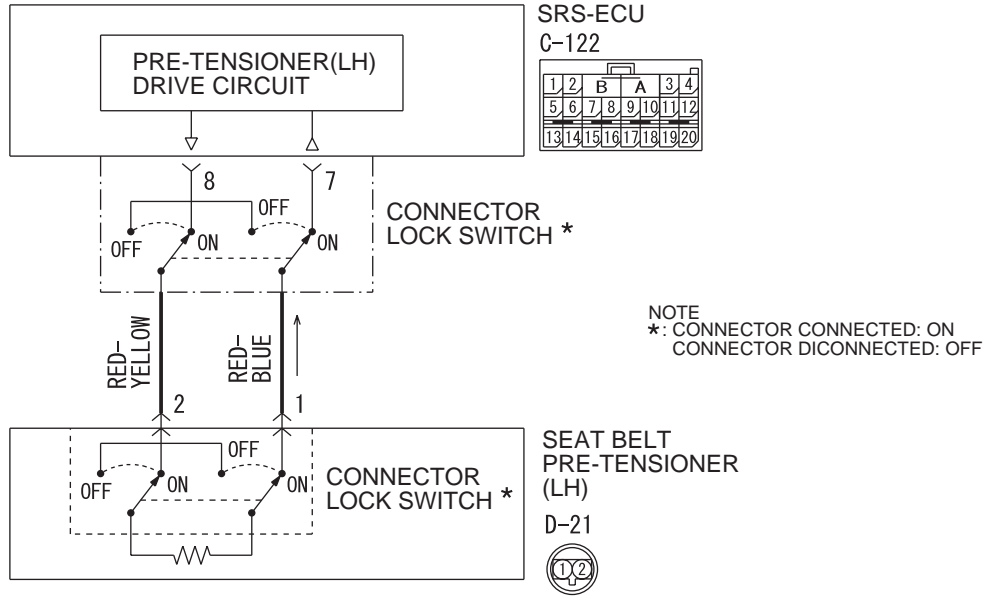
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1471 set?

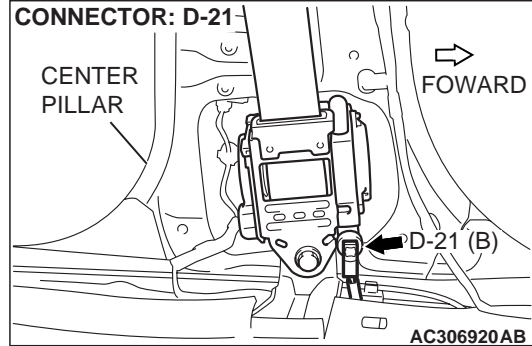
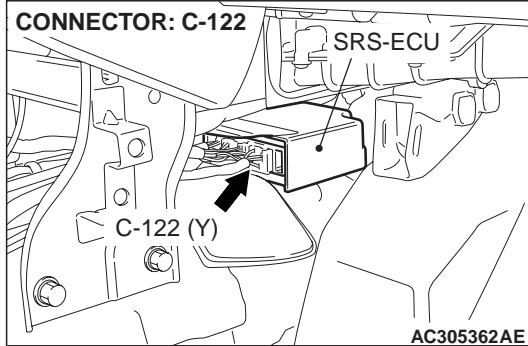
- YES :** Return to Step 1.
- NO :** The procedure is complete.

DTC B1472: Seat Belt Pre-Tensioner (LH) (Squib) System Fault for Power Supply Circuit (Short-Circuit to Power Supply)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit



W5P52M018A



CAUTION

If DTC B1472 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For Pre-tensioner)

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

CAUTION

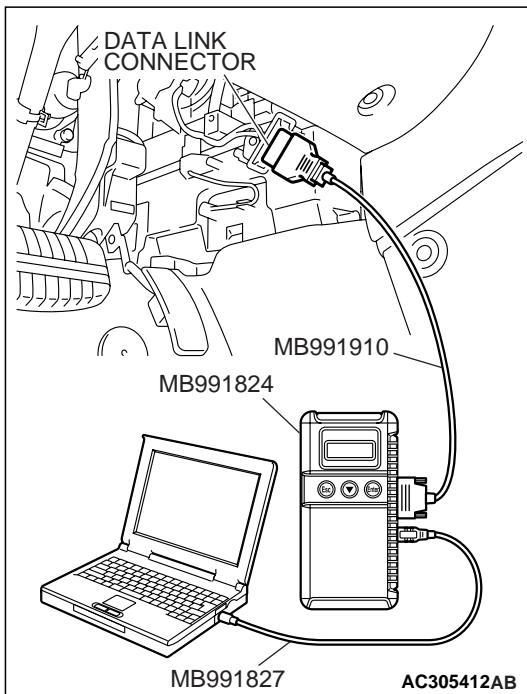
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

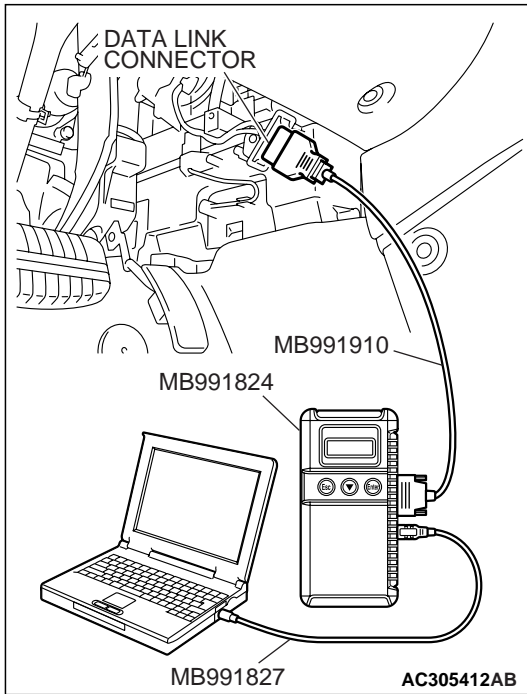
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

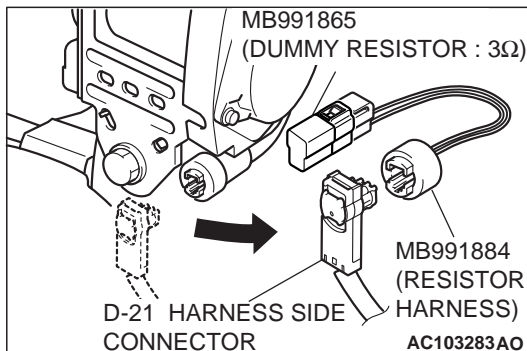
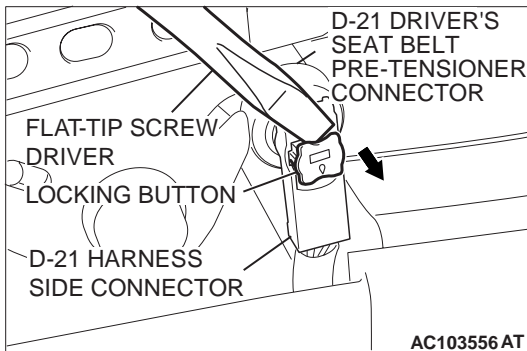
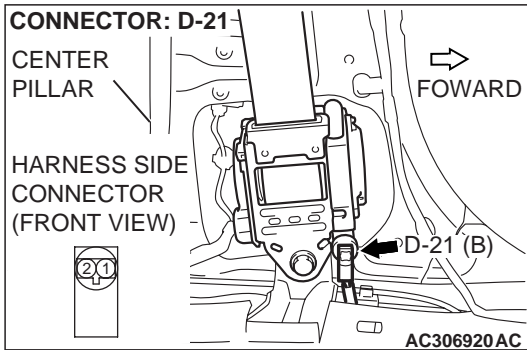
Q: Is DTC B1472 set?

YES : Go to Step 3.

NO : Go to Step 6.

STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

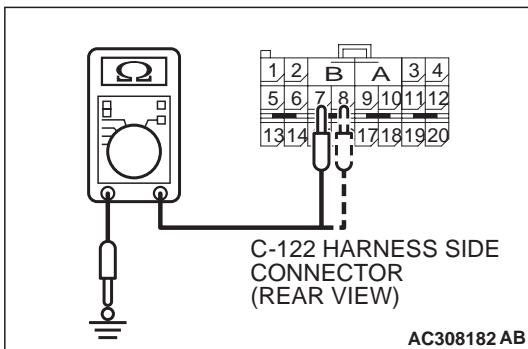
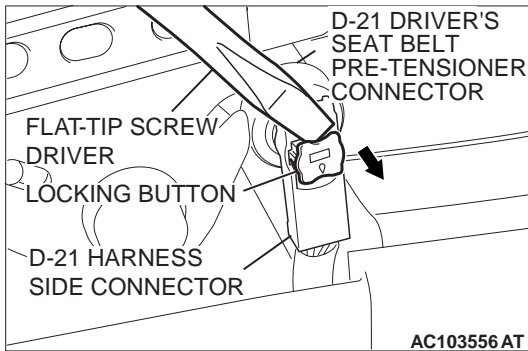
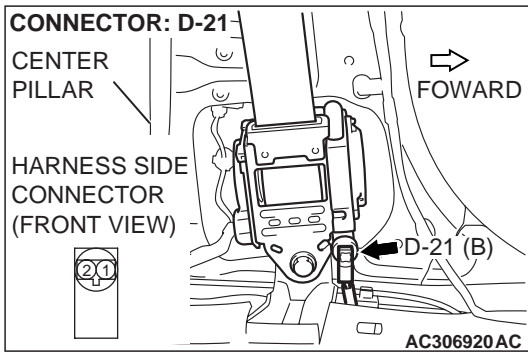
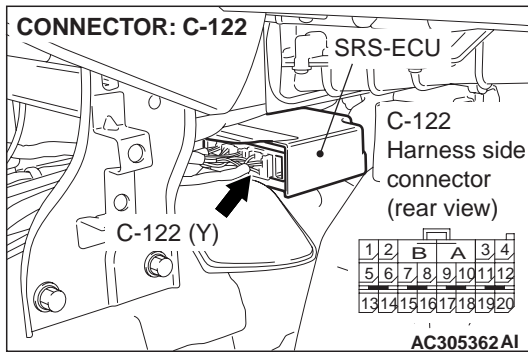


- (3) Connect special tool MB991865 to special tool MB991884.
- (4) Connect special tool MB991884 to the D-21 harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1472 set?

YES : Go to Step 4.

NO : Replace the driver's seat belt pre-tensioner (Refer to [P.52B-380](#)). Then go to Step 6.



STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-122.

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

(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) 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.

(4) Measure the voltage between C-122 harness side connector terminals 7, 8 and body ground. Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1472 sets, replace the SRS-ECU (Refer to P.52B-105). Then go to Step 6.

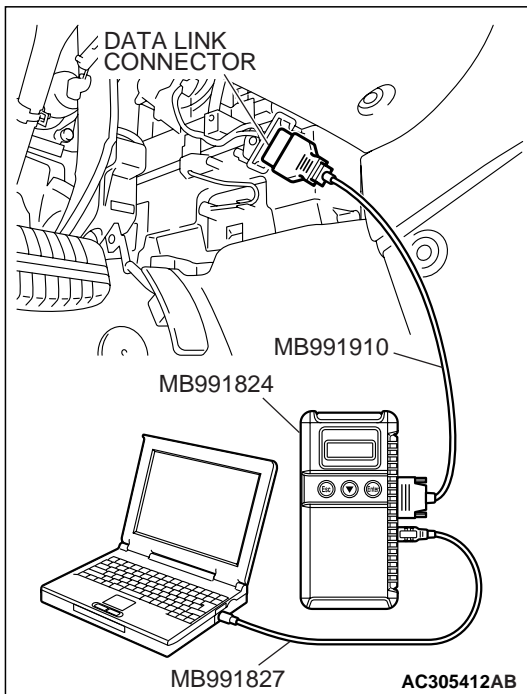
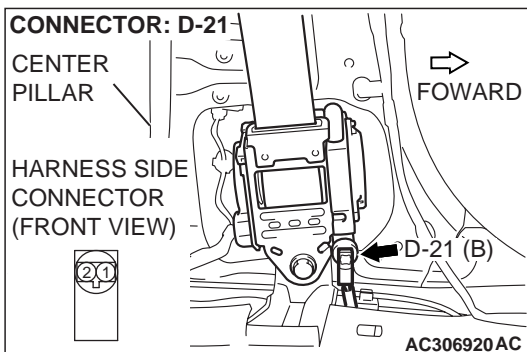
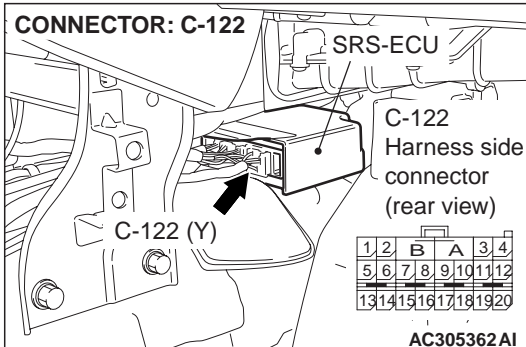
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.7 and 8). and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-21. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

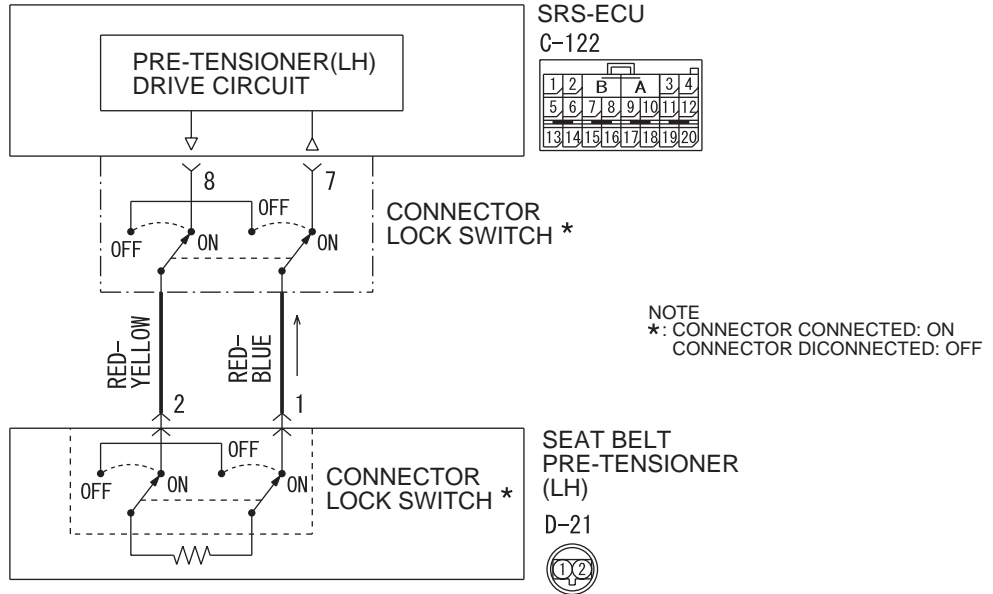
Q: Is DTC B1472 set?

YES : Return to Step 1.

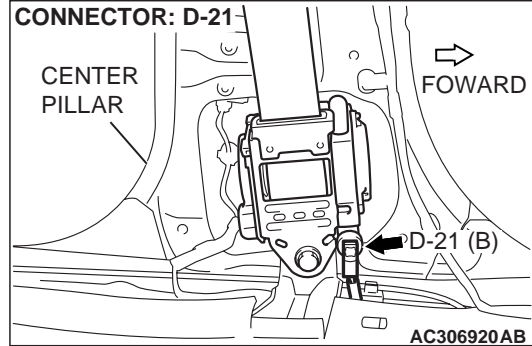
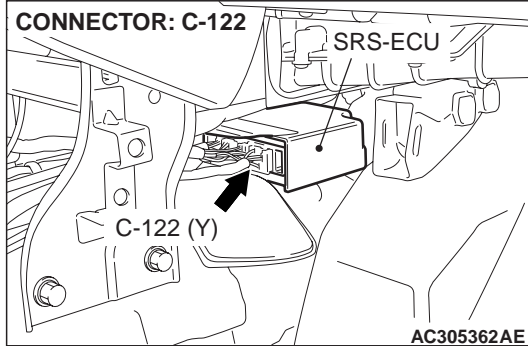
NO : The procedure is complete.

DTC B1473: Seat Belt Pre-Tensioner (LH) (Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

Driver's Seat Belt Pre-Tensioner (Squib) Circuit



W5P52M018A



CAUTION

If DTC B1473 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A
- MB991865: Dummy resistor
- MB991884: Resister harness (For Pre-tensioner)

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

CAUTION

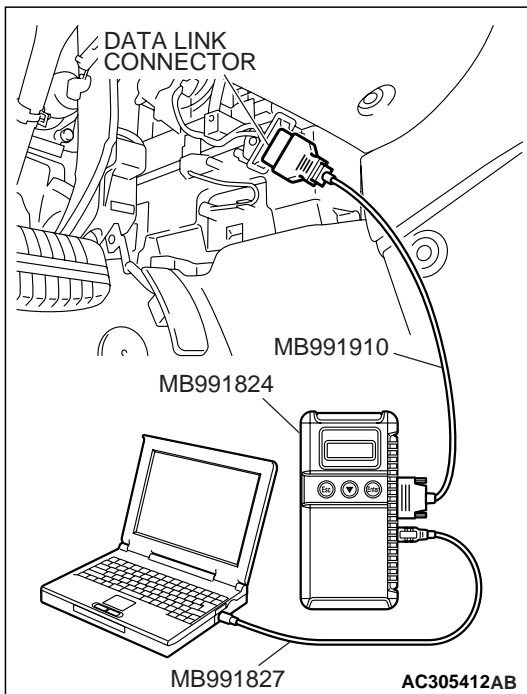
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

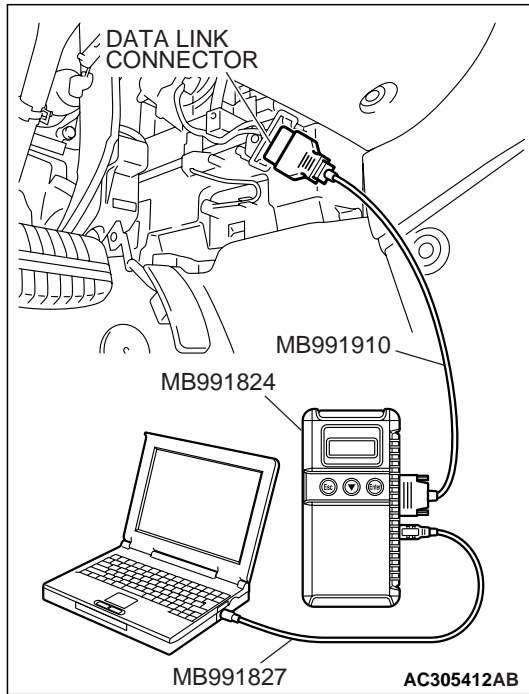
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

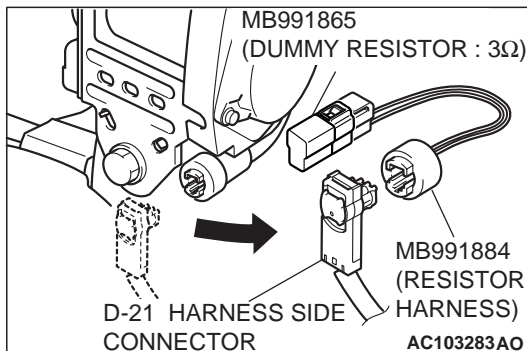
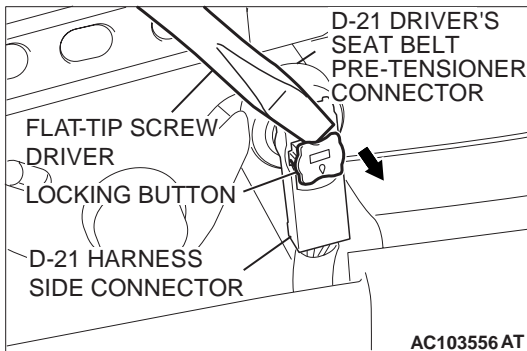
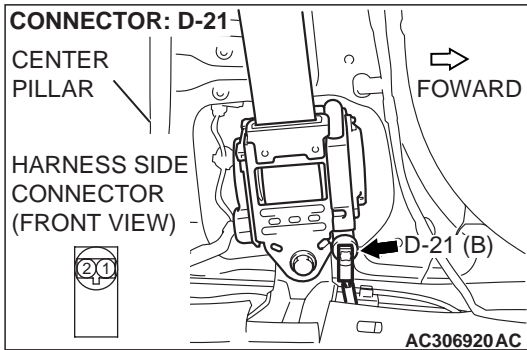
Q: Is the DTC set?

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).

STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

- (1) Disconnect the negative battery terminal.
- (2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

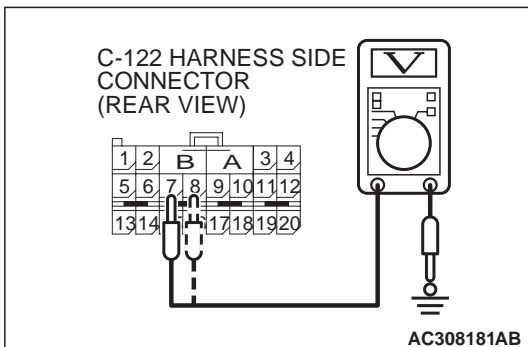
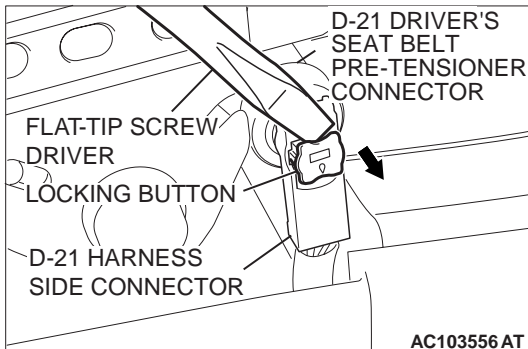
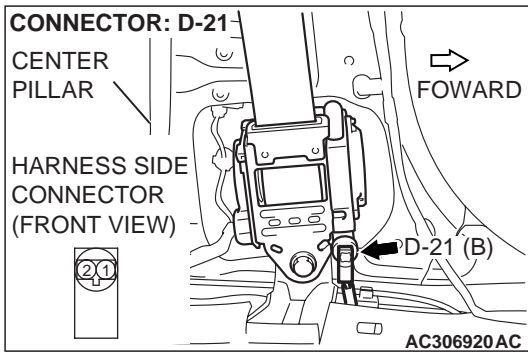
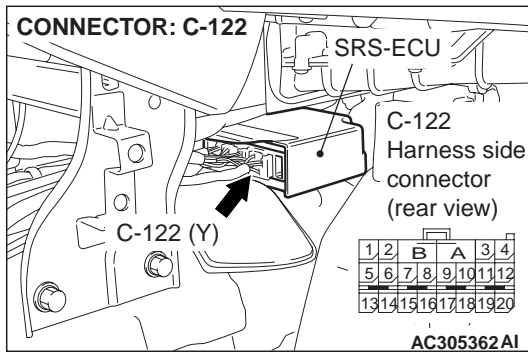


- (3) Connect special tool MB991865 to special tool MB991884.
- (4) Connect special tool MB991884 to the D-21 harness side connector.
- (5) Connect the negative battery terminal.
- (6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1473 set?

YES : Go to Step 4.

NO : Replace the driver's seat belt pre-tensioner. Refer to [P.52B-380](#). Then go to Step 6.



STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-122.

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

(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

CAUTION

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

(3) Check for continuity between C-122 harness side connector terminals 7, 8 and body ground. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

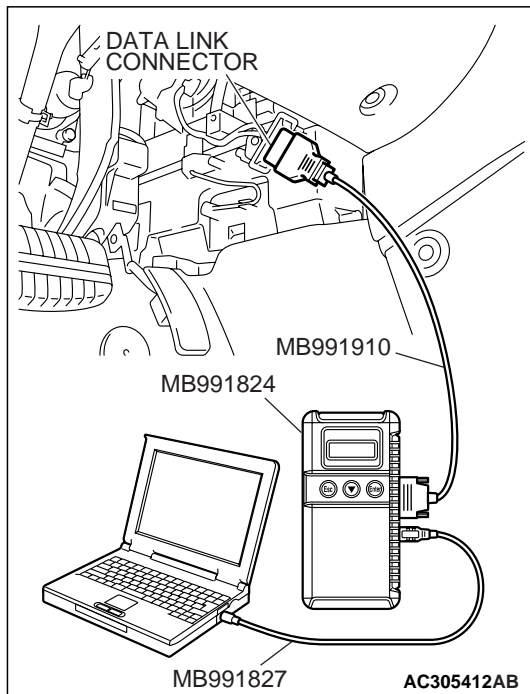
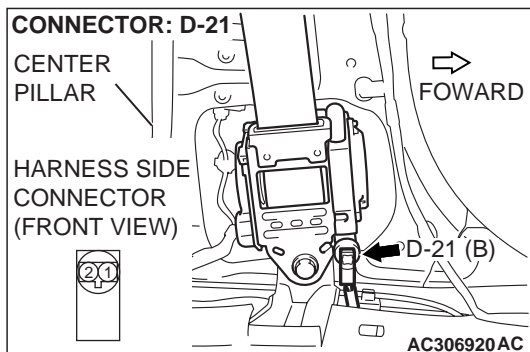
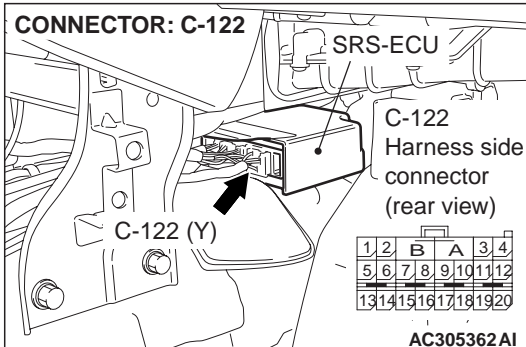
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1473 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.7 and 8) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and driver's seat belt pre-tensioner connector D-26. 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.

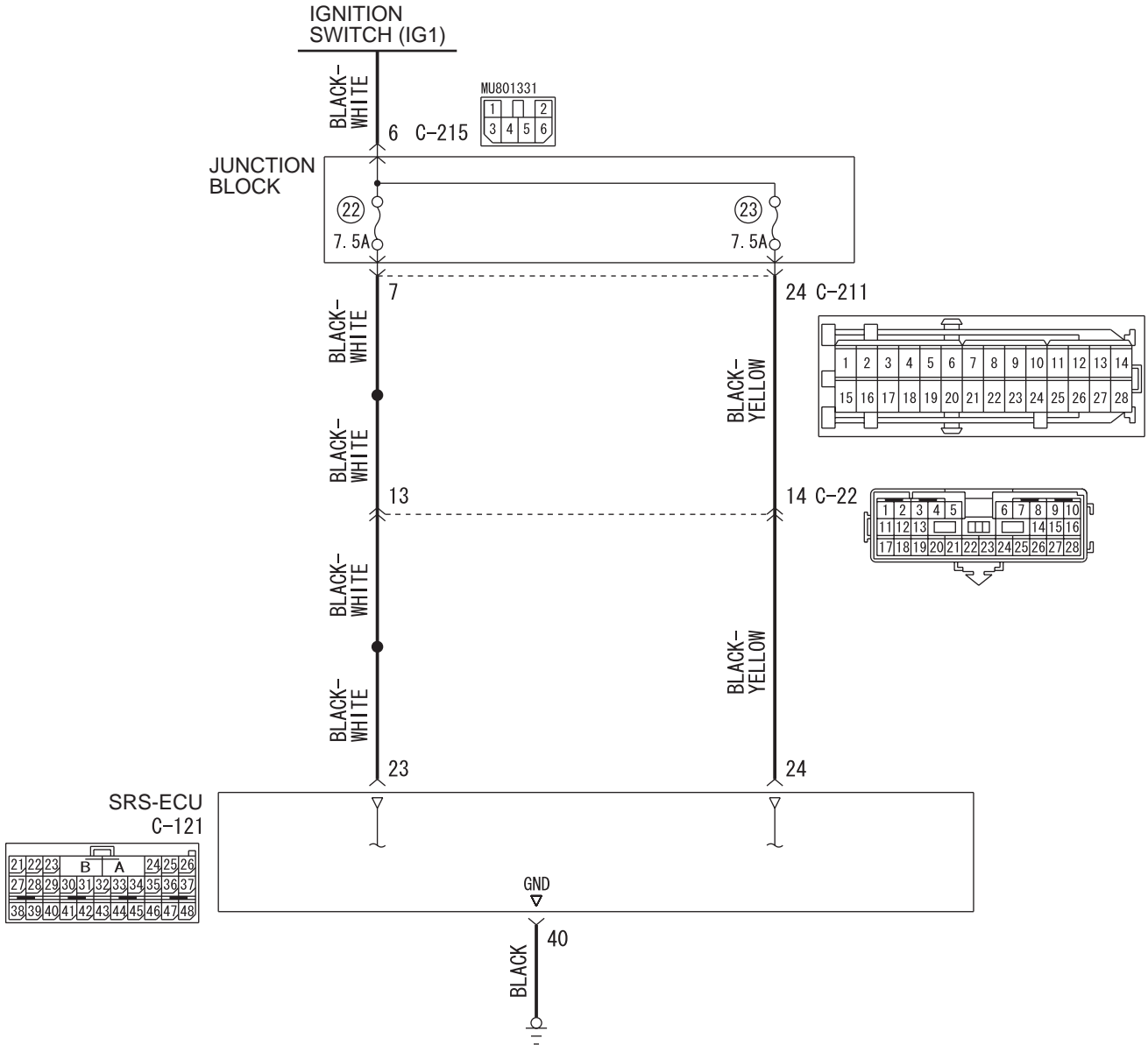
Q: Is DTC B1473 set?

YES : Return to Step 1.

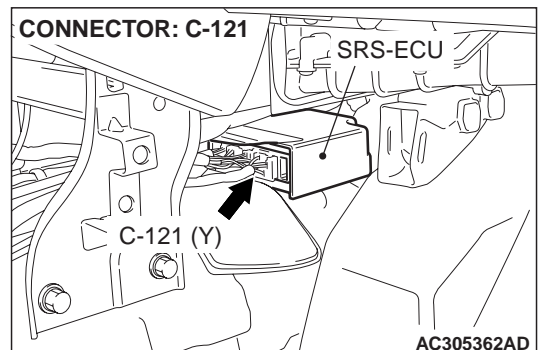
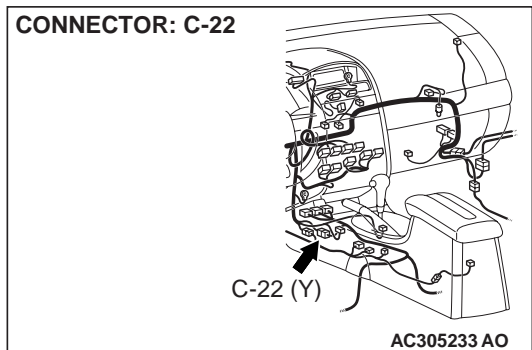
NO : The procedure is complete.

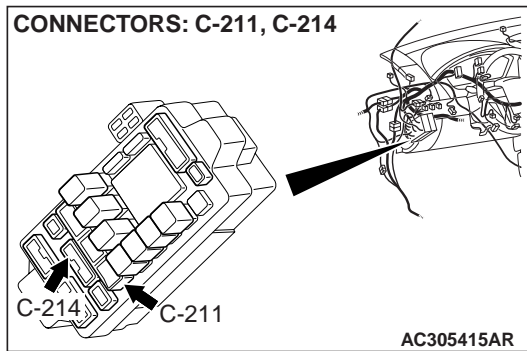
DTC B1476: IG1 Power Supply Circuit System (Fuse No.22 Circuit) DTC B1477: IG1 Power Supply Circuit System (Fuse No.23 Circuit)

IG1 Power Supply Circuit



W5P52M017A





CAUTION

If DTC B1476 <Fuse No.22> or B1477 <Fuse No.23> is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.

DTC SET CONDITIONS

This DTC is set if the voltage between the IG1 terminals (fuse No.22 circuit or fuse No.23 circuit) and ground is lower than a predetermined value for a continuous period of five second or more. However, if the vehicle condition returns to normal, DTC number B1476 <Fuse No.22> or B1477 <Fuse No.23> will be automatically erased, and the SRS warning light will switch off.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991223 (MB991222): Harness set (Probe)

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

⚠ CAUTION

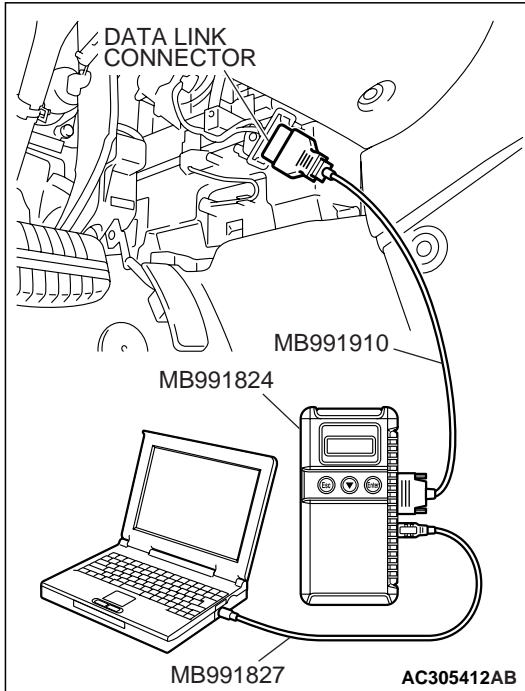
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

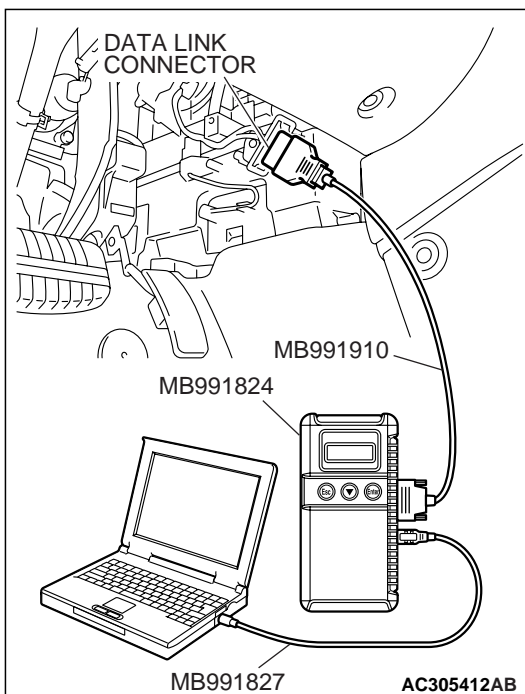
Check again if the DTC is set.

- (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.

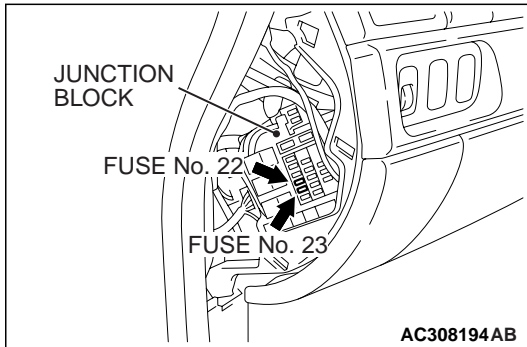
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions).



STEP 3. Check junction block fuse number 22 <DTC B1476> or 23 <DTC B1477>.

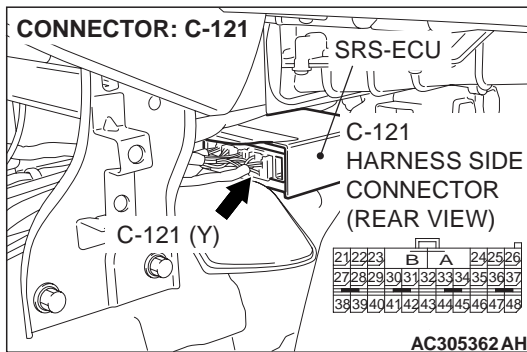
Q: Is the fuse burned out?

- YES :** Go to Step 6.
- NO :** Go to Step 4.



STEP 4. Check the power supply circuit for open circuit. Measure the voltage at SRS-ECU connector C-121.

- (1) Disconnect the negative battery terminal.
- (2) Disconnect SRS-ECU connector C-121.
- (3) Connect the negative battery terminal.
- (4) Turn the ignition switch to the "ON" position.



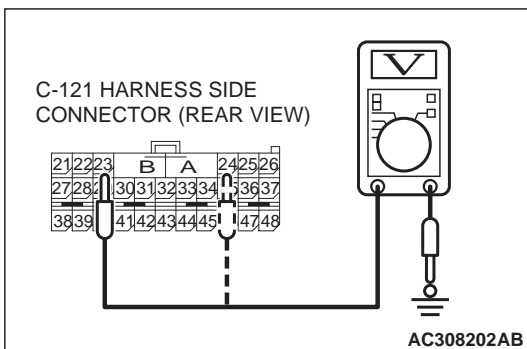
CAUTION

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

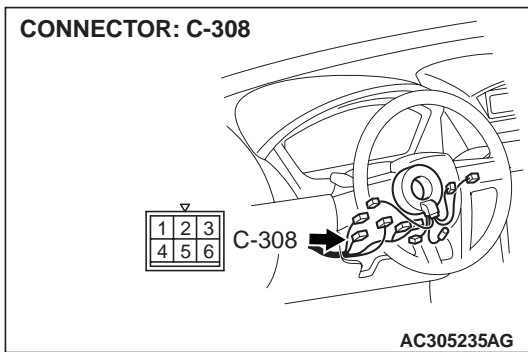
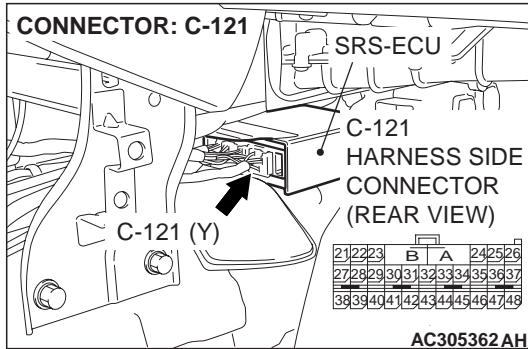
- (5) Measure the voltage between C-121 harness side connector terminal 23 <DTC B1476> or 24 <DTC B1477> and body ground.
Voltage should measure 9 volts or more.

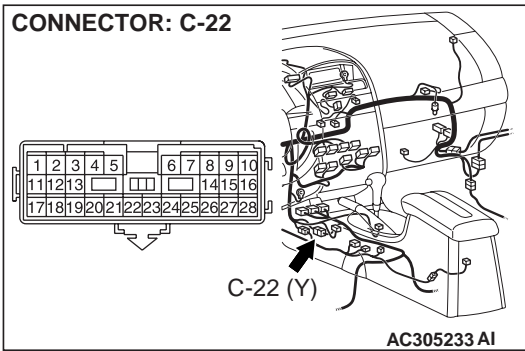
Q: Is the measured voltage within the specified range?

- YES :** Erase the diagnosis connector memory, and check the diagnostic trouble code. If DTC B1476 or B1477 set, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 10.
- NO :** Go to Step 5.



STEP 5. Check the harness for open circuit between SRS-ECU connector C-121 (terminal No.23 <DTC B1476> or terminal No.24 <DTC B1477>) and the ignition switch connector C-308 (terminal No.2).



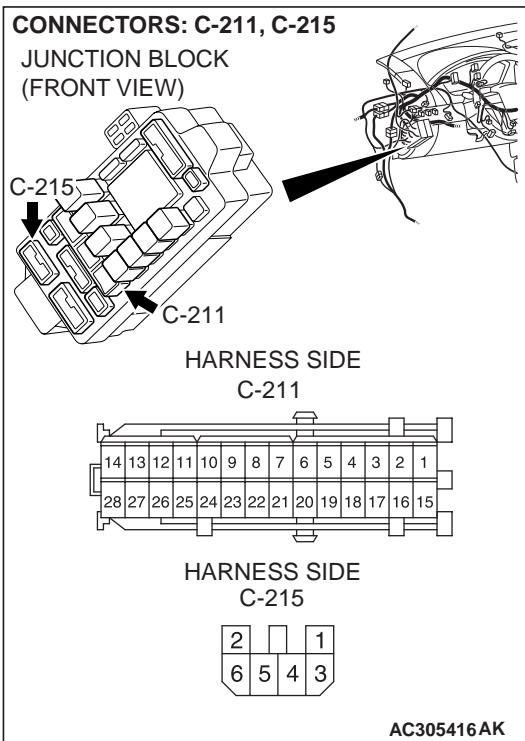


NOTE: After inspecting intermediate connectors C-22, C-211 and C-215, inspect the wiring harness. If intermediate connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 10.

Q: Is the harness wire between SRS-ECU connector C-121 (terminal No.23 <DTC B1476> or terminal No.24 <DTC B1477>) and the ignition switch connector C-308 (terminal No.2) in good condition?

YES : Go to Step 10.

NO : Replace the harness wire between SRS-ECU connector C-121 and the ignition switch connector C-308. Then go to Step 10.



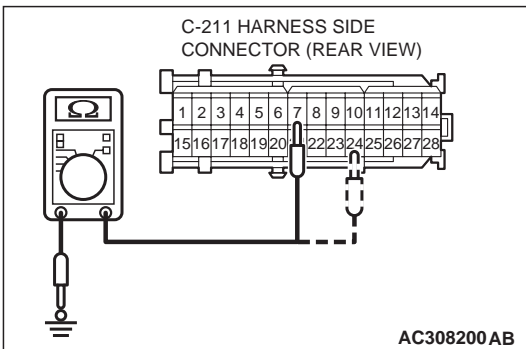
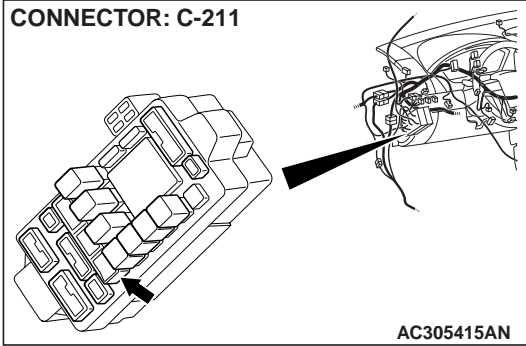
STEP 6. Check a burned-out fuse.

- (1) Replace the fuse.
- (2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
- (3) Check the fuse.

Q: Is the fuse in good condition?

YES : Go to Step 10.

NO : It is possible that the circuit using fuse No22 <DTC B1476> or No.23 <DTC B1477> is shorted, go to Step 7.



STEP 7. Check the SRS-ECU power supply circuit for short circuit to ground. Measure the resistance at the junction block connector C-211.

- (1) Disconnect junction block connector C-211, and measure at the wiring harness side.

CAUTION

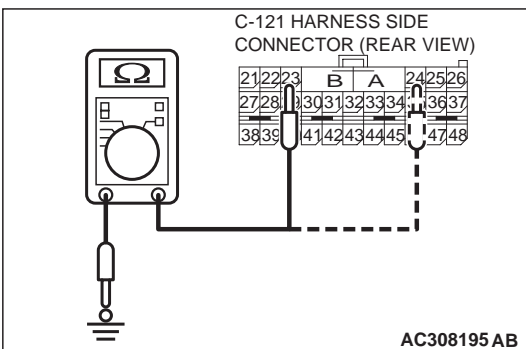
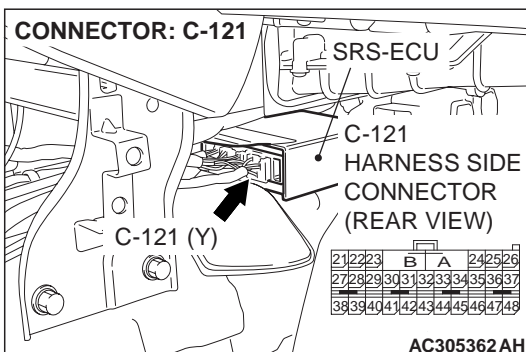
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (2) Check for continuity between terminal 7 <DTC B1476> or 24 <DTC B1477> and body ground. It should be open circuit.

Q: Does continuity exist?

YES : Check the other circuit, which flows through fuse No.22 <DTC B1476> or fuse No.23 <DTC B1477>. Then go to Step 10.

NO : Go to Step 8.



STEP 8. Check the power supply circuit for short circuit to ground. Measure the resistance at the SRS-ECU connector C-121.

- (1) Disconnect SRS-ECU connector C-121, and 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.

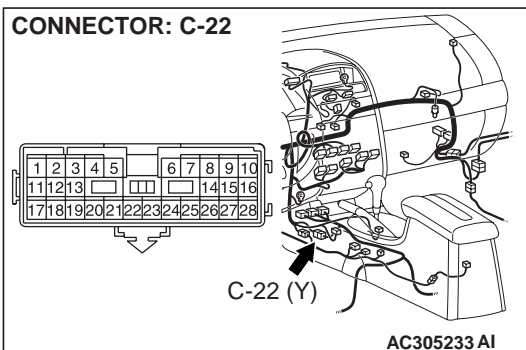
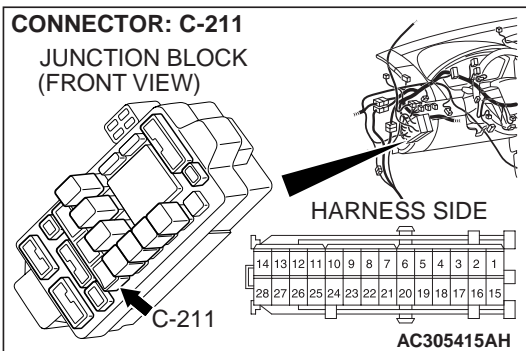
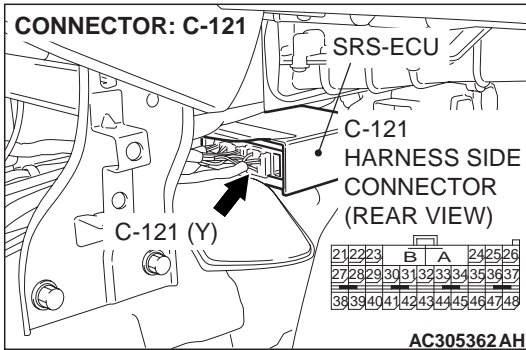
- (2) Check for continuity between terminal 23 <DTC B1476> or 24 <DTC B1477> and body ground. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 9.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1476 or B1477 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 10.

STEP 9. Check the harness for short circuit to ground between SRS-ECU connector C-121 (terminal No.23 <DTC B1476> or terminal No.24 <DTC B1477>) and junction block connector C-211 (terminal No.7 <DTC B1476> or terminal No.24 <DTC B1477>).

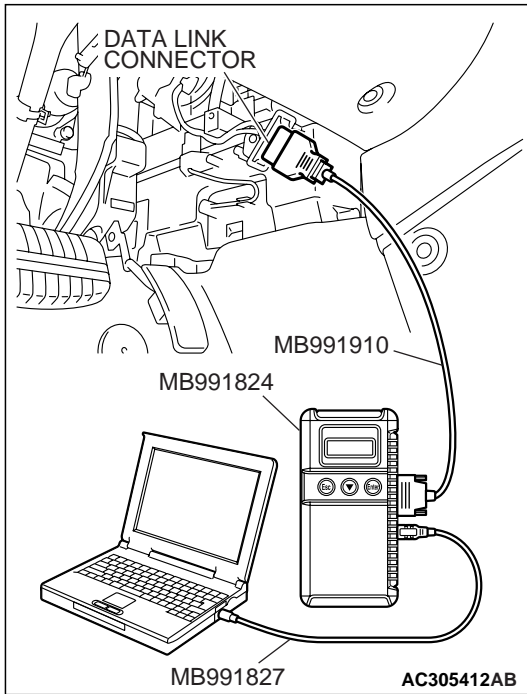


NOTE: After inspecting intermediate connector C-22, inspect the wiring harness. If intermediate connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 10.

Q: Is the harness wire between SRS-ECU connector C-121 (terminal No.23 <DTC B1476> or terminal No.24 <DTC B1477>) and junction block connector C-211 (terminal No.7 <DTC B1476> or 24 <DTC B1477>) in good condition?

YES : Go to Step 10.

NO : Replace the harness wire between SRS-ECU connector C-121 and junction block connector C-211. Then go to Step 10.

**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.

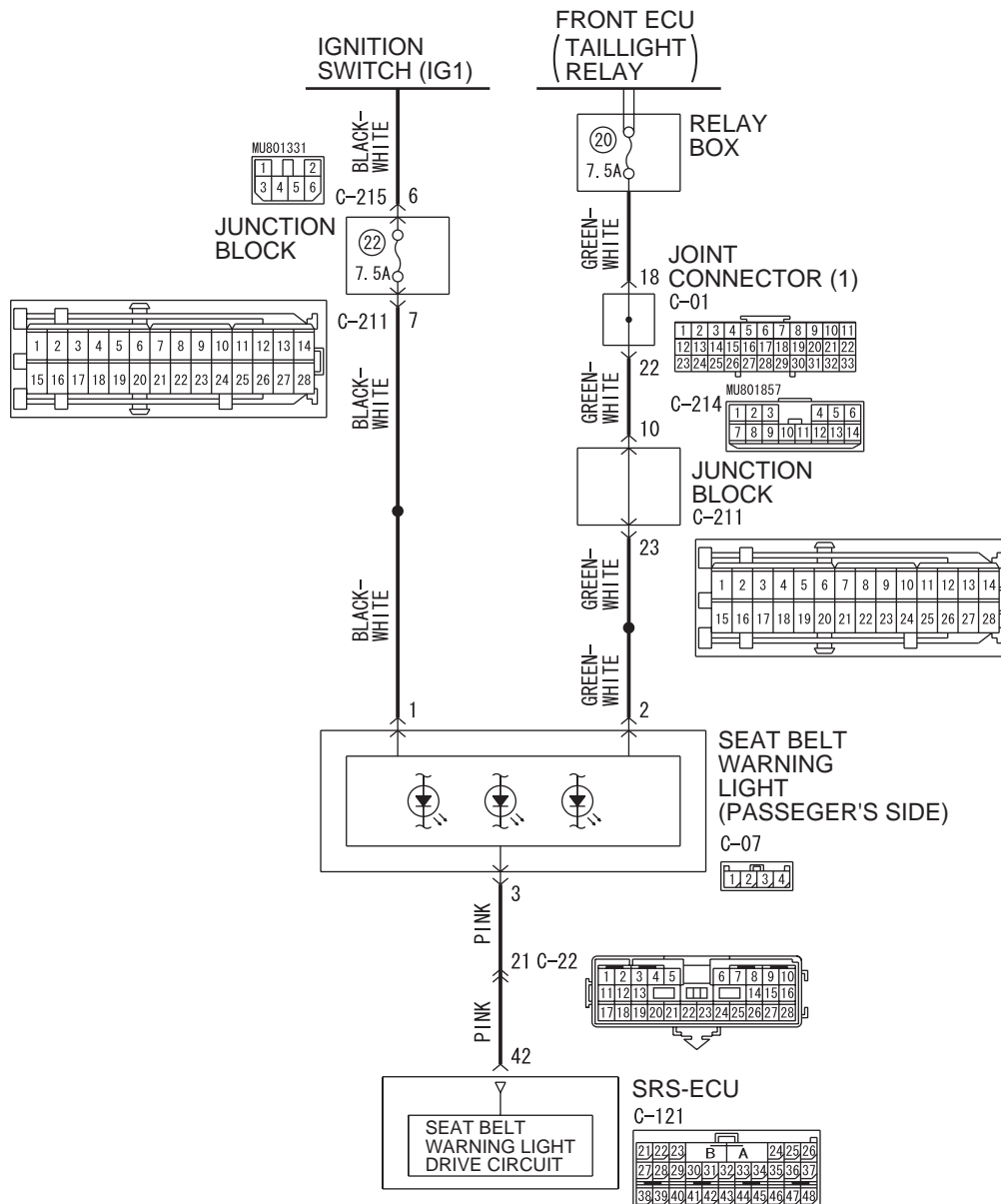
Q: Is DTC B1476 or DTC B1477 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1486: Passenger's seat belt warning Light Drive Circuit System Fault 2.

Seat Belt Warning Light Drive Circuit



W5P52M015A

CAUTION

If DTC B1486 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's seat belt warning light is supplied from the ignition switch (IG1).

- The passenger's seat belt warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.

DTC SET CONDITIONS

- This DTC is set under one of the following cases while the SRS-ECU is monitoring the passenger's seat belt warning light drive circuit:
 - When a short circuit occurs in the passenger's seat belt warning light drive circuit.
 - When a malfunction is detected in the output transistor inside the SRS-ECU.

However, if the vehicle condition returns to normal, DTC B1486 will be automatically erased, and the passenger's seat belt warning light will go out.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS**Required Special Tool:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)

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

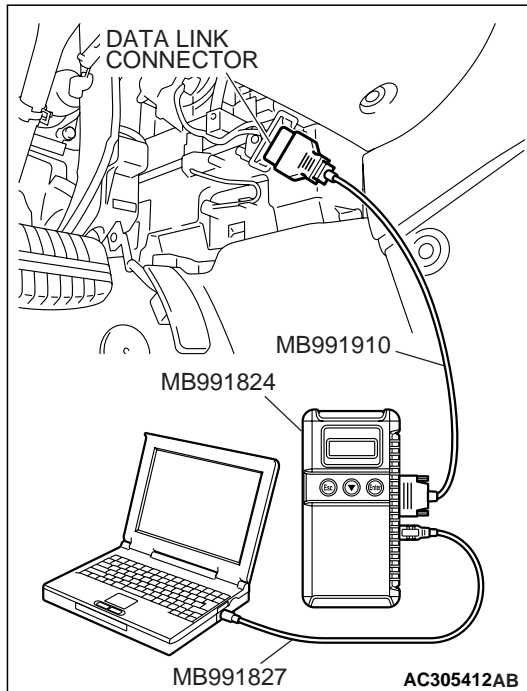
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

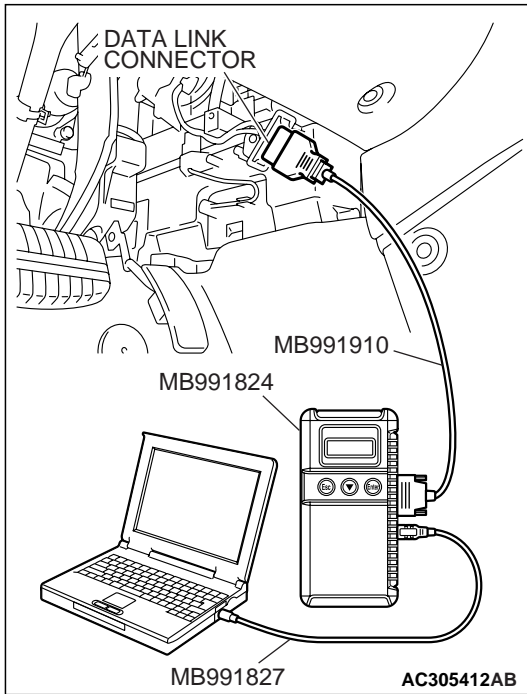
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-30](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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.

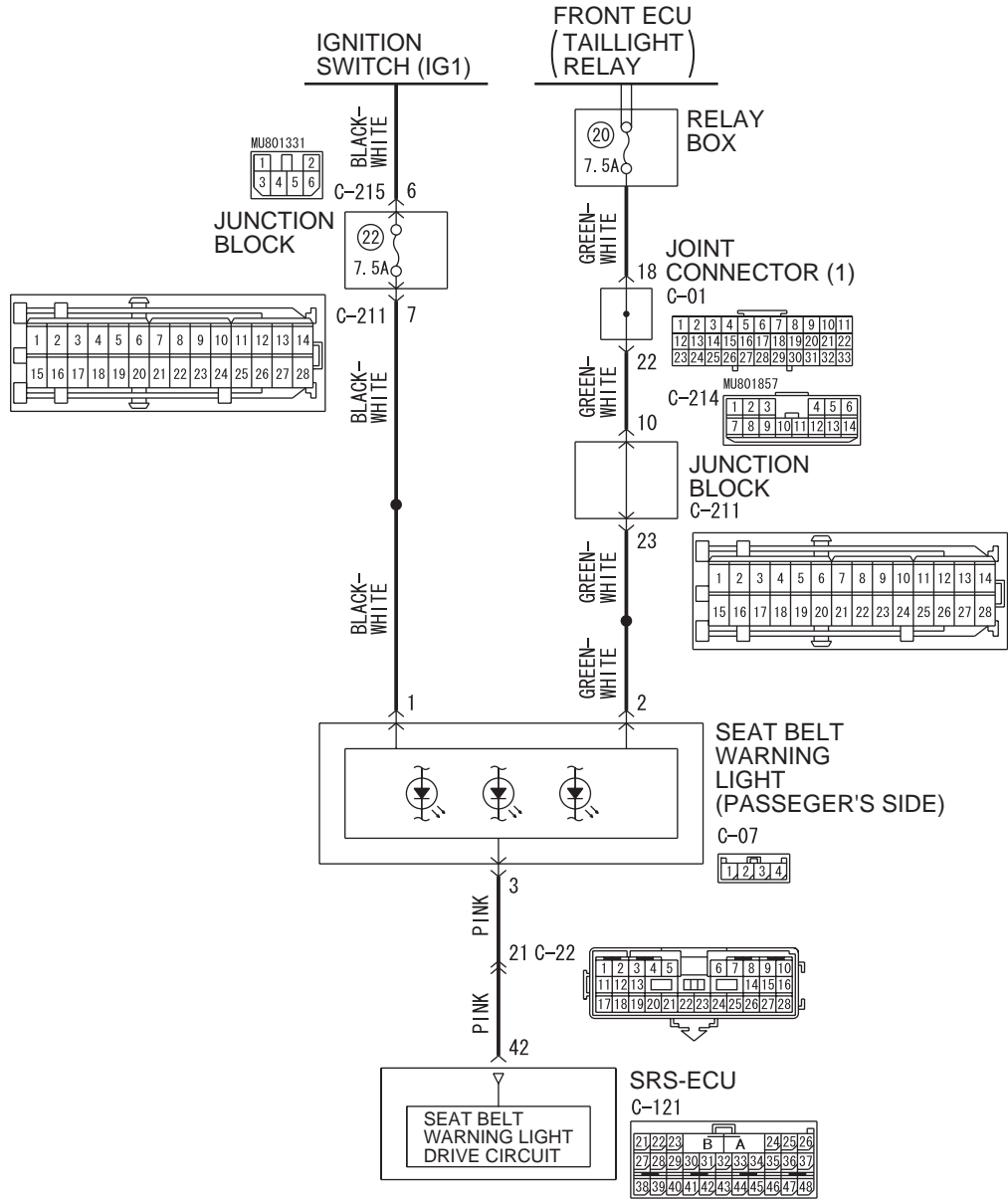
Q: Is the DTC set?

YES : Check the passenger's seat belt warning light drive circuit system (Refer to [P.52B-248](#)).

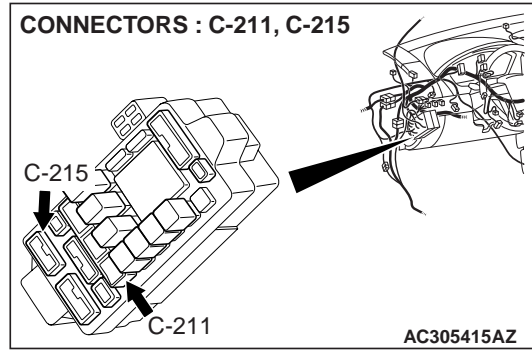
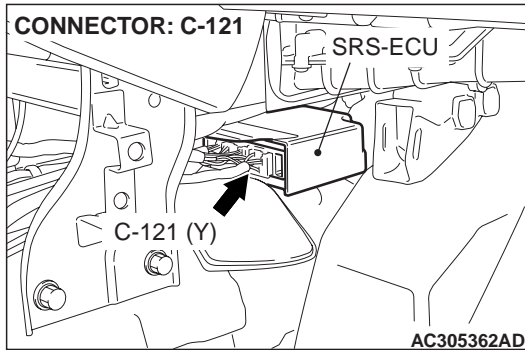
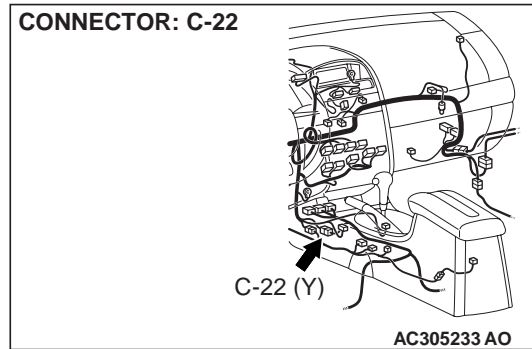
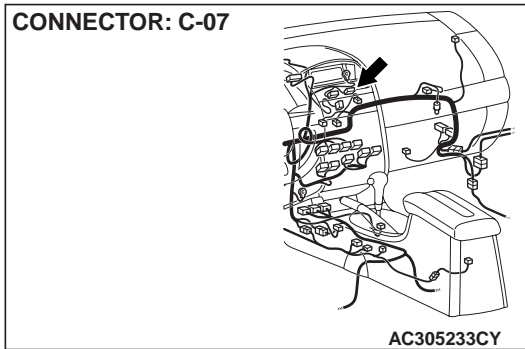
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions).

DTC B1487: Passenger's seat belt warning Light Drive Circuit System Fault 1 (Light does not illuminate).

Seat Belt Warning Light Drive Circuit



W5P52M015A



⚠ CAUTION

If DTC B1487 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's seat belt warning light is supplied from the ignition switch (IG1).
- The passenger's seat belt warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.

- The SRS-ECU connector is disconnected.
- The SRS-ECU is not working normally due to a failure in its power supply lines.
- The wiring harness between the passenger's seat belt warning light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if the passenger's seat belt warning light driving circuit is short to ground. If the vehicle condition returns to normal, DTC B1487 will be automatically erased, and the passenger's seat belt warning light will go out.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's seat belt warning light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)

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

⚠ CAUTION

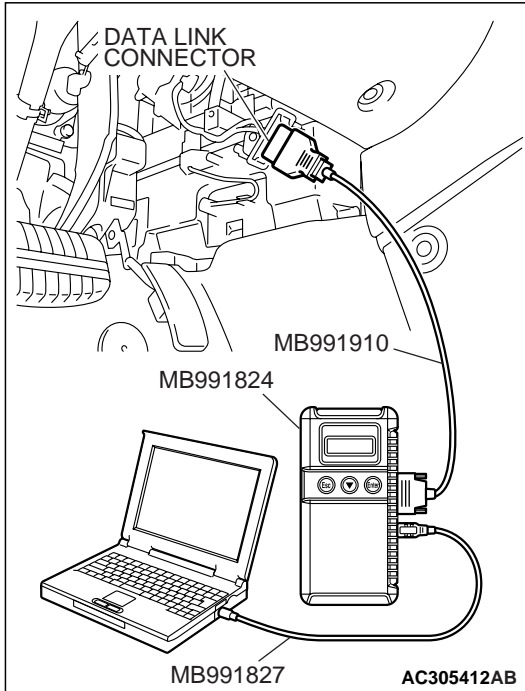
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

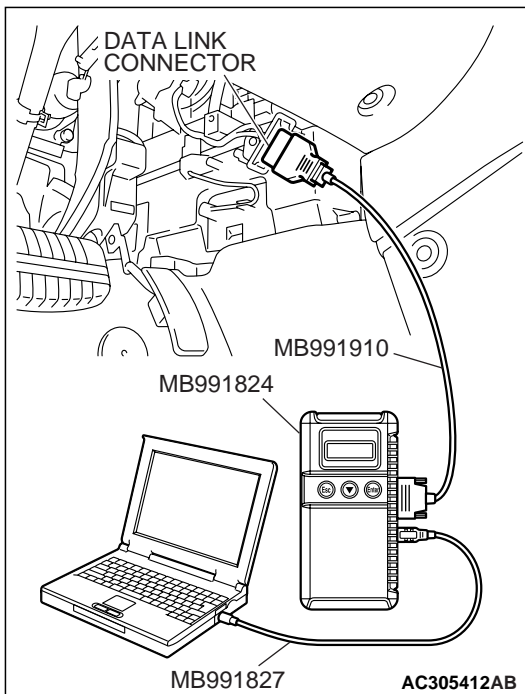
Check again if the DTC is set.

- (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).



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

⚠ CAUTION

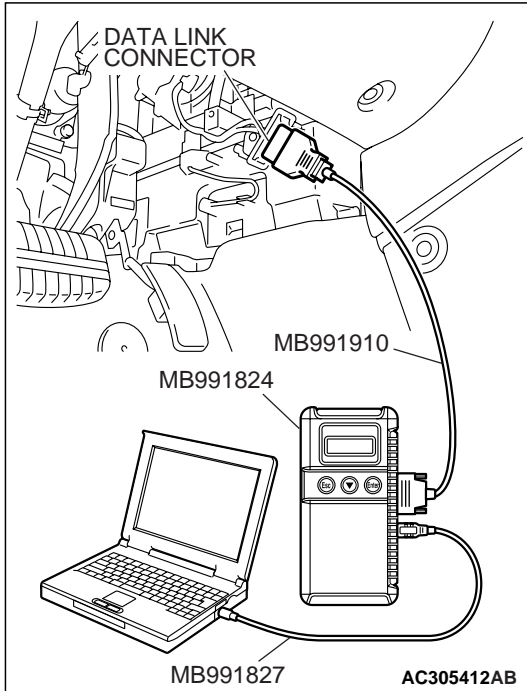
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (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 B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538, B1539, B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Carry out the troubleshooting of the passenger's seat belt switch system, the occupant classification-ECU or the occupant classification sensor system (Refer to [P.52B-310](#) <B1530,B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539>, [P.52B-319](#) <B1540,B1541, B1542 or B1543> or [P.52B-321](#) <B1545 or B1546>).

NO : Go to Step 4.

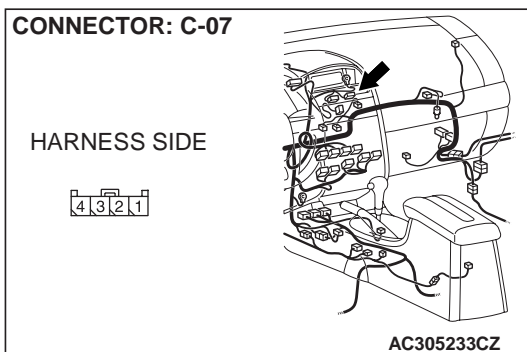


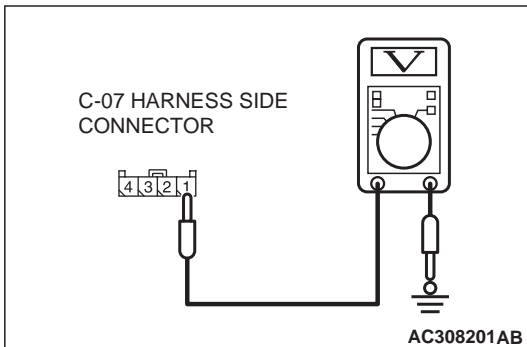
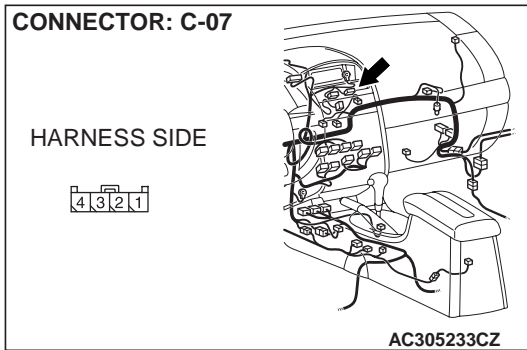
STEP 4. Check the passenger's seat belt warning light connector C-07.

Q: Is the connector correctly engaged?

YES : Go to Step 5.

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





STEP 5. Measure the voltage at passenger's seat belt warning light connector C-07.

(1) Disconnect passenger's seat belt warning light connector C-07.

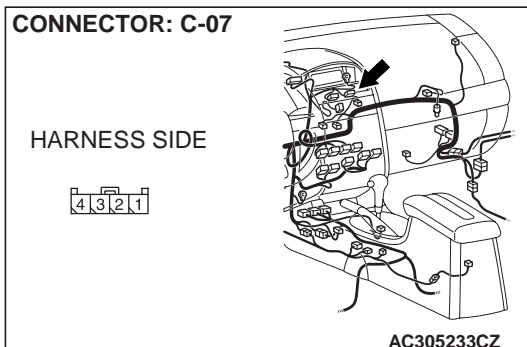
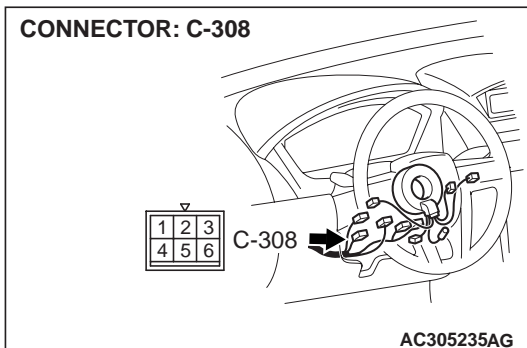
(2) Measure the voltage between C-07 harness side connector terminal 1 and body ground.
Voltage should measure approximately 12 volt.

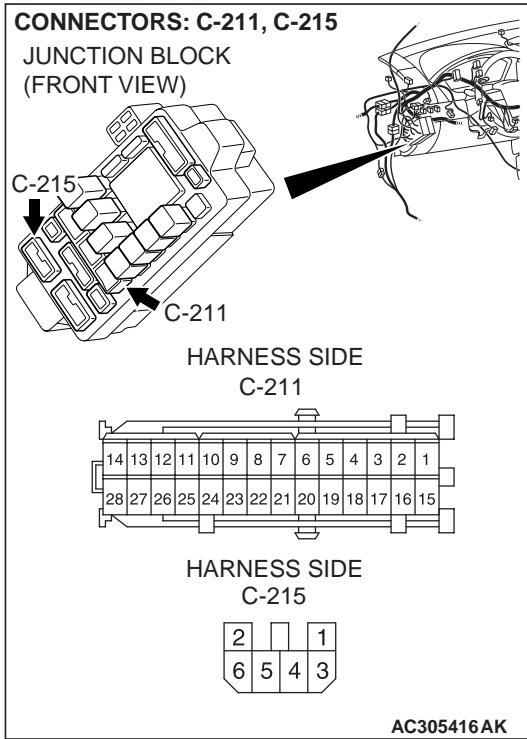
Q: Is the check result satisfactory?

YES : Go to Step 7.

NO : Go to Step 6.

STEP 6. Check the harness for short circuit between ignition switch connector C-308 (terminal No.2) and passenger's seat belt warning light C-07 (terminal No.1).



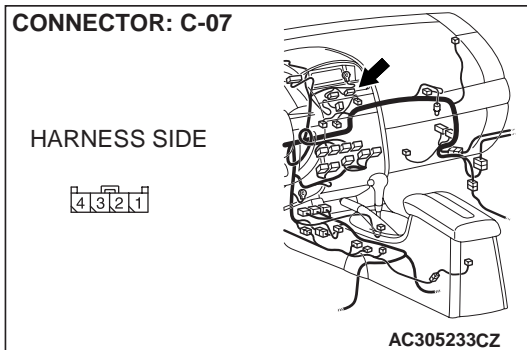


NOTE: After inspecting intermediate connectors C-211 and C-215 inspect the wiring harness. If intermediate connectors C-211 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 10.

Q: Are the harness wires between passenger's seat belt warning light connector C-07 (terminal No.1) and the ignition switch connector C-308 (terminal No.2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires. Then go to Step 10.



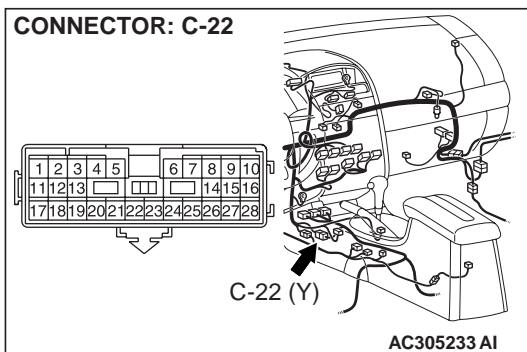
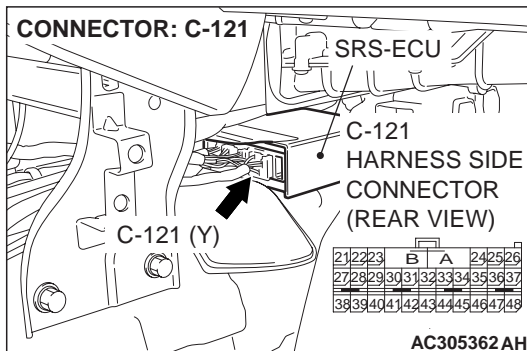
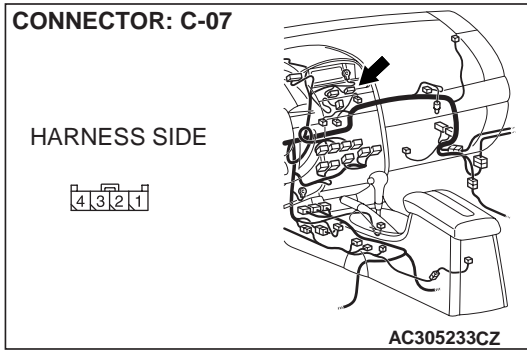
STEP 7. Check SRS-ECU connector C-121.

Q: Is the connector correctly engaged?

YES : Go to Step 8.

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

STEP 8. Check the harness for short circuit between passenger's seat belt warning light C-07 (terminal No.3) and SRS-ECU connector C-121 (terminal No.42).



NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If intermediate connector C-22 is damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 10.

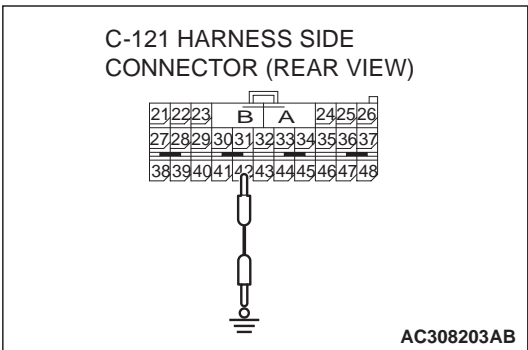
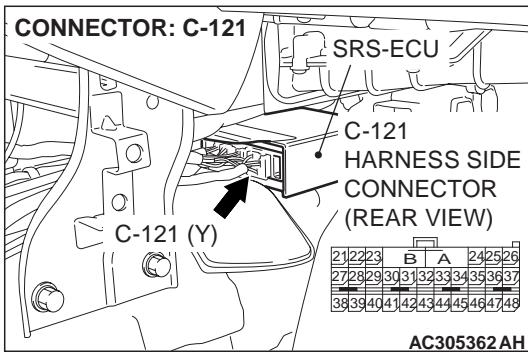
Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.42) and the passenger's seat belt warning light C-07 (terminal No.3) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires. Then go to Step 10.

STEP 9. Check the passenger's seat belt warning light.

- (1) Disconnect the negative battery terminal.
- (2) Disconnect the SRS-ECU connector C-121, and measure at the wiring harness side.



- (3) Connect the negative battery terminal.
- (4) 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.

- (5) Connect terminal No.42 to ground.

Q: Does the warning light illuminate?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1487 set, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 10.

NO : Replace the passenger's seat belt warning light (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-3](#)). Then go to Step 10.

STEP 10. Recheck for diagnostic trouble code.

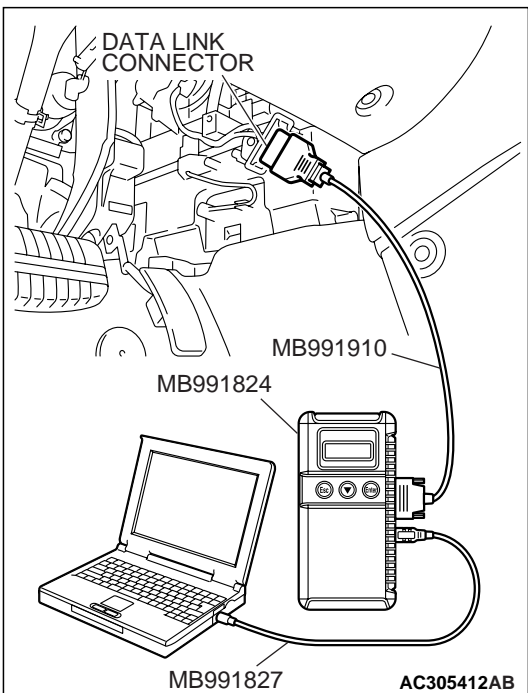
Check again if the DTC is set.

- (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 B1487 set?

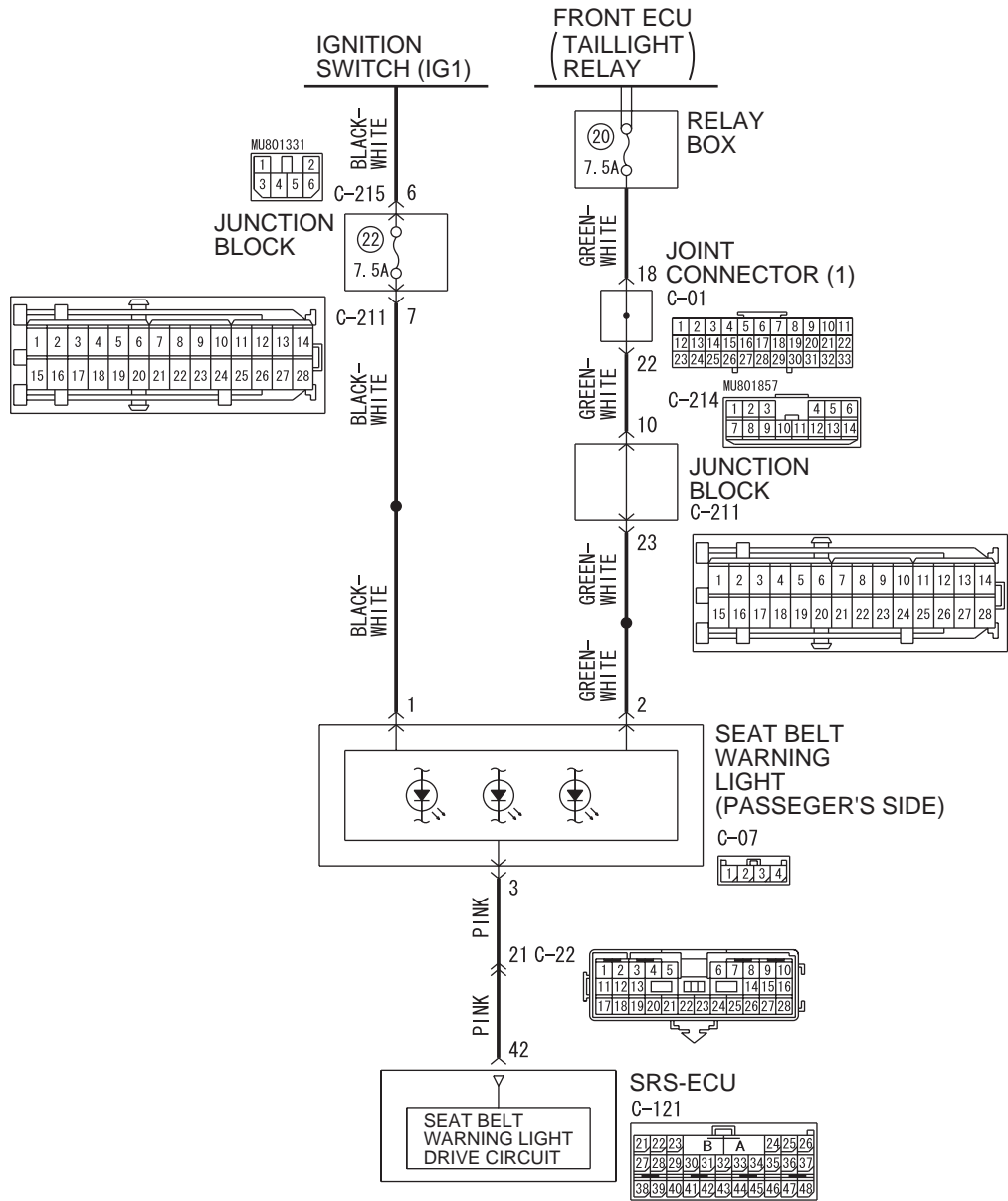
YES : Return to Step 1.

NO : The procedure is complete.

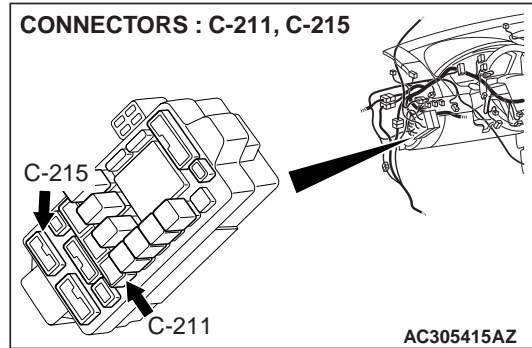
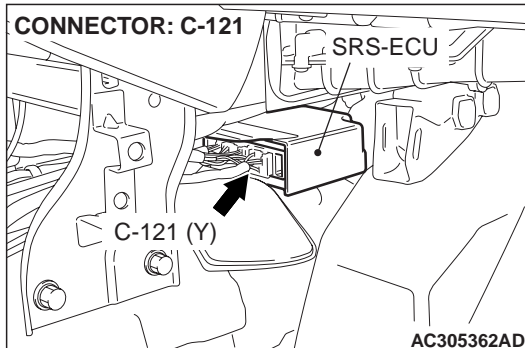
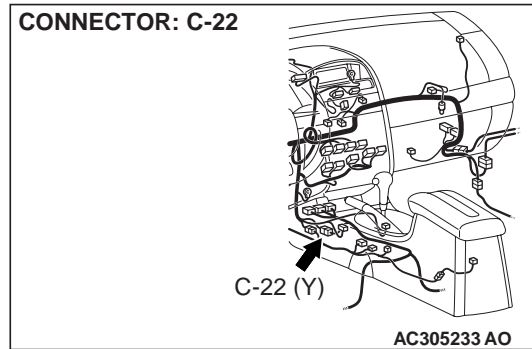
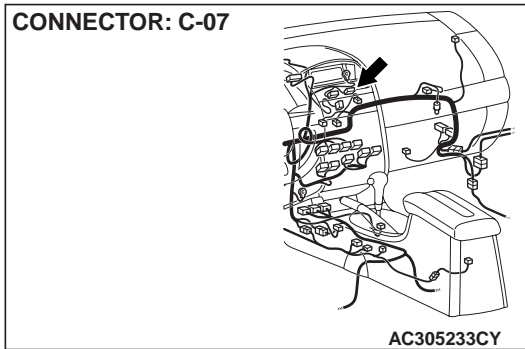


DTC B1487: Passenger's seat belt warning Light Drive Circuit System Fault 1 (Light does not Switch Off).

Seat Belt Warning Light Drive Circuit



W5P52M015A



⚠ CAUTION

If DTC B1487 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's seat belt warning light is supplied from the ignition switch (IG1).
- The passenger's seat belt warning light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.
 - The SRS-ECU connector is disconnected.

- The SRS-ECU is not working normally due to a failure in its power supply lines.
- The wiring harness between the passenger's seat belt warning light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if an open circuit has occurred in the wiring harness between the passenger's seat belt warning light and the SRS-ECU. If the vehicle condition returns to normal, DTC B1487 will be automatically erased, and the passenger's seat belt warning light will go out.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's seat belt warning light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)

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

⚠ CAUTION

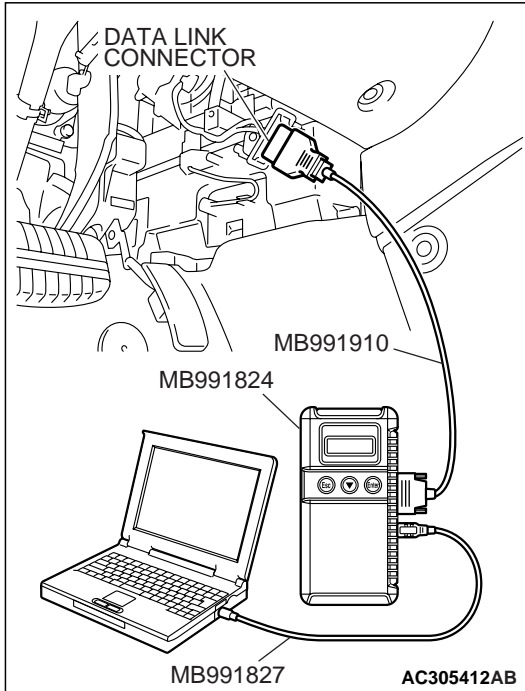
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

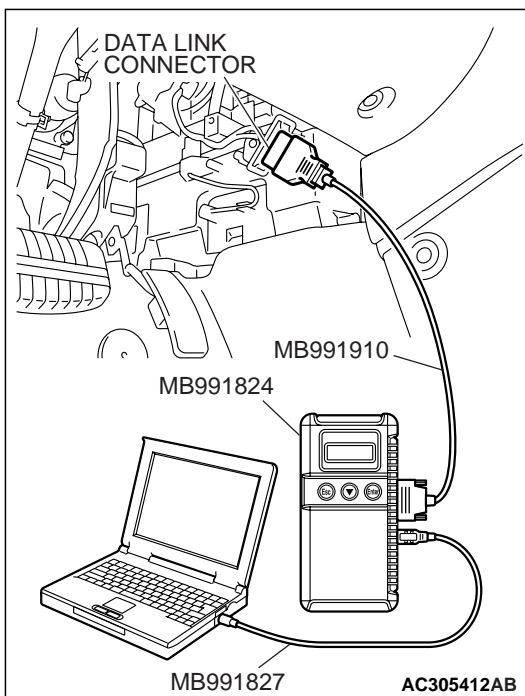
Check again if the DTC is set.

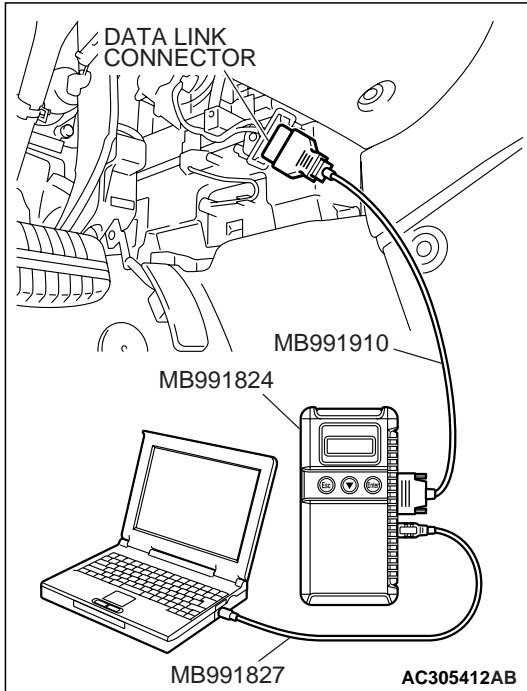
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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 B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538, B1539, B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Carry out the troubleshooting of the passenger's seat belt switch system, the occupant classification-ECU or the occupant classification sensor system (Refer to [P.52B-310](#) <B1530,B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539>, [P.52B-319](#) <B1540,B1541, B1542 or B1543> or [P.52B-321](#) <B1545 or B1546>).

NO : Go to Step 4.

STEP 4 Using scan tool MB991958, check actuator test.

- Item No.02: Passenger's seat belt warning light illumination

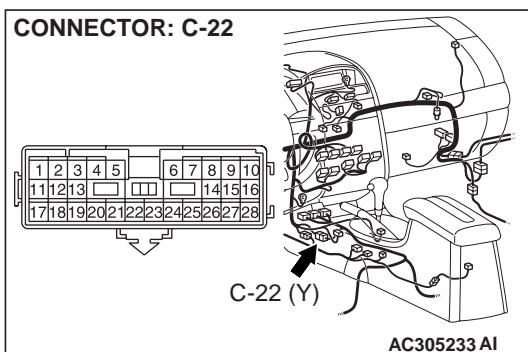
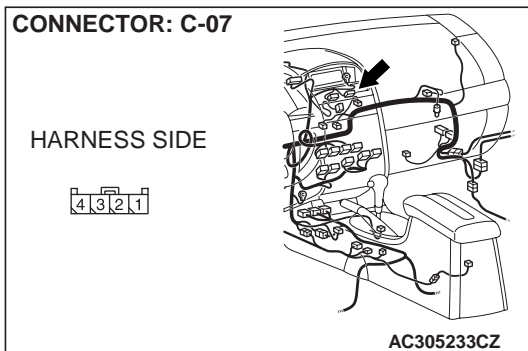
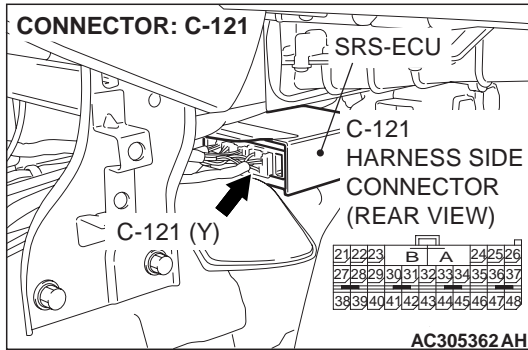
Q: Does the passenger's seat belt warning light illuminate or go out normally?

YES : Go to Step 5.

NO : Replace the passenger's seat belt warning light (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-3](#)). Then go to Step 6.

STEP 5. Check the harness between SRS-ECU connector C-121 (terminal No.42) and passenger's seat belt warning light C-07 (terminal No.3).

- Check the passenger's seat belt warning light output lines for open circuit.

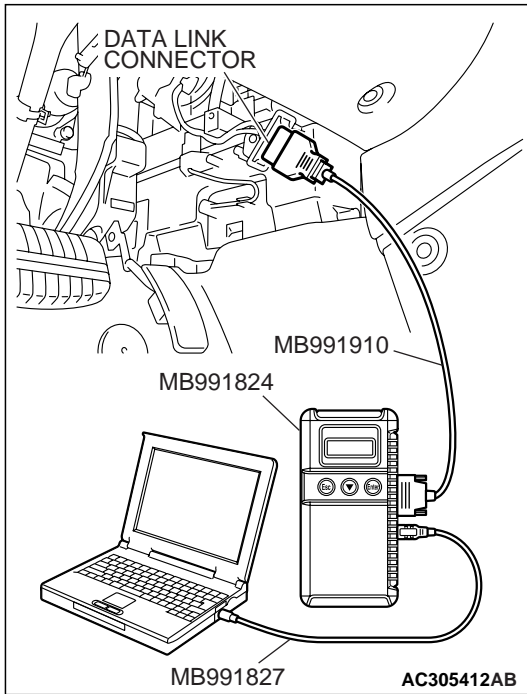


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If intermediate connector C-22 is damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 6.

Q: Is the check result satisfactory?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1487 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 6.

NO : Repair the harness wires. 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.

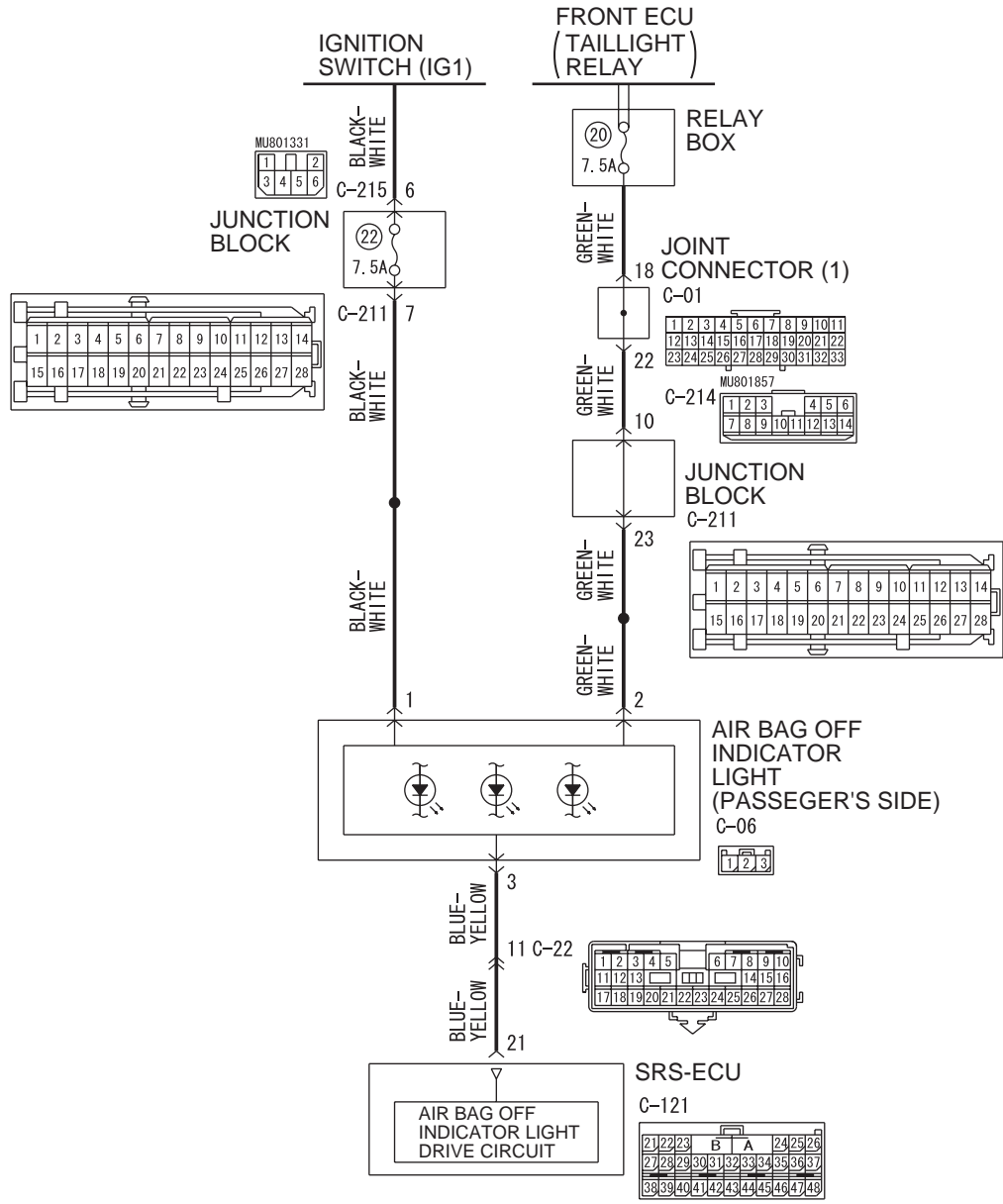
Q: Is DTC B1487 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1488: Passenger's Air Bag OFF Indicator Light Drive Circuit System Fault 2.

Air Bag OFF Indicator Light Drive Circuit



W5P52M016A

CAUTION

If DTC B1488 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch (IG1).

- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.

DTC SET CONDITIONS

- This DTC is set under one of the following cases while the SRS-ECU is monitoring the passenger's air bag OFF indicator light drive circuit:
 - When a short circuit occurs in the passenger's air bag OFF indicator light drive circuit.
 - When a malfunction is detected in the output transistor inside the SRS-ECU.

However, if the vehicle condition returns to normal, DTC B1488 will be automatically erased, and the passenger's air bag OFF indicator light will go out.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)

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

⚠ CAUTION

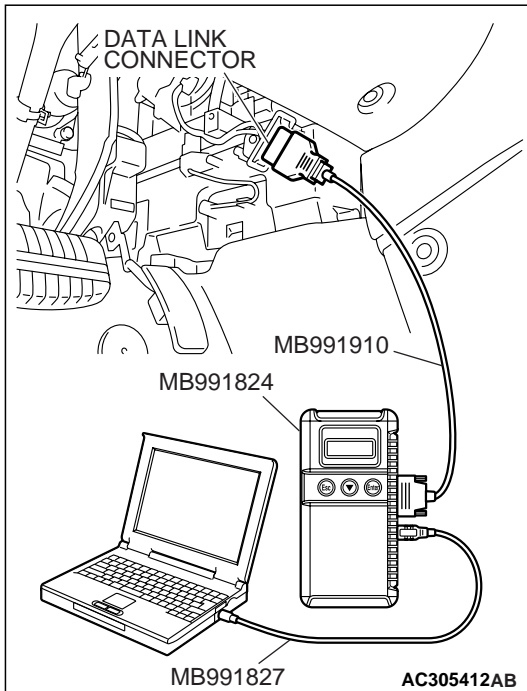
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

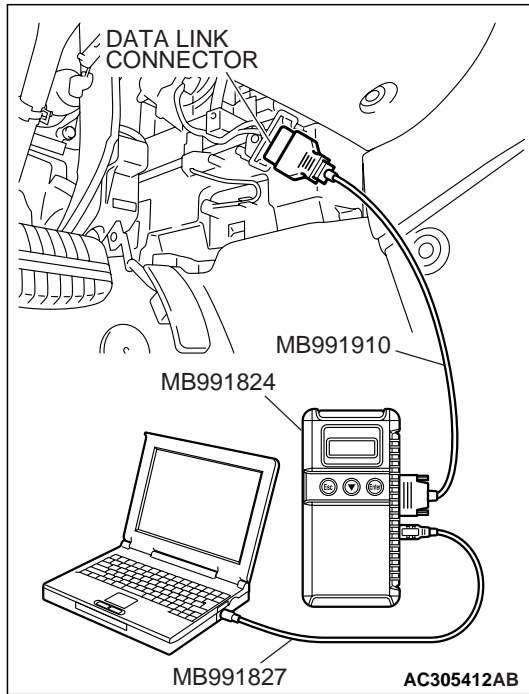
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-30](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

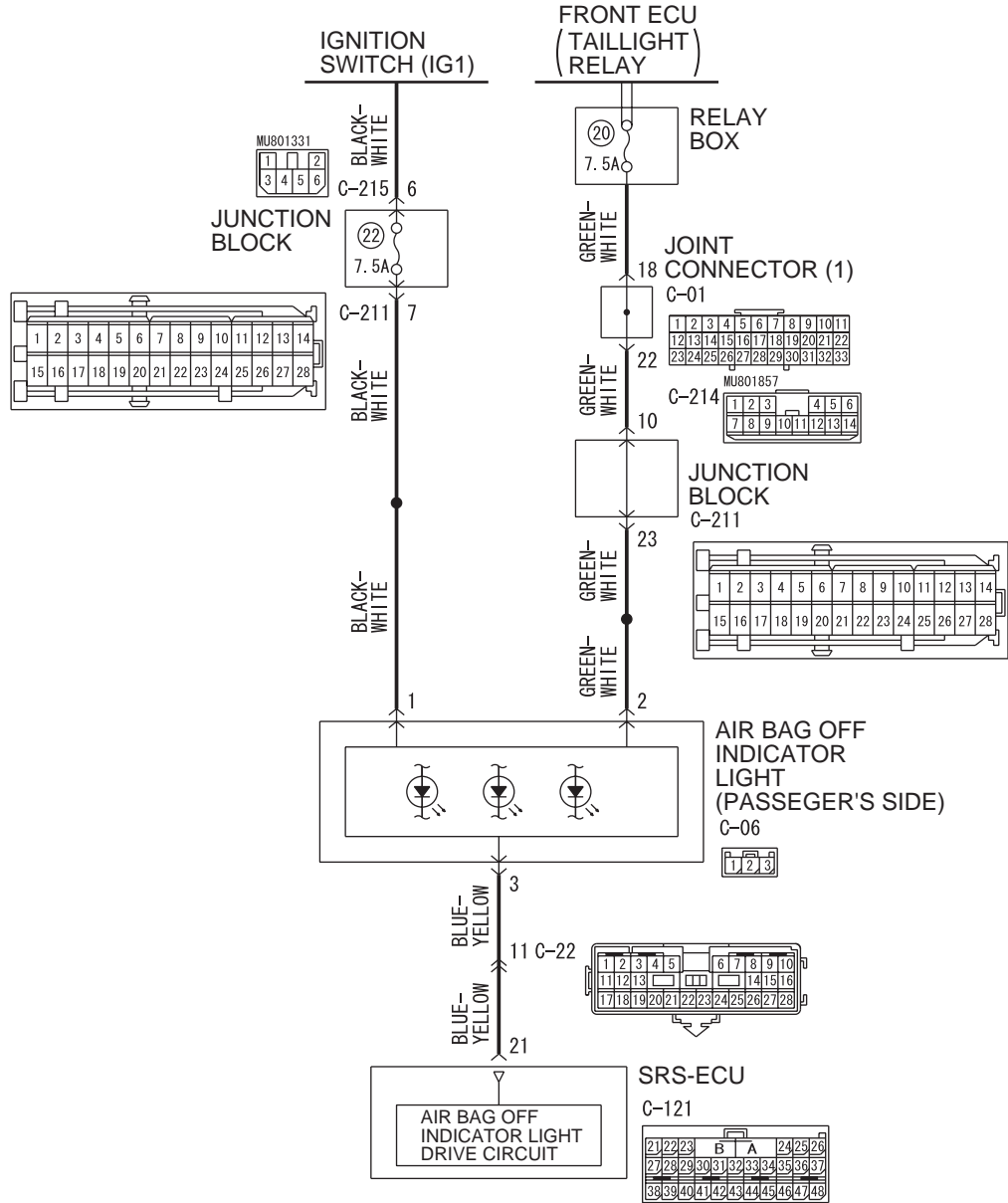
Q: Is the DTC set?

YES : Check the passenger's air bag OFF indicator light drive circuit system (Refer to [P.52B-265](#)).

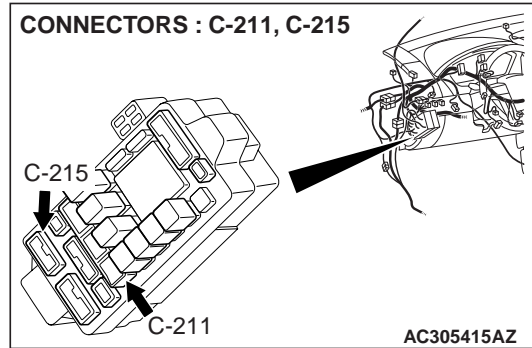
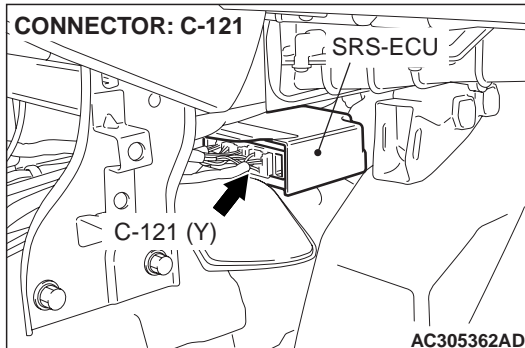
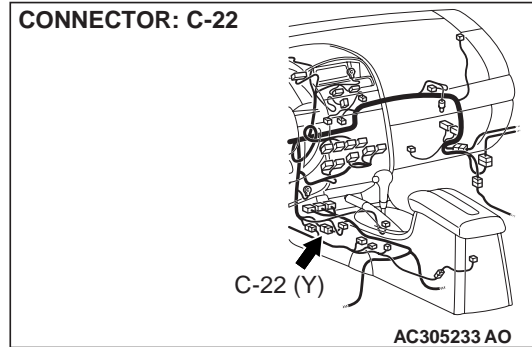
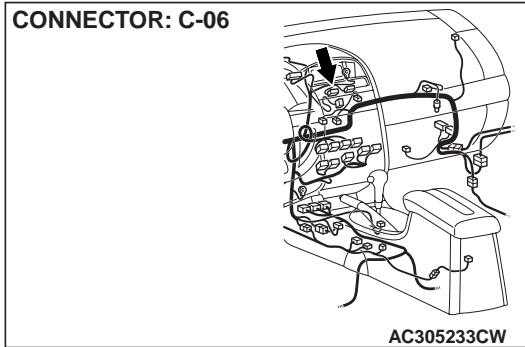
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions).

DTC B1489: Passenger's Air Bag OFF Indicator Light Drive Circuit System Fault 1 (Light does not illuminate).

Air Bag OFF Indicator Light Drive Circuit



W5P52M016A



CAUTION

If DTC B1489 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.

- The SRS-ECU connector is disconnected.
- The SRS-ECU is not working normally due to a failure in its power supply lines.
- The wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if the passenger's air bag OFF indicator light driving circuit is short to ground. If the vehicle condition returns to normal, DTC B1489 will be automatically erased, and the warning light will go out.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)

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

⚠ CAUTION

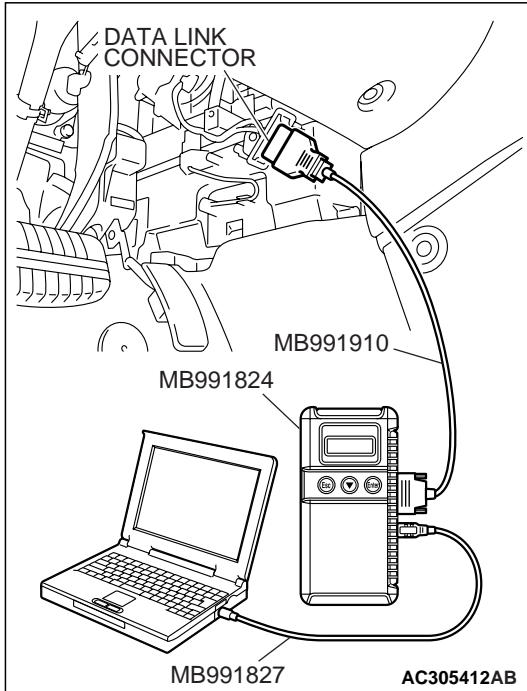
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

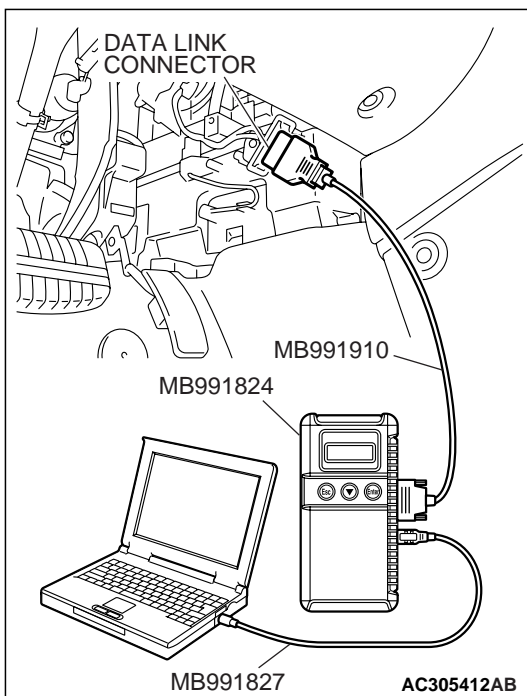
Check again if the DTC is set.

- (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).



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

⚠ CAUTION

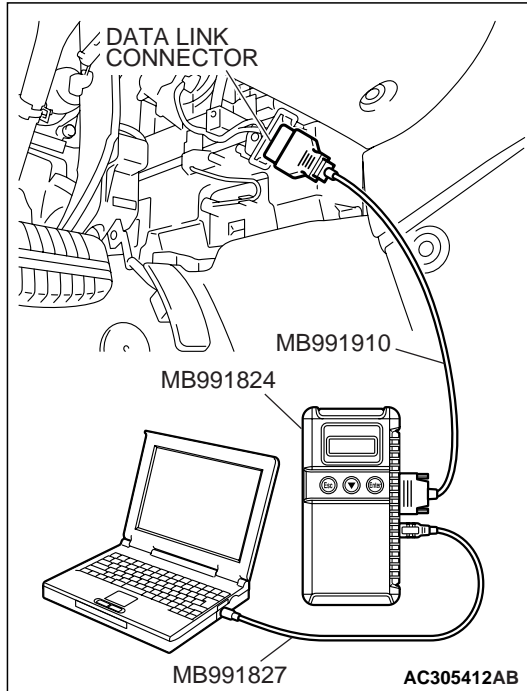
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (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 B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Carry out the troubleshooting of the occupant classification-ECU or the occupant classification sensor system (Refer to [P.52B-319](#) <B1540, B1541, B1542, B1543>, [P.52B-321](#) <B1545, B1546>).

NO : Go to Step 4.

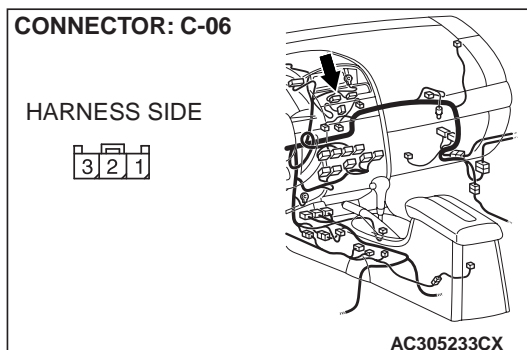


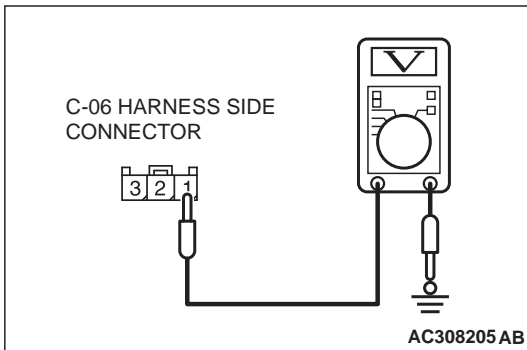
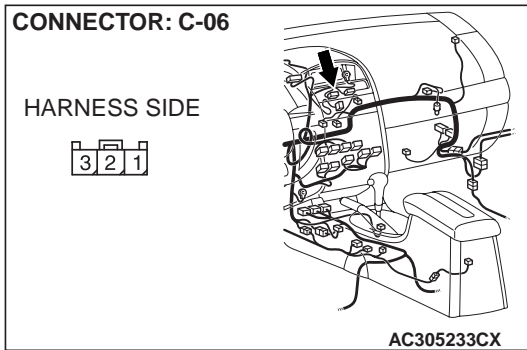
STEP 4. Check the passenger's air bag OFF indicator light connector C-06.

Q: Is the connector correctly engaged?

YES : Go to Step 5.

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





STEP 5. Measure the voltage at passenger's air bag OFF indicator light connector C-06.

(1) Disconnect passenger's air bag OFF indicator light connector C-06.

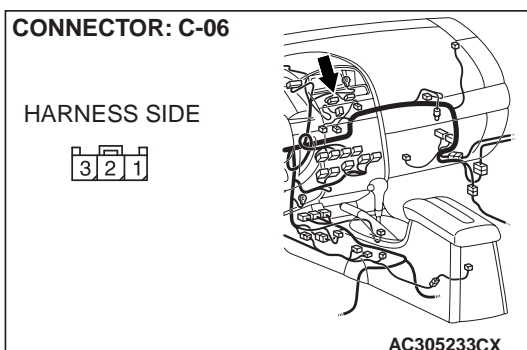
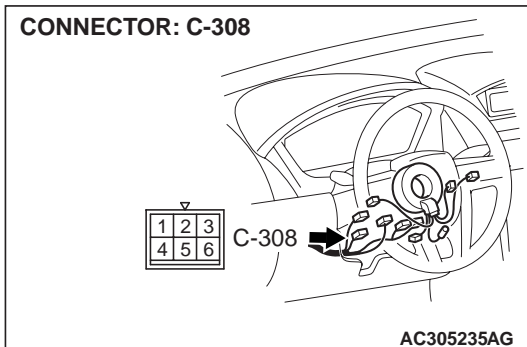
(2) Measure the voltage between C-06 harness side connector terminal 1 and body ground.
Voltage should measure approximately 12 volt.

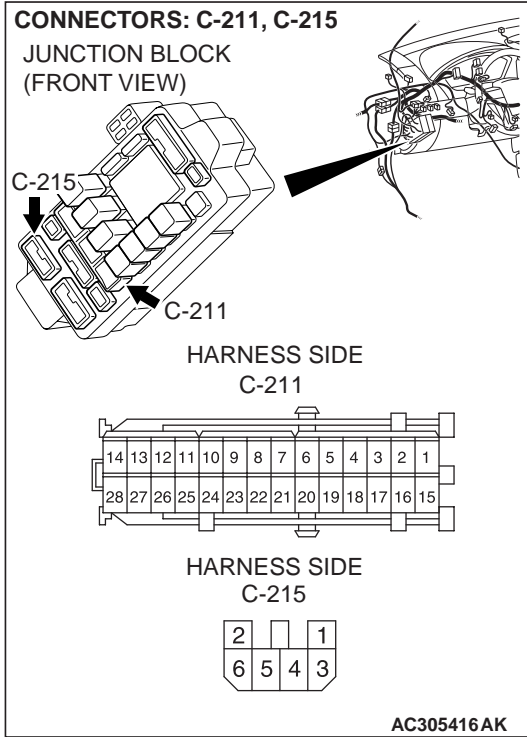
Q: Is the check result satisfactory?

YES : Go to Step 7.

NO : Go to Step 6.

STEP 6. Check the harness for short circuit between ignition switch connector C-308 (terminal No.2) and passenger's air bag OFF indicator light C-06 (terminal No.1).



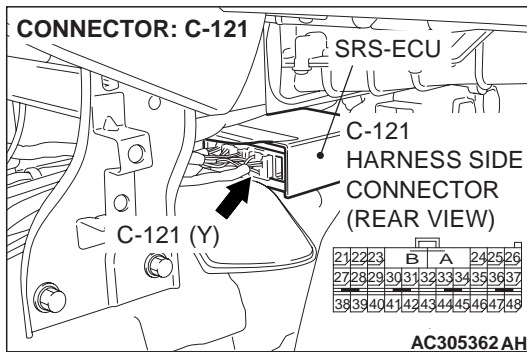


NOTE: After inspecting intermediate connectors C-211 and C-215 inspect the wiring harness. If intermediate connectors C-211 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 10.

Q: Are the harness wires between passenger's air bag OFF indicator light connector C-06 (terminal No.1) and the ignition switch connector C-308 (terminal No.2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires. Then go to Step 10.



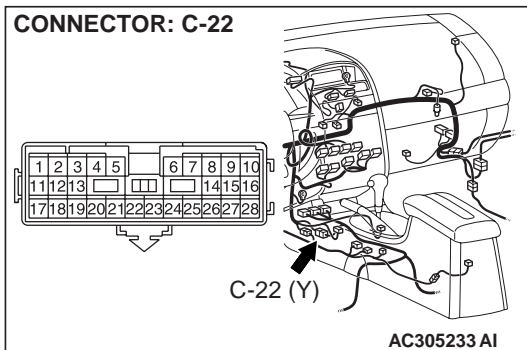
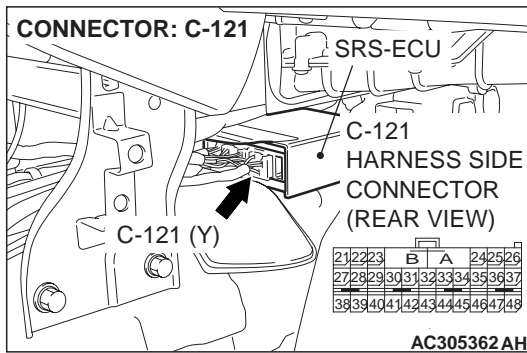
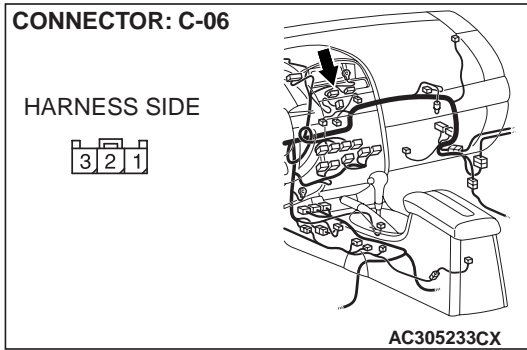
STEP 7. Check SRS-ECU connector C-121.

Q: Is the connector correctly engaged?

YES : Go to Step 8.

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

STEP 8. Check the harness for short circuit between passenger's air bag OFF indicator light C-06 (terminal No.3) and SRS-ECU connector C-121 (terminal No.21).

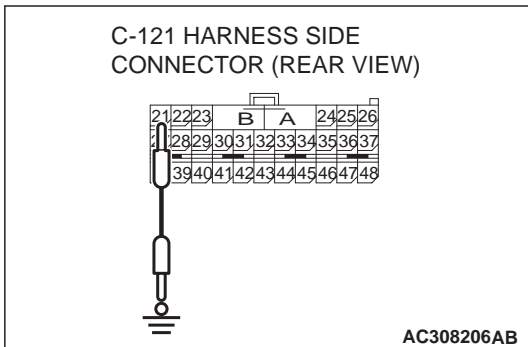
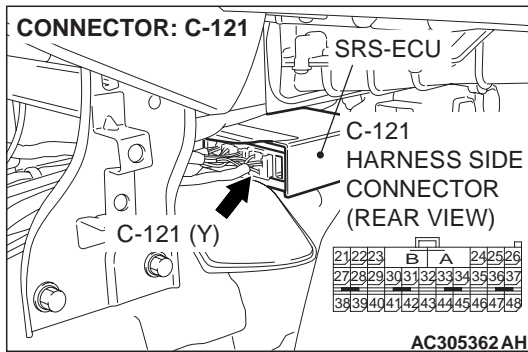


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If intermediate connector C-22 is damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 10.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.21) and the passenger's air bag OFF indicator light C-06 (terminal No.3) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires. Then go to Step 10.

**STEP 9. Check the passenger's air bag OFF indicator light.**

- (1) Disconnect the negative battery terminal.
- (2) Disconnect the SRS-ECU connector C-121, and measure at the wiring harness side.
- (3) Connect the negative battery terminal.
- (4) 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.

- (5) Connect terminal No.21 to ground.

Q: Does the indicator light illuminate?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1489 set, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 10.

NO : Replace the passenger's air bag OFF indicator light (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-3](#)). Then go to Step 10.

STEP 10. Recheck for diagnostic trouble code.

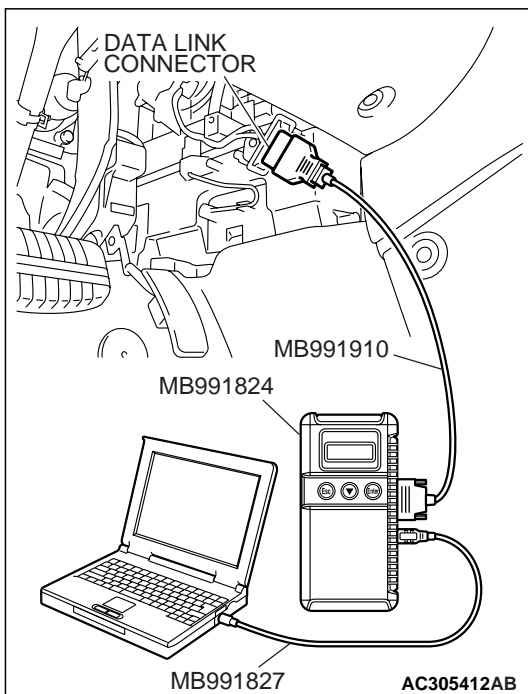
Check again if the DTC is set.

- (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 B1489 set?

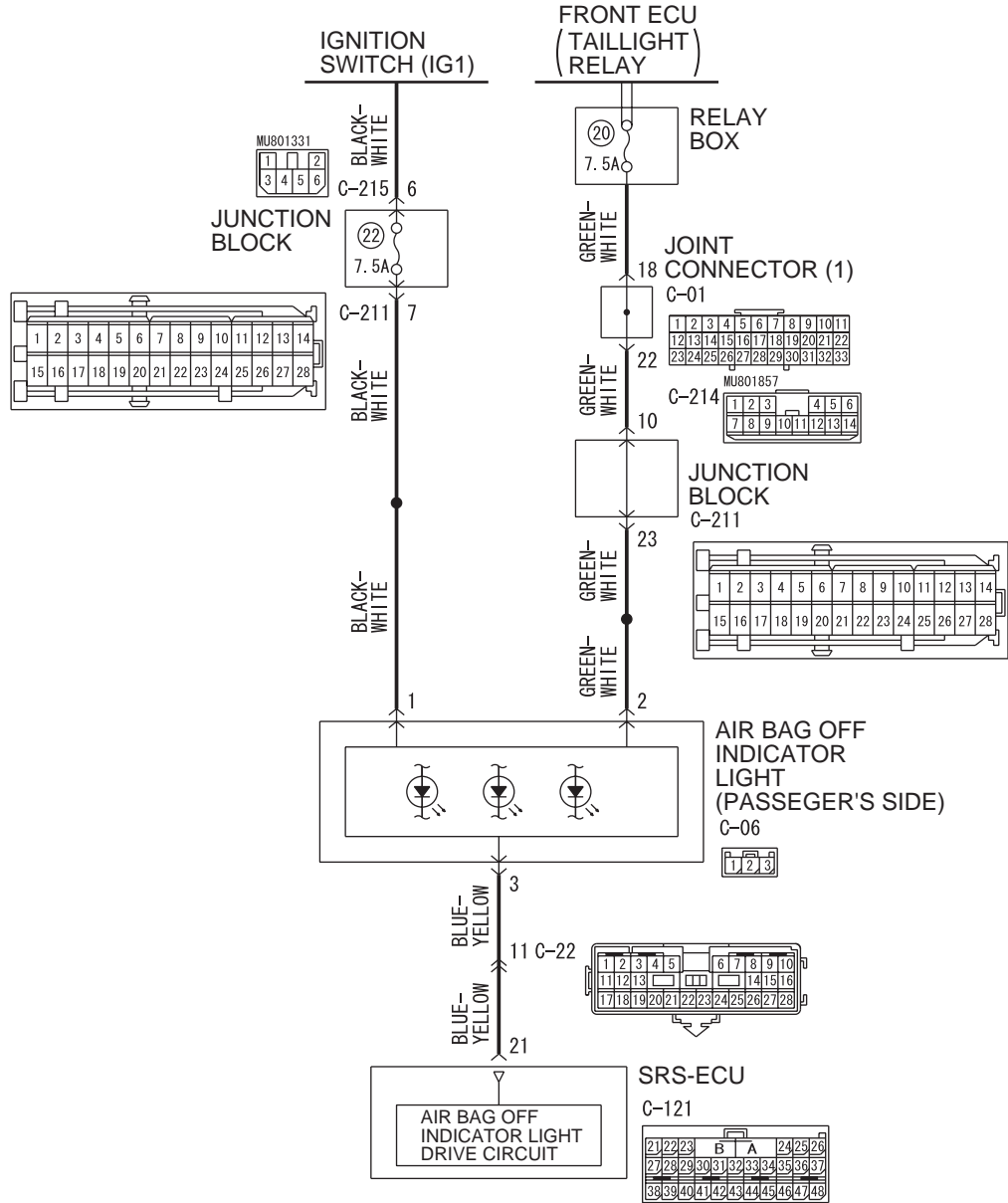
YES : Return to Step 1.

NO : The procedure is complete.

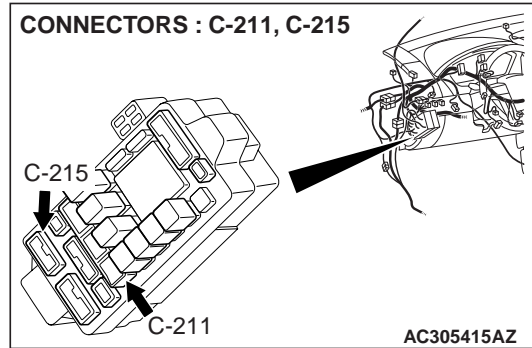
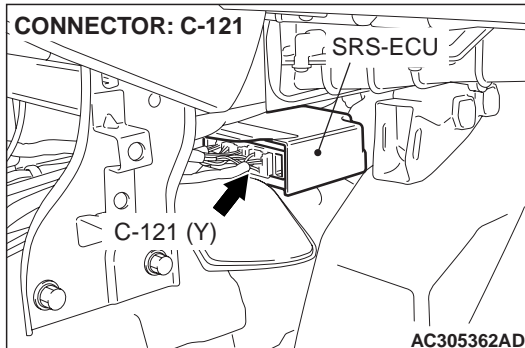
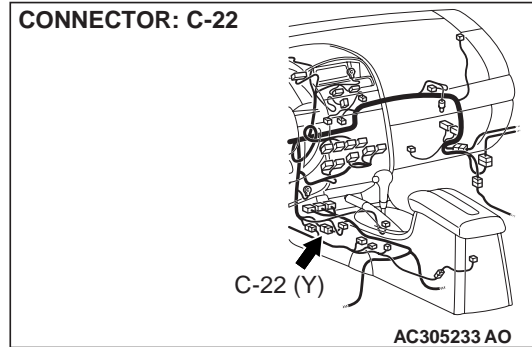
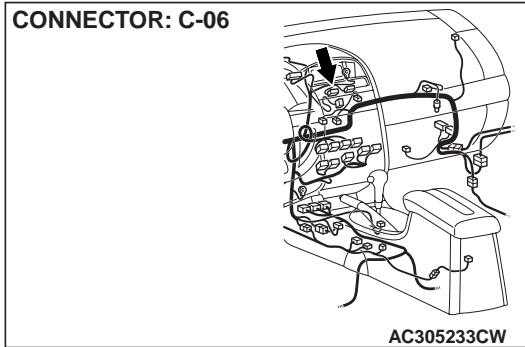


DTC B1489: Passenger's Air Bag OFF Indicator Light Drive Circuit System Fault 1 (Light does not Switch Off).

Air Bag OFF Indicator Light Drive Circuit



W5P52M016A



CAUTION

If DTC B1489 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.
 - The SRS-ECU connector is disconnected.

- The SRS-ECU is not working normally due to a failure in its power supply lines.
- The wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if an open circuit has occurred in the wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU. If the vehicle condition returns to normal, DTC B1489 will be automatically erased, and the passenger's air bag OFF indicator light will go out.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)

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

⚠ CAUTION

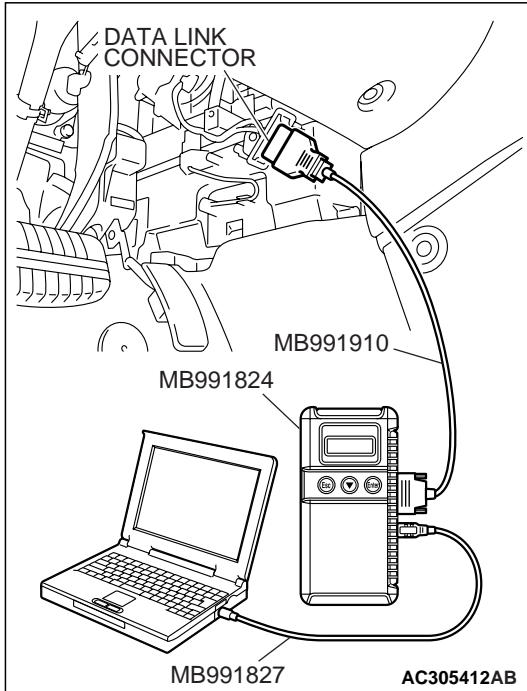
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

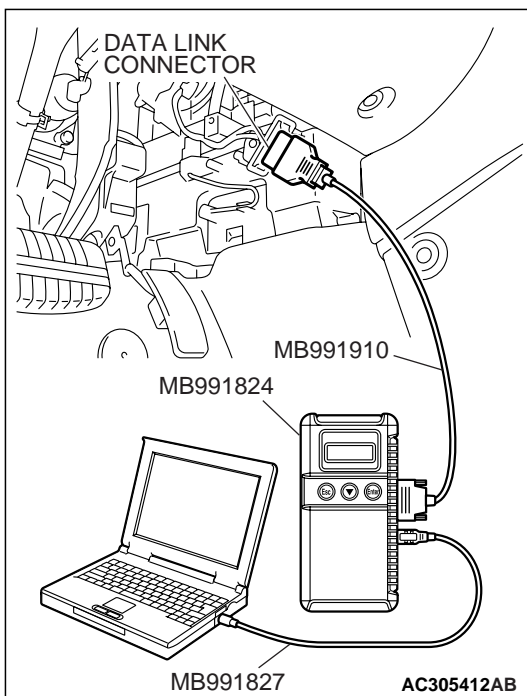
Check again if the DTC is set.

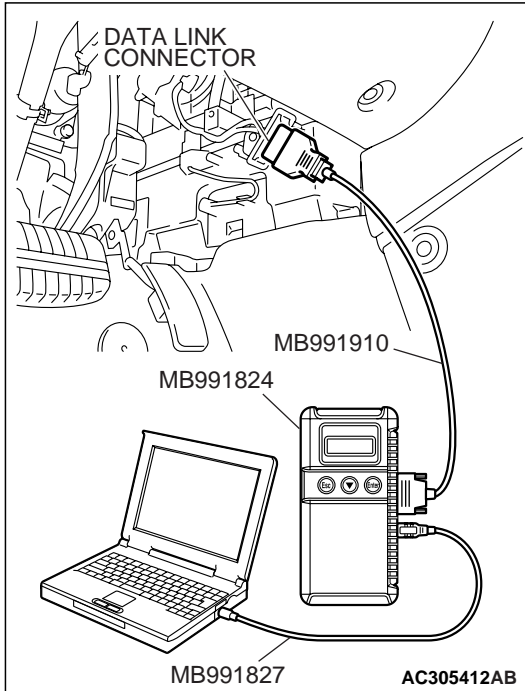
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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 B1540, B1541, B1542, B1543, B1545 or B1546 set?

YES : Carry out the troubleshooting of the occupant classification-ECU or the occupant classification sensor system (Refer to [P.52B-319](#) <B1540, B1541, B1542 or B1543>, [P.52B-321](#) <B1545 or B1546>).

NO : Go to Step 4.

STEP 4 Using scan tool MB991958, check actuator test.

- Item No.03: Passenger's air bag OFF indicator light illumination

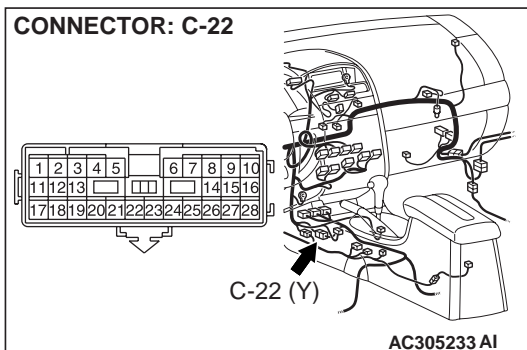
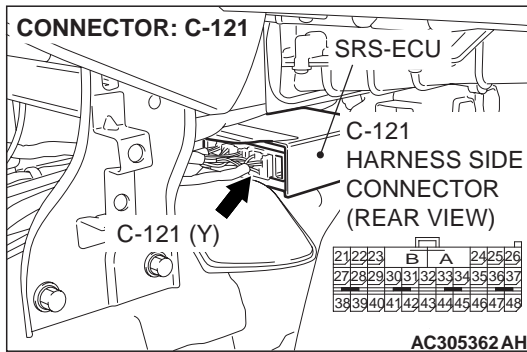
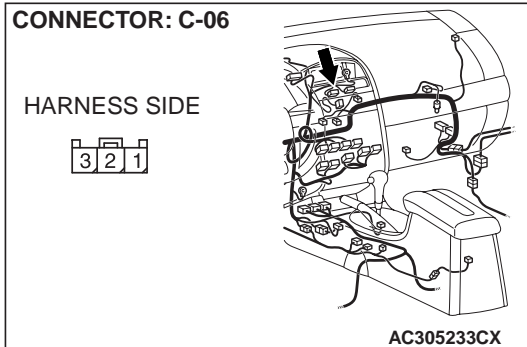
Q: Does the passenger's air bag indicator light illuminate or go out normally?

YES : Go to Step 5.

NO : Replace the passenger's air bag OFF indicator light (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-3](#)). Then go to Step 6.

STEP 5. Check the harness between SRS-ECU connector C-121 (terminal No.21) and passenger's air bag OFF indicator light C-06 (terminal No.3).

- Check the passenger's air bag OFF indicator light output lines for open circuit.

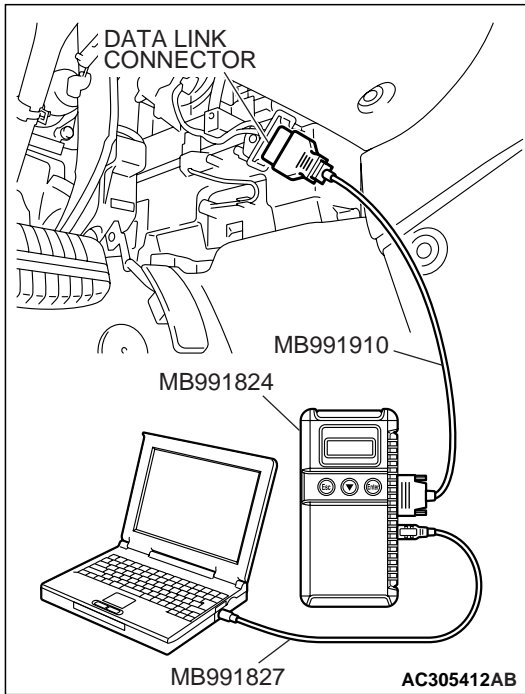


NOTE: After inspecting intermediate connector C-22 inspect the wiring harness. If intermediate connector C-22 is damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 6.

Q: Is the check result satisfactory?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1489 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 6.

NO : Repair the harness wires. 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 B1489 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1499: SRS-ECU Air Bag Condition Monitor Detects Deployed Air Bag**CAUTION**

If DTC B1499 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This DTC is set after the air bag has deployed. If this DTC is set before the air bag has deployed, the cause is probably a malfunction inside the SRS-ECU.

TROUBLESHOOTING HINTS

Malfunction of the SRS-ECU

DIAGNOSIS**Required Special Tool:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

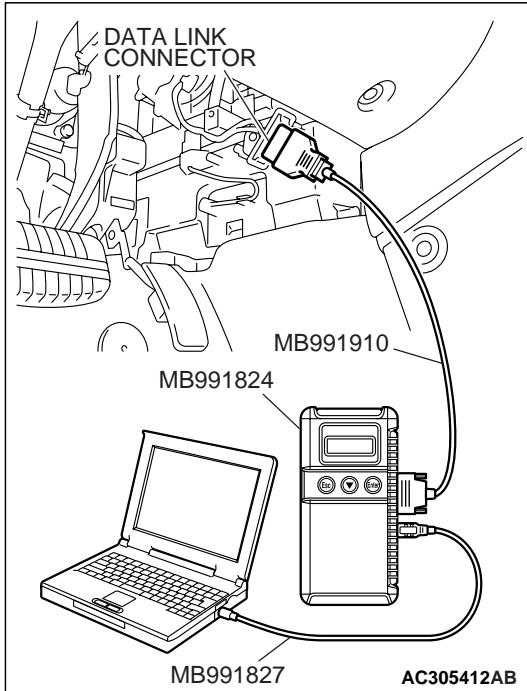
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-30](#)."
- (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).



STEP 2. Recheck for diagnostic trouble code.

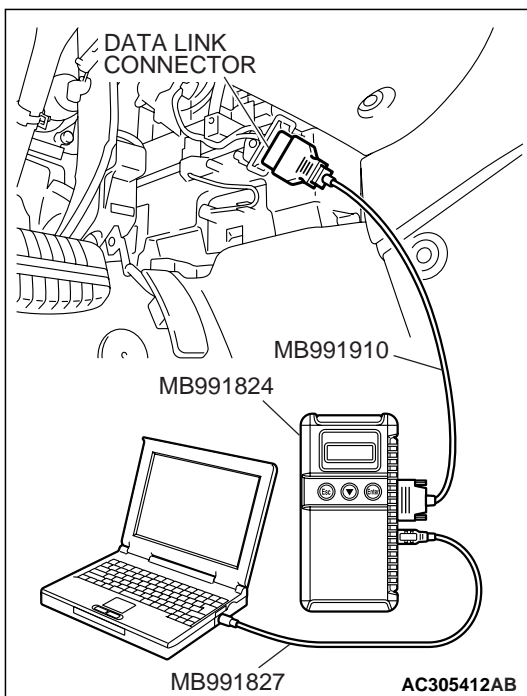
Check again if the DTC is set.

- (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 B1499 set?

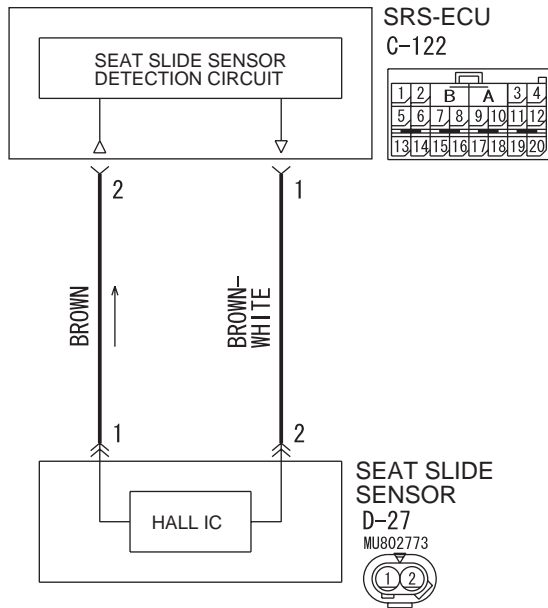
YES : Replace the SRS-ECU (Refer to [P.52B-365](#)).

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).

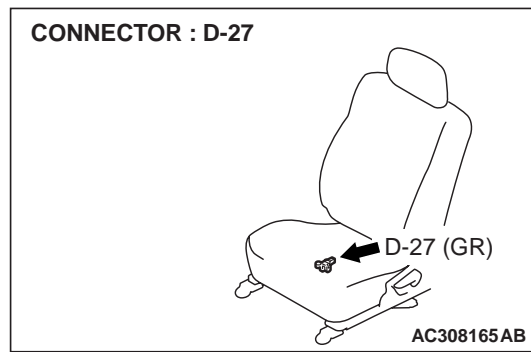
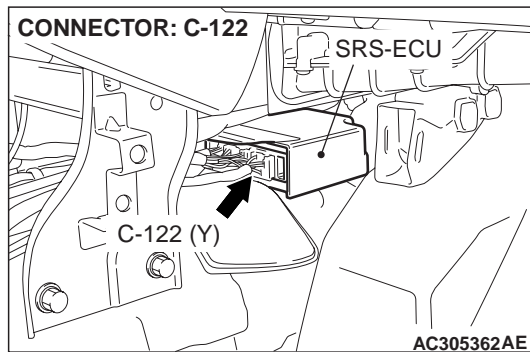


DTC B1506: Seat Slide Sensor System Fault 1 (Open in the Seat Slide Sensor Circuit)

Seat Slide Sensor Circuit



W5P52M013A



CAUTION

If DTC B1506 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The SRS-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor. The most likely causes for this code to be set are the followings:

- Open circuit in the seat slide sensor or harness
 - Malfunction of connector contact
- However, if no DTC reset, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

- Open circuit in the seat slide sensor circuit
- Disengaged seat slide sensor connector
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

CAUTION

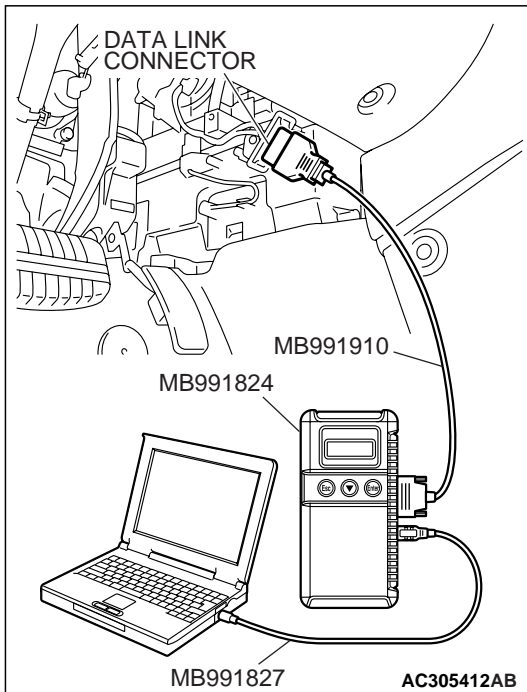
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

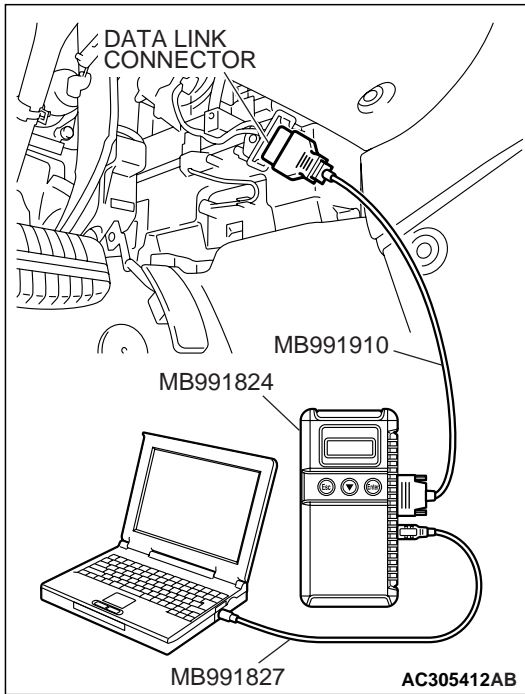
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-30](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

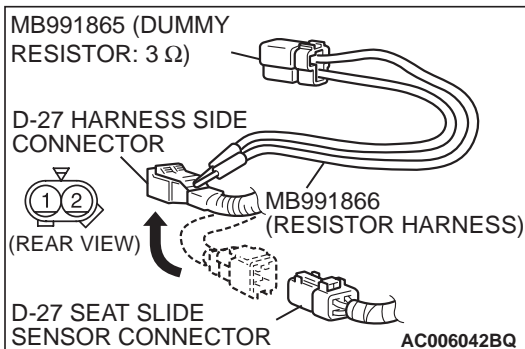
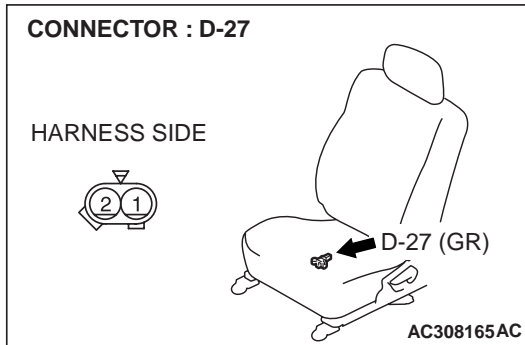
Q: Is the DTC set?

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).

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

- (1) Disconnect the negative battery terminal.
- (2) Disconnect the seat slide sensor connector D-27.



- (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-27 harness side connector by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

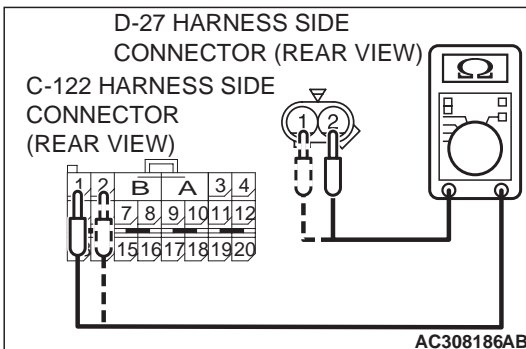
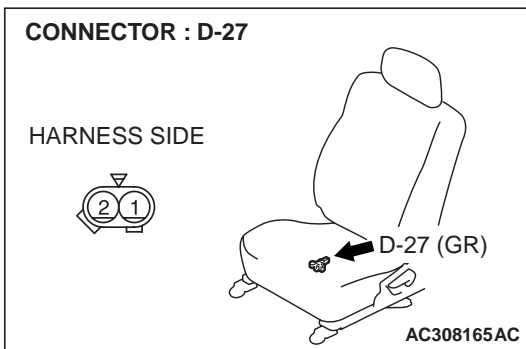
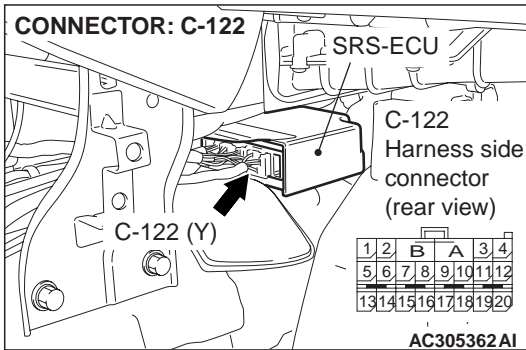
Q: Is DTC B1506 set?

YES : Go to Step 4.

NO : Replace the seat slide sensor (Refer to [P.52B-384](#)). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.1 and 2) and the seat slide sensor connector D-27 (terminal No.1 and 2).

(1) Disconnect SRS-ECU connector C-122 and seat slide sensor connector D-27.



CAUTION

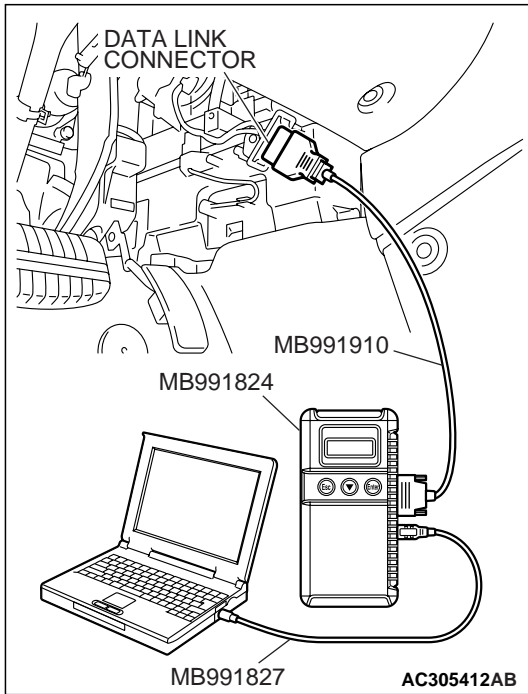
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (2) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.2) and the seat slide sensor connector D-27 (terminal No.1)
 - SRS-ECU connector C-122 (terminal No.1) and the seat slide sensor connector D-27 (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1506 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-122 and seat slide sensor connector D-27. 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.

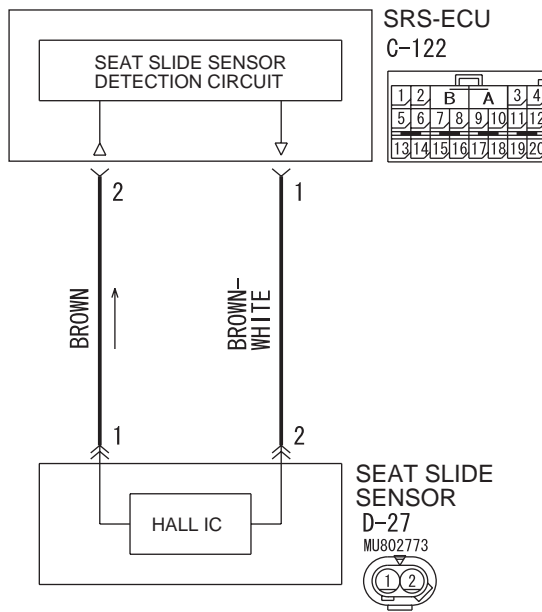
Q: Is DTC B1506 set?

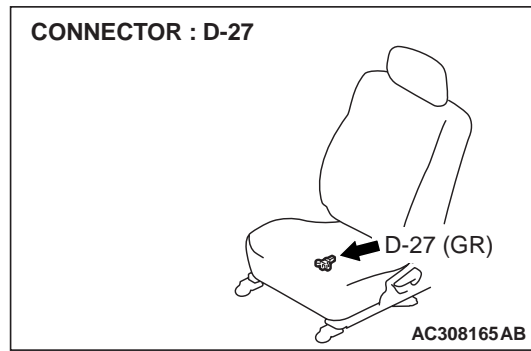
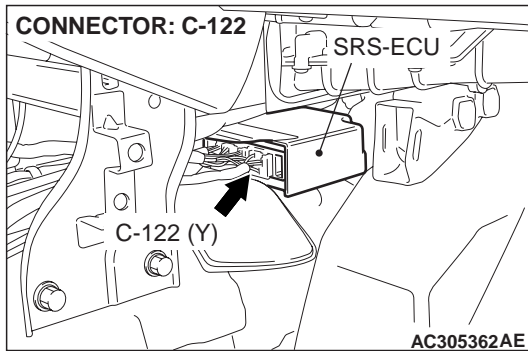
YES : Return to Step 1.

NO : The procedure is complete.

DTC B1507: Seat Slide Sensor System Fault Ground Circuit (Short-Circuited to Ground)

Seat Slide Sensor Circuit





CAUTION

If DTC B1507 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The SRS-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to ground in the seat slide sensor harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

⚠ CAUTION

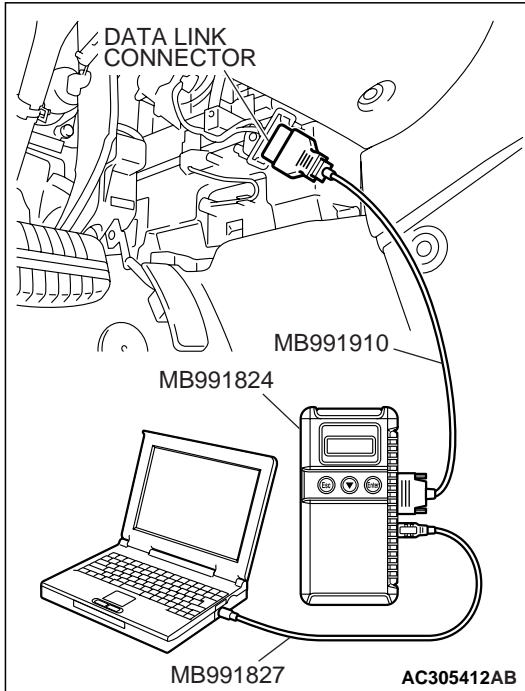
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

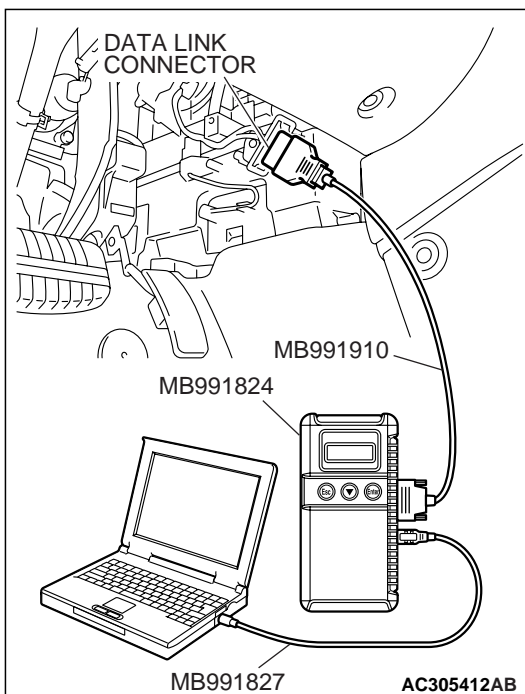
Check again if the DTC is set.

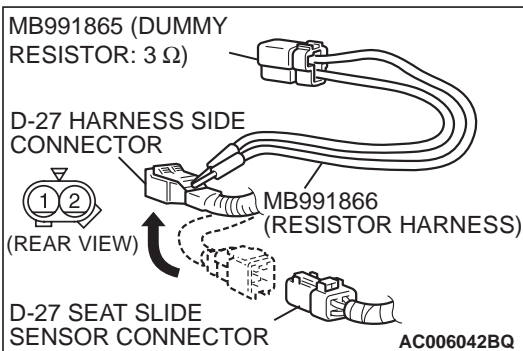
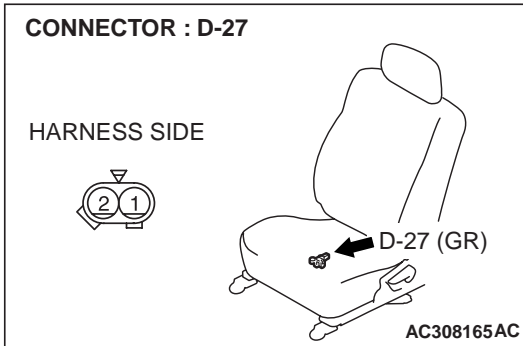
- (1) Erase the DTC.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check if the DTC is set.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).





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

- (1) Disconnect the negative battery terminal.
- (2) Disconnect the seat slide sensor connector D-27.

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

CAUTION

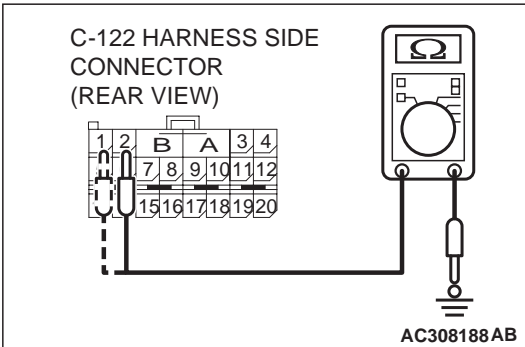
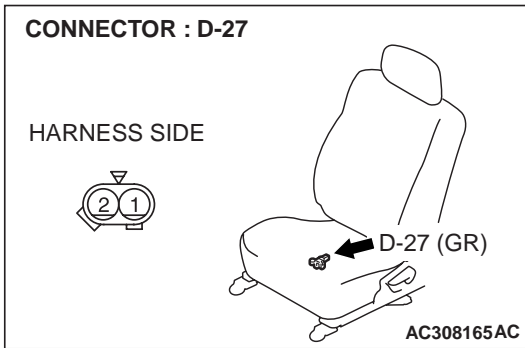
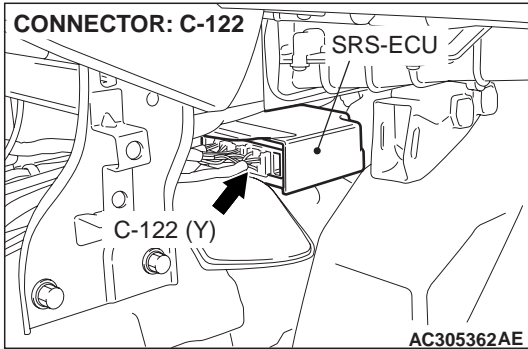
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

- (4) Insert special tool MB991866 into the D-27 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 B1507 set?

YES : Go to Step 4.

NO : Replace the seat slide sensor (Refer to [P.52B-384](#)). Then go to Step 5.



STEP 4. Check the seat slide sensor circuit. Measure the resistance at the SRS-ECU connector C-122.

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

(2) Disconnect seat slide sensor connector D-27.

CAUTION

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

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

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1507 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 6.

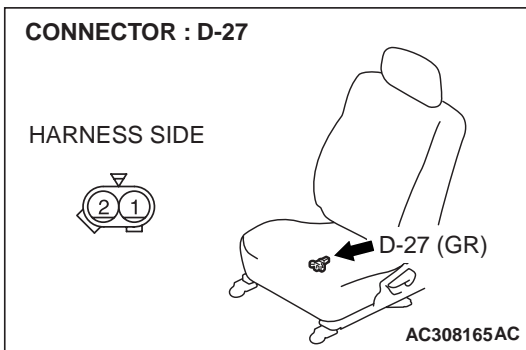
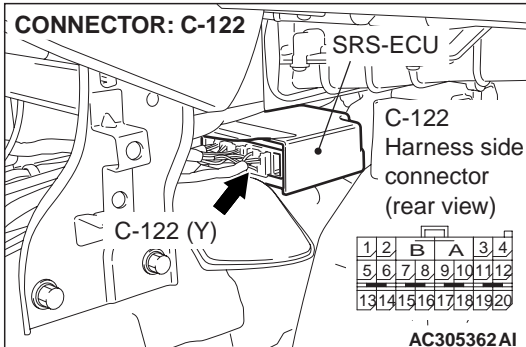
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-27 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-27 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and seat slide sensor connector D-27. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

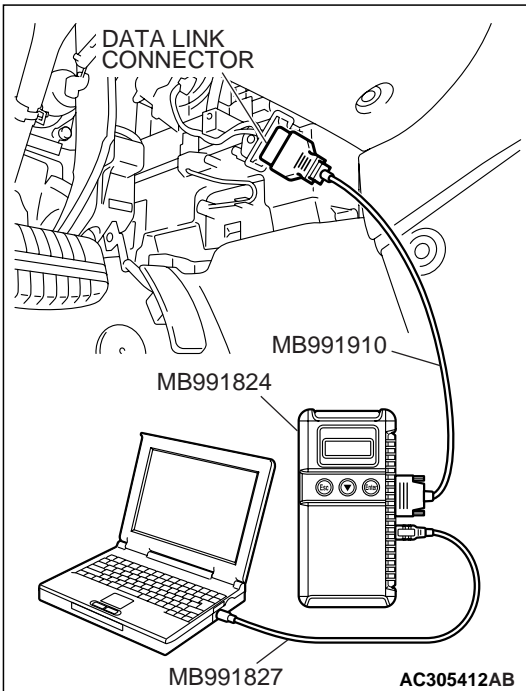
Check again if the DTC is set.

- (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 B1507 set?

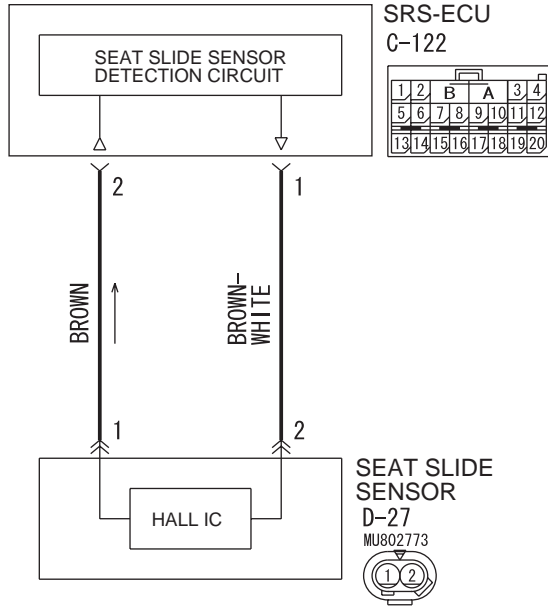
YES : Return to Step 1.

NO : The procedure is complete.

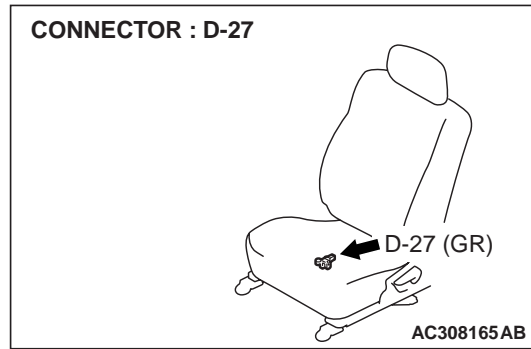
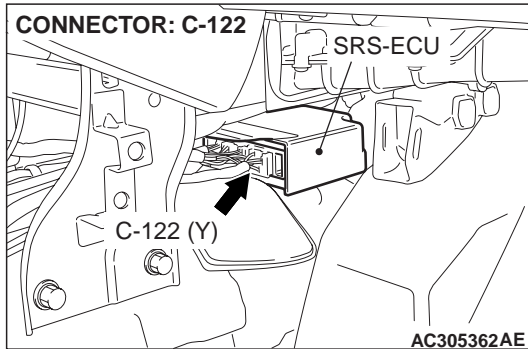


DTC B1508: Seat Slide Sensor System Fault Power Supply Circuit (Short-Circuited to Power Supply)

Seat Slide Sensor Circuit



W5P52M013A



CAUTION

If DTC B1508 is set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The SRS-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the seat slide sensor harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

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

CAUTION

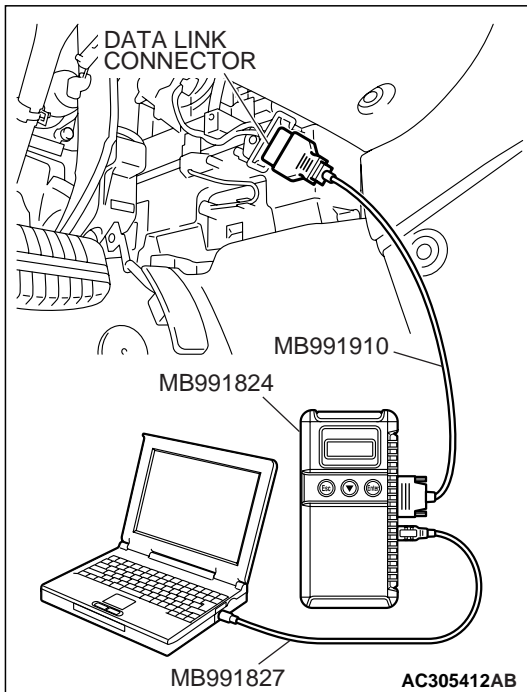
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

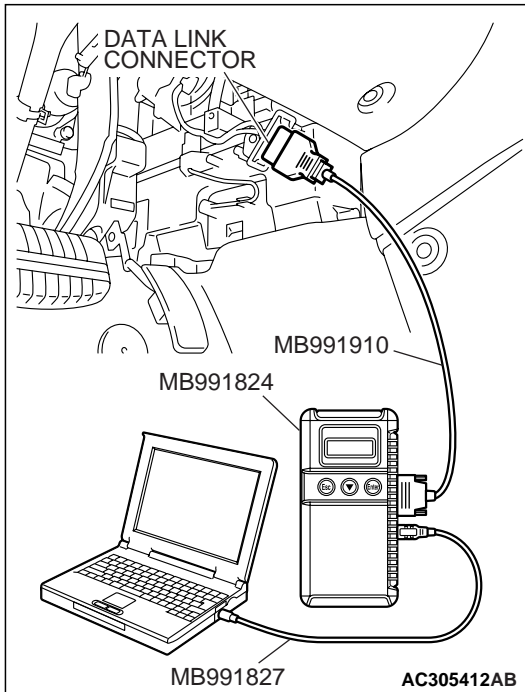
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool [P.52B-30](#)."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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.

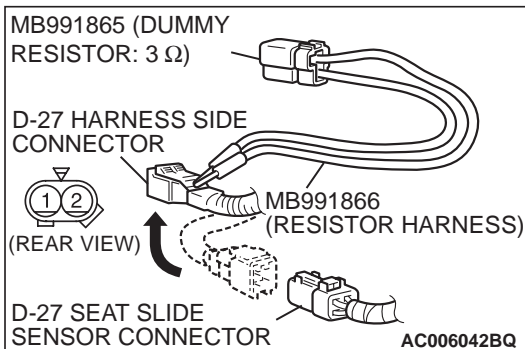
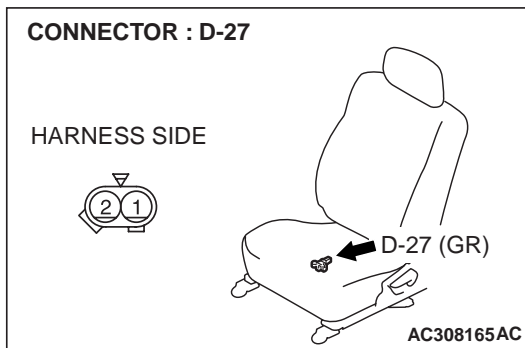
Q: Is the DTC set?

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).

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

- (1) Disconnect the negative battery terminal.
- (2) Disconnect the seat slide sensor connector D-27.



- (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-27 harness side connector by backprobing.
- (5) Connect the negative battery terminal.
- (6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

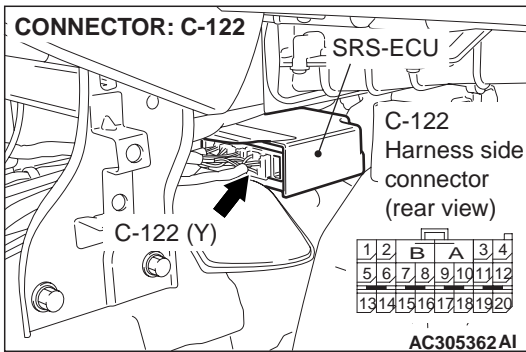
Q: Is DTC B1508 set?

YES : Go to Step 4.

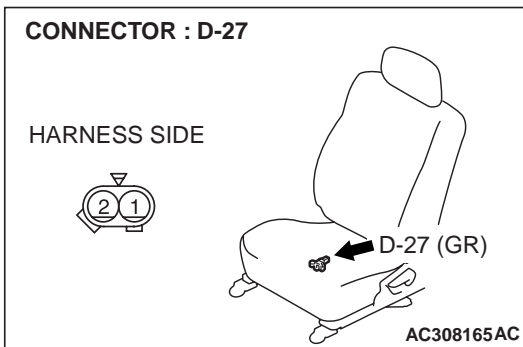
NO : Replace the seat slide sensor (Refer to [P.52B-384](#)). Then go to Step 5.

STEP 4. Check the seat slide sensor circuit. Measure the voltage at the SRS-ECU connector C-122.

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



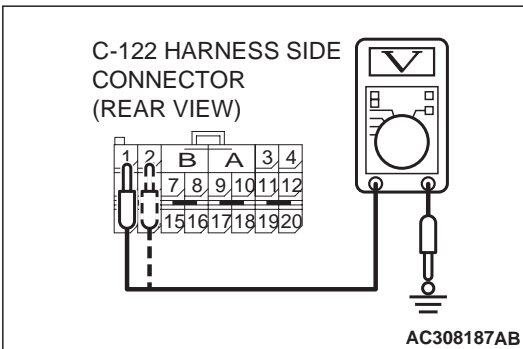
(2) Disconnect seat slide sensor connector D-27.
(3) Turn the ignition switch to the "ON" position.



CAUTION

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

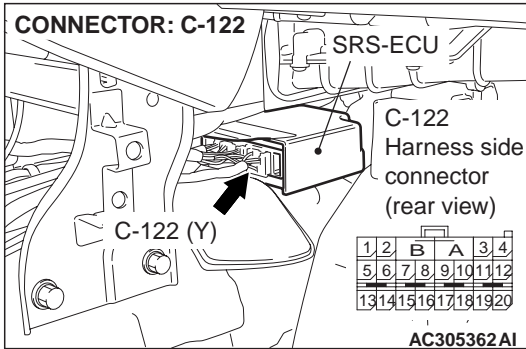
(4) Measure the voltage between C-122 harness side connector terminals 1, 2 and body ground. Voltage should measure 0 volt.



Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1508 sets, replace the SRS-ECU (Refer to P.52B-365). Then go to Step 6.

NO : Go to Step 5.

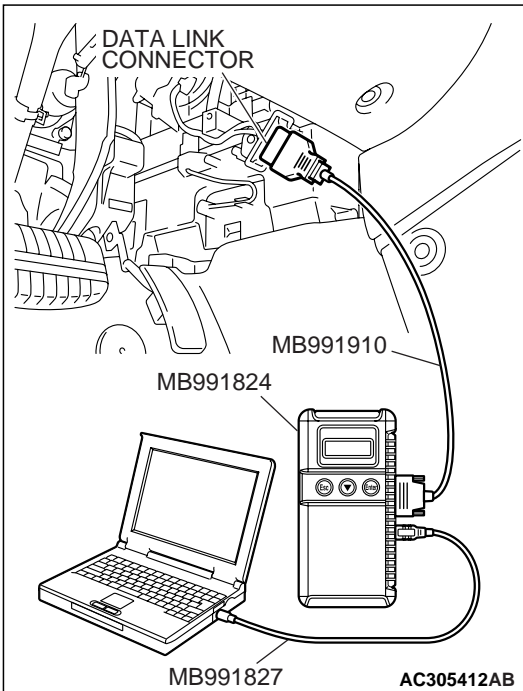
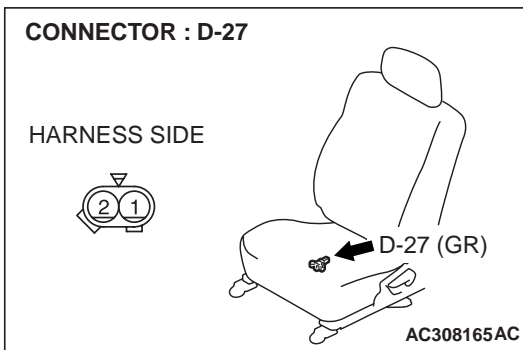


STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-27 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.2 and 1) and seat slide sensor connector D-27 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and seat slide sensor connector D-27. 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 B1508 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1509: Improper installation of SRS-ECU

CAUTION

If DTC B1509 is set in the SRS-ECU, always diagnose the CAN main bus line.

TROUBLE JUDGMENT

This DTC is set when an SRS-ECU, designed only for the driver's air bag, is installed on the vehicle, which has both driver's and passenger's air bags.

TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

CAUTION

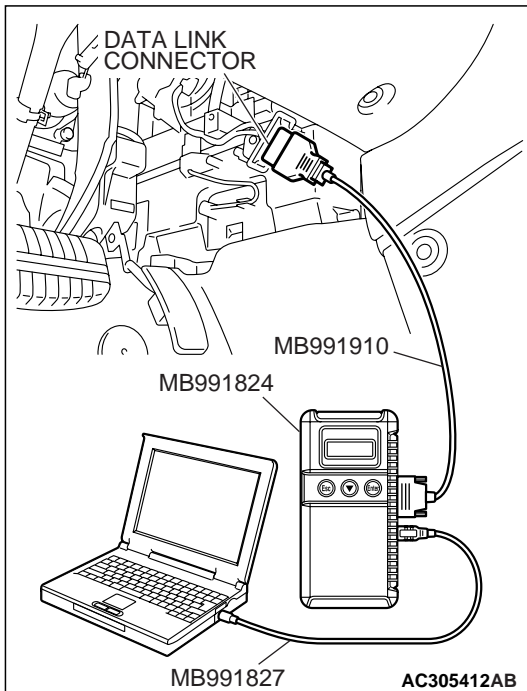
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

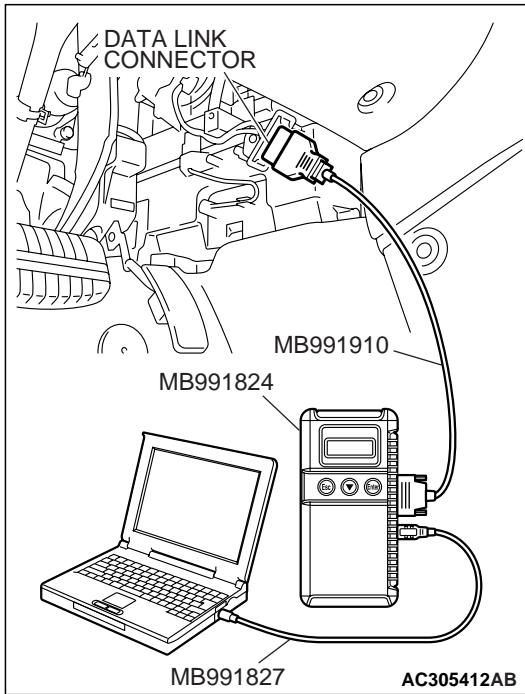
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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 B1499 set?

YES : Replace the SRS-ECU (Refer to [P.52B-365](#)).

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).

DTC B1519: Connector Lock System Detects Connector Unlocked**CAUTION**

If DTC B1519 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This DTC is set if a poor connection at the SRS-ECU is detected. However, if the vehicle condition returns to normal, DTC number B1519 will be automatically erased, and the SRS warning light will go out.

TROUBLESHOOTING HINTS

- Damaged connectors
- Malfunction of the SRS-ECU

DIAGNOSIS**Required Special Tool:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

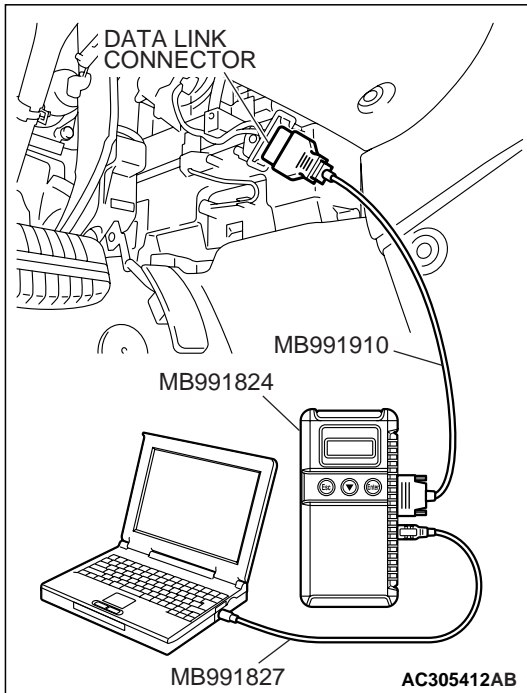
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30.."
- (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).



STEP 2. Recheck for diagnostic trouble code.

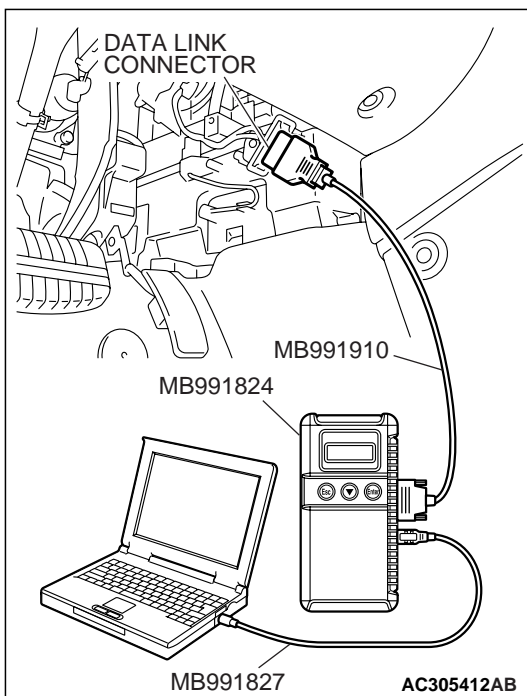
Check again if the DTC is set.

- (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.

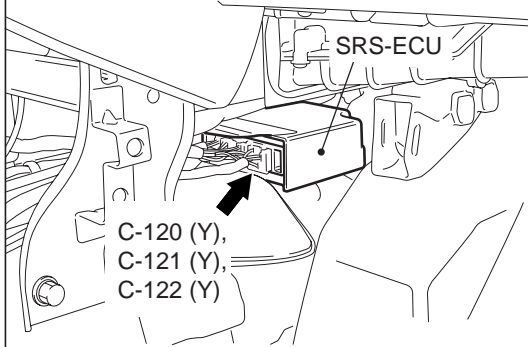
Q: Is the DTC set?

YES : Go to Step 3.

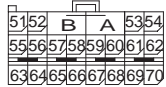
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions).



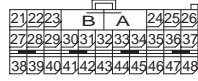
CONNECTORS: C-120, C-121, C-122



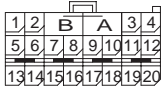
C-120 Harness side connector (rear view)



C-121 Harness side connector (rear view)



C-122 Harness side connector (rear view)



AC307741AB

STEP 3. Check the SRS-ECU connector C-120, C-121 and C-122.

Q: Are connectors correctly engaged?

YES : Go to Step 4.

NO : Engage the connectors correctly. Then go to Step 5.

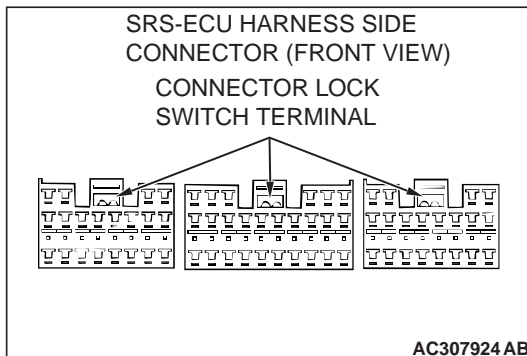
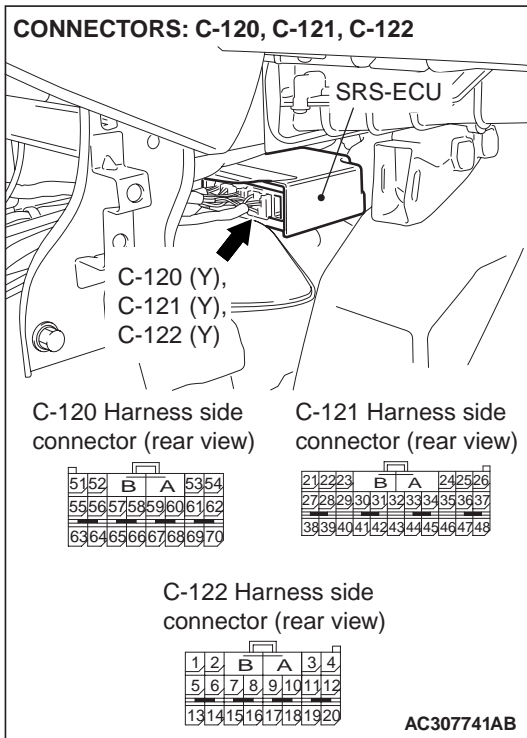
STEP 4. Check SRS-ECU connector C-120, C-121 and C-122 for damage.

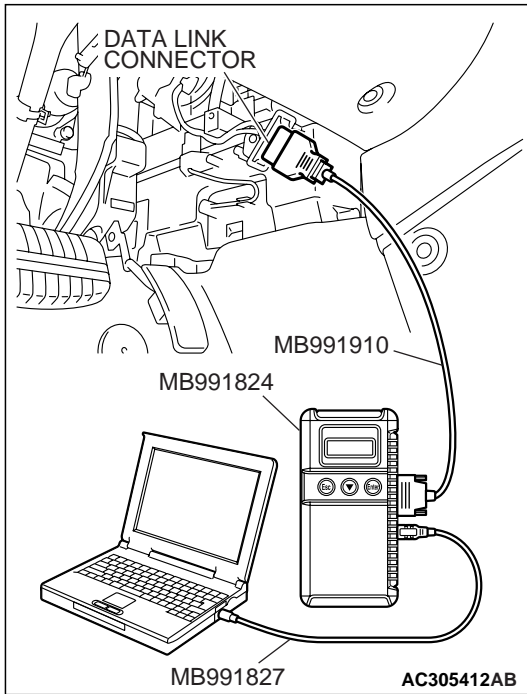
- (1) Disconnect SRS-ECU connectors C-120, C-121 and C-122.
- (2) Check the connector lock switch terminal inside the harness side connector for improper contact or deformation.

Q: Are the SRS-ECU connector C-120, C-121 and C-122 in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1519 sets, replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 5.

NO : Replace the SRS-ECU connector C-120, C-121 and C-122. Refer to GROUP 00E, Harness Connector Inspection . 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.

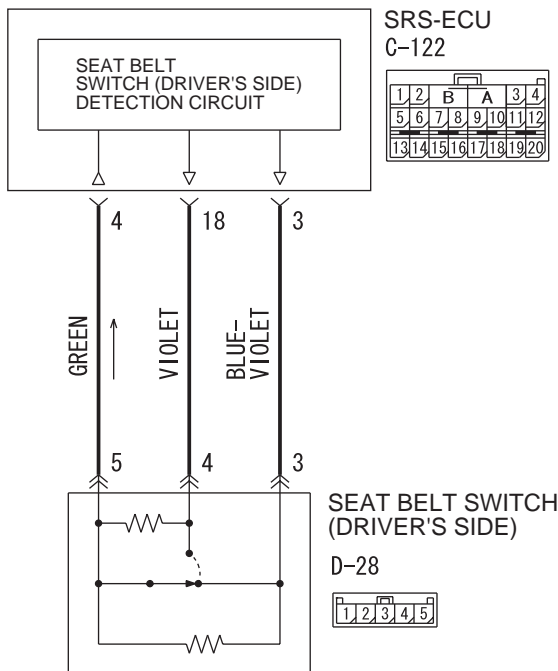
Q: Is DTC B1519 set?

YES : Return to Step 1.

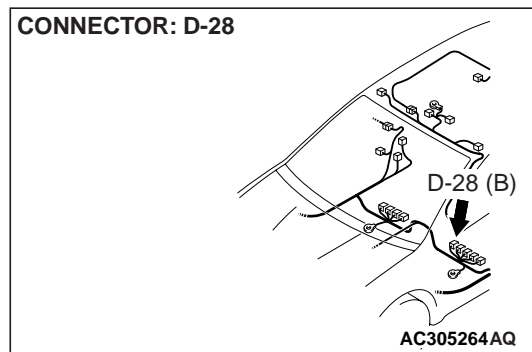
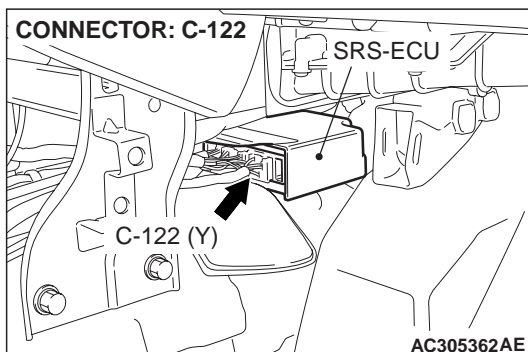
NO : The procedure is complete.

DTC B1520: Seat belt switch (LH) malfunction **DTC B1521: Seat belt switch (LH) circuit open (for Normal/Close terminal)** **DTC B1522: Seat belt switch (LH) circuit (ground side) shorted (for Normal/Close terminal)** **DTC B1523: Seat belt switch (LH) circuit (power supply side) shorted (for Normal/Close terminal)** **DTC B1524: Seat belt switch (LH) circuit open (for Normal/Open terminal)** **DTC B1525: Seat belt switch (LH) circuit (ground side) shorted (for Normal/Open terminal)** **DTC B1526: Seat belt switch (LH) circuit (power supply side) shorted (for Normal/Open terminal)** **DTC B1527: Seat belt switch (LH) circuit open (for COM terminal)** **DTC B1528: Seat belt switch (LH) circuit (ground side) shorted (for COM terminal)** **DTC B1529: Seat belt switch (LH) circuit (power supply side) shorted (for COM terminal)**

Driver's Seat Belt Switch Circuit



W5P52M012A



CAUTION

If DTC B1520, B1521, B1522, B1523, B1524, B1525, B1526, B1527, B1528 or B1529 are set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.

Cause of trouble in each DTC is as follows.

DTC	SYMPTOM
B1520	Malfunction of seat belt switch
B1521	Malfunction of the Normal/Close terminal or short circuit in its harness
B1522	Short to body ground in the Normal/Close terminal harness
B1523	Short to the power supply in the Normal/Close terminal harness
B1524	Malfunction of the Normal/Open terminal or short circuit in its harness
B1525	Short to body ground in the Normal/Open terminal harness
B1526	Short to the power supply in the Normal/Open terminal harness
B1527	Malfunction of the COM terminal or short circuit in its harness
B1528	Short to body ground in the COM terminal harness
B1529	Short to the power supply in the COM terminal harness

TROUBLESHOOTING HINTS

- Malfunction of the seat belt switch

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS**Required Special Tools:**

- MB991222: Probe
- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

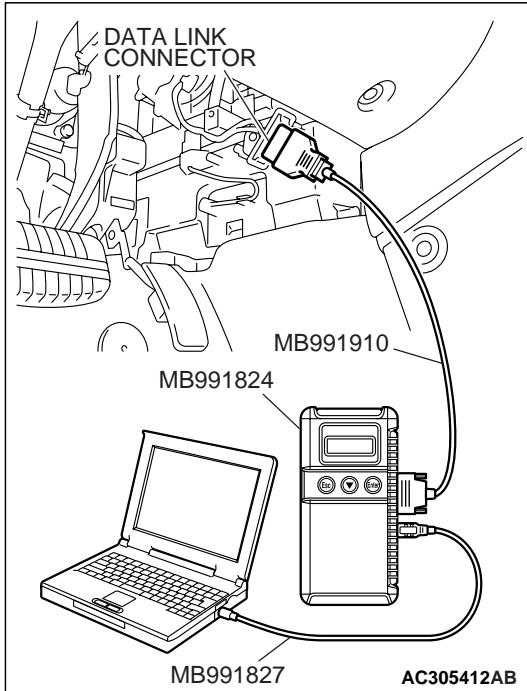
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Connect scan tool MB991958 to the data link connector.
- (3) Turn the ignition switch to the "ON" position.
- (4) Diagnose the CAN bus line.
- (5) Turn the ignition switch to the "LOCK" (OFF) position.

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

YES : Go to Step 3.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis). Then go to Step 2.



STEP 2. Recheck for diagnostic trouble code.

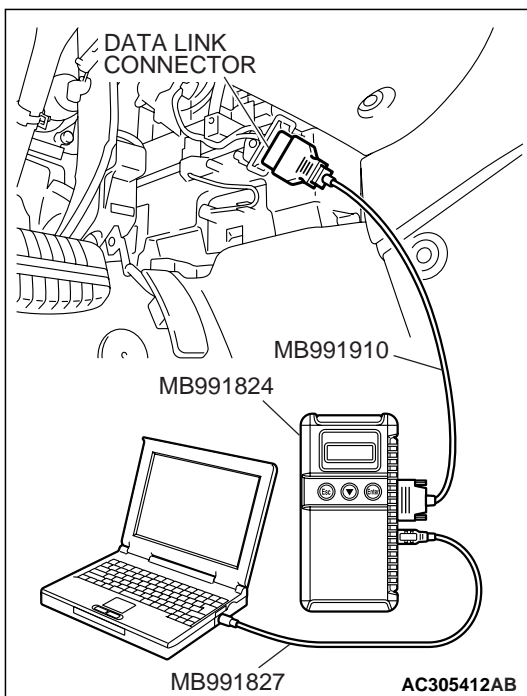
Check again if the DTC is set.

- (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.

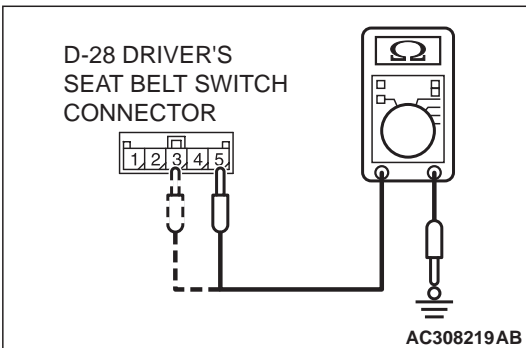
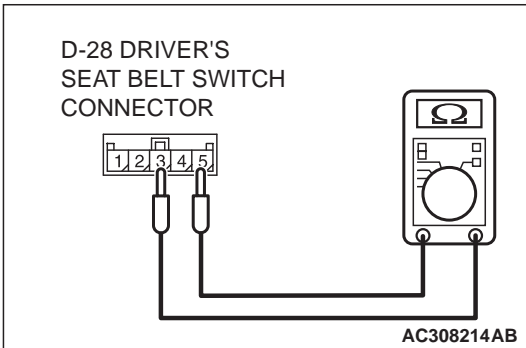
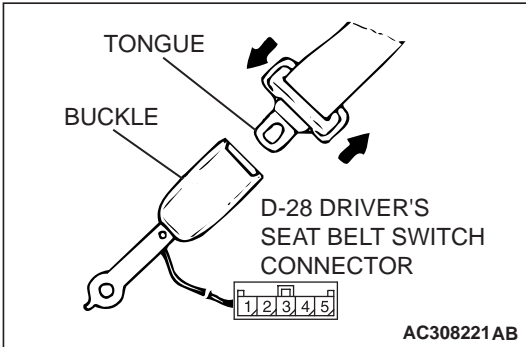
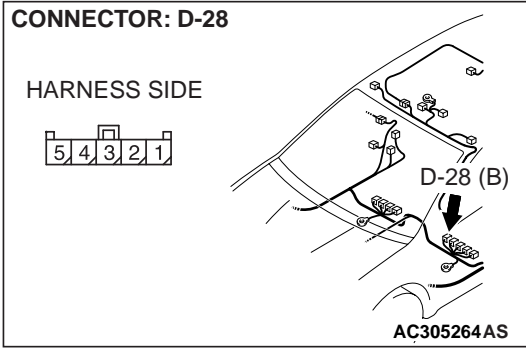
Q: Is the DTC set?

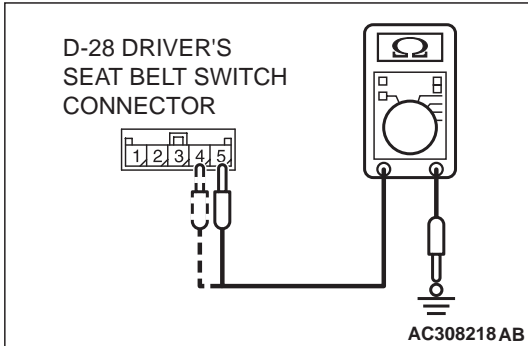
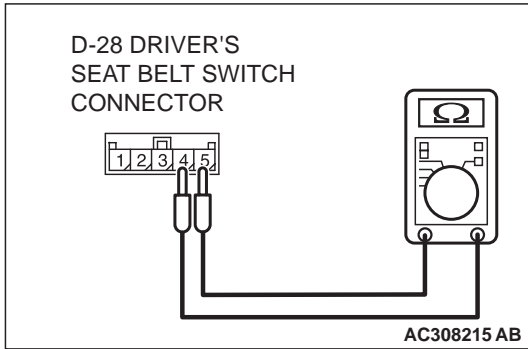
YES : Go to Step 3.

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).



STEP 3. Check the driver's seat belt switch.





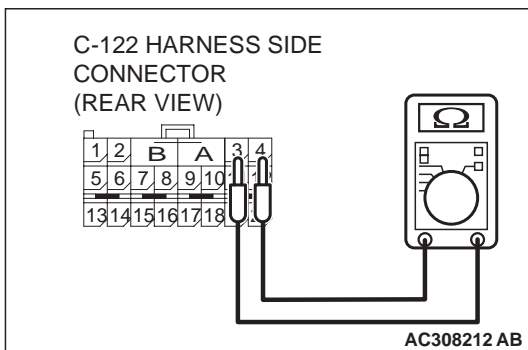
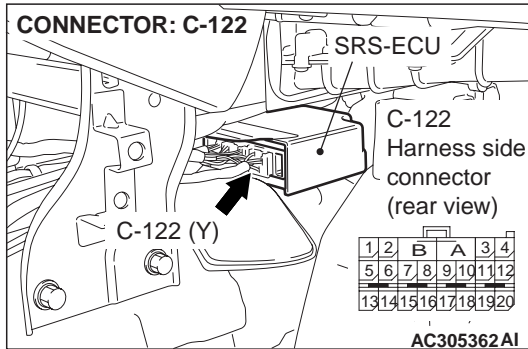
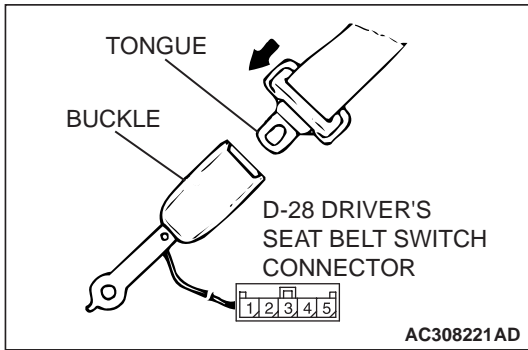
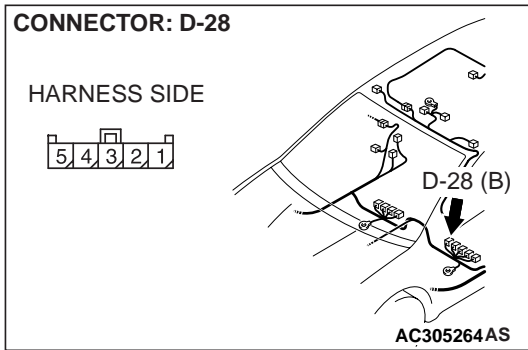
Disconnect driver's seat belt switch connector D-28. Then check continuity between the switch terminals.

ITEM	TESTER CONNECTION	STANDARD VALUE	SPECIFIED CONDITION
Fastened seat belt	3 – 5	820 ± 20 Ω	–
	3 – Ground	–	No continuity
	5 – Ground	–	No continuity
	4 – 5	–	Less than 2 ohms
Unfastened seat belt	4 – 5	820 ± 20 Ω	–
	4 – Ground	–	No continuity
	5 – Ground	–	No continuity
	3 – 5	–	Less than 2 ohms

Q: Is driver's seat belt switch in good condition?

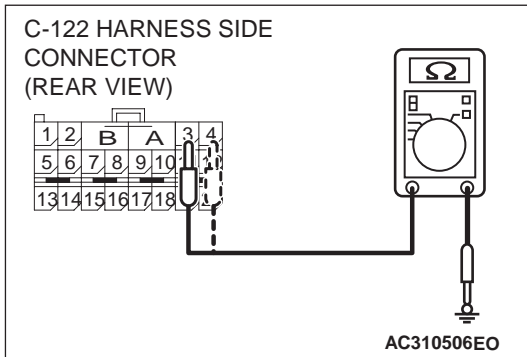
YES : Go to Step 4.

NO : Replace inner seat belt. (Refer to GROUP 52A, Front Seat Belt [P.52A-32.](#))

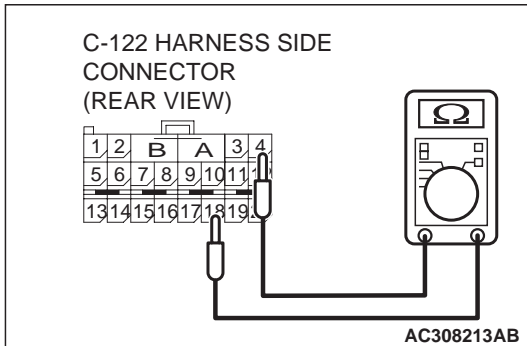


STEP 4. Check the driver's seat belt switch circuit D-28. Measure the resistance at SRS-ECU connector C-122.

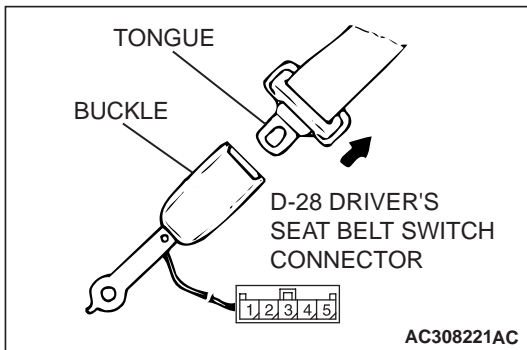
- (1) Disconnect driver's seat belt switch connector D-28.
- (2) Install the driver's seat belt to the driver's seat belt switch.
- (3) Disconnect SRS-ECU connector C-122 and measure at the harness side (rear side).
- (4) Measure the resistance between terminal 3 and terminal 4. Resistance should be $820 \pm 82 \Omega$



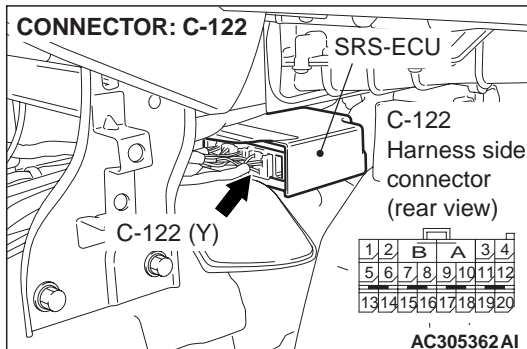
- (5) Measure the resistance between terminal 3, 4 and body ground.
It should be open circuit.



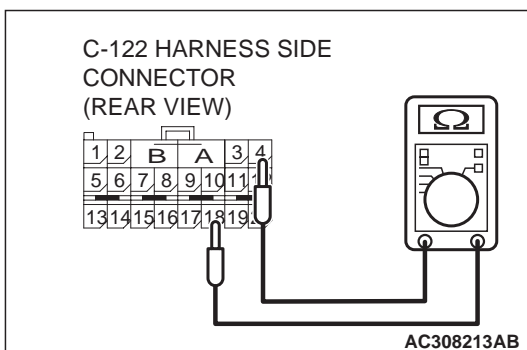
- (6) Measure the resistance between terminal 18 and terminal 4.
Resistance should be less than 2 ohms.



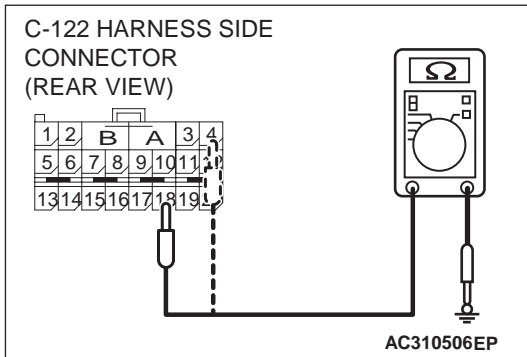
- (7) Remove the driver's seat belt from the driver's seat belt switch.



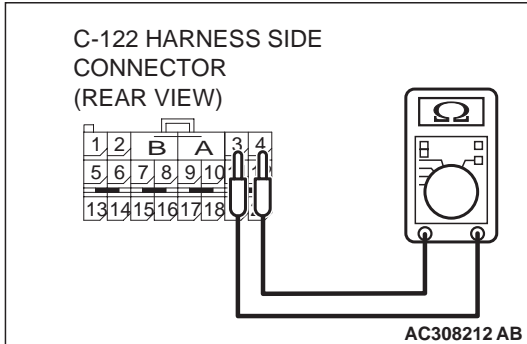
- (8) Disconnect SRS-ECU connector C-122 and measure at the harness side (rear side).



- (9) Measure the resistance between terminal 18 and 4.
Resistance should be $820 \pm 82 \Omega$



(10) Measure the resistance between terminal 18, 4 and body ground.
It should be open circuit.



(11) Measure the resistance between terminal 3 and terminal 4.
Resistance should be less than 2 ohms.

Q: Does the resistance meet the value above?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1520, B1521, B1522, B1523, B1524, B1525, B1526, B1527, B1528 or B1529 are set, replace the SRS-ECU. (Refer to [P.52B-365.](#)) Then go to Step 6.

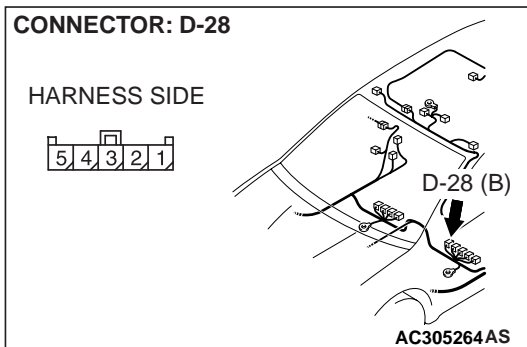
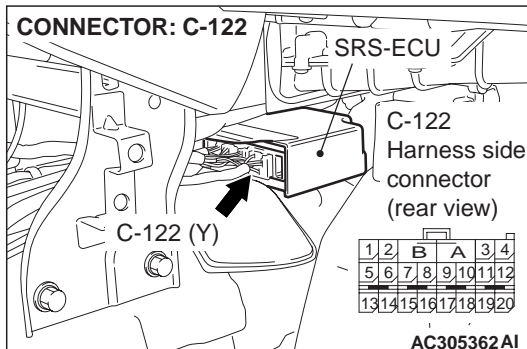
NO : Go to Step 5.

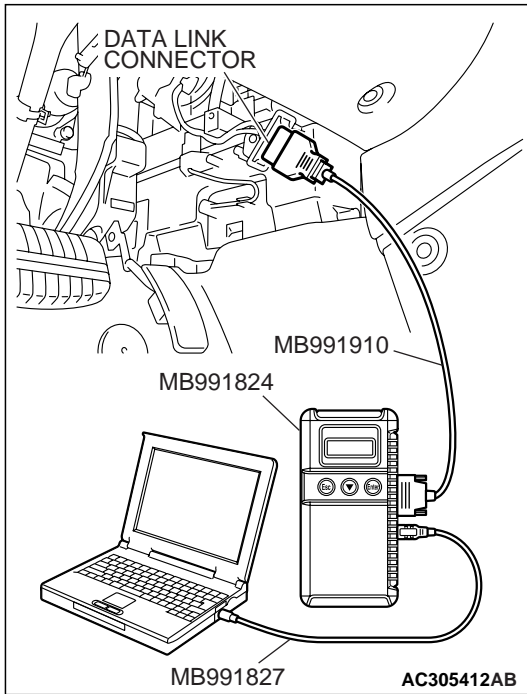
STEP 5. Check the harness wires between SRS-ECU connector C-122 (terminal No.3, 18 and 4) and driver's seat belt switch connector D-28 (terminal No.3, 4 and 5).

Q: Are harness wires between SRS-ECU connector C-122 (terminal No.3, 18 and 4) and driver's seat belt switch connector D-28 (terminal No.3, 4 and 5) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and driver's seat belt switch 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.

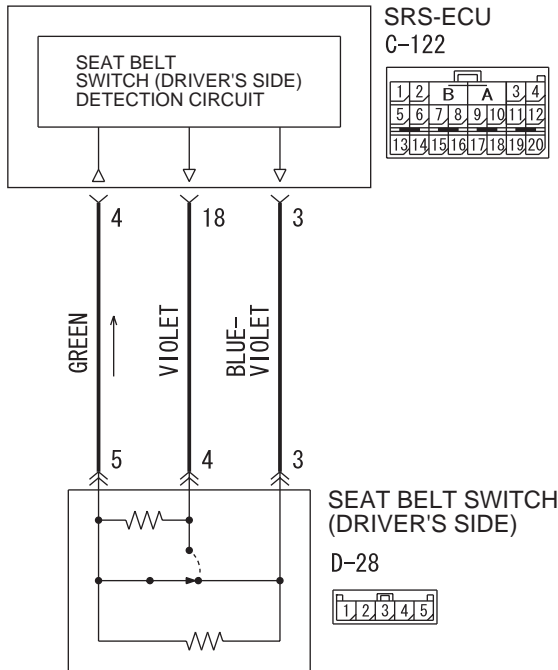
Q: Is DTC B1520, B1521, B1522, B1523, B1524, B1525, B1526, B1527, B1528 or B1529 set?

YES : Return to Step 1.

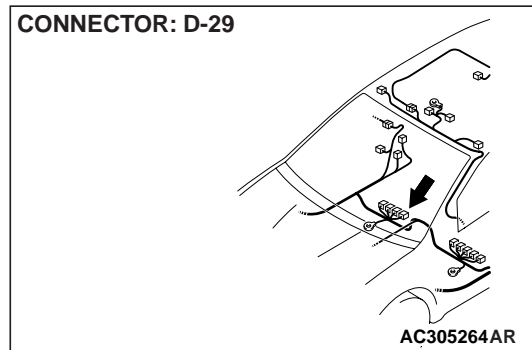
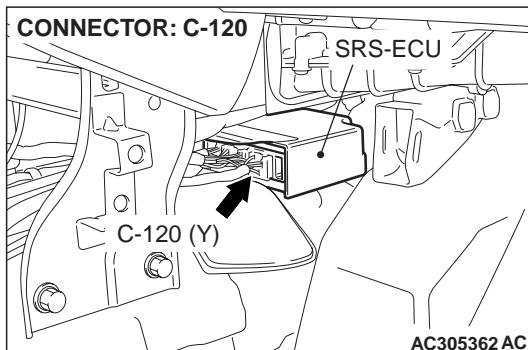
NO : The procedure is complete.

DTC B1530: Seat belt switch (RH) malfunction DTC B1531: Seat belt switch (RH) circuit open (for Normal/Close terminal) DTC B1532: Seat belt switch (RH) circuit (ground side) shorted (for Normal/Close terminal) DTC B1533: Seat belt switch (RH) circuit (power supply side) shorted (for Normal/Close terminal) DTC B1534: Seat belt switch (RH) circuit open (for Normal/Open terminal) DTC B1535: Seat belt switch (RH) circuit (ground side) shorted (for Normal/Open terminal) DTC B1536: Seat belt switch (RH) circuit (power supply side) shorted (for Normal/Open terminal) DTC B1537: Seat belt switch (RH) circuit open (for COM terminal) DTC B1538: Seat belt switch (RH) circuit (ground side) shorted (for COM terminal) DTC B1539: Seat belt switch (RH) circuit (power supply side) shorted (for COM terminal)

Driver's Seat Belt Switch Circuit



W5P52M012A



CAUTION

If DTC B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539 are set in the combination meter, always diagnose the CAN bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.

Cause of trouble in each DTC is as follows.

DTC	SYMPTOM
B1530	Malfunction of seat belt switch
B1531	Malfunction of the Normal/Close terminal or short circuit in its harness
B1532	Short to body ground in the Normal/Close terminal harness
B1533	Short to the power supply in the Normal/Close terminal harness
B1534	Malfunction of the Normal/Open terminal or short circuit in its harness
B1535	Short to body ground in the Normal/Open terminal harness
B1536	Short to the power supply in the Normal/Open terminal harness
B1537	Malfunction of the COM terminal or short circuit in its harness
B1538	Short to body ground in the COM terminal harness
B1539	Short to the power supply in the COM terminal harness

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991222: Probe
- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

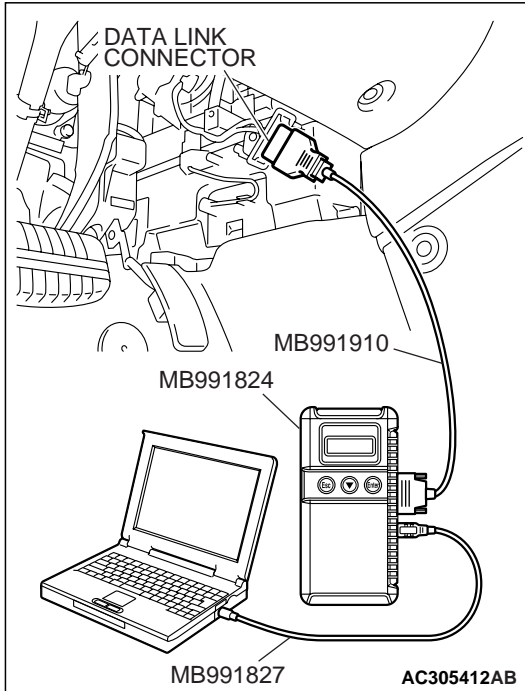
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Connect scan tool MB991958 to the data link connector.
- (3) Turn the ignition switch to the "ON" position.
- (4) Diagnose the CAN bus line.
- (5) Turn the ignition switch to the "LOCK" (OFF) position.

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

YES : Go to Step 3.

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis). Then go to Step 2.



STEP 2. Recheck for diagnostic trouble code.

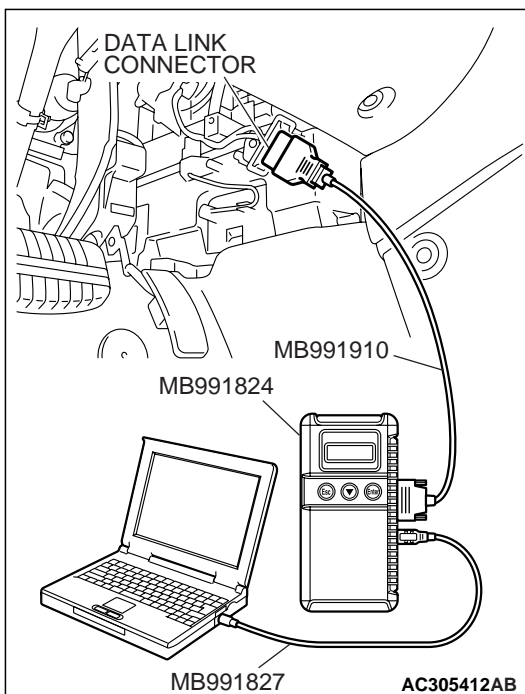
Check again if the DTC is set.

- (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.

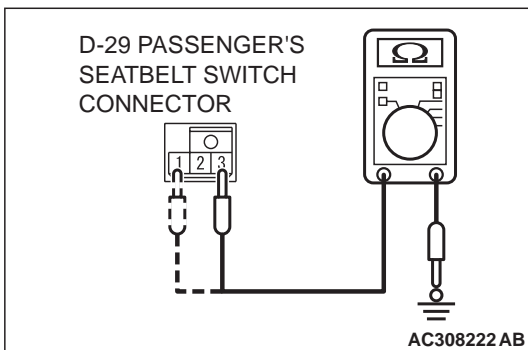
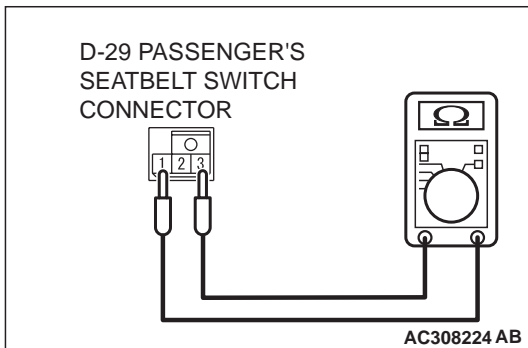
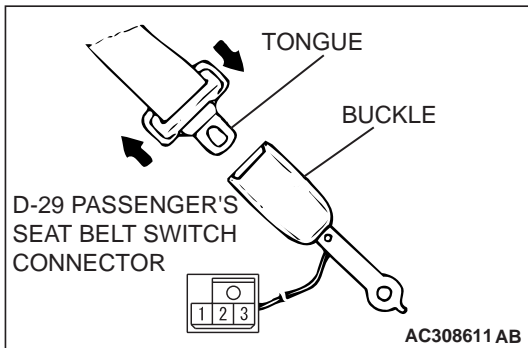
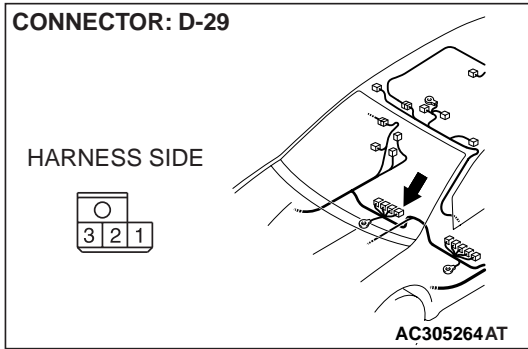
Q: Is the DTC set?

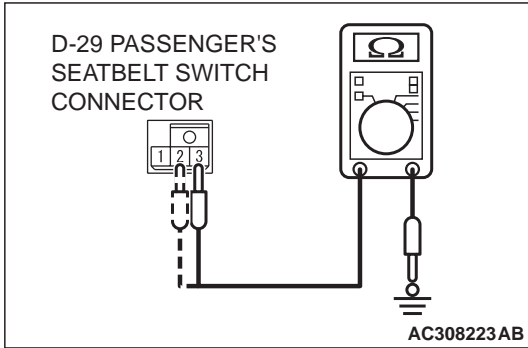
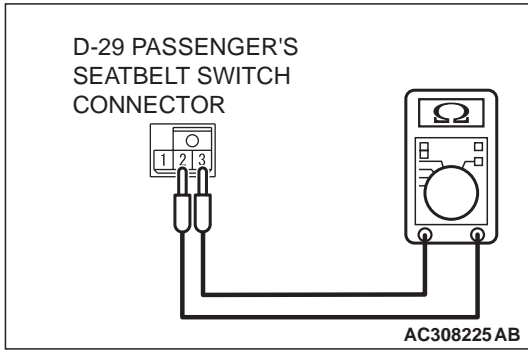
YES : Go to Step 3.

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).



STEP 3. Check the passenger's seat belt switch.





Disconnect passenger's seat belt switch connector D-29. Then check continuity between the switch terminals.

ITEM	TESTER CONNECTION	STANDARD VALUE	SPECIFIED CONDITION
Fastened seat belt	1 – 3	820 ± 20 Ω	–
	1 – Ground	–	No continuity
	3 – Ground	–	No continuity
	2 – 3	–	Less than 2 ohms
Unfastened seat belt	2 – 3	820 ± 20 Ω	–
	2 – Ground	–	No continuity
	3 – Ground	–	No continuity
	1 – 3	–	Less than 2 ohms

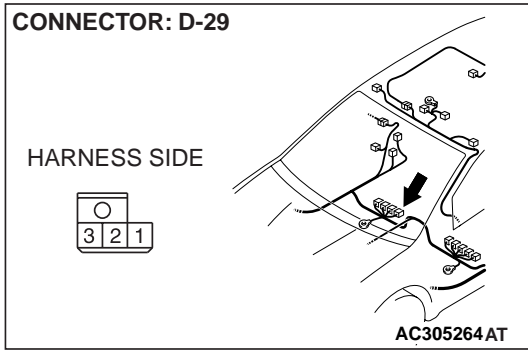
Q: Is passenger's seat belt switch in good condition?

YES : Go to Step 4.

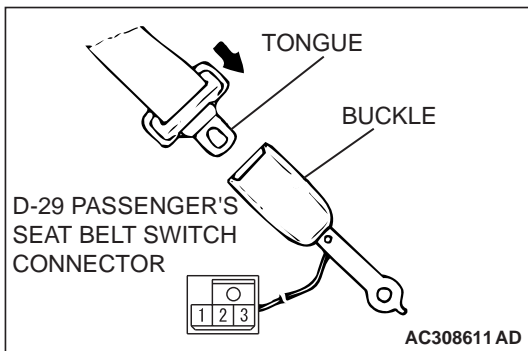
NO : Replace inner seat belt. (Refer to GROUP 52A, Front Seat Belt [P.52A-32.](#))

STEP 4. Check the passenger's seat belt switch circuit D-29. Measure the resistance at SRS-ECU connector C-120.

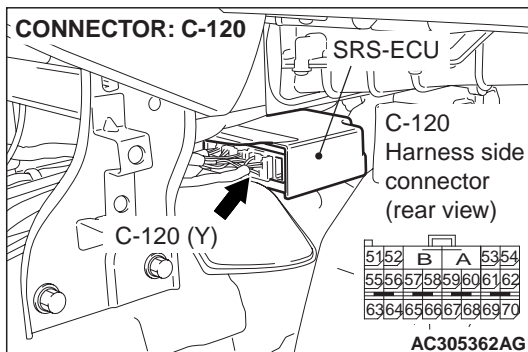
(1) Disconnect passenger's seat belt switch connector D-29.

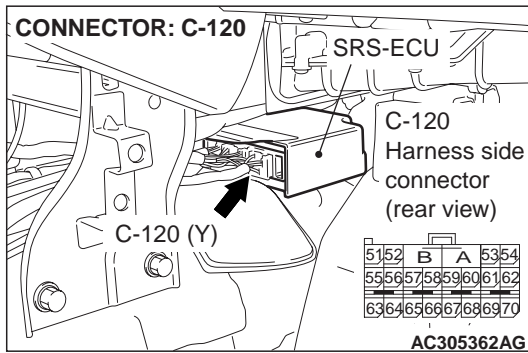


(2) Install the passenger's seat belt to the seat belt switch.

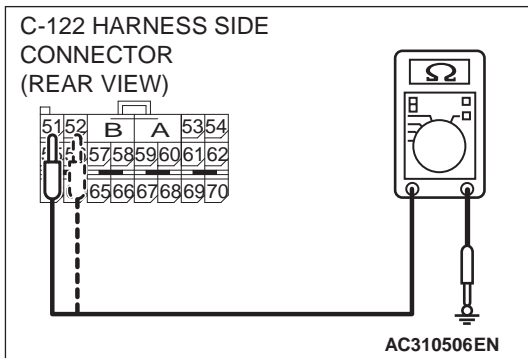
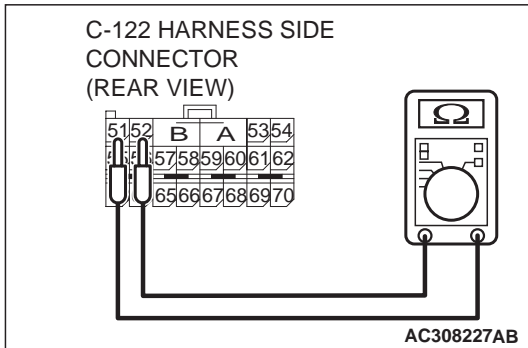


(3) Disconnect SRS-ECU connector C-120 and measure at the harness side (rear side).

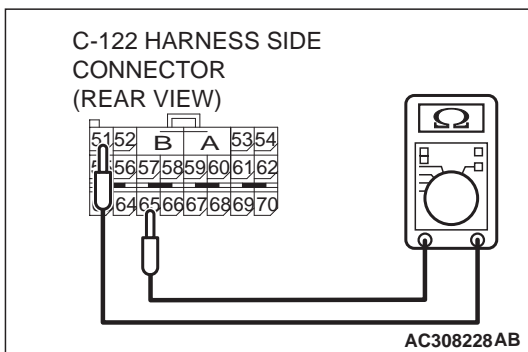




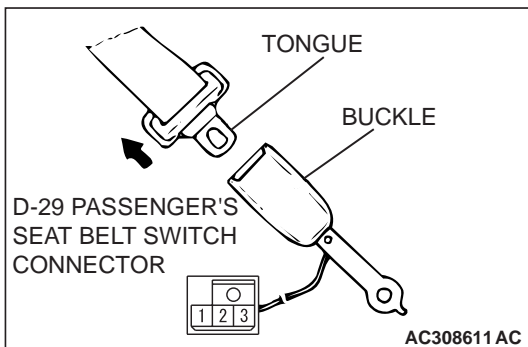
- (4) Measure the resistance between terminal 52 and terminal 51.
Resistance should be $820 \pm 82 \Omega$



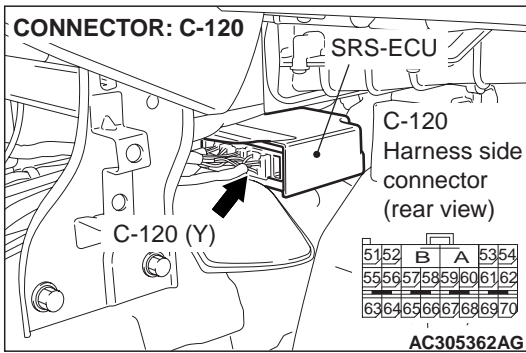
- (5) Measure the resistance between terminal 52, 51 and body ground.
It should be open circuit.



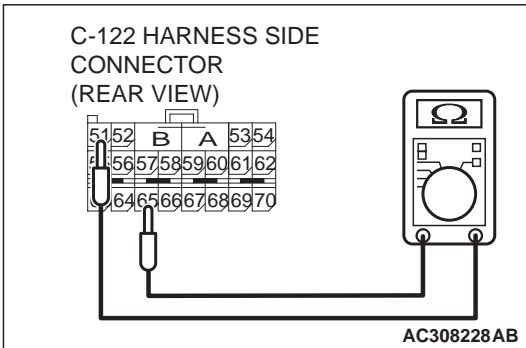
- (6) Measure the resistance between terminal 65 and terminal 51.
Resistance should be less than 2 ohms.



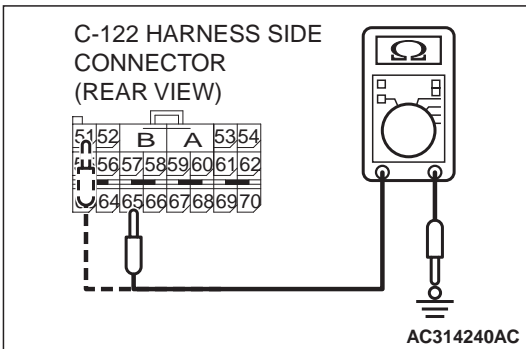
- (7) Remove the passenger's seat belt from the seat belt switch.



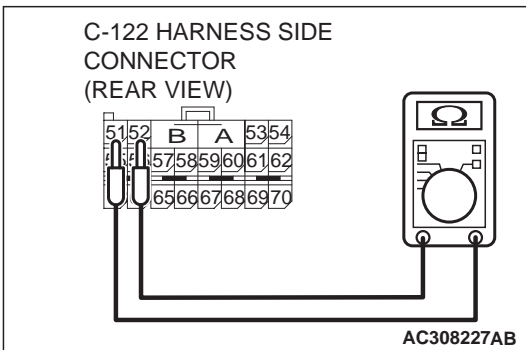
(8) Disconnect SRS-ECU connector C-120 and measure at the harness side (rear side).



(9) Measure the resistance between terminal 65 and terminal 51.
Resistance should be $820 \pm 82 \Omega$



(10) Measure the resistance between terminal 65, 51 and body ground.
It should be open circuit.

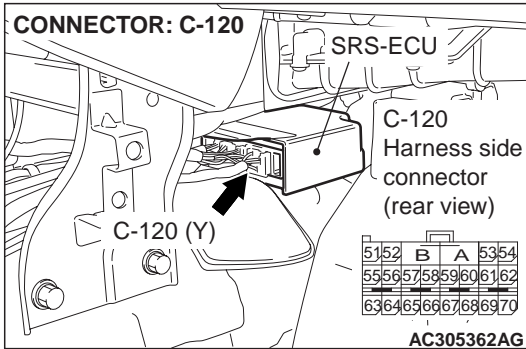


(11) Measure the resistance between terminal 52 and terminal 51.
Resistance should be less than 2 ohms.

Q: Does the resistance meet the value above?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539 are set, replace the SRS-ECU. (Refer to [P.52B-365.](#)) Then go to Step 6.

NO : Go to Step 5.

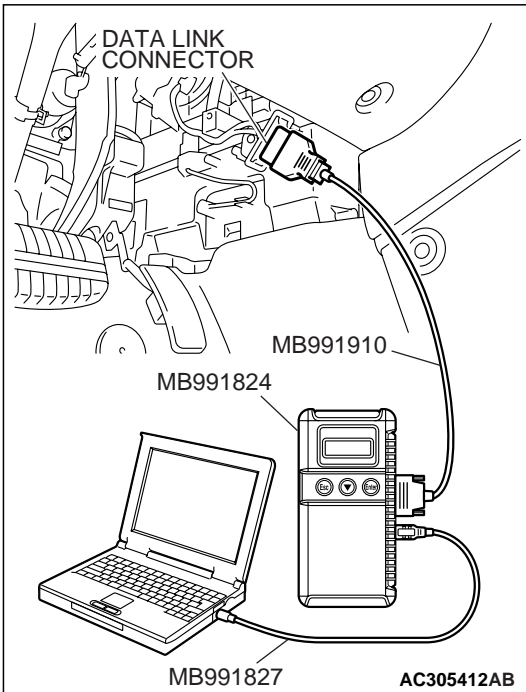
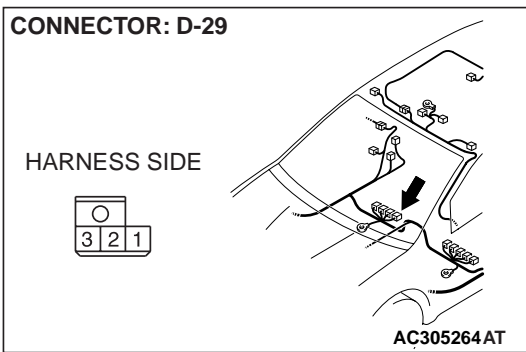


STEP 5. Check the harness wires between SRS-ECU connector C-120 (terminal No.52, 65 and 51) and passenger's seat belt switch connector D-29 (terminal No.1, 2 and 3).

Q: Are harness wires between SRS-ECU connector C-120 (terminal No.52, 65 and 51) and passenger's seat belt switch connector D-29 (terminal No.1, 2 and 3) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-120 and passenger's seat belt switch connector D-29. 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 B1530, B1531, B1532, B1533, B1534, B1535, B1536, B1537, B1538 or B1539 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1540: Occupant classification-ECU malfunction DTC B1541: Occupant classification-ECU calibration malfunction DTC B1542: Occupant classification sensor (S1) malfunction DTC B1543: Occupant classification sensor (S2) malfunction DTC B1558: Occupant classification-ECU ID-cord malfunction

⚠ CAUTION

If DTCs are set in the occupant classification-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

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

CODE NO.	PART/CIRCUIT INTEGRAL TO occupant classification-ECU	SYMPTOM
B1540	Occupant classification-ECU	• Malfunction of occupant classification-ECU
B1541		• Malfunction of calibration function
B1542	Occupant classification-sensor	• Malfunction of occupant classification sensor (S1)
B1543		• Malfunction of occupant classification sensor (S2)
B1558	Occupant classification-ECU	• Malfunction of ID code in occupant classification-ECU

TROUBLESHOOTING HINTS

- Malfunction of the occupant classification-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

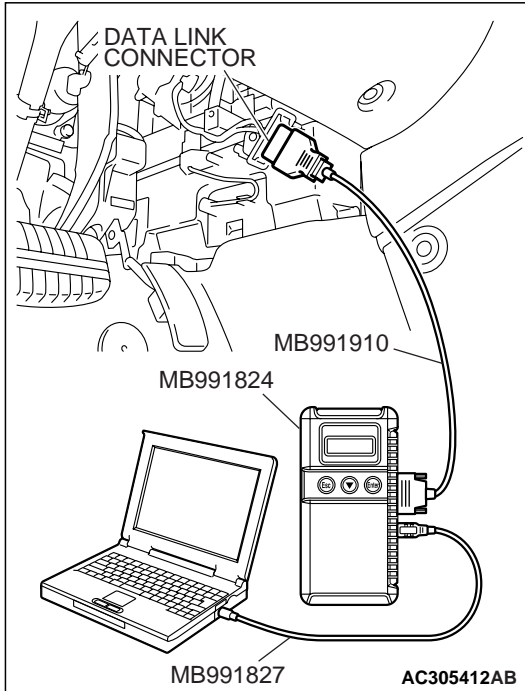
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

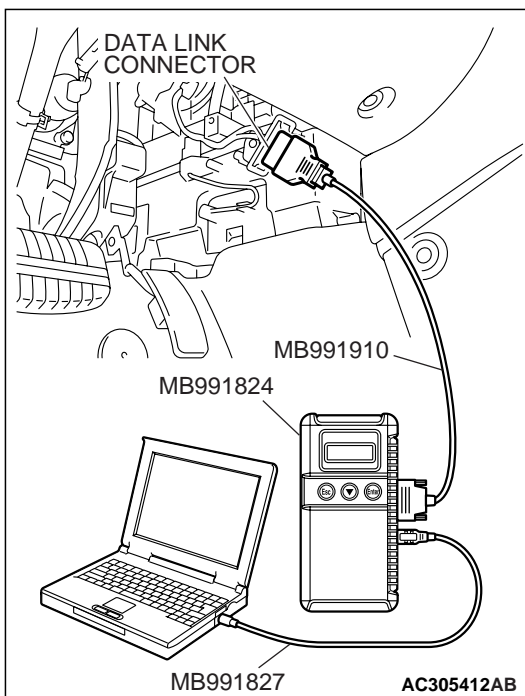
Check again if the DTC is set.

- (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 DTCs set?

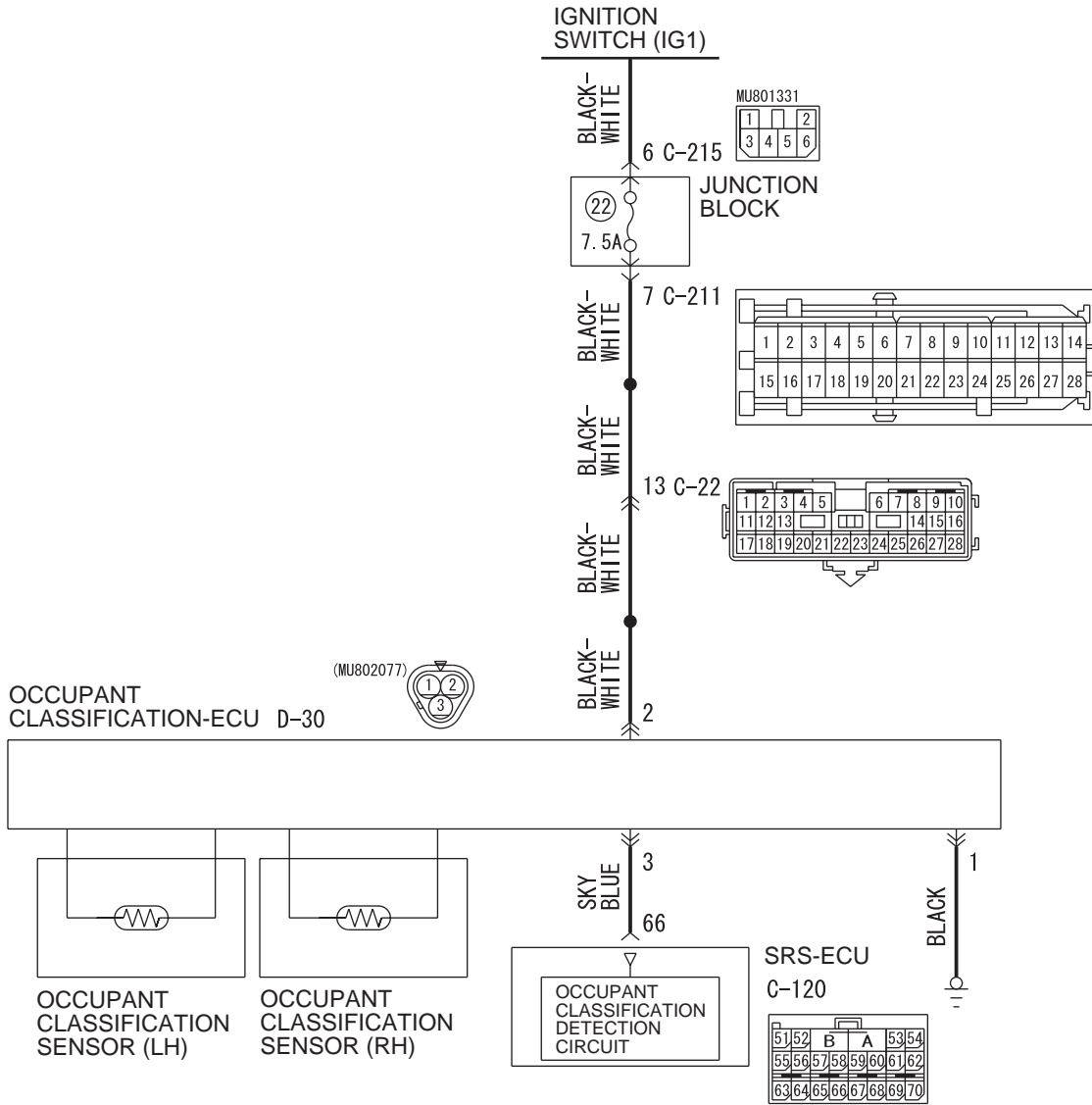
YES : Replace the front seat slide adjuster (Refer to GROUP 52A, front seat assembly P.52A-25).

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).

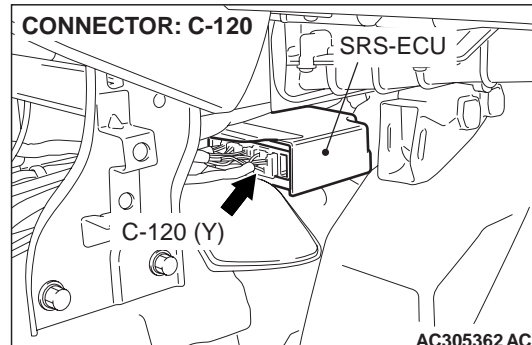
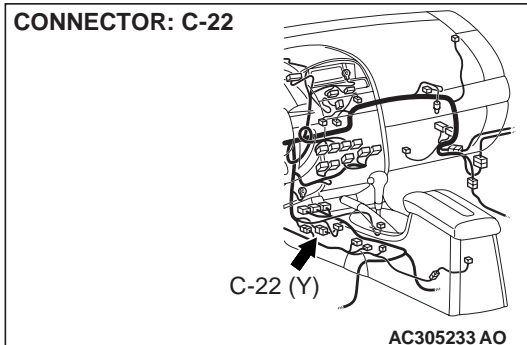


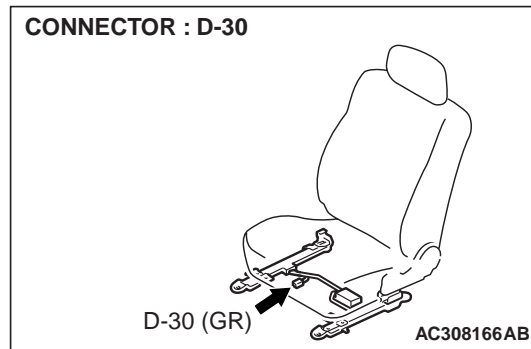
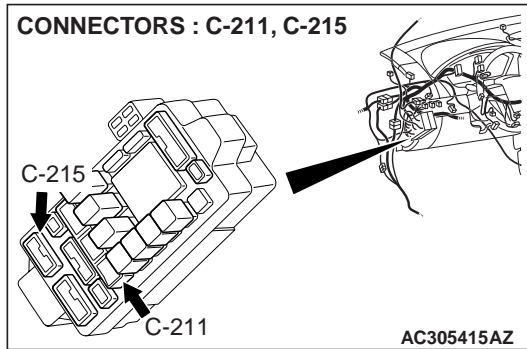
DTC B1545: Occupant classification-ECU for Power Supply Circuit
DTC B1546: Occupant classification-ECU for Communication System

Occupant Classification Sensor Circuit



W5P52M014A





⚠ CAUTION

If DTC B1545 or B1546 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The load data from the occupant classification sensor is classified with the occupant classification-ECU, and its classified information is sent to SRS-ECU. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the occupant classification-ECU
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

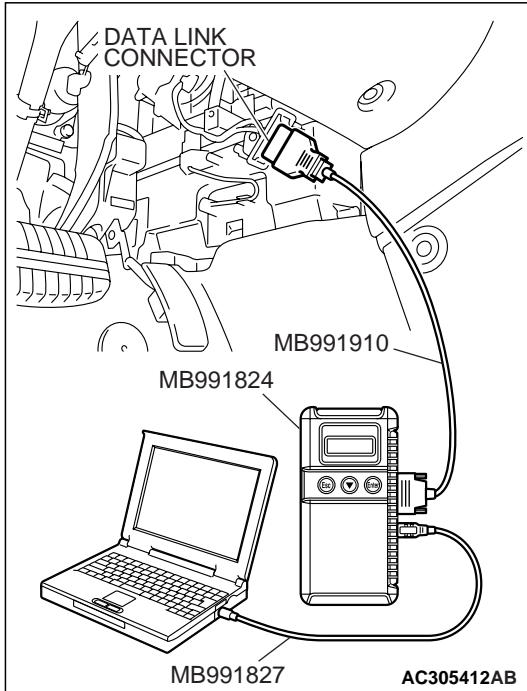
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

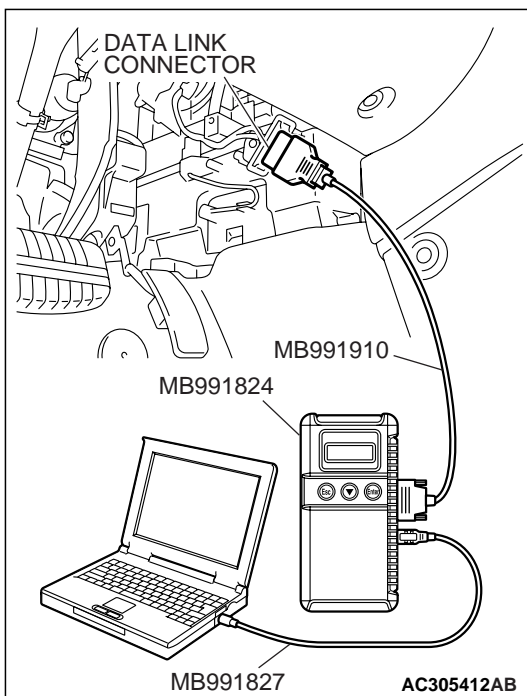
Check again if the DTC is set.

- (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).



CONNECTOR : D-30

HARNES SIDE



D-30 (GR)

AC308166AC

D-30 HARNES SIDE
CONNECTOR

AC308191AB

STEP 3. Measure the resistance at occupant classification-ECU connector D-30.

(1) Disconnect the connector D-30.

(2) Check for continuity between D-30 harness side connector terminals 1 and body ground. It should be 2 ohms or less.

Q: Is the measured resistance 2 ohms or less?**YES :** Then go to Step 4.**NO :** Repair the wiring harness between occupant classification-ECU connector D-30 terminals 1 and the body ground. Then go to Step 8.**CONNECTOR : D-30**

HARNES SIDE



D-30 (GR)

AC308166AC

D-30 HARNES SIDE
CONNECTOR

AC308192AB

STEP 4. Measure the voltage at occupant classification-ECU connector D-30.

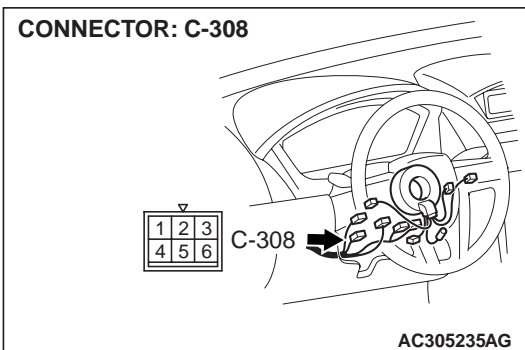
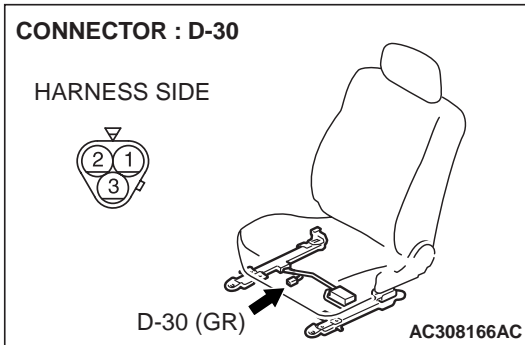
(1) Disconnect the connector D-30.

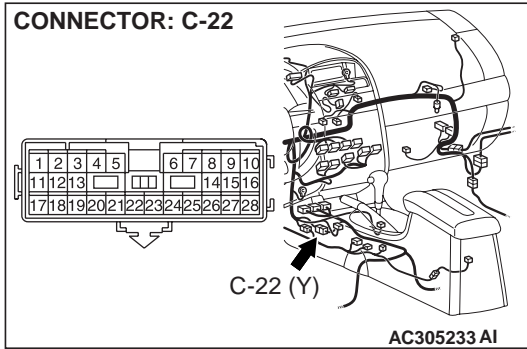
(2) Turn the ignition switch to the "ON" position.

(3) Measure the voltage between terminal 2 and ground. It should measure approximately 12 volts (battery positive voltage).

Q: Is battery positive voltage (approximately 12 volts) present?**YES :** Go to Step 5.**NO :** Go to Step 8.

STEP 5. Check the harness wires for open circuit or short circuit between occupant classification-ECU connector D-30 (terminal No.2) and ignition switch connector C-308 (terminal No.2).



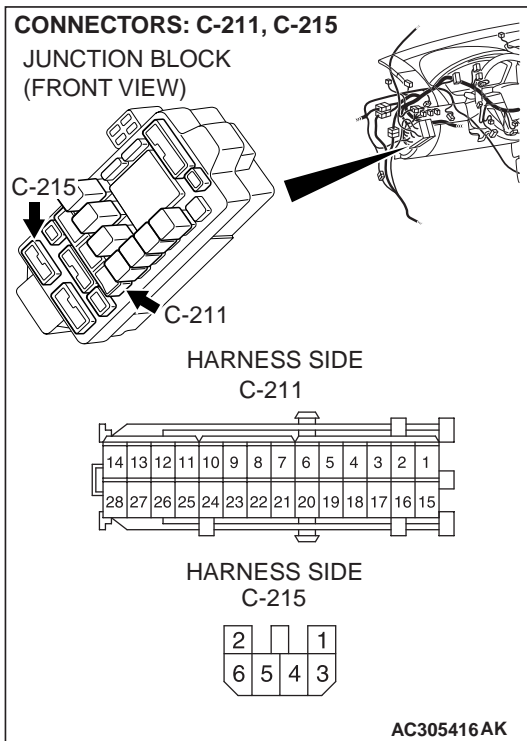


NOTE: After inspecting intermediate connectors C-22, C-211 and C-215 inspect the wiring harness. If intermediate connectors C-22, C-211 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 8.

Q: Are the harness wires between occupant classification-ECU connector D-30 (terminal No.2) and ignition switch connector C-308 (terminal No.2) in good condition?

YES : Then go to Step 6.

NO : Replace the harness wires between occupant classification-ECU connector D-30 and ignition switch connector C-308. Then go to Step 8.

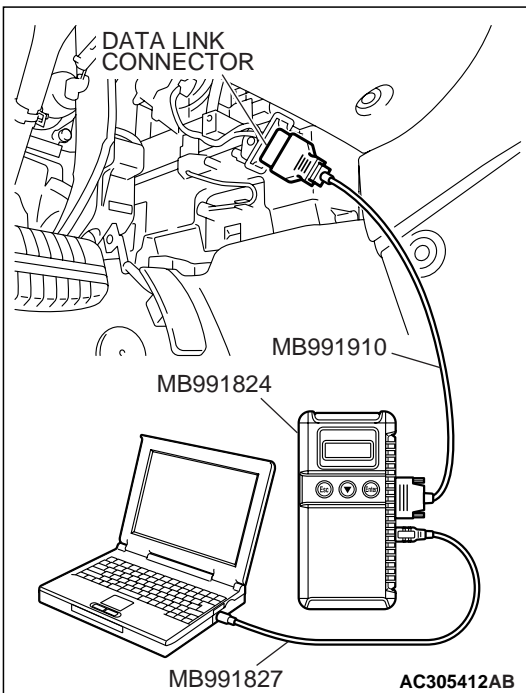
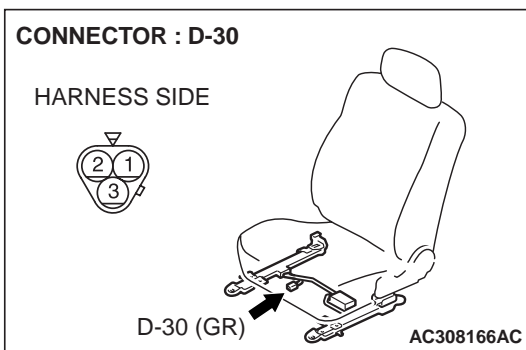
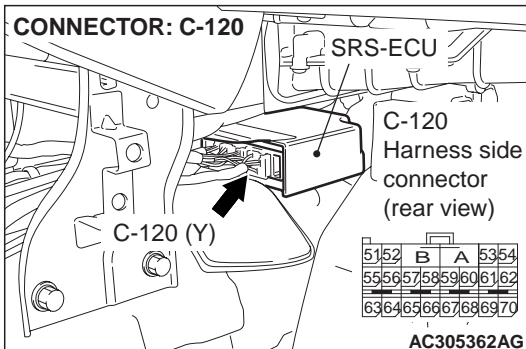


STEP 6. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-120 (terminal No.66) and occupant classification-ECU connector D-30 (terminal No.3).

Q: Are the harness wires between SRS-ECU connector C-120 (terminal No.66) and occupant classification-ECU connector D-30 (terminal No.3) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1545 or B1546 sets, replace the front seat slide adjuster (Refer to GROUP 52A, Front seat assembly P.52A-20). Then go to Step 7.

NO : Replace the harness wires between SRS-ECU connector C-120 and occupant classification-ECU connector D-30. Then go to Step 8.



STEP 7. Recheck for diagnostic trouble code.

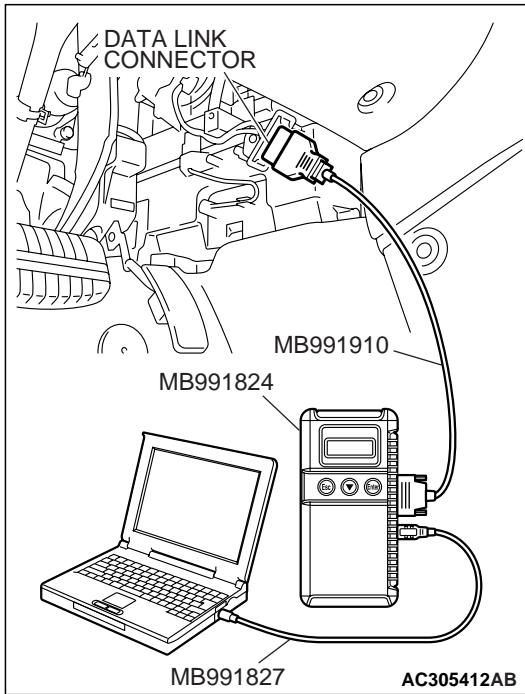
Check again if the DTC is set.

- (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 B1545 or B1546 set?

YES : Replace the SRS-ECU (Refer to P.52B-365). Then go to Step 8.

NO : The procedure is complete.

**STEP 8. Recheck for diagnostic trouble code.**

Check again if the DTC is set.

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

Q: Is DTC B1545 or B1546 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1547: Passenger's Front Air Bag Cut Off System**CAUTION**

If DTC B1547 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

This DTC is set if the following conditions are detected:

- Malfunction of occupant classification-ECU system

- Malfunction of front passenger's seat belt switch system
- Malfunction of front passenger's air bag module system
- Malfunction of SRS-ECU system

TROUBLESHOOTING HINTS

Malfunction of SRS-ECU

DIAGNOSIS**Required Special Tools:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

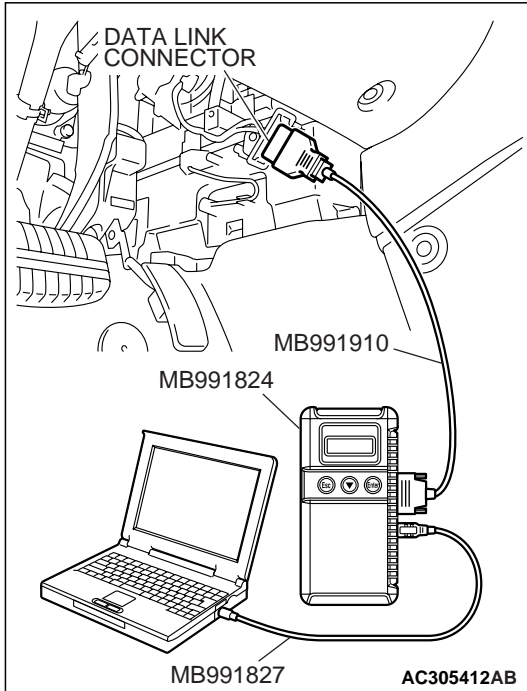
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (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).



STEP 2. Recheck for diagnostic trouble code.

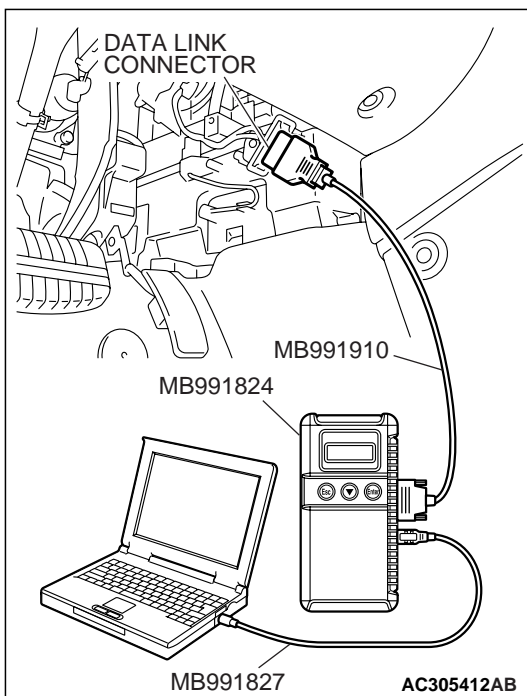
Check again if the DTC is set.

- (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).



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.

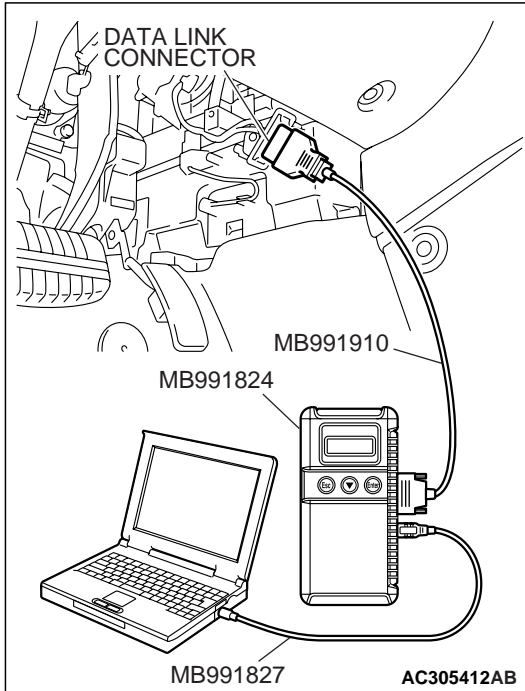
Check that the DTC except B1547 is set.

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

Q: Is the DTC set?

YES : Carry out the troubleshooting according to a set DTC.
Refer to [P.52B-33](#).

NO : Go to Step 4.



STEP 4. Recheck for diagnostic trouble code.

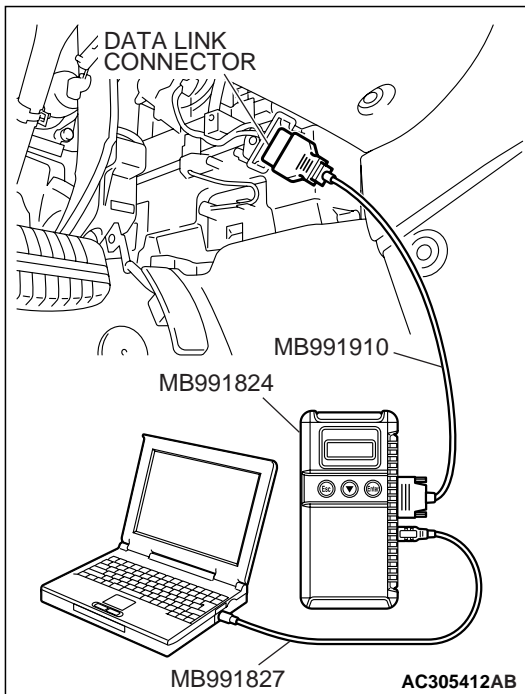
Check again if the DTC is set.

- (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 B1547 set?

YES : Replace the SRS-ECU (Refer to [P.52B-365](#)).

NO : The procedure is complete.



DTC B1556: Seat Slide Sensor System for Fault 2 (Malfunction of Seat Slide Sensor)

CAUTION

If DTC B1556 is set in the SRS-ECU, always diagnose the CAN main bus line.

- Seat slide sensor is not operating.
- Seat slide sensor characteristics are abnormal.
- Seat slide sensor output is abnormal.

DTC SET CONDITIONS

These DTCs are set if the following conditions are detected from the seat slide sensor output:

TROUBLESHOOTING HINTS

Malfunction of seat slide sensor

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

CAUTION

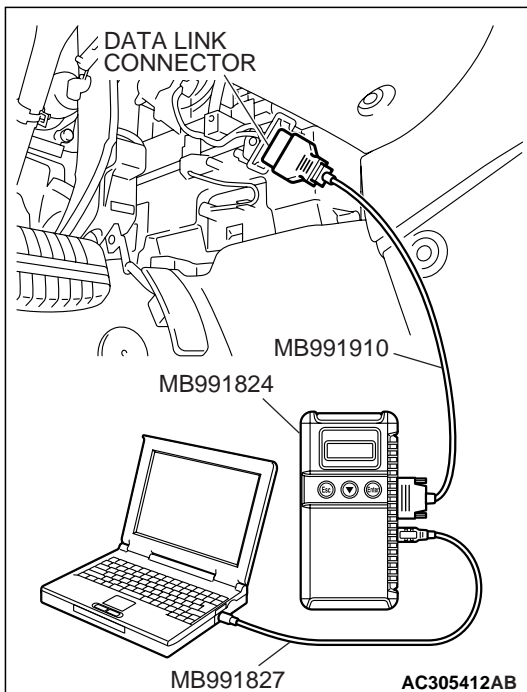
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

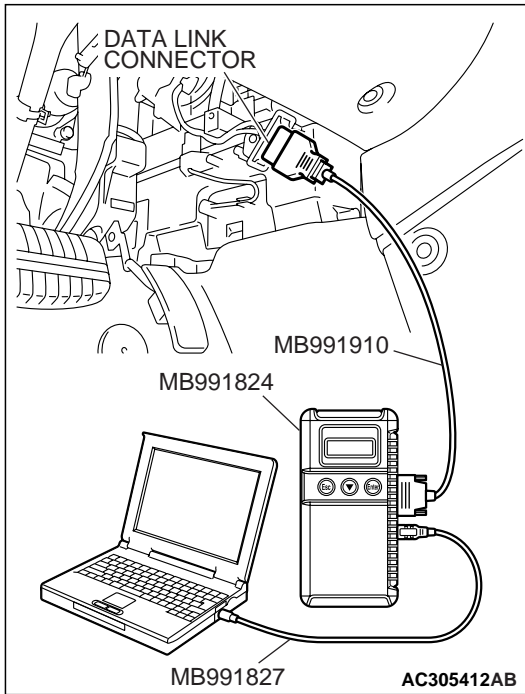
- (1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-30."
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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).



**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).

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

Replace seat slide sensor (Refer to P.52B-384).

Check the diagnostic trouble code.

Q: Is either DTC B1556 set?

YES : Replace the SRS-ECU (Refer to P.52B-365).

NO : The procedure is complete.

DTC U1073: Bus Off**CAUTION**

If DTC U1073 is set in the SRS-ECU, diagnose the CAN main bus line.

CAUTION

Whenever the ECU is replaced, ensure that the communication circuit is normal.

TROUBLE JUDGMENT

DTC U1073 will be stored when the SRS-ECU ceases CAN communication (bus off) and then resumes the communication when the ignition switch is turned to the "LOCK" (OFF) position.

TECHNICAL DESCRIPTION (COMMENT)

The wiring harness wire or connectors may have loose, corroded, or damage terminals, or terminals pushed back in the connector, or the SRS-ECU may be defective.

TROUBLESHOOTING HINTS

- Defective connector(s) or wiring harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

⚠ CAUTION

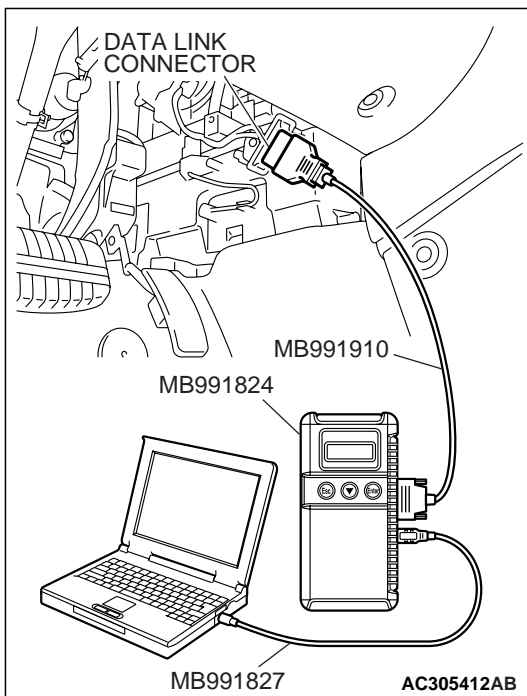
To prevent damage to scan tool (MUT-III), always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool (MUT-III).

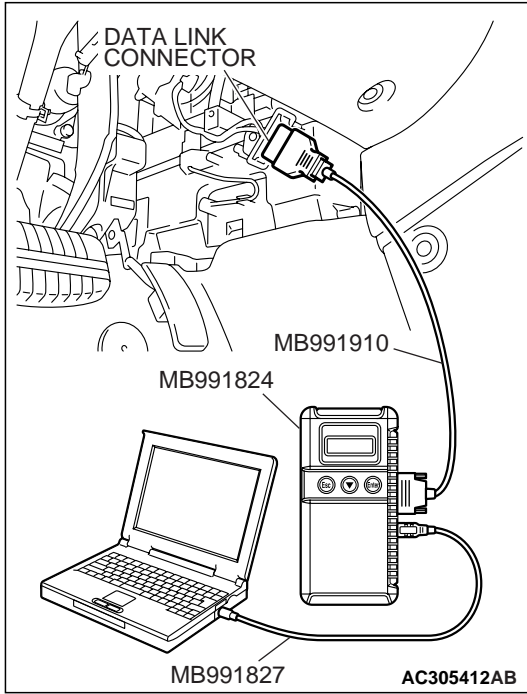
- (1) Connect scan tool MB991958 to the data link connector.
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.
- (4) Turn the ignition switch to the "LOCK" (OFF) position.

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

YES : Go to Step 2.

NO : Repair the CAN bus lines (Refer to GROUP 54C, precautions on how to repair the can bus lines).





STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

- (1) Connect scan tool MB991958 to the data link connector
- (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 check result satisfactory?

YES : 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).

NO : Replace the A/C-ECU. On completion, check that the DTC is not reset.

TROUBLE SYMPTOM CHART

M1524003400495

⚠ CAUTION

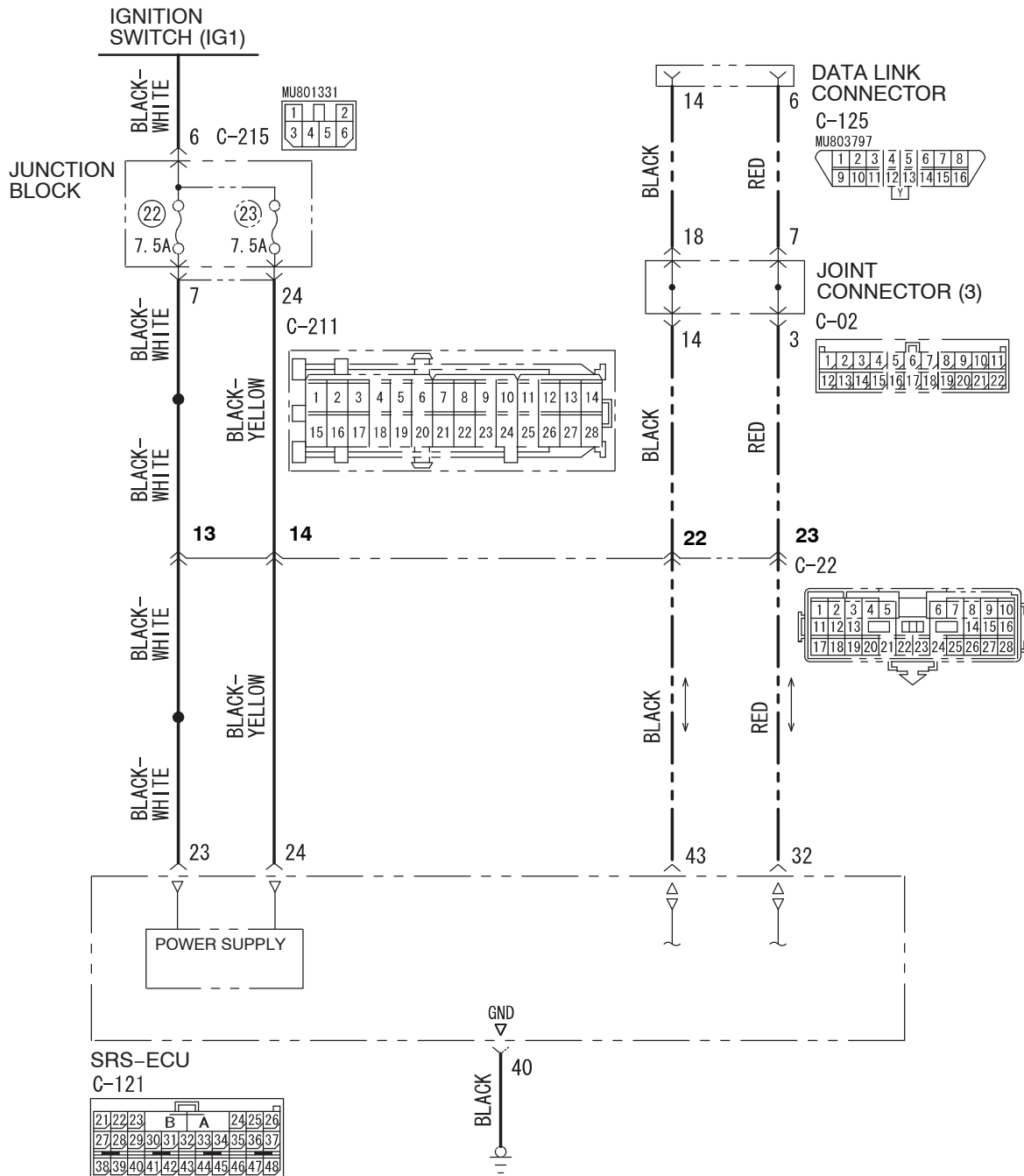
During diagnosis, a DTC code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for DTC code(s). If DTC code(s) are set, erase them all.

SYMPTOM	INSPECTION PROCEDURE NO.	REFERENCE PAGE
Communication between the scan tool and the SRS-ECU is not possible.	1	P.52B-335
Power supply circuit system	2	P.52B-337
When the ignition key is turned to the "ON" position (engine stopped), the SRS warning light does not illuminate.	3	P.52B-342
After the ignition key is turned to the "ON" position, the SRS warning light does not go off within approximately seven seconds.	4	P.52B-342

SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Communication between Scan Tool and the SRS-ECU is not possible.

Data Link Connector Circuit



AC308123

TECHNICAL DESCRIPTION (COMMENT)

If the scan tool (MUT-III Sub Assembly) can not communicate with the SRS system, the CAN bus lines may be defective. If the SRS system does not work, the SRS-ECU or its power supply circuit may be defective.

TROUBLESHOOTING HINTS (The most likely causes for this case:)

- Damaged wiring harness or connector
- Malfunction of the SRS-ECU

DIAGNOSIS**Required Special Tools:**

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

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

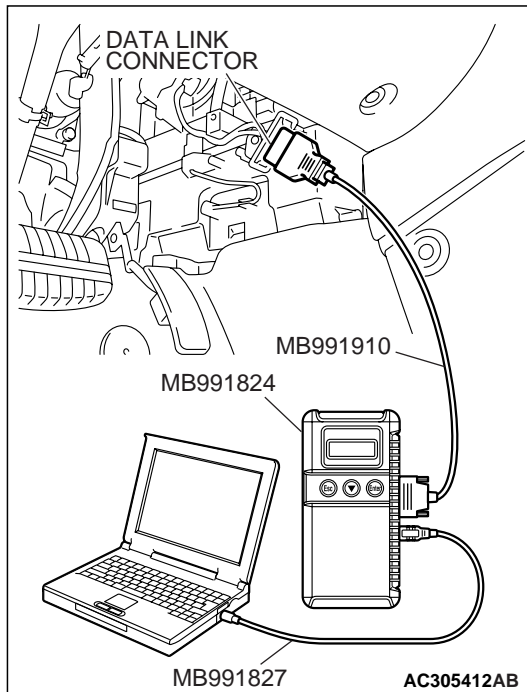
Use scan tool MB991958 to diagnose the CAN bus lines.

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

Q: Is the check result satisfactory?

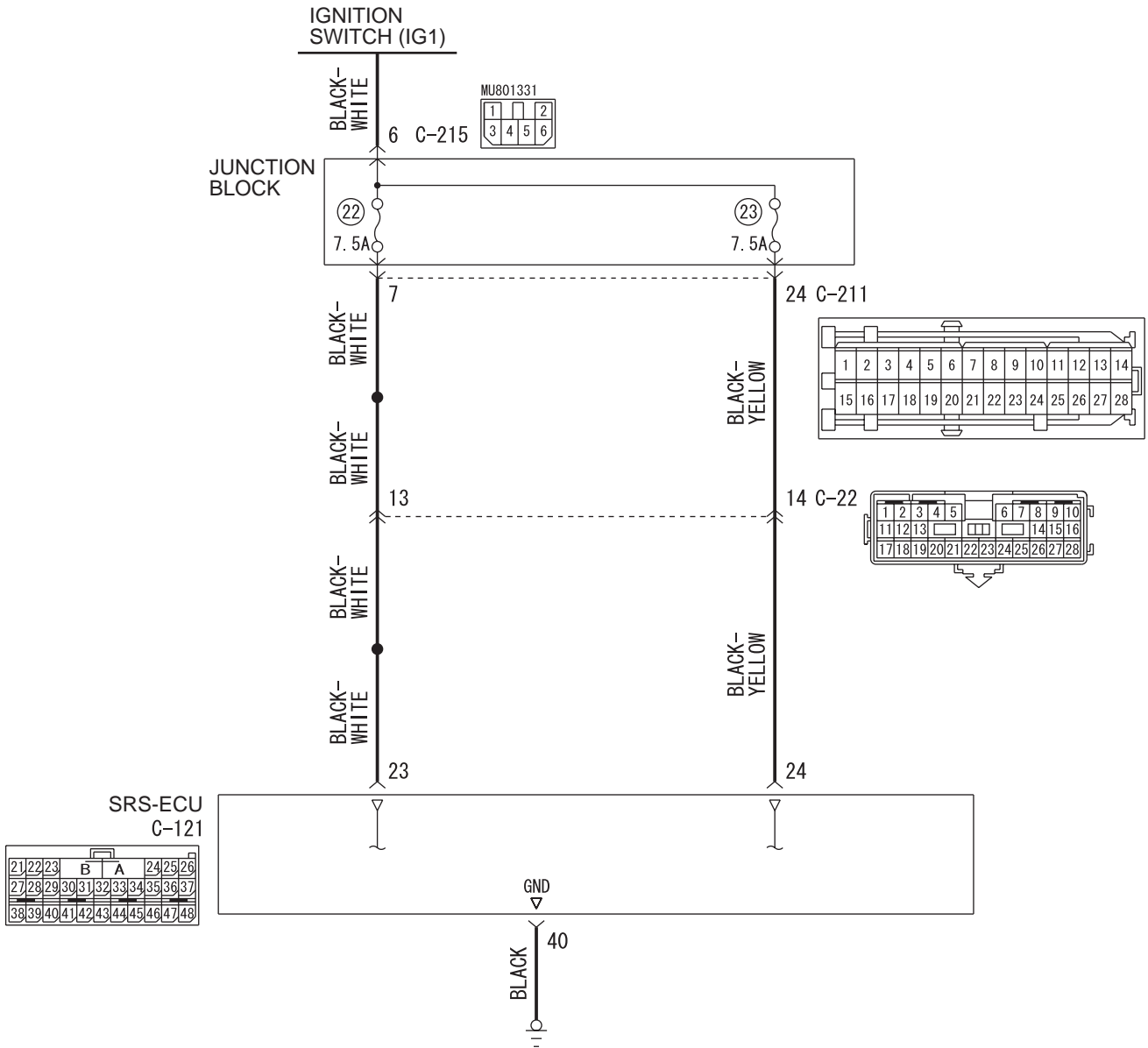
YES : Check and repair the power supply circuit system (Refer to P.52B-337).

NO : Repair the CAN bus lines (Refer to GROUP 54C, Diagnosis-Can Bus Diagnostic Chart).

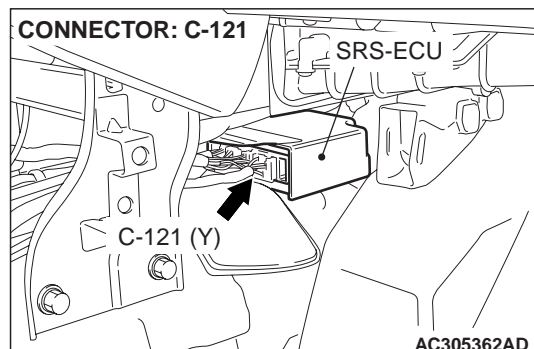
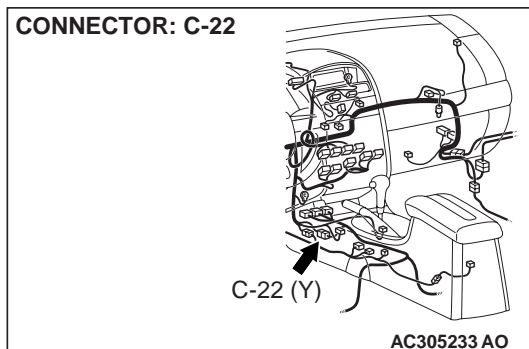


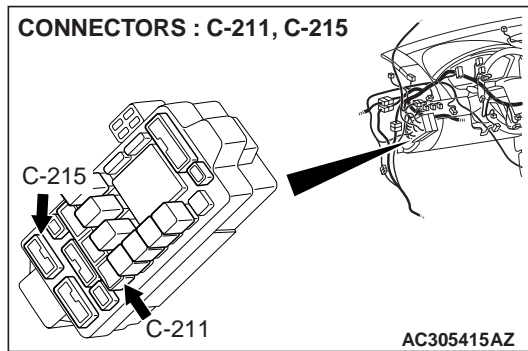
INSPECTION PROCEDURE 2: Power Supply Circuit System

IG1 Power Supply Circuit



W5P52M017A





CIRCUIT OPERATION

- The SRS-ECU is energized by the ignition switch (IG1) through multi-purpose fuse 22 and the SRS-ECU terminal 23 and multi-purpose fuse 23 and the SRS-ECU terminal 24.
- If the power supply to the SRS-ECU has failed, scan tool (MUT-III Sub Assembly) will not be able to communicate with it.

TROUBLESHOOTING HINTS (THE MOST LIKELY CAUSES FOR THIS CASE:)

- Damaged wiring harness or connector
- Defective battery
- Charging system failed
- Malfunction of the SRS-ECU

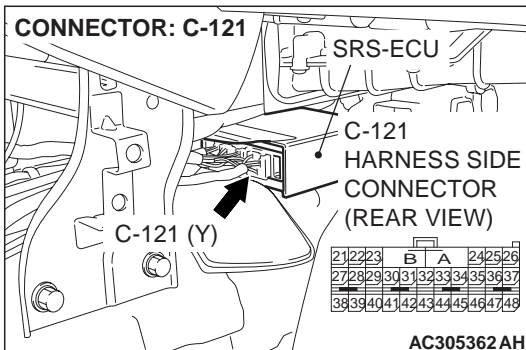
DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Measure the resistance at SRS-ECU connector C-121.

(1) Disconnect the connector C-121.



⚠ CAUTION

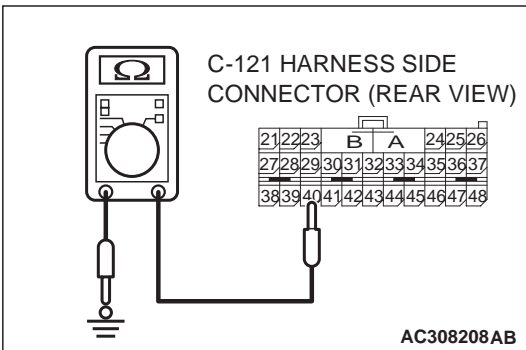
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(2) Check for continuity between C-121 harness side connector terminals 40 and body ground. It should be 2 ohms or less.

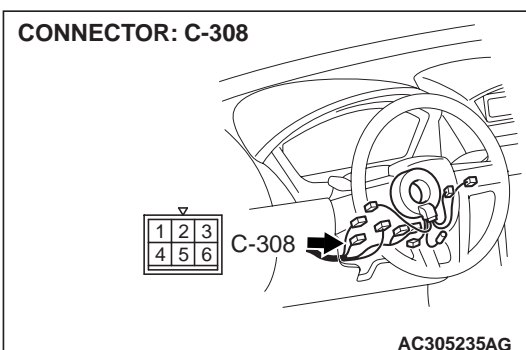
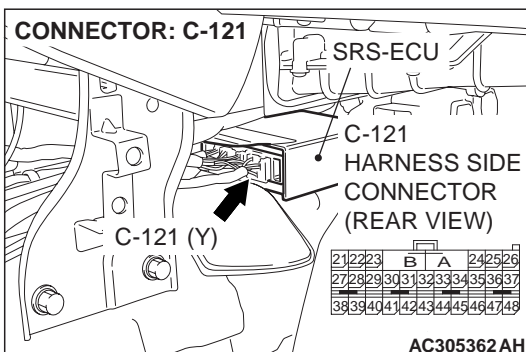
Q: Is the measured resistance 2 ohms or less?

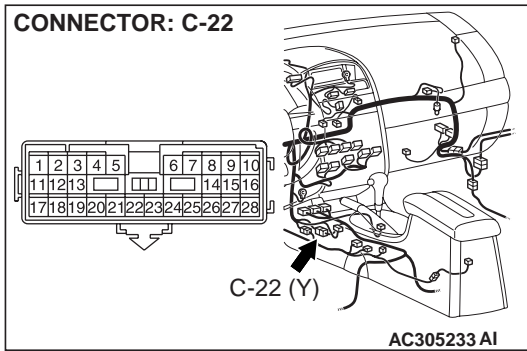
YES : Then go to Step 2.

NO : Repair the wiring harness between SRS-ECU connector C-121 terminals 40 and the body ground. Then go to Step 5.



STEP 2. Check the harness wires for short circuit to ground between SRS-ECU connector C-121 (terminal No.23 and 24) and ignition switch connector C-308 (terminal No.2).



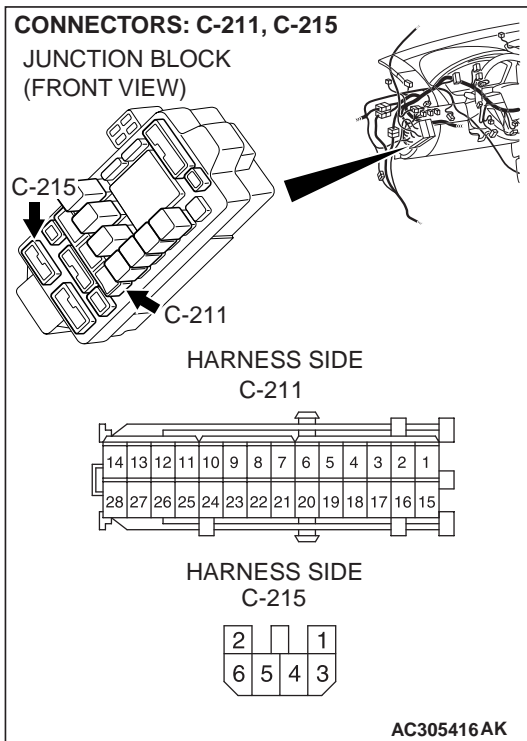


NOTE: After inspecting intermediate connectors C-22, C-211 and C-215 inspect the wiring harness. If intermediate connectors C-22, C-211 and C-215 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection . Then go to Step 5.

Q: Are the harness wires between SRS-ECU connector C-121 (terminal No.23 and 24) and ignition switch connector C-308 (terminal No.2) in good condition?

YES : Go to Step 3.

NO : Replace the harness wires between SRS-ECU connector C-121 and ignition switch connector C-308. Then go to Step 5.



STEP 3. Check the battery.

Check the battery (Refer to GROUP 54A, Battery test).

Q: Is the battery in good condition?

YES : Go to Step 4.

NO : Charge or replace the battery. Then go to Step 5.

STEP 4. Check the charging system.

Check the charging system (Refer to GROUP 16, Charging system diagnosis).

Q: Is the charging system in good condition?

YES : Go to Step 5.

NO : Repair or replace the charging system component(s).Then go to Step 5.

STEP 5. Retest the system.

Q: Can the SRS-ECU communicate with the scan tool (MUT-III Sub Assembly)?

YES : It can be assumed that this malfunction is intermittent.
Refer to GROUP 00, How to Use
Troubleshooting/Inspection Service Points – How to
Cope with Intermittent Malfunctions .

NO : Replace the SRS-ECU (Refer to [P.52B-365](#)). Then go to Step 6.

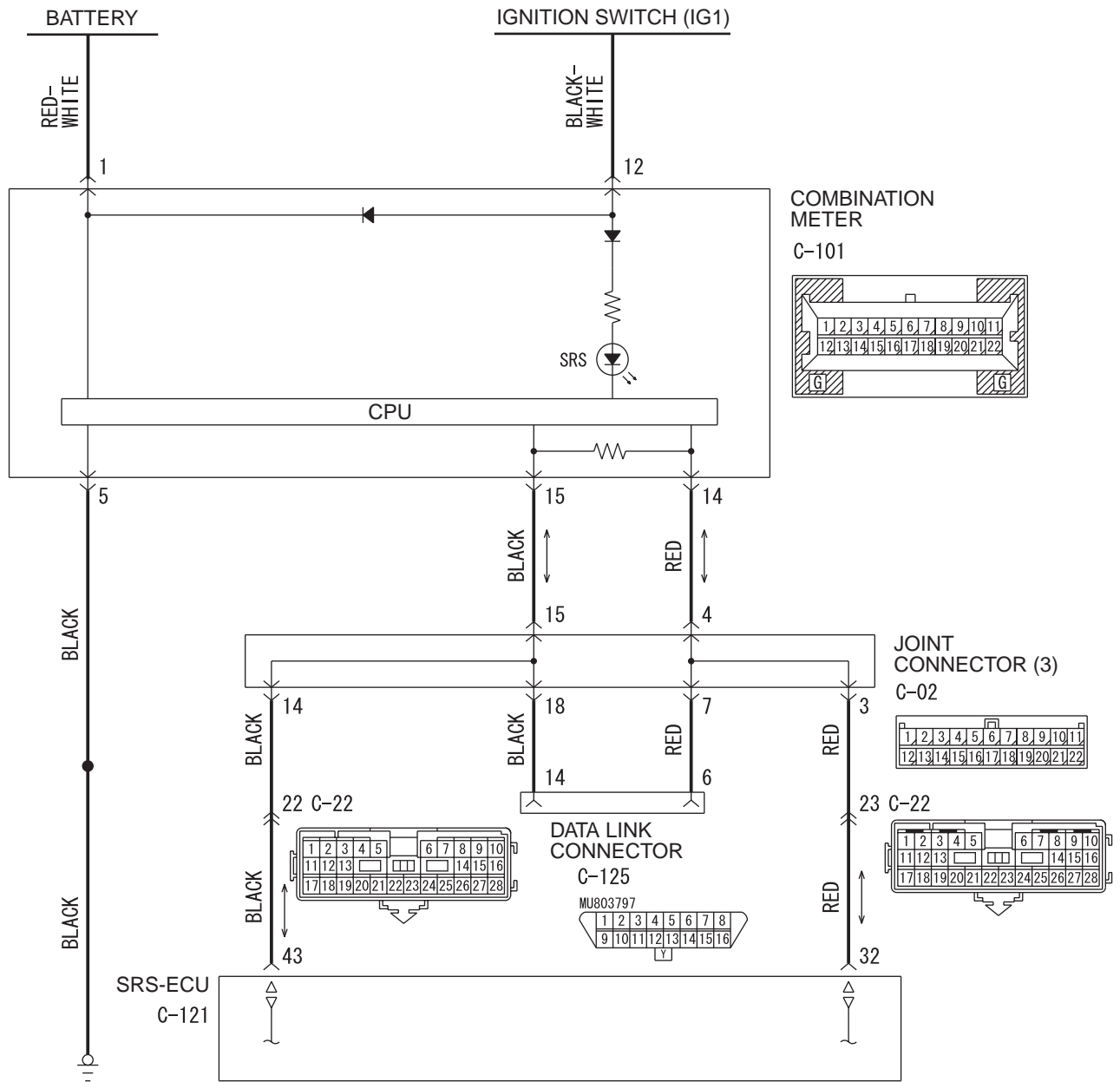
STEP 6. Retest the system.

Q: Can the SRS-ECU communicate with the scan tool (MUT-III Sub Assembly)?

YES : The procedure is complete.

NO : Go to Step 1.

INSPECTION PROCEDURE 3: When the Ignition Key is Turned to "ON" (Engine Stopped), the SRS Warning Light does not Illuminate. **INSPECTION PROCEDURE 4:** The SRS Warning Light Remains Illuminated after the Engine is Started.



AC401937AB
W5P52M002A

TECHNICAL DESCRIPTION (COMMENT)

- The SRS-ECU sends the SRS warning light signal to the combination meter via the CAN communication.
- This may be caused by faults in the CAN bus line, the combination meter or the SRS-ECU.

TROUBLESHOOTING HINTS (THE MOST LIKELY CAUSES FOR THIS CASE:)

- Damaged wiring harness or connector
- Combination meter defect
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

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

CAUTION

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

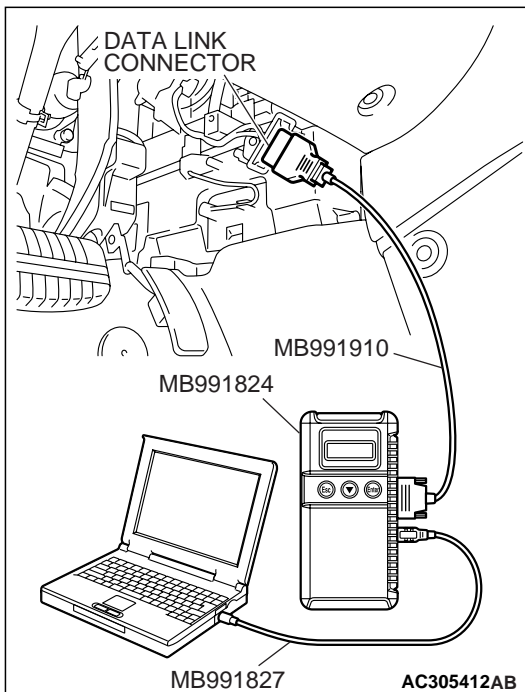
Use scan tool MB991958 to diagnose the CAN bus lines.

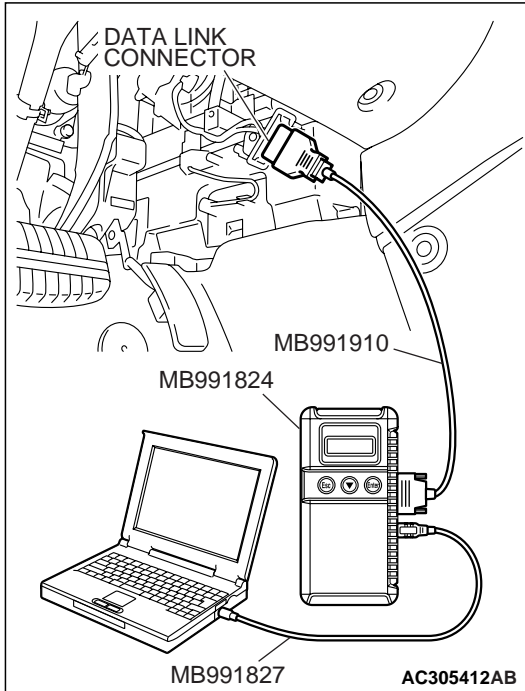
- (1) Connect scan tool MB991958 to the data link connector.
- (2) Turn the ignition switch to the "ON" position.
- (3) Diagnose the CAN bus line.

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). Repair the CAN bus lines, and then go to Step 2.





STEP 2. Using scan tool MB991958, read the combination meter 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.

Use scan tool MB991958 to check whether combination meter DTC U1112 has been set.

- (1) Connect scan tool MB991958 to the data link connector.
- (2) Turn the ignition switch to the "ON" position.
- (3) Check whether combination meter DTC U1112 has been set.

Q: Is combination meter DTC U1112 set?

YES : Replace the SRS-ECU.

NO : Replace the combination meter.

DATA LIST REFERENCE TABLE

M1524003500038

The following items can be read by the scan tool from the SRS-ECU input data.

No.	DATA LIST ITEM	CHECK CONDITIONS	NORMAL CONDITIONS
01	Failure continuation time 1*	Always	Maximum time to be stored: 9999 minutes (approximately seven days)
02	Failure continuation time 2*	Always	
03	Seat position	Slide the seat from the back-end position to the front-end position.	Rear/Front
04	Passenger seat Airbag Ignition	Do not apply any load to the passenger seat.	Permission/Prohibition
06	Driving seatbelt (Buckle SW1)	Wear the driver seatbelt.	Unfastened/Fastened
07	Driving seatbelt (Buckle SW2)	Undo the driver seatbelt.	Fastened/Unfastened
08	Passenger seatbelt (Buckle SW1)	Wear the passenger seatbelt.	Unfastened/Fastened
09	Passenger seatbelt (Buckle SW2)	Undo the passenger seatbelt.	Fastened/Unfastened
10	Elimination times	Always	Maximum time to be stored: 255 days

No.	DATA LIST ITEM	CHECK CONDITIONS	NORMAL CONDITIONS
42	OCSS Occupant Classification	Apply a load to the passenger seat.	Class 0/Class 1/Class 2/Not Clear/–
44	OCSS Occupant Weight		kg/Unkown
45	OCSS Parts Number	Always	–

NOTE:

- 1* : indicates the duration from the occurrence of failure to the first ignition signal output.
- 2* : indicates the duration from the first collision judgment or non-ignition judgment to the present.

ACTUATOR TEST REFERENCE TABLE

M1524003600035

The scan tool activates the following actuators for testing.

MUT-III SCAN TOOL DISPLAY	ITEM NO.	ITEM	PARTS TO BE ACTIVATED
SRS Warning Lamp	01	The SRS warning light illuminates.	CAN output
Passenger Seat belt Warning Lamp	02	Passenger's seat belt warning light illumination	SRS-ECU output
Passenger SRS OFF Lamp	03	Passenger's air bag OFF indicator light illumination	

FAIL-SAFE FUNCTION

M1524003700021

If the SRS-ECU determines that the following parts are defective, the SRS-ECU operates the SRS warning light and controls as follows.

- If the seat belt switch is defective, the SRS-ECU determines that the seat belt is fastened and controls the seat belt with pre-tensioner.
- If the seat slide sensor is defective, the SRS-ECU determines that the seat is in its backward position and controls the air bag.
- If the occupant classification sensor or the occupant classification-ECU is defective, the SRS-ECU determines that the occupant classification is class 2 (The occupant classification sensor detects 30 kg or more.) and controls the air bag and the passenger's air bag OFF indicator light.

ACCURACY TESTING OF OCCUPANT CLASSIFICATION SENSOR

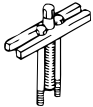
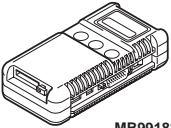
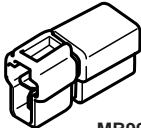
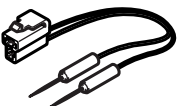
M1524025800015

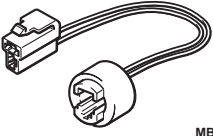
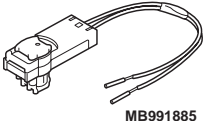


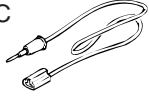

The scan tool can be used to perform the next function.

- Seat Weight Sensor Accuracy Check
- Zero-calibration

SPECIAL TOOLS


M1524000700453

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB990803A1	MB990803 Steering wheel puller	General service tool	Steering wheel removal
<p>A</p>  MB991824	<p>MB991958</p> <p>A: MB991824 B: MB991827 C: MB991910 D: MB991911 E: MB991914 F: MB991825 G: MB991826</p> <p>Scan tool (MUT-III sub assembly)</p> <p>A: Vehicle communication interface (V. C. I.) B: MUT-III USB cable C: MUT-III main harness A (Vehicles with CAN communication system) D: MUT-III main harness B (Vehicles without CAN communication system) E: MUT-III main harness C (for Daimler Chrysler models only) F: MUT-III measurement adapter G: MUT-III trigger harness</p>	<p>MB991824-KIT</p> <p>NOTE: G: MB991826</p> <p>MUT-III Trigger Harness is not necessary when pushing V.C.I. ENTER key.</p>	<p>Checking diagnostic trouble code</p> <p>⚠ CAUTION</p> <p>For vehicles with CAN communication, use MUT-III main harness A to send simulated vehicle speed. If you connect MUT-III main harness B instead, the CAN communication does not function correctly.</p>
 MB991865	MB991865	Dummy resistor	SRS air bag and seat belt with pre-tensioner circuit check
 MB991866	MB991866	Resistor harness	SRS air bag circuit check

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB991884	MB991884	Resistor harness (For Pre-tensioner)	Seat belt with pre-tensioner circuit check
 MB991885	MB991885	Pretensioner adapter harness	<ul style="list-style-type: none"> • Deployment of seat belt with pre-tensioner inside the vehicle • Deployment of seat belt with pre-tensioner outside the vehicle
<p>A</p>  <p>B</p>  <p>C</p>  <p>D</p>  MB991223AG	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222 Harness set A: Test harness B: LED harness C: LED harness adapter D: Probe	General service tools	Checking the continuity and measuring the voltage at the SRS-ECU harness connector

TEST EQUIPMENT

M1524000800256

TOOL	NAME	USE
 AC000019AB	Digital multi-meter Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement	Checking the SRS electrical circuitry with SRS check harness

SRS MAINTENANCE

M1524003900296

The SRS must be inspected by an authorized dealer up to 10 years after the date of vehicle registration. (Refer to GROUP 00, Maintenance Service – SRS Maintenance).

POST-COLLISION DIAGNOSIS

M1524001100852

To inspect and service the SRS after a collision (whether or not the air bags have deployed), perform the following steps.

SRS-ECU MEMORY CHECK

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

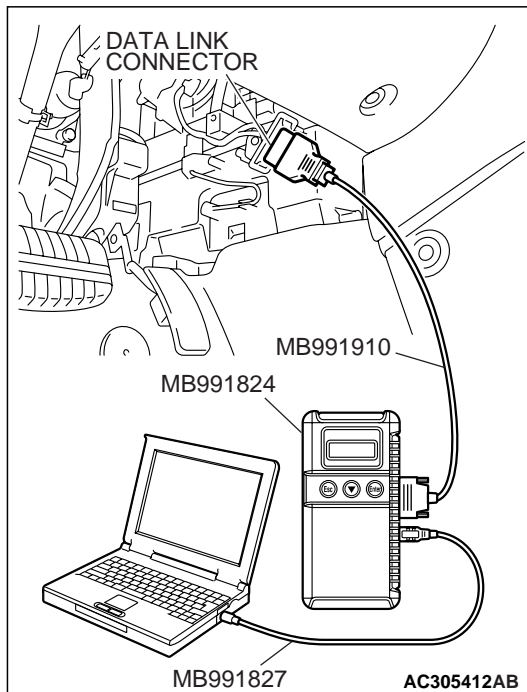
⚠ CAUTION

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 to the data link connector (16-pin).
2. Read (and write down) all displayed diagnostic trouble codes (Refer to [P.52B-33](#)).

NOTE: If the battery power supply has been disconnected or disrupted by the collision, scan tool MB991958 cannot communicate with the SRS-ECU. Check the battery, then check and, if necessary, repair the front wiring harness and the instrument panel wiring harness before proceeding.

3. Read the data list (fault duration and how many times memories are erased), using scan tool MB991958.



Data list

NO.	DATA LIST ITEM	APPLICABILITY
01	Failure continuation time 1	Maximum time to be stored: 9,999 minutes (approximately seven days)
02	Failure continuation time 2	
10	Elimination times	Maximum time to be stored: 255

4. Erase the diagnostic trouble codes, and then turn the ignition switch to the LOCK (OFF) position.
5. Wait for at least one second, and then turn the ignition switch to the ON position again.
6. After waiting 15 seconds or more, note all displayed diagnostic trouble codes (Refer to [P.52B-30](#)).

REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones:
 - SRS-ECU (Refer to [P.52B-365](#)).
 - Air bag modules (Refer to [P.52B-368](#)).
 - Seat belt with pre-tensioner (Refer to [P.52B-380](#)).
 - Front seat assembly <Passenger's side> (Refer to GROUP 52A, Front Seat Assembly [P.52A-20](#)).
 - Front impact sensors (Refer to [P.52B-362](#)).
 - Instrument panel (Refer to GROUP 52A, Instrument Panel Assembly [P.52A-3](#)).
2. Check the following parts and replace if there are any malfunctions:
 - Clock spring (Refer to [P.52B-368](#)).
 - Seat slide sensor (Refer to [P.52B-384](#)).
 - Seat belt switch (Refer to GROUP 52A, Front Seat Assembly [P.52A-20](#)).
 - Steering wheel, steering column shaft assembly
 - (1) Check the wiring harness (built into the steering wheel) and connectors for damage, and terminals for deformation.
 - (2) Install the air bag module to check fit and alignment with the steering wheel.
 - (3) Check the steering wheel for noise, binding or difficult operation and excessive free play.
 - (4) Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-Vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check).
3. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to [P.52B-26](#)).

WHEN SIDE AIR BAGS DEPLOY IN A COLLISION.

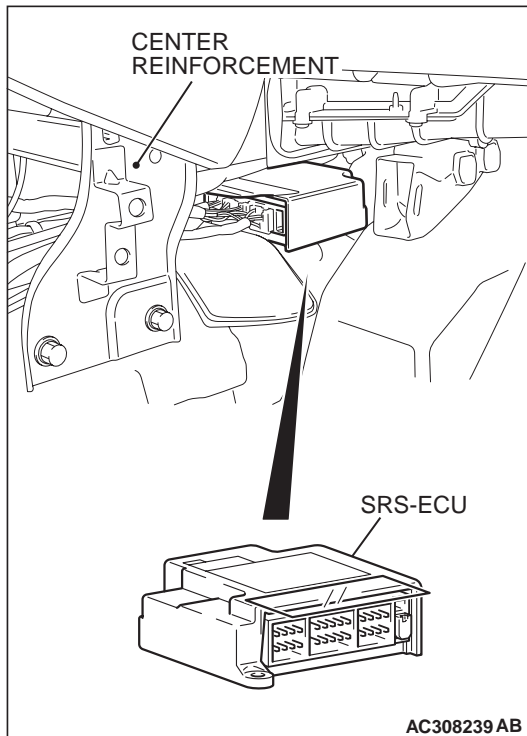
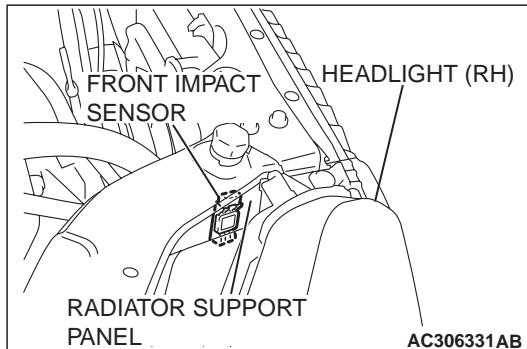
1. Replace the following parts with new ones:
 - SRS-ECU (Refer to [P.52B-365](#)).
 - Side impact sensors (Refer to [P.52B-377](#)).
 - Front seat assembly (Refer to GROUP 52A, Front Seat Assembly [P.52A-25](#)).
2. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to [P.52B-26](#)).

**WHEN AIR BAGS DO NOT DEPLOY IN
LOW-SPEED COLLISION.**

Check the SRS components. If the SRS components are showing any visible damage such as dents, cracks, or deformation, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautionary points for working, refer to appropriate INDIVIDUAL COMPONENT SERVICE [P.52B-353](#).

Front impact sensor

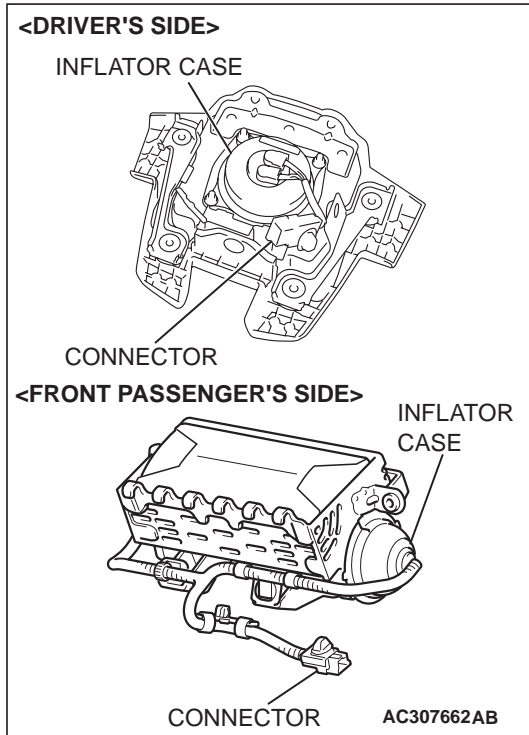
1. Check the radiator support panel for distortion and rust.
2. Check the front impact sensor for dents, cracks, deformation or rust.
3. Check the front impact sensor wiring harness for binding, check the connector for damage, and check the terminals for deformation.

**SRS-ECU**

1. Check the SRS-ECU case for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the SRS-ECU.

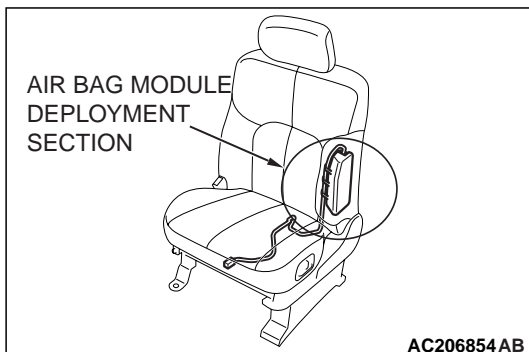
Air bag modules

1. Check the pad cover for dents, cracks or deformation.
2. Check the connector for damage, terminal deformities, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformities.
4. Install the air bag module (driver's side) to the steering wheel to check installation or alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember to check installation or alignment.



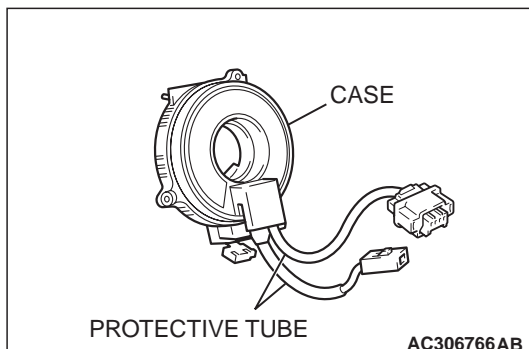
Front seatback assembly (Side-airbag module)

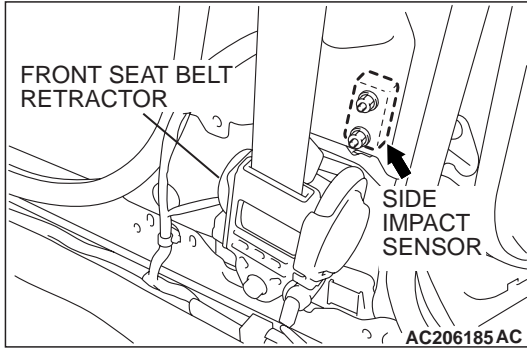
1. Check the air bag module deployment section for dents or deformation.
2. Check that there is no connector damage, bent terminals or harness crimping.



Clock spring

1. Check the clock spring connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.

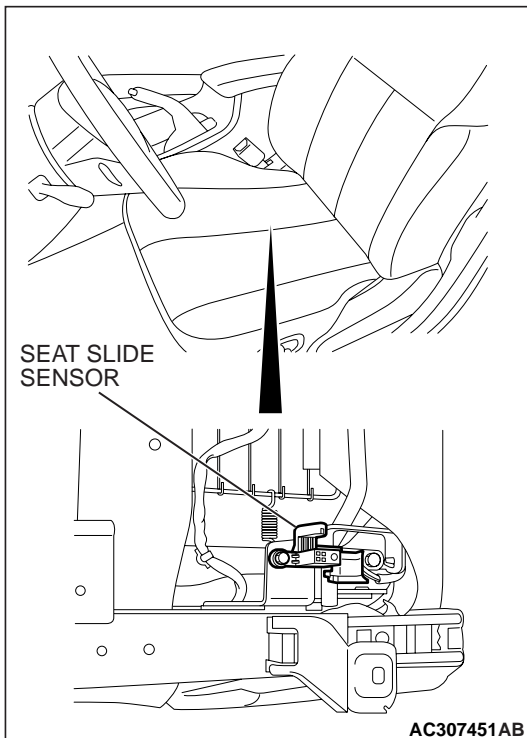




Side impact sensor

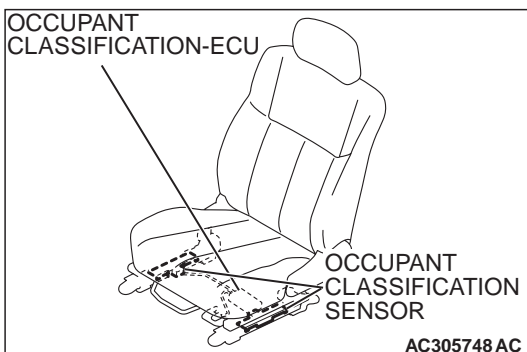
1. Check that there is no bending or corrosion in the center pillar.
2. Check that there is no denting, breakage or bending of the side impact sensor.
3. Check that there is no harness crimping, connector damage or bent terminals.

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



Seat slide sensor

1. Check that there is no connector damage, bent terminals or harness crimping.
2. Check the installation of the seat slide sensor.



Occupant classification sensor

1. Check the occupant classification-ECU case and occupant classification sensor for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the occupant classification-ECU and occupant classification sensor.

Steering wheel, steering column and shaft assembly

1. Check the wiring harness (built into the steering wheel) and the connectors for damage, and the terminals for deformation.
2. Install the air bag module to check fit or alignment with the steering wheel.
3. Check the steering wheel for noise, binding or difficult operation and excessive free play.
4. Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-Vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check).

Seat belt with pre-tensioner

1. Check the seat belt for damage or deformation.
2. Check the seat belt with pre-tensioner for cracks or deformation.
3. Check that the unit is installed correctly to the vehicle body.

Harness connector (Front wiring harness, instrument panel wiring harness, and floor wiring harness)

Check the harnesses for binding, the connectors for damage, poor connection, and the terminals for deformation (Refer to [P.52B-26](#)).

INDIVIDUAL COMPONENT SERVICE

M1524002900282

WARNING

- ***If heat damage occurs during paint work, remove the SRS-ECU, the air bag modules, the clock spring, front seats, and the seat belt with pre-tensioner. Recheck the SRS system operability after reinstalling them. (Refer to GROUP 00, Maintenance Service-SRS Maintenance).***
 - ***SRS-ECU, air bag module, clock spring: 93° C (200° F) or more***
 - ***Seat belt with pre-tensioner: 90°C (194° F) or more***
- ***If the SRS components are removed for the purpose of inspection, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.***

If the SRS components are to be removed or replaced as a result of maintenance, diagnosis, etc., follow the appropriate procedure in this section. (Front impact sensor: refer to [P.52B-362](#), SRS-ECU: refer to [P.52B-365](#), Air bag modules and clock spring: refer to [P.52B-368](#), Side impact sensor: refer to [P.52B-377](#), Seat belt with pre-tensioner: refer to [P.52B-380](#)).

ON-VEHICLE SERVICE

ACCURACY CHECK OF OCCUPANT CLASSIFICATION SENSOR

M1524025100049

⚠ CAUTION

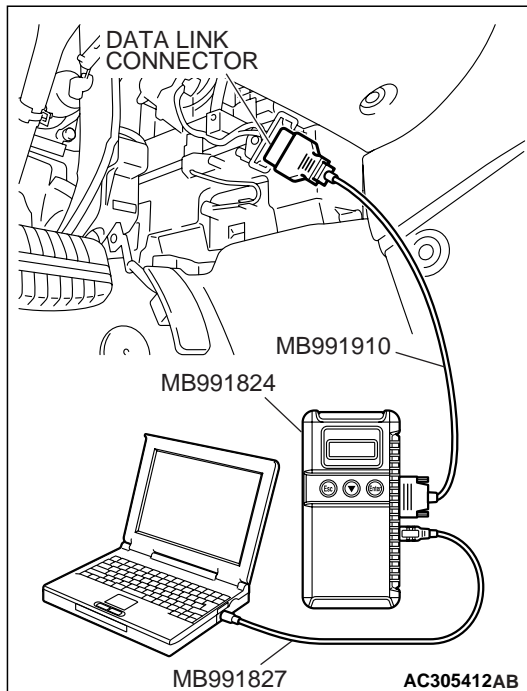
The following precaution must be observed when executing accuracy testing and calibration.

- Eliminate the occupant classification sensor friction.
- Perform the occupant classification sensor calibration at room temperature. (Proposal: $20 \pm 15^{\circ}\text{C}$ ($68 \pm 27^{\circ}\text{F}$)) (Before the calibration, place the occupant classification sensor more than 30 minutes at room temperature.)
- Do not apply any load or vibration while the weight check and the calibration is performed.
- Perform the weight check and the calibration after seat components are all assembled.

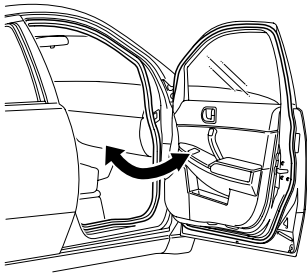
⚠ CAUTION

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

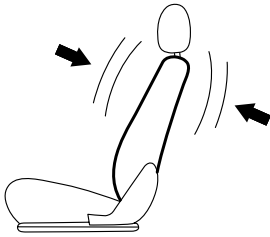
1. Connect scan tool MB991958 to the data link connector.



<FRONT DOOR (RH)>



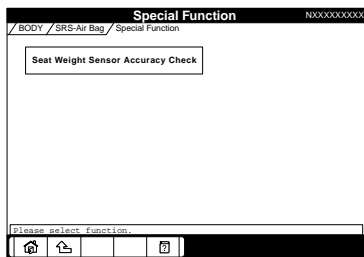
<PASSENGER'S SIDE SEAT>



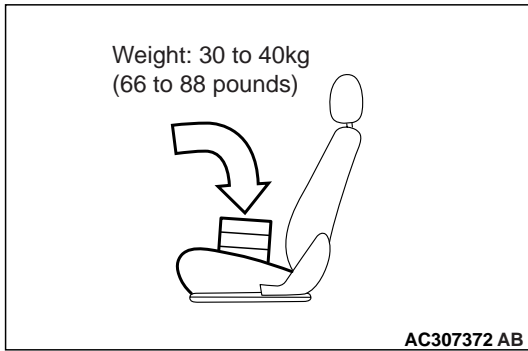
AC307653AB

2. Open and close the front door (RH) 5 times hardily to remove the friction. And if the door does not open and close smoothly after the impact, hit the front and rear sides of seatback about eight times each to remove the friction.

3. To execute accuracy check and calibration, operate scan tool MB991958 (MUT-III Sub Assembly) as follows.
 - (1) Select "Interactive Diagnosis".
 - (2) Select "Special Function".
 - (3) Select "Seat Weight Sensor Accuracy Check".

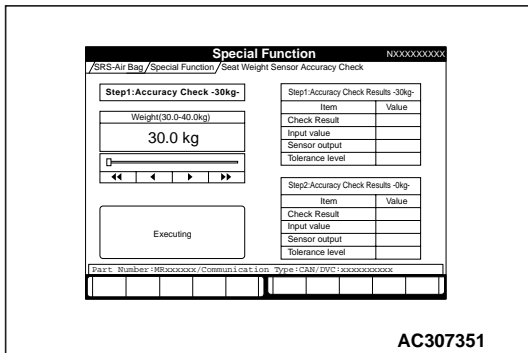
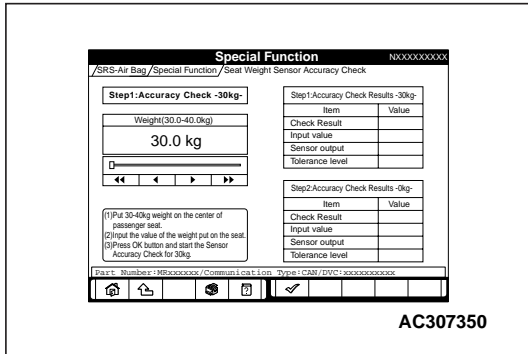


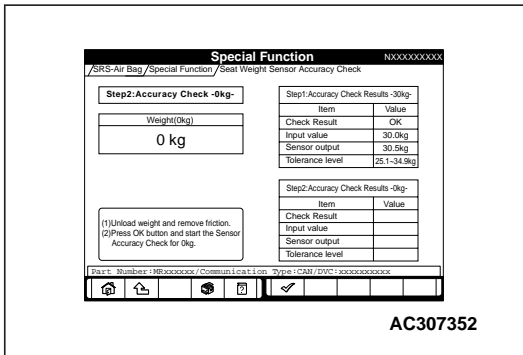
AC307349



- (4) For accuracy check 30 kg (66 pounds), slide the seat to the front end, and put the 30 kg (66 pounds) weight on the center of the seat cushion. Then, carry out the friction removal in step (2) and press the OK button to execute accuracy check.

NOTE: If there is not the 30 kg (66 pounds) weight, load a square thing of 30 to 40 kg (66 to 88 pounds) instead of the weight. At this time, operate the arrow button of weight input part on MUT-III to input the loaded weight value.

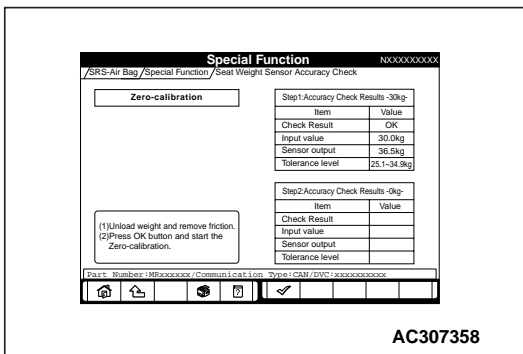
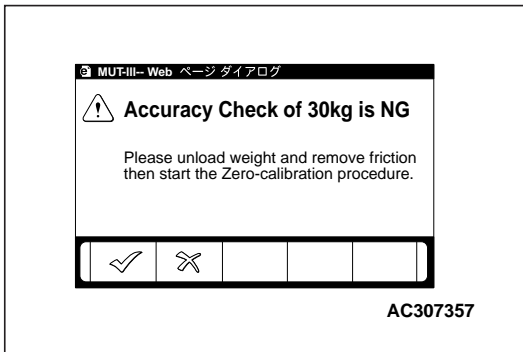


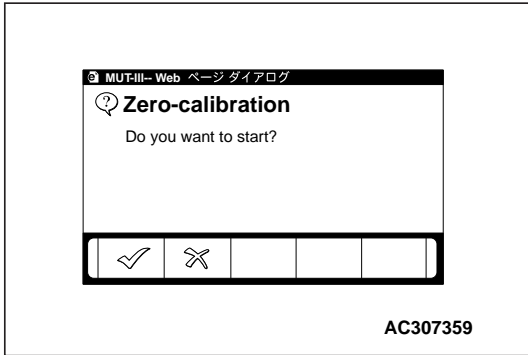


- (5) If the tolerance level between the sensor output and the input value is within 4.9 kg (11 pounds), the screen for the accuracy check completion is displayed, and if more than 4.9 kg (11 pounds), the screen for abnormal condition is displayed.

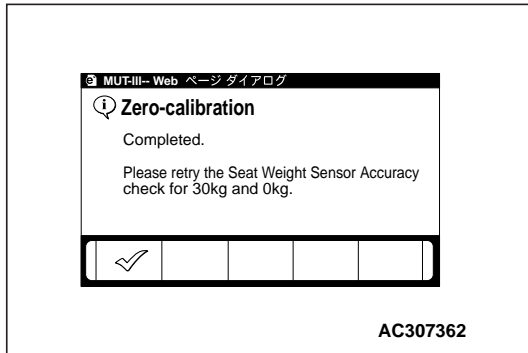
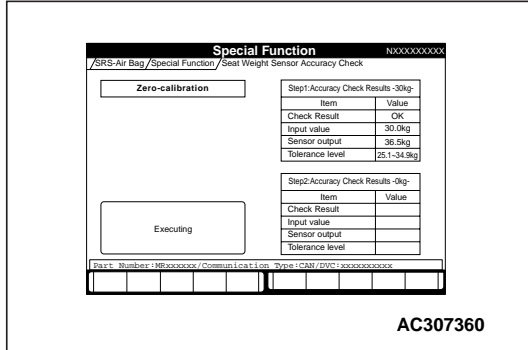
NOTE: When the screen for the accuracy check of 0 kg (0 pound) is displayed, go to step (9). If the abnormal condition is displayed, check the seat installation condition. If the seat is improperly installed, install it properly and carry out the operation in step (4) again.

- (6) When the abnormal condition is displayed, press the OK button and go to the calibration screen. If the cancel button is pressed the screen returns to step (4).



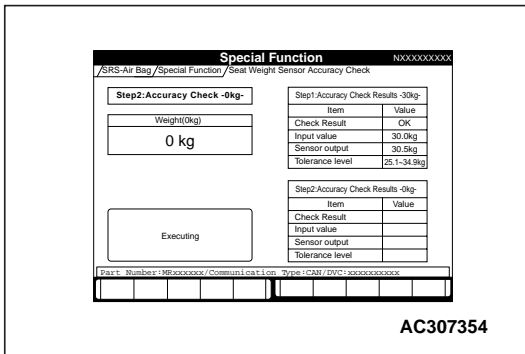
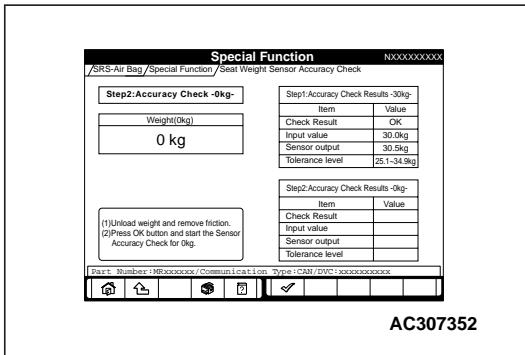


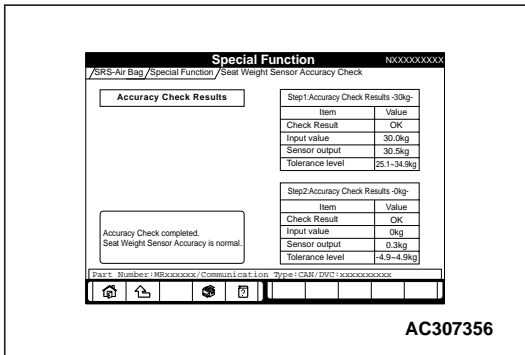
(7) Unload the weight, check the seat installation condition and carry out the friction removal in step (2) again, and press the OK button. When the execution dialog is displayed, press the OK button again to execute the calibration.



(8) The calibration has been completed when the screen as shown in the illustration is displayed. Press the OK button to return to the screen of step (4), and carry out the same procedure.

- (9) When the screen for the accuracy check of 0 kg (0 pound) is displayed, unload the weight and slide the seat to the rear end. Then, carry out the friction removal in step (2) and press the OK button to execute the accuracy check.

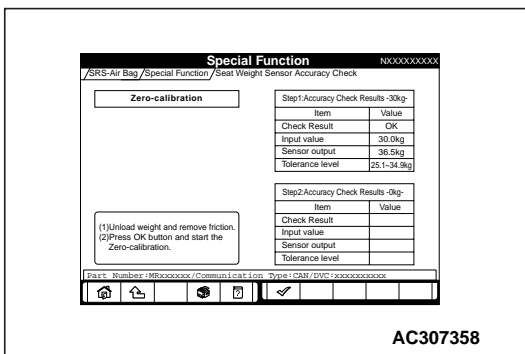
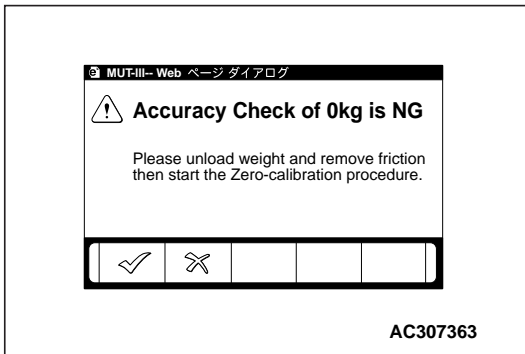
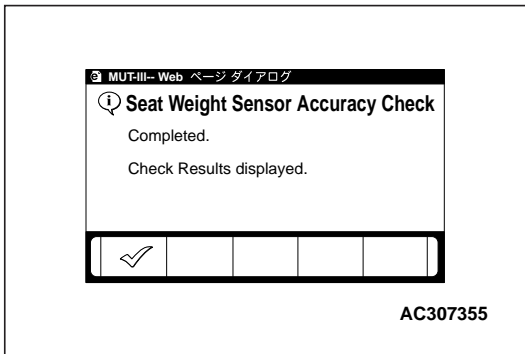




(10) If the tolerance level between the sensor output and the input value is within 4.9 kg (11 pounds), the screen for the accuracy check completion is displayed, and if more than 4.9 kg (11 pounds), the screen for abnormal condition is displayed.

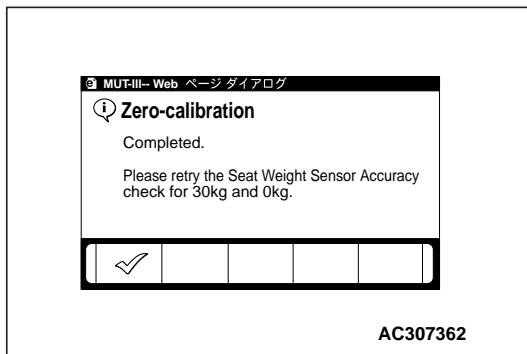
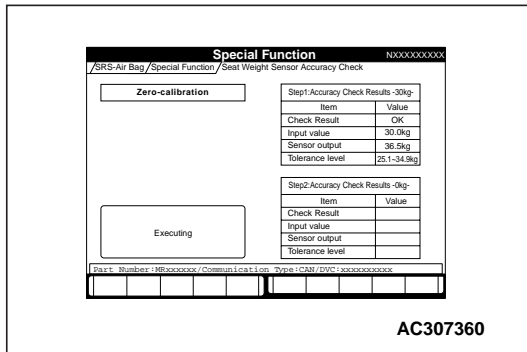
NOTE: If the abnormal condition is displayed, check the seat installation condition. If the seat is improperly installed, install it properly and repeat from step (4).

(11) When the abnormal condition is displayed, press the OK button and go to the calibration screen. Return to step (9) when the cancel button is pressed.)





(12) Check the seat installation condition and carry out the friction removal in step (2) again, and press the OK button. When the execution dialog is displayed, press the OK button again to execute the calibration.



(13) The calibration has been completed when the screen as shown in the illustration is displayed. Press the OK button to return to the screen of step (4), and carry out the same procedure.

4. If the accuracy testing does not complete, an intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunctions).

FRONT IMPACT SENSORS

REMOVAL AND INSTALLATION

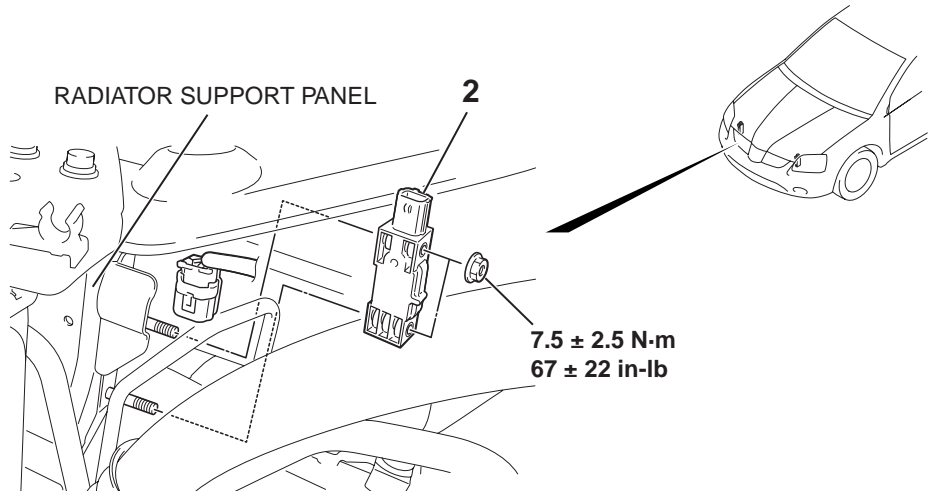
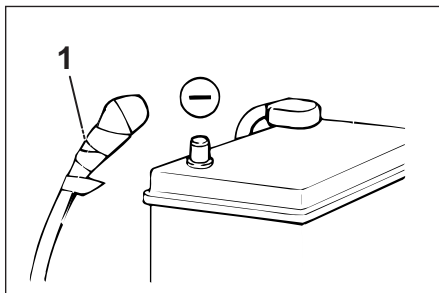
M1524001500300

⚠ WARNING

- *Never repair or disassemble the front impact sensor. If faulty, replace it.*
- *Handle the front impact sensors very carefully, taking care not to drop them. They must be replaced if they are dropped.*
- *Replace the sensors with new ones after the air bag has deployed.*

Pre-removal Operation

- Turn the ignition key to the "LOCK" (OFF) position.



AC307984AB

<<A>>

REMOVAL STEPS

1. NEGATIVE (-) BATTERY CABLE CONNECTION
- AIR DUCT (REFER TO GROUP 15, AIR CLEANER)
2. FRONT IMPACT SENSOR

>>A<<

INSTALLATION STEPS

- PRE-INSTALLATION INSPECTION
- >>B<< 2. FRONT IMPACT SENSOR
- AIR DUCT (REFER TO GROUP 15, AIR CLEANER)
- 1. NEGATIVE (-) BATTERY CABLE CONNECTION
- >>C<< • POST-INSTALLATION INSPECTION

NOTE: The figure indicates the right front impact sensor. The left impact sensor is symmetrical to this.

REMOVAL SERVICE POINT

<<A>>NEGATIVE (-) BATTERY CABLE DISCONNECTION

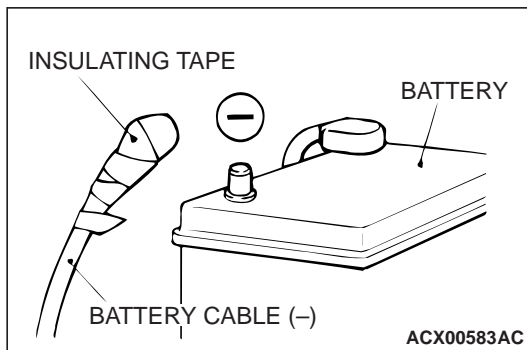
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-26).

⚠ WARNING

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

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



INSTALLATION SERVICE POINTS

>>A<<PRE-INSTALLATION INSPECTION

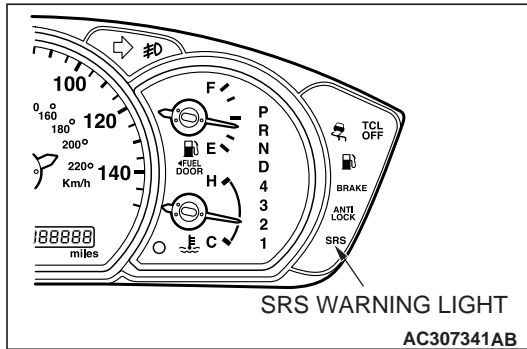
when installing the new front impact sensor, refer to "INSPECTION."

>>B<<FRONT IMPACT SENSOR INSTALLATION

⚠ WARNING

The SRS may not activate properly if a front impact sensor is not installed properly, which could result in serious injury or death to the vehicle's driver.

1. Securely connect the connector.
2. Position the front impact sensor facing toward the front of the vehicle as indicated by the arrow on the label, and install it securely.



>>C<<POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition key to "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly.
If not, consult page [P.52B-31](#).

INSPECTION

M1524001600277

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the front impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to [P.52B-33](#)).

1. Check the front impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the radiator support panel.

SRS CONTROL UNIT (SRS-ECU)

M1524002100413

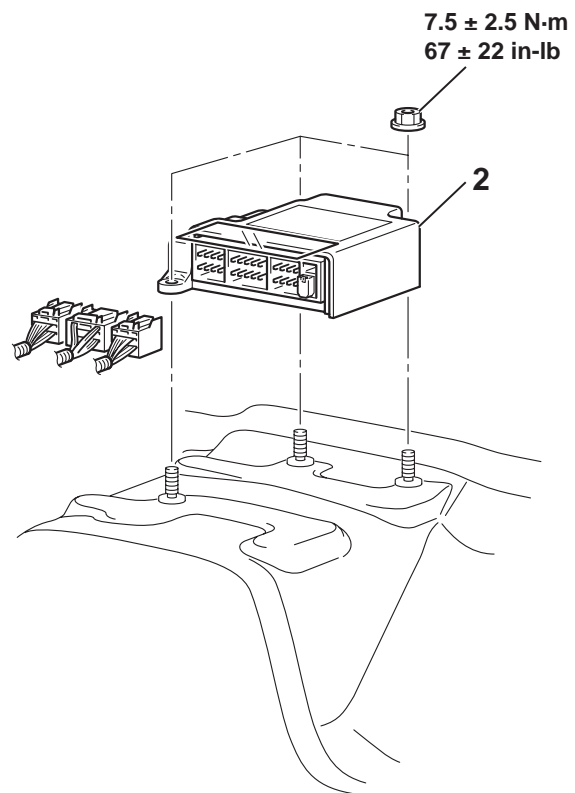
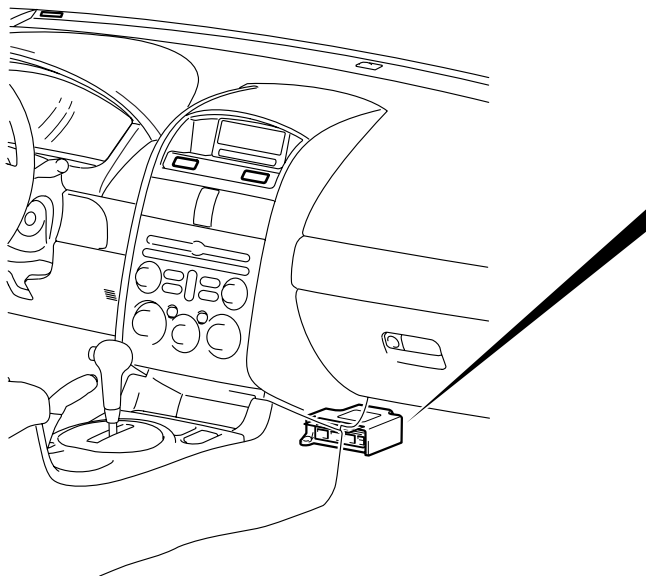
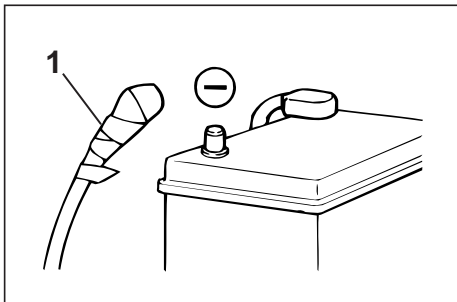
REMOVAL AND INSTALLATION

⚠ WARNING

- *Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.*
- *Do not drop or subject the SRS-ECU to impact or vibration. If denting, cracking, deformation, or rust are discovered in the SRS-ECU, replace it with a new SRS-ECU.*
- *After deployment of an air bag, replace the SRS-ECU with a new one.*
- *Never use an ohmmeter on or near the SRS-ECU, and use only the special test equipment described here [P.52B-347](#).*
- *When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-Vehicle Service [P.52B-354](#).)*

Pre-removal Operation

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



AC307664

	REMOVAL STEPS		INSTALLATION STEPS
<<A>>	<ol style="list-style-type: none"> 1. NEGATIVE (-) BATTERY CABLE CONNECTION • FLOOR CONSOLE ASSEMBLY (REFER TO GROUP 52A, FLOOR CONSOLE ASSEMBLY P.52A-9) • FRONT SEAT ASSEMBLY (REFER TO GROUP 52A, FRONT SEAT ASSEMBLY P.52A-20) • FRONT SCUFF PLATE, COWL SIDE TRIM (REFER TO GROUP 52A, TRIMS P.52A-10) • FLOOR CARPET • REAR HEATER DUCT A, B (REFER TO GROUP 55A, DUCTS) 	>>A<<	<ol style="list-style-type: none"> 3. SRS-ECU BRACKET 2. SRS-ECU <ul style="list-style-type: none"> • REAR HEATER DUCT A, B (REFER TO GROUP 55A, DUCTS) • FLOOR CARPET • FRONT SCUFF PLATE, COWL SIDE TRIM (REFER TO GROUP 52A, TRIMS P.52A-10) • FRONT SEAT ASSEMBLY (REFER TO GROUP 52A, FRONT SEAT ASSEMBLY P.52A-20) • FLOOR CONSOLE ASSEMBLY (REFER TO GROUP 52A, FLOOR CONSOLE ASSEMBLY P.52A-9)
<>	<ol style="list-style-type: none"> 2. SRS-ECU 3. SRS-ECU BRACKET 	>>B<<	<ol style="list-style-type: none"> 1. NEGATIVE (-) BATTERY CABLE CONNECTION <ul style="list-style-type: none"> • POST-INSTALLATION INSPECTION

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

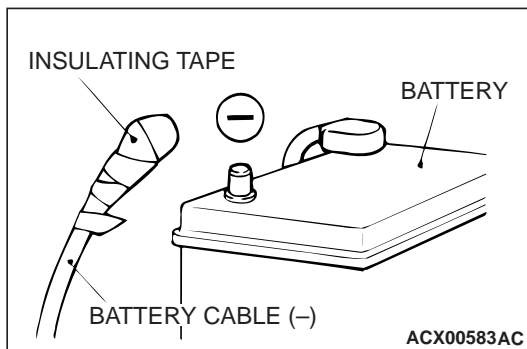
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-26).

⚠ WARNING

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

Disconnect the negative battery cable from the battery and tape the terminal to prevent accidental connection and deployment.



<> SRS-ECU REMOVAL

Remove the SRS-ECU with 9.5 (3/8inch) sq. slide head handle and 9.5 sq. (3/8inch) socket wrench.

INSTALLATION SERVICE POINTS

>>A<< SRS-ECU INSTALLATION

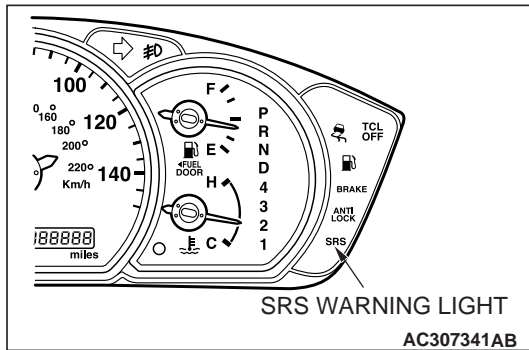
⚠ WARNING

The SRS may not activate if the SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.

Install the SRS-ECU with 9.5 sq. (3/8inch) slide head handle and 9.5 sq. (3/8inch) socket wrench.

>>B<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and then go out?
4. If yes, the SRS system is functioning properly. If not, refer to [P.52B-31](#).



INSPECTION

M1524002200357

⚠ WARNING

If a dent, crack, deformation or rust is discovered, replace the SRS-ECU with a new one.

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check the SRS-ECU connector for damage, and the terminals for deformation.

NOTE: Refer to [P.52B-334](#) for inspection of SRS-ECU for other than physical damage.

AIR BAG MODULES AND CLOCK SPRING

M1524002400481

REMOVAL AND INSTALLATION

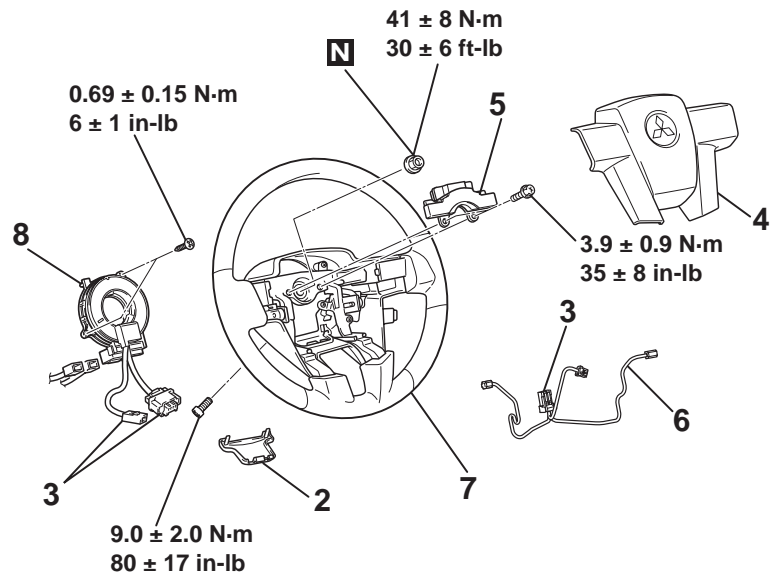
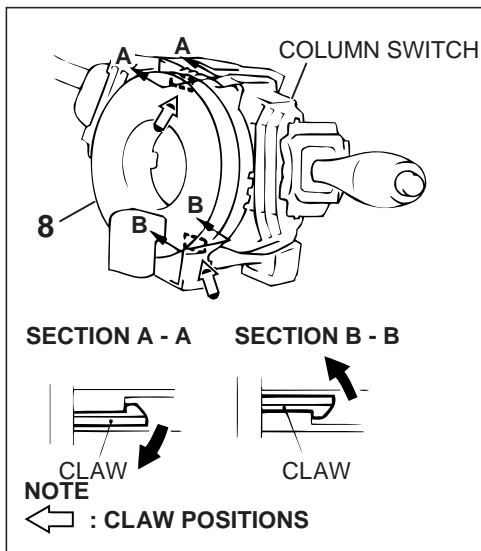
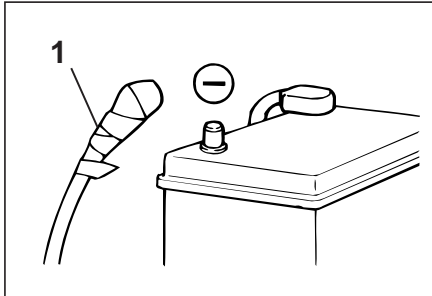
⚠ WARNING

- *Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.*
- *Do not drop the air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.*
- *The air bag modules should be stored on a flat surface with the pad cover facing upward. Do not place anything on top of it.*
- *Do not expose the air bag modules to temperatures over 93°C (200°F).*
- *After deployment of an air bag, replace the clock spring with a new one.*
- *Wear gloves and safety glasses when handling air bags that have already deployed.*
- *An undeployed air bag module should only be disposed of in accordance with the procedures (Refer to [P.52B-387](#)).*
- *When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-Vehicle Service [P.52B-354](#).)*

<Side-airbag module>

For removal and installation of the front seatback assembly with side-airbag module, refer to GROUP 52A, Front Seat P.52A-25.

<Air bag module (driver's side) and clock spring>



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AIR BAG MODULE REMOVAL STEPS

<<A>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION

<> 2. COVER

<> 3. CONNECTORS (FOR HORN AND AIR BAG MODULE)

<<C>> 4. AIR BAG MODULE ASSEMBLY

CLOCK SPRING REMOVAL STEPS

<<A>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION

<> 2. COVER

<> 3. CONNECTORS (FOR HORN, AIR BAG MODULE AND STEERING WHEEL REMOTE CONTROL HARNESS)

<<C>> 4. AIR BAG MODULE ASSEMBLY

<<C>> 5. STEERING WHEEL DYNAMIC DAMPER

<<C>> 6. STEERING WHEEL REMOTE CONTROL HARNESS

<<D>> 7. STEERING WHEEL ASSEMBLY

CLOCK SPRING REMOVAL STEPS

- COLUMN COVER LOWER (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-3).

8. CLOCK SPRING

AIR BAG MODULE INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION

>>C<< 4. AIR BAG MODULE ASSEMBLY
3. CONNECTORS (FOR HORN AND AIR BAG MODULE)

2. COVER

1. NEGATIVE (-) BATTERY CABLE CONNECTION

>>D<< • POST-INSTALLATION INSPECTION

CLOCK SPRING INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION

>>B<< 8. CLOCK SPRING

- COLUMN COVER LOWER (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-3).

>>C<< 7. STEERING WHEEL ASSEMBLY

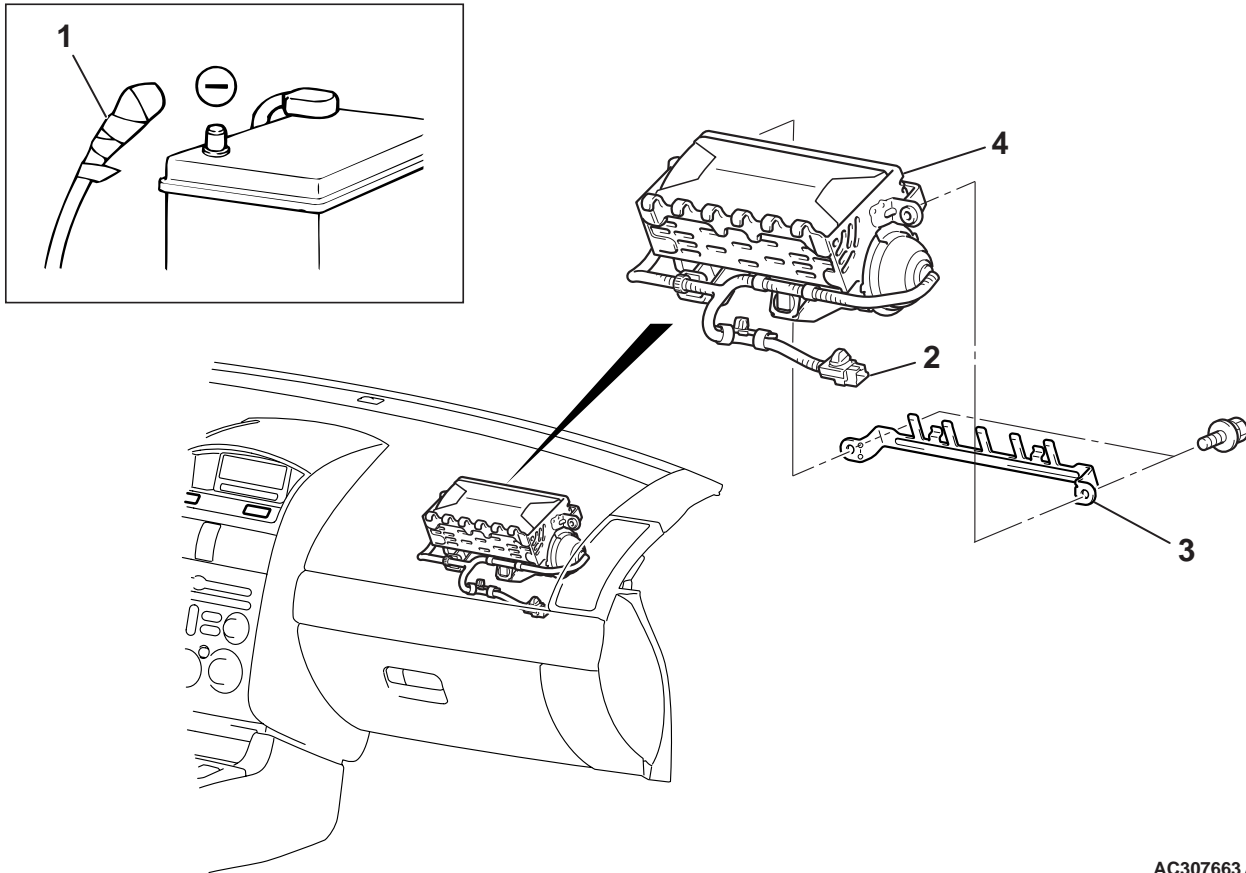
**CLOCK SPRING INSTALLATION
STEPS (Continued)**

- 6. STEERING WHEEL REMOTE CONTROL HARNESS
- 5. STEERING WHEEL DYNAMIC DAMPER
- >>C<< 4. AIR BAG MODULE ASSEMBLY
- 3. CONNECTORS (FOR HORN, AIR BAG MODULE, AND STEERING WHEEL REMOTE CONTROL HARNESS)
- 2. COVER
- 1. NEGATIVE (-) BATTERY CABLE CONNECTION
- >>D<< • POST-INSTALLATION INSPECTION

Required Special Tools:

- MB991958 : Scan Tool (MUT-III Sub Assembly)
 - MB991824: Vehicle Communication Interface (V.C.I.)
 - MB991827: MUT-III USB Cable
 - MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)
- MB991222: Probe
- MB990803: Steering Wheel Puller

<Air bag module (front passenger's side)>



AC307663 AB

**AIR BAG MODULE REMOVAL
STEPS**

- <<A>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION
- <> 2. CONNECTORS
 - INSTRUMENT PANEL ASSEMBLY (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-3).
 - DISTRIBUTION DUCT (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-8).

**AIR BAG MODULE REMOVAL
STEPS (Continued)**

- <<F>> 3. AIR BAG MODULE BRACKET
- 4. AIR BAG MODULE
- AIR BAG MODULE INSTALLATION
STEPS**
- >>A<< • PRE-INSTALLATION INSPECTION
- 4. AIR BAG MODULE
- 3. AIR BAG MODULE BRACKET
- DISTRIBUTION DUCT (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-8).

**AIR BAG MODULE INSTALLATION
STEPS (Continued)**

- INSTRUMENT PANEL ASSEMBLY
(REFER TO GROUP 52A,
INSTRUMENT PANEL P.52A-3).
 - 2. CONNECTOR
 - 1. NEGATIVE (-) BATTERY CABLE
CONNECTION
- >>D<< • POST-INSTALLATION INSPECTION

Required Special Tool:

- MB991958 : Scan Tool (MUT-III Sub Assembly)
- MB991824: Vehicle Communication Interface (V.C.I.)
- MB991827: MUT-III USB Cable
- MB991910: MUT-III Main Harness A (Vehicles with CAN communication system)

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

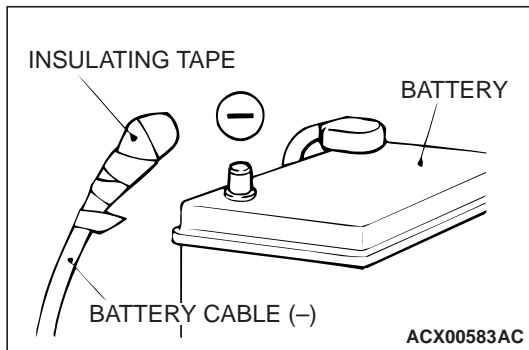
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-26).

⚠ WARNING

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

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



<> CONNECTOR (FOR AIR BAG MODULE) REMOVAL

Slide the outer housing of the clock spring or front passenger's air bag module connector in the arrow direction shown, and disconnect the connector.



<<C>> AIR BAG MODULE ASSEMBLY REMOVAL

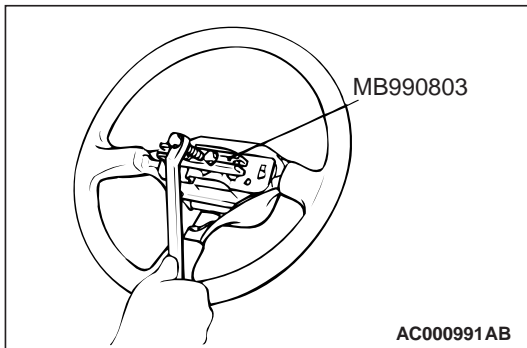
⚠ WARNING

- *The air bag module must not be measured with such equipment as an ohmmeter.*
- *The air bag module must not be disassembled.*
- *The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.*

Loosen the torx screw and remove the air bag module assembly.

<<D>> STEERING WHEEL ASSEMBLY REMOVAL

Use special tool MB990803 to remove the steering wheel.



<<E>> CLOCK SPRING REMOVAL

⚠ WARNING

The removed clock spring should be stored in a clean, dry place.

<<F>> AIR BAG MODULE REMOVAL (FRONT PASSENGER'S SIDE)

⚠ WARNING

- *When the passenger's air bag module is removed, do not damage the engagement of the pawls.*
- *The removed passenger's air bag module should be stored in a clean, dry place with the deployment surface facing up.*

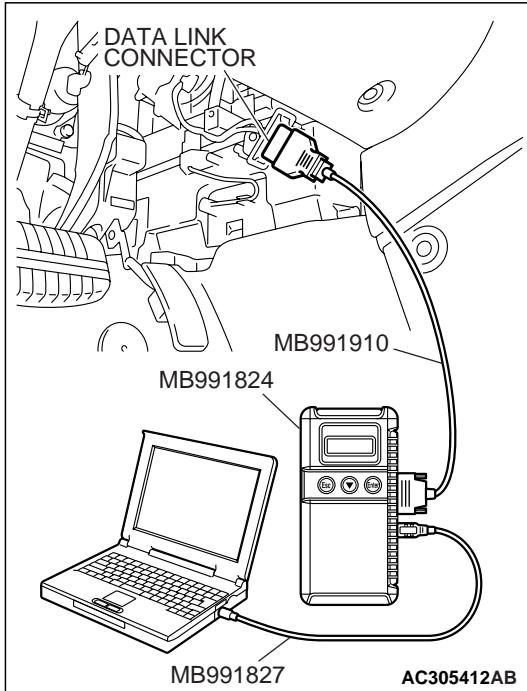
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of air bag modules only according to the specified procedure. (Refer to [P.52B-387](#)).

1. When installing the new air bag modules and clock spring, refer to "INSPECTION" ([P.52B-374](#)).
2. Connect the negative (-) battery cable.



⚠ 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.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.

At this time, check that no DTC except B1400, B1410, B1480 and B1490 are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-26).

⚠ WARNING

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

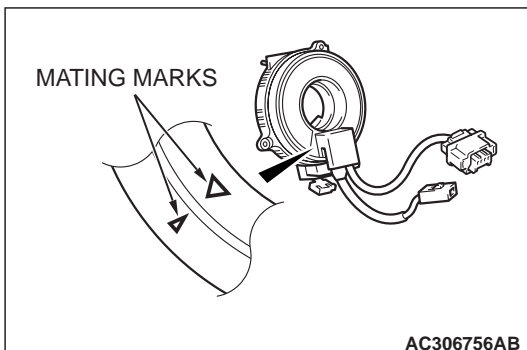
6. Turn the ignition switch to the "LOCK" (OFF) position.
Disconnect the negative (-) battery cable and tape the terminal to prevent accidental connection and air bags deployment.

>>B<< CLOCK SPRING INSTALLATION

⚠ WARNING

Ensure that the clock spring's mating marks are properly aligned. If not, the steering wheel may not rotate completely during a turn, or the flat cable in the clock spring could be damaged, This would prevent normal SRS operation and possibly cause serious injury to the driver.

1. Align the mating marks of the clock spring.
<Mating Mark Alignment>
Turn the clock spring clockwise fully. Then turn it back approximately 3-3/4 turns counterclockwise to align the mating marks.
2. Turn the front wheels to the straight-ahead position. Then install the clock spring to the column switch.



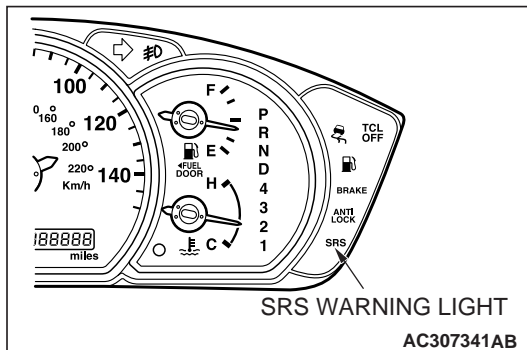
**>>C<< STEERING WHEEL ASSEMBLY/AIR BAG
MODULE ASSEMBLY INSTALLATION****⚠ CAUTION**

When installing the steering wheel and air bag module, ensure that the harness of the clock spring does not become caught or tangled.

1. Before installing the steering wheel and air bag module, turn the vehicle's front wheels to the straight-ahead position and align the mating marks of the clock spring.
2. After securing the steering wheel, turn the steering wheel all the way in both directions to confirm that the steering wheel rotation is normal.

>>D<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to [P.52B-31](#).

**INSPECTION**

M1524002500422

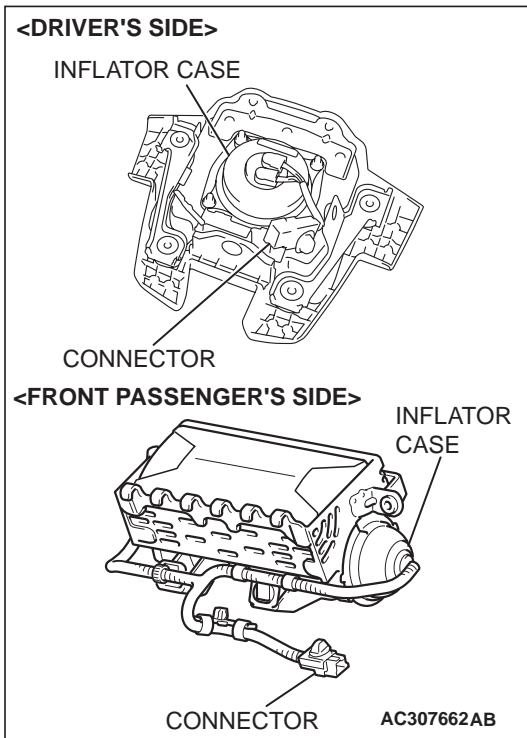
AIR BAG MODULE CHECK**⚠ DANGER**

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

⚠ WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure. (Refer to [P.52B-387](#)).

1. Check the pad cover for dents, cracks or deformation.



2. Check the connectors for damage, the terminals for deformation, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformation.
4. Install the air bag module (driver's side) to the steering wheel and check fit and alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember and check fit and alignment.

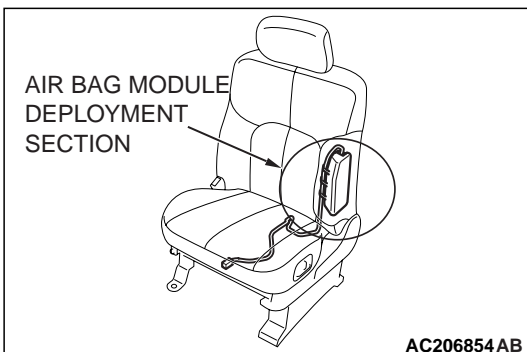
FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

⚠ DANGER

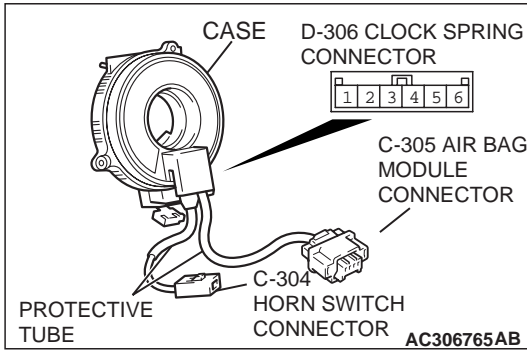
Never attempt to measure the circuit resistance of the air bag module (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

⚠ WARNING

If any improper part is found during the following inspection, replace the front seatback assembly with a new one. Dispose of the old one according to the specified procedure. (Refer to P.52B-387).



1. Check the air bag module deployment section for dents or deformation.
2. Check the connector for damage, the terminals for deformation, and the harness for binding.



CLOCK SPRING CHECK

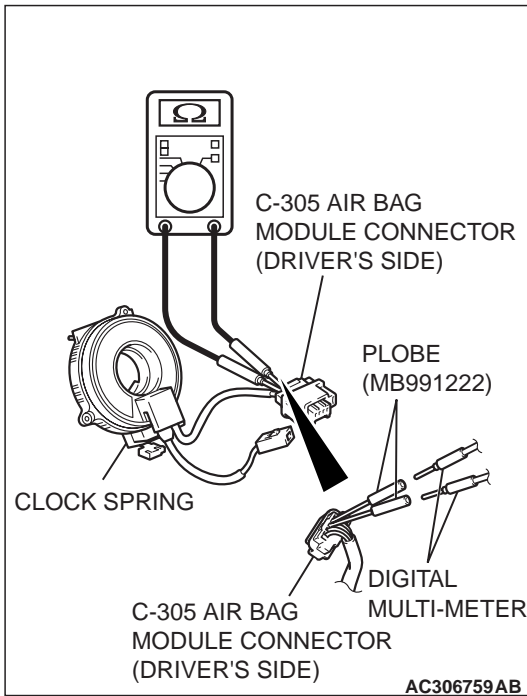
If any malfunction is found in the following inspections, replace the clock spring with a new one.

1. Check the connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.
3. Check to see that there is a charge (continuity) between the C-306 clock spring connector terminal 1 and C-304 horn switch.

⚠ CAUTION

Do not directly insert a probe, etc. into the terminal from the front of the connector.

4. Insert the special tool (MB991222) from behind the airbag module connector of the C-305 driver's side.
5. As shown in the figure, connect the circuit tester to the special tool (MB991222) and check to see that there is a continuity between the terminals.



SIDE IMPACT SENSOR

M1524004600317

REMOVAL AND INSTALLATION

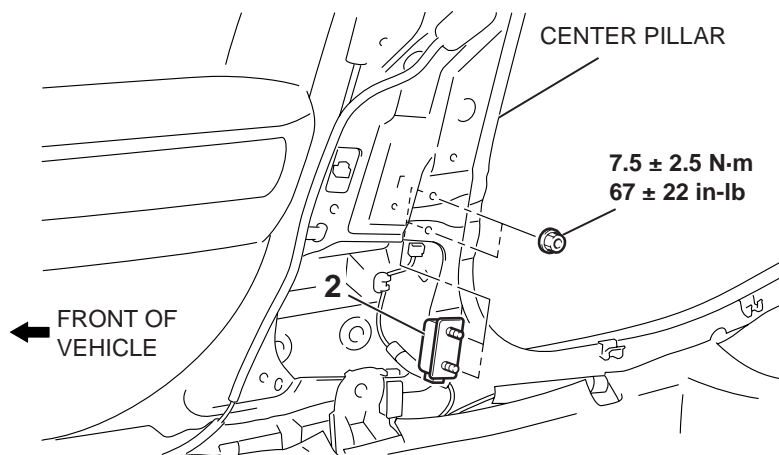
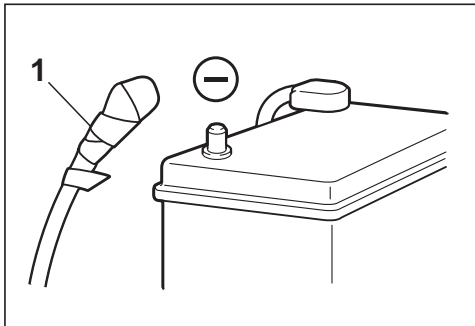
A side impact sensor is installed behind the center pillar trim on both driver and passenger sides of the vehicle.

⚠ WARNING

- **Never attempt to disassemble or repair the side impact sensor. If faulty, replace it.**
- **Do not drop or subject the side impact sensor to impact or vibration. Replace the side impact sensor, if dents, cracking, deformation, or rust are present.**
- **Replace the side impact sensor after the air bag has deployed.**

Pre-removal Operation

- Turn the ignition key to the "LOCK" (OFF) position.



AC307661AB

<<A>>

REMOVAL STEPS

1. NEGATIVE (-) BATTERY CABLE CONNECTION
 - CENTER PILLAR TRIM LOWER (REFER TO GROUP 52A, TRIMS [P.52A-10](#)).
 - SEAT BELT WITH PRE-TENSIONER (REFER TO GROUP 52B [P.52B-380](#)).
2. SIDE IMPACT SENSOR

>>A<<

INSTALLATION STEPS

- PRE-INSTALLATION INSPECTION
- >>B<<
2. SIDE IMPACT SENSOR
 - SEAT BELT WITH PRE-TENSIONER (REFER TO GROUP 52B [P.52B-380](#)).
 - CENTER PILLAR TRIM LOWER (REFER TO GROUP 52A, TRIMS [P.52A-10](#)).
 1. NEGATIVE (-) BATTERY CABLE CONNECTOR
- >>C<<
- POST-INSTALLATION INSPECTION

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

REMOVAL SERVICE POINT

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

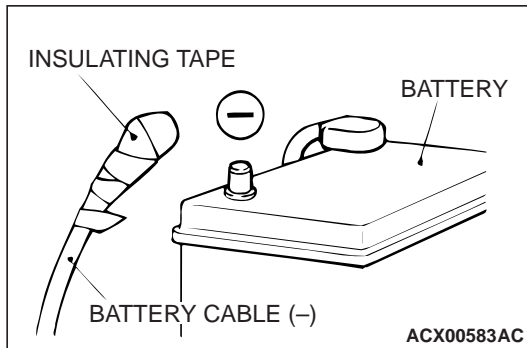
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-26).

⚠ WARNING

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

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

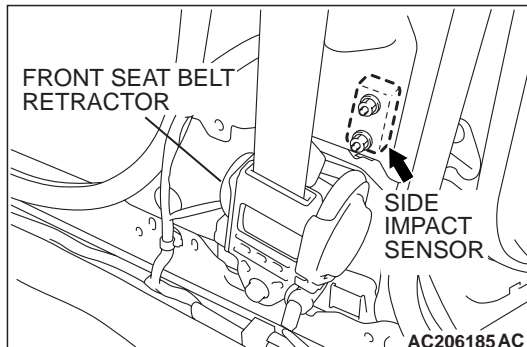
Check the side impact sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new side impact sensor.

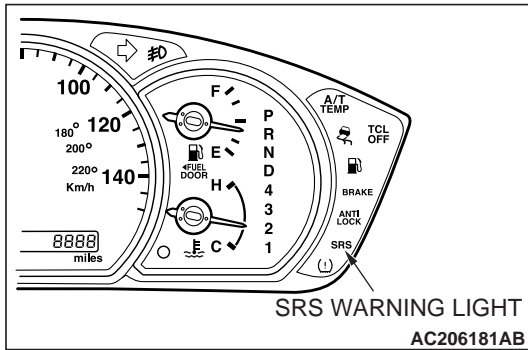
>>B<< SIDE IMPACT SENSOR INSTALLATION

⚠ WARNING

If the side impact sensor is not installed securely and correctly, the side-airbag may not operate normally.

Securely connect the connector.





>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to [P.52B-31](#).

INSPECTION

M1524004700251

WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the side impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to [P.52B-33](#)).

1. Check the side impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the center pillar.

SEAT BELTS WITH PRE-TENSIONER

M1524004100301

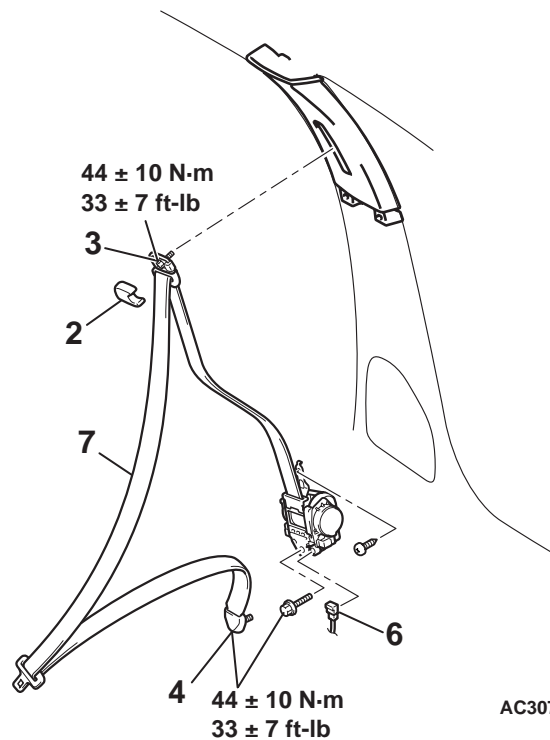
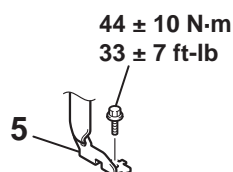
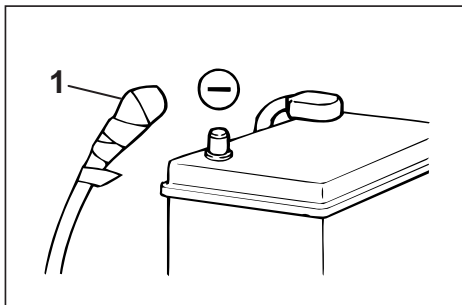
REMOVAL AND INSTALLATION

⚠ WARNING

- *Never attempt to disassemble or repair the seat belt pre-tensioner. If faulty, replace it.*
- *Be extremely careful when handling the seat belt with pre-tensioner. Do not subject it to shocks, drop it, bring it close to strong magnets or allow contact with water, grease or oil. Always replace it with a new part if any dents, cracks or deformation is found.*
- *Do not place anything on the seat belt pre-tensioner.*
- *Do not expose the seat belt pre-tensioner to temperatures over 90°C (194°F).*
- *After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.*
- *Gloves and protective goggles must be worn when handling a seat belt pre-tensioner once it has been used.*
- *If disposing of a seat belt with pre-tensioner which has not yet been operated, its seat belt pre-tensioner must be operated first before disposal. (Refer to P.52B-387).*
- *When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-Vehicle Service P.52B-354.)*

Pre-removal Operation

- Turn the ignition key to the "LOCK" (OFF) position.



AC307809

AC307810AB

REMOVAL STEPS

- <<A>>
1. NEGATIVE (-) BATTERY CABLE CONNECTION
 2. SASH GUIDE COVER
 3. SEAT BELT SHOULDER ANCHOR BOLT
 4. SEAT BELT LOWER ANCHOR BOLT <DRIVER'S SEAT BELT>
 5. FINAL ANCHOR BRACKET <PASSENGER'S SEAT BELT>
 - CENTER PILLAR TRIM, LOWER (REFER TO GROUP 52A, TRIMS P.52A-10).
- <>
6. PRE-TENSIONER CONNECTOR CONNECTION
 7. OUTER SEAT BELT WITH PRE-TENSIONER

INSTALLATION STEPS

- >>A<<
- PRE-INSTALLATION INSPECTION
 - 7. OUTER SEAT BELT WITH PRE-TENSIONER
- >>B<<
- 6. PRE-TENSIONER CONNECTOR CONNECTION
 - CENTER PILLAR TRIM, LOWER (REFER TO GROUP 52A, TRIMS P.52A-10).
 - 5. FINAL ANCHOR BRACKET <PASSENGER'S SEAT BELT>
 - 4. SEAT BELT LOWER ANCHOR BOLT <DRIVER'S SEAT BELT>
 - 3. SEAT BELT SHOULDER ANCHOR BOLT
 - 2. SASH GUIDE COVER
 - 1. NEGATIVE (-) BATTERY CABLE CONNECTION
- >>C<<
- POST-INSTALLATION INSPECTION

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
- MB991824: V.C.I.

- MB991827: USB Cable
- MB991910: Main Harness A

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

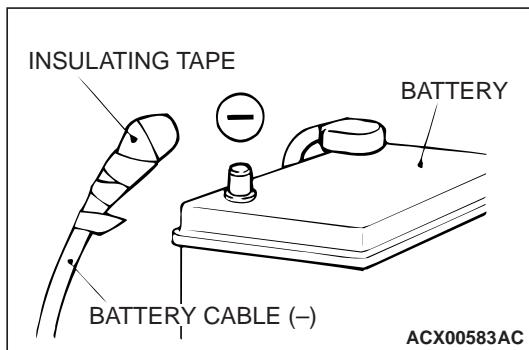
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-26).

⚠ WARNING

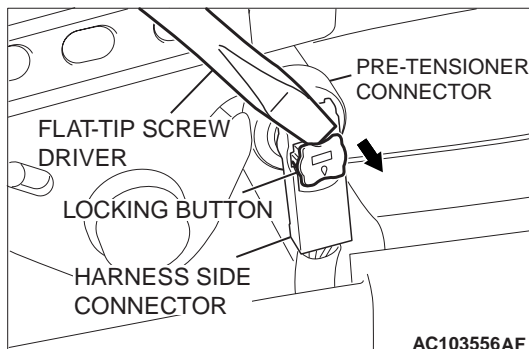
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.



<>PRE-TENSIONER CONNECTOR DISCONNECTION

1. Use a flat-tipped screwdriver to unlock the locking button of the harness-side connector by withdrawing it toward you in two stages.
2. Disconnect the pretensioner connector.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of seat belt pre-tensioner only according to the specified procedure. (Refer to [P.52B-387](#)).

1. When installing the new seat belt pre-tensioner, refer to "INSPECTION" ([P.52B-383](#)).
2. Connect the negative (-) battery cable.

⚠ 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.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.

At this time, check that no DTC except 26 and 28 are set.

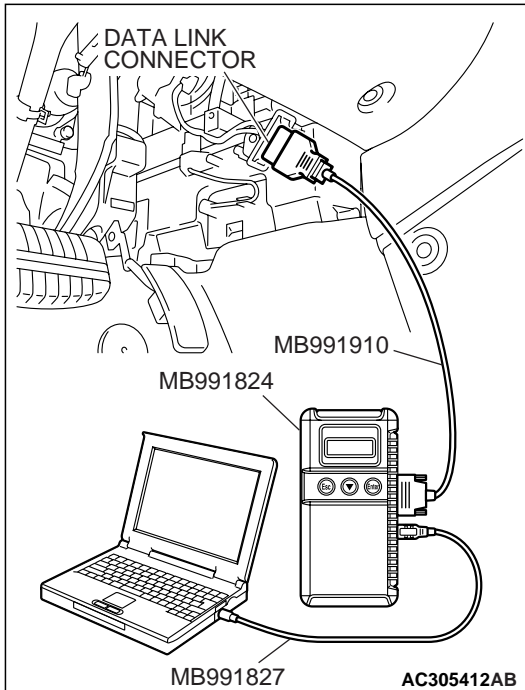
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to [P.52B-26](#)).

⚠ WARNING

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

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (-) battery cable and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

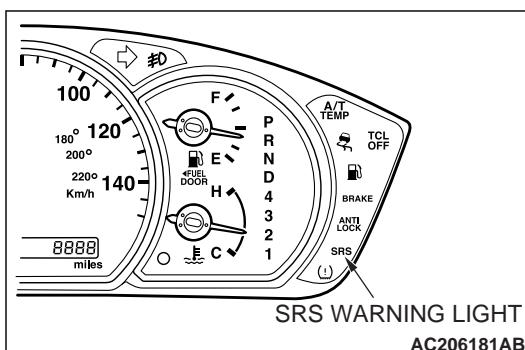


>>B<< PRE-TENSIONER CONNECTOR CONNECTION

Connect the pretensioner connector then securely lock the locking button of the harness-side connector.

>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to [P.52B-31](#).



INSPECTION

M1524004200256

SEAT BELT WITH PRE-TENSIONER CHECK

⚠ WARNING

- *If any component damage is found during the following inspection, replace the seat belt with pre-tensioner with a new one. Dispose of the old one according to the specified procedure. (Refer to [P.52B-387](#)).*
 - *Never attempt to measure the circuit resistance of the seat belt pre-tensioner even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental seat belt pre-tensioner operation will result in serious personal injury.*
1. Check seat belt pre-tensioner for dents, cracks or deformation.
 2. Check the connectors for damage, the terminals for deformation, and the harness for binding.

SEAT SLIDE SENSOR

M1524025300010

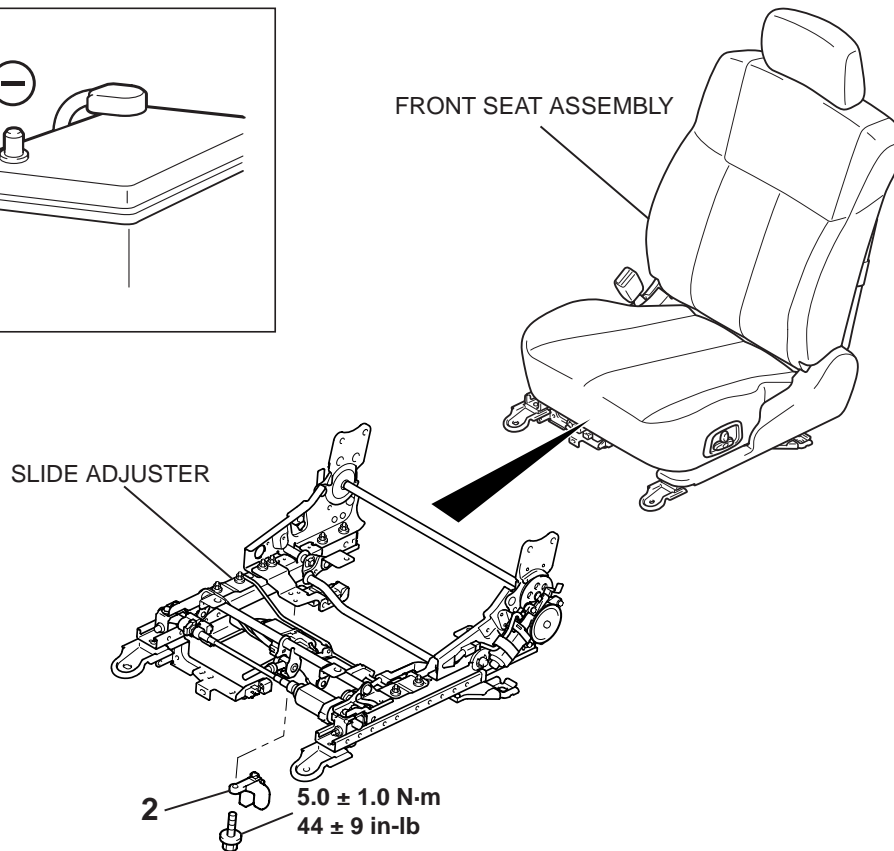
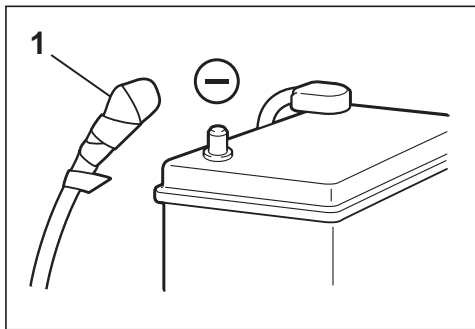
REMOVAL AND INSTALLATION

⚠ WARNING

- *Never attempt to disassemble or repair the seat slide sensor. If faulty, replace it.*
- *Do not drop or subject the seat slide sensor to impact or vibration. Replace the seat slide sensor, if dents, cracking, deformation, or rust are present.*

Pre-removal Operation

- Turn the ignition key to the "LOCK" (OFF) position.



AC307471AB

<<A>>

REMOVAL STEPS

1. NEGATIVE (-) BATTERY CABLE CONNECTION
 - FRONT SEAT <DRIVER'S SIDE> (REFER TO GROUP 52A, FRONT SEAT ASSEMBLY [P.52A-20](#)).
2. SEAT SLIDE SENSOR

>>A<<

>>B<<

INSTALLATION STEPS

- PRE-INSTALLATION INSPECTION
2. SEAT SLIDE SENSOR
 - FRONT SEAT <DRIVER'S SIDE> (REFER TO GROUP 52A, FRONT SEAT ASSEMBLY [P.52A-20](#)).
 1. NEGATIVE (-) BATTERY CABLE CONNECTOR
- POST-INSTALLATION INSPECTION

>>C<<

REMOVAL SERVICE POINT

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

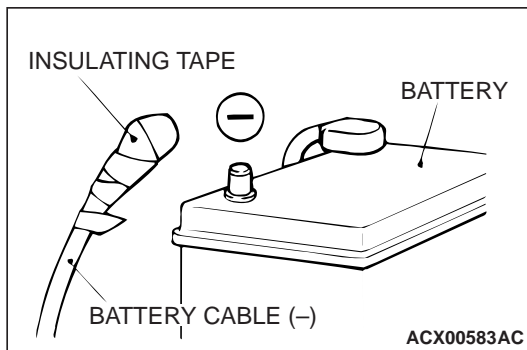
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-26).

⚠ WARNING

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

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

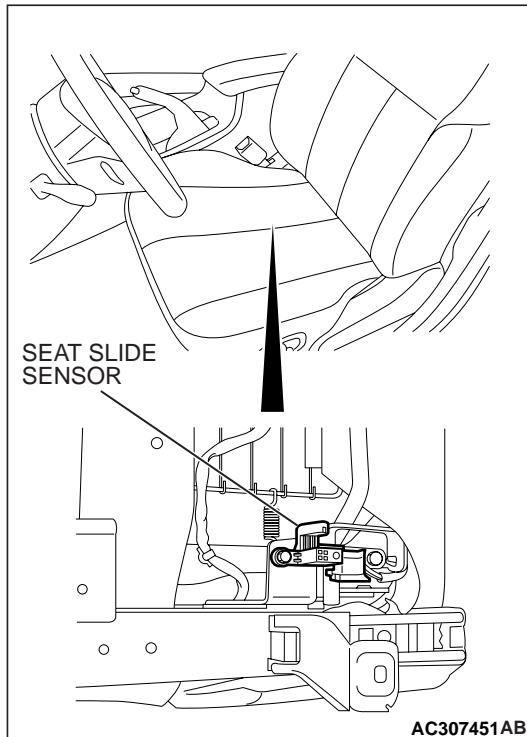
Check the seat slide sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new seat slide sensor.

>>B<< SEAT SLIDE SENSOR INSTALLATION

⚠ WARNING

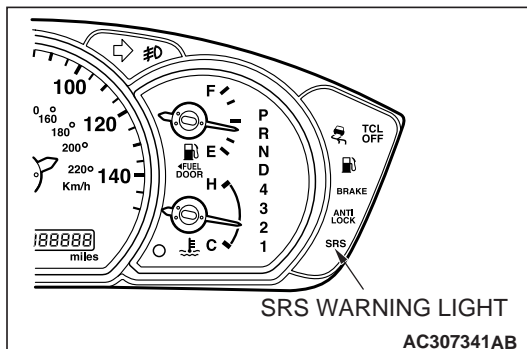
If the seat slide sensor is not installed securely and correctly, the driver's air bag may not operate normally.

Securely connect the connector.



>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to [P.52B-31](#).



INSPECTION

M1524025400017

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the seat slide sensor other than described below, refer to the section concerning SRS diagnosis (Refer to [P.52B-33](#)).

1. Check the seat slide sensor for dent, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the slide adjuster.

OCCUPANT CLASSIFICATION SENSOR

M1524025600011

REMOVAL AND INSTALLATION

For disassembly and assembly of the front seat assembly, refer to GROUP 52A, Front Seat assembly. [P.52A-25](#)

INSPECTION

M1524025700018

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new seat slide adjuster.

NOTE: For checking of the occupant classification sensor other than described below, refer to the section concerning SRS diagnosis (Refer to [P.52B-33](#)).

1. Check the occupant classification sensor for dent, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the seat slide adjuster.
4. Carry out the accuracy check of occupant classification sensor (Refer to [P.52B-354](#)).

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

M1524001200473

Before disposing of an air bag or a vehicle equipped with an air bag, follow the procedures below to deploy the air bag.

UNDEPLOYED AIR BAG MODULE DISPOSAL

Required Special Tools:

- MB686560: SRS Air Bag Adapter Harness
- MB991885: Pre-tensioner Adapter Harness (For pre-tensioner)

⚠ WARNING

- *If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags and operate the seat belt pre-tensioners inside the vehicle. If the vehicle will continue to be used and only the air bag modules and seat belt pre-tensioner are to be disposed of, deploy the air bags and operate the seat belt pre-tensioners outside the vehicle.*
- *Since a large amount of smoke is produced when the air bag is deployed and the seat belt pre-tensioner is operated, avoid residential areas whenever possible.*
- *Since there is a loud noise when the air bags are deployed and when the seat belt pre-tensioners are operated, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.*
- *Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.*

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <AIR BAG MODULE (DRIVER'S SIDE)>

1. Move the vehicle to an isolated spot.

⚠ DANGER

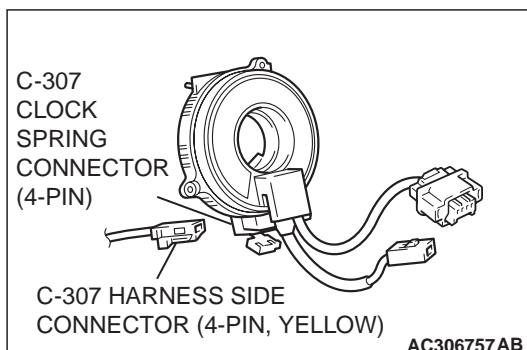
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-26).

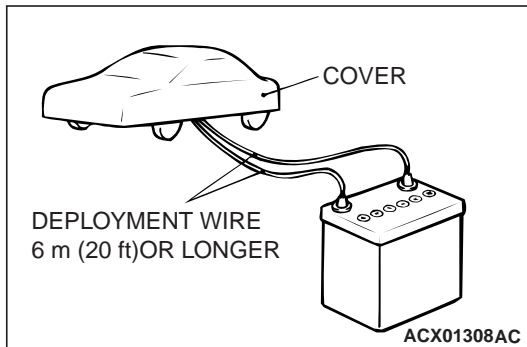
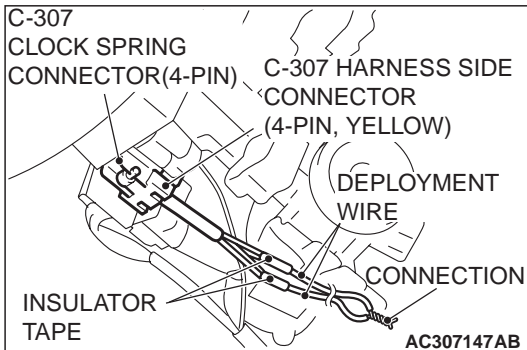
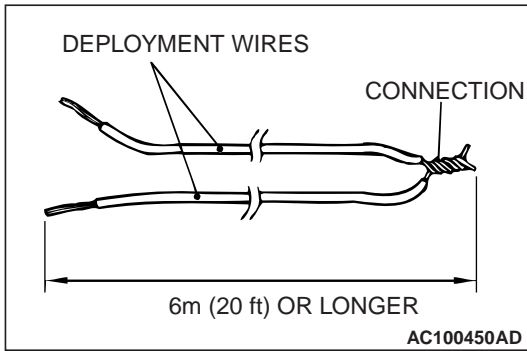
⚠ WARNING

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

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the column cover lower (Refer to GROUP 52A, Instrument Panel P.52A-3).
4. Remove the connection between the C-307 clock spring connector (four-pin) and the harness side connector (four-pin, yellow).

NOTE: If the clock spring connector is disconnected from the instrument panel wiring harness, both electrodes of the clock spring connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.





- Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

NOTE: This prevents the air bag from unintentional deployment caused by static electricity, etc.

⚠ CAUTION

Never fail to do Step 6 in order to prevent accidental deployment caused by static.

- Touch the vehicle's body with your bare hands to discharge static electricity.
- Cut the instrument panel wiring harness (four-pin, yellow) shown in the figure, while the C-307 clock spring connector (four-pin) is disconnected.

NOTE: The disconnection location should be sufficiently away from the C-307 harness side connector with consideration to the expansion harness connection location upon disconnection.

- Individually connect a harness to the four disconnected harnesses, cover the connection areas with insulation tape, and then pull out the expansion harness outside the vehicle.
- Connect the C-307 harness side connector connected with the expansion harness to the C-307 clock spring connector.

⚠ WARNING

If the windshield glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

- To suppress the sound as much as possible, completely close all door windows, close the doors and put a cover on the vehicle.

⚠ WARNING

- Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403) for post-deployment handling instructions.***
- If the air bag module fails to deploy, do not go near the module.***

- At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.

- After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <AIR BAG MODULE (FRONT PASSENGER'S SIDE)>

1. Move the vehicle to an isolated spot.

⚠ DANGER

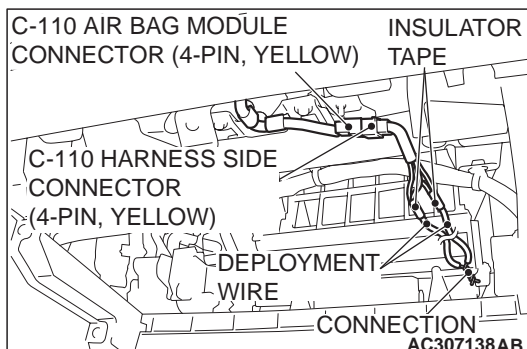
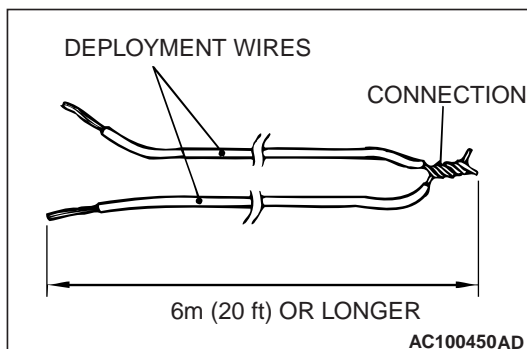
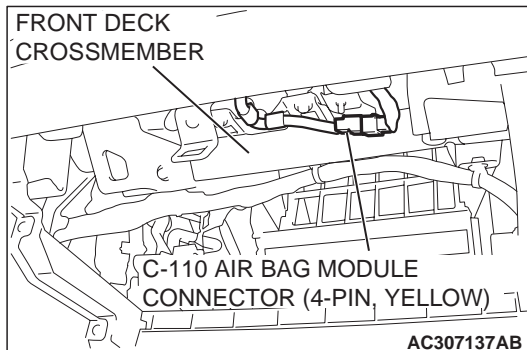
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-26).

⚠ WARNING

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

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the glove box assembly (Refer to GROUP 52A, Instrument Panel P.52A-3).
4. Disconnect the C-110 air bag module (front passenger's side) connector (four-pin, yellow) from the harness side connector (four-pin, yellow).

NOTE: If the C-110 air bag module connector is disconnected, both electrodes of the air bag module connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.



5. Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

NOTE: This prevents the air bag from unintentional deployment caused by static electricity, etc.

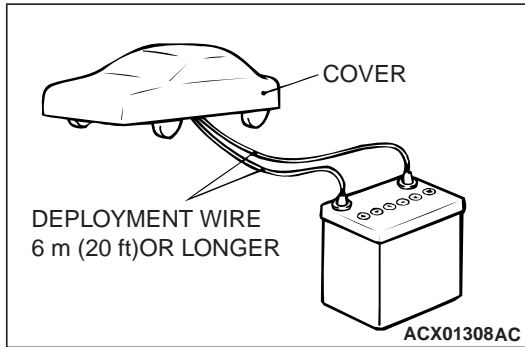
⚠ CAUTION

Never fail to do Step 6 in order to prevent accidental deployment caused by static.

6. Touch the vehicle's body with your bare hands to discharge static electricity.
7. Cut the instrument panel wiring harness (four-pin, yellow) shown in the figure, while the C-110 air bag module connector (four-pin) is disconnected.

NOTE: The disconnection location should be sufficiently away from the C-110 harness side connector with consideration to the expansion harness connection location upon disconnection.

8. Individually connect a harness to the four disconnected harnesses, cover the connection areas with insulation tape, and then pull out the expansion harness outside the vehicle.
9. Connect the C-110 harness side connector connected with the expansion harness to the C-110 air bag module connector.



⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

10. To suppress the operation sound as much as possible, completely close all door windows, close the doors and put a cover on the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to [P.52B-403](#)) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

11. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.

12. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to [P.52B-403](#)).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SIDE-AIRBAG MODULE>

1. Move the vehicle to an isolated spot.

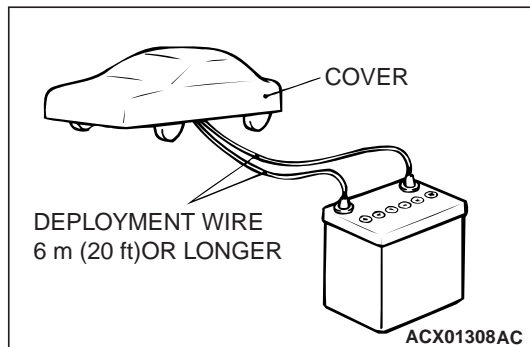
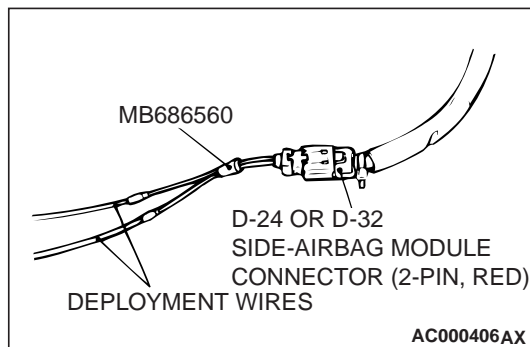
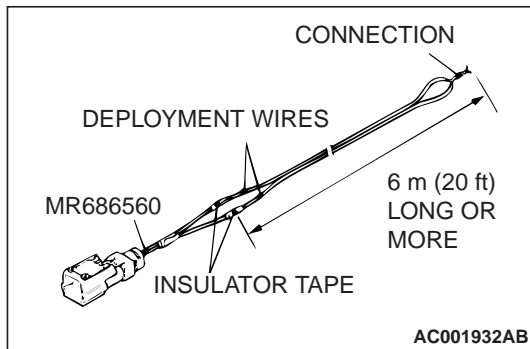
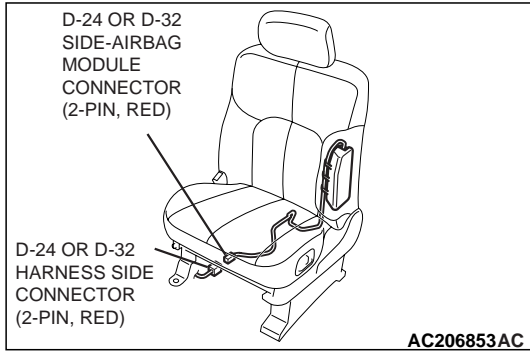
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to [P.52B-26](#)).

⚠ WARNING

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

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

**⚠ WARNING**

The side-airbag modules for both the driver's side and passenger's side should be deployed.

- Remove the connection between the D-24 or D-32 side-airbag module connector (two-pin, red) and the harness side connector (two-pin, red).

NOTE: If the air bag module connector is disconnected from the floor wiring harness, both electrodes of the air bag module connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.

- Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of SRS air bag adapter harness (MB686560), and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

- Connect the D-24 or D-32 side-airbag module connector (two-pin, red) to SRS air bag adapter harness (MB686560) and move the deployment wires out of the vehicle.

⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

- To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ WARNING

- **Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.**
 - **The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to [P.52B-403](#)) for post-deployment handling instructions.**
 - **If the air bag module fails to deploy, do not go near the module.**
7. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
 8. After deployment, dispose of the front seatback assembly (air bag module) according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to [P.52B-403](#)).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SEAT BELT PRE-TENSIONER>

1. Move the vehicle to an isolated spot.

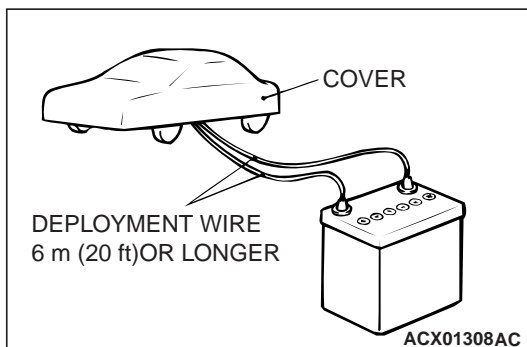
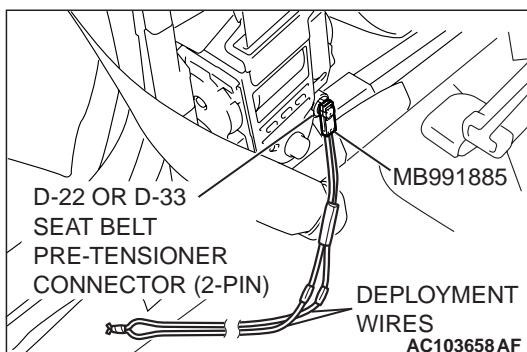
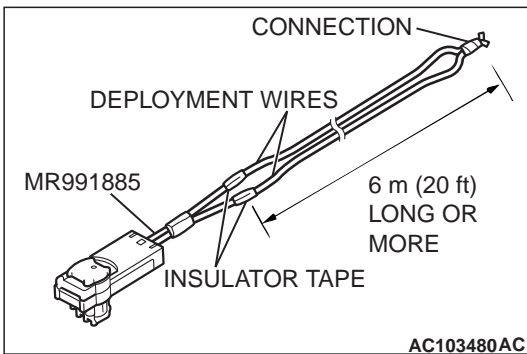
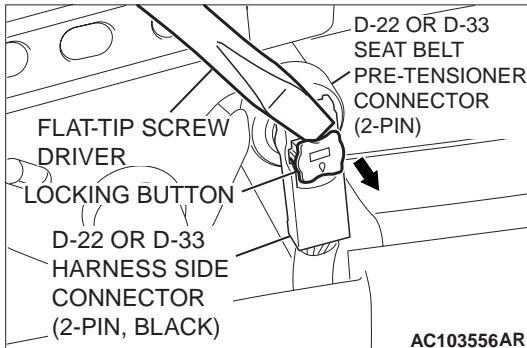
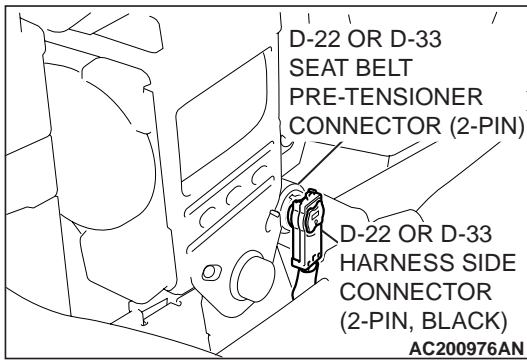
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to [P.52B-26](#)).

⚠ WARNING

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

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the center pillar lower trim (Refer to GROUP 52A, TRIMS [P.52A-10](#)).



4. Execute the following steps to disconnect D-22 or D-33 seat belt pre-tensioner connector (two-pin) from the harness side connector (two-pin, black).

NOTE: If the seat belt pre-tensioner connector is disconnected from the floor wiring harness, both electrodes of the seat belt pre-tensioner connector will be automatically shorted to prevent unintended operation of the seat belt pre-tensioner due to static electricity, etc.

- (1) Use a flat-tip screwdriver to unlock the harness side connector (two-pin, black) locking button by withdrawing it toward you in two stages.
- (2) Disconnect the D-22 or D-33 harness side connector.

5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool pre-tensioner adapter harness (MB991885), and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.

6. Connect the D-22 or D-33 seat belt pre-tensioner two-pin connector (black) to special tool pre-tensioner adapter harness (MB991885), and move the deployment wires out of the vehicle.

⚠ WARNING

If the glass is scratched, seat belt pre-tensioner operation could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ WARNING

- **Before operating the seat belt pre-tensioner in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.**
 - **The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the seat belt pre-tensioner operation. See Deployed Air Bag and Operated Seat Belt pre-tensioner Disposal (Refer to [P.52B-403](#)) for post-operation handling instructions.**
 - **If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.**
8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each the, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operate the seat belt pre-tensioner.
 9. After operation, dispose of the seat belt pre-tensioner according to the Deployed Air Bag Module operated seat belt pre-tensioner Disposal (Refer to [P.52B-403](#)).

DEPLOYMENT OUTSIDE THE VEHICLE <AIR BAG MODULE (DRIVER'S SIDE)>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to [P.52B-26](#)).

⚠ WARNING

- **Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.**
 - **Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.**
 - **Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.**
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ CAUTION

Once disconnected, both electrodes of the driver's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on a flat place with deployment surface facing up. Do not put anything on it.

2. Remove the air bag module from the vehicle (Refer to P.52B-368).

3. Prepare two wires longer than 6 meters (20 feet) for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental deployment caused by static etc.

⚠ CAUTION

Never fail to do Step 4 in order to prevent accidental deployment caused by static.

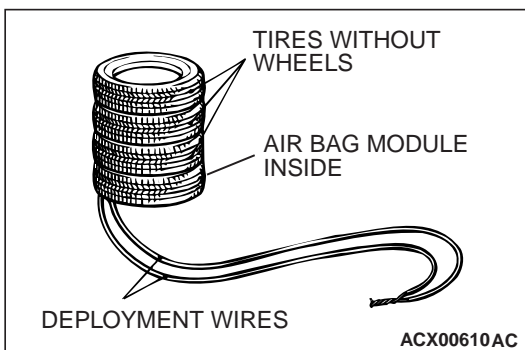
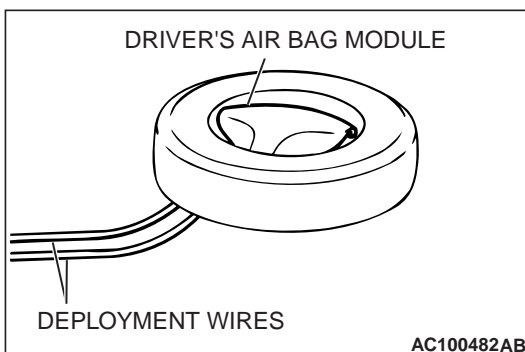
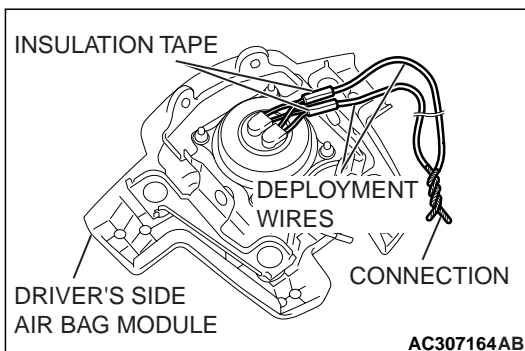
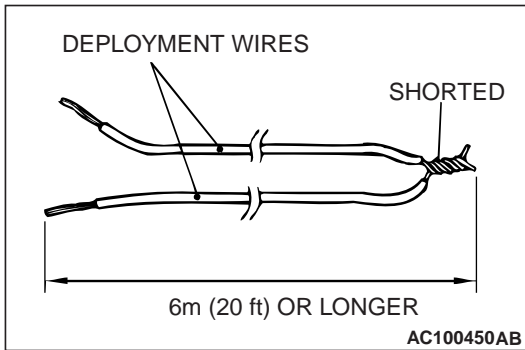
4. Touch the vehicle's body with your bare hands to discharge static electricity.

5. Using pliers, cut the driver's air bag module connector from the harnesses. Connect the deployment wires to each harness that has been cut and insulate the connections with plastic tape.

6. Install a nut to the bolt behind the driver's air bag module and tie thick wire there for securing.

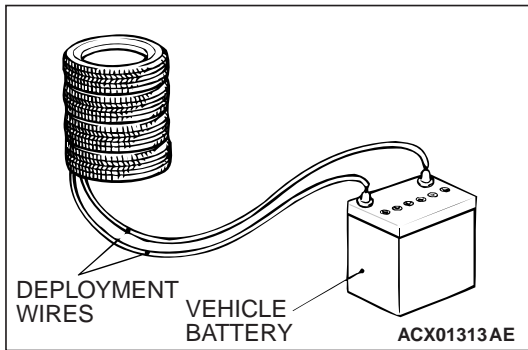
7. Route the deployment wires connected to the driver's air bag module beneath an old tire and wheel assembly. Then, using the wire tied to the bolt, secure the driver's air bag module to the tire and wheel assembly with the deployment surface facing up.

8. Place three old tires without wheels on the tire secured with the driver's air bag module.



⚠ WARNING

- **Before deployment, check carefully to be sure that no one is nearby.**
- **The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403) for post-deployment handling instructions.**
- **If the air bag fails to deploy, do not go near the module.**



9. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them, to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
10. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403).

DEPLOYMENT OUTSIDE THE VEHICLE <AIR BAG MODULE (FRONT PASSENGER'S SIDE)>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-26).

⚠ WARNING

- **Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.**
 - **Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.**
 - **Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.**
1. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ CAUTION

Once disconnected, both electrodes of the front passenger's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of possible accidental deployment, store the air bag module on flat place with deployment surface facing up. Do not put anything on it.

2. Remove the air bag module from the vehicle (Refer to P.52B-368).

3. Prepare two wires longer than 6 meters (20 feet) for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental deployment caused by static etc.

⚠ CAUTION

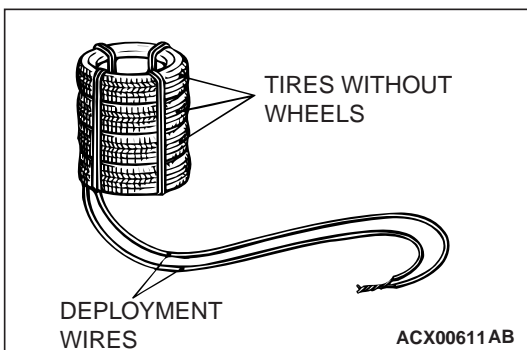
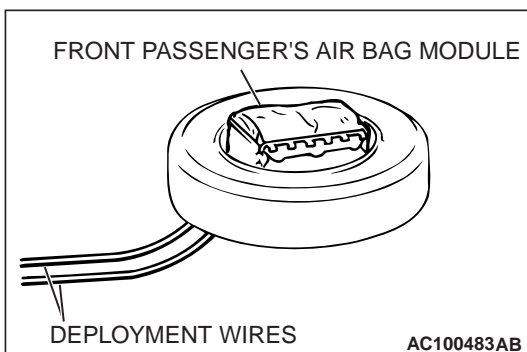
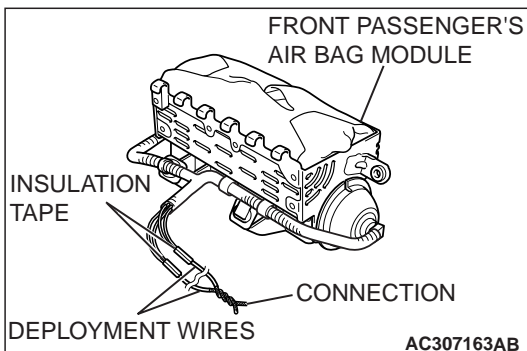
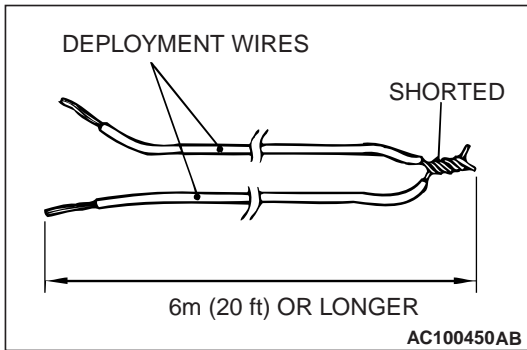
Never fail to do Step 4 in order to prevent accidental deployment caused by static.

4. Touch the vehicle's body with your bare hands to discharge static electricity.

5. Using pliers, cut the passenger's air bag module connector from the harnesses. Connect the deployment wires to each harness that has been cut and insulate the connections with plastic tape.

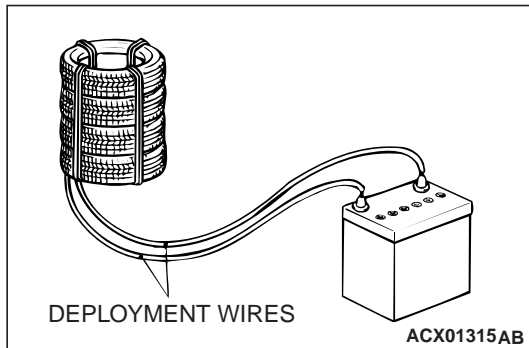
6. Pass the thick wire through the air bag module mounting hole, and then secure the air bag module to an old tire with a wheel in it so that the pad on the module is facing upwards.

7. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires together with ropes (four locations).



⚠ WARNING

- **Before deployment, check carefully to be sure that no one is nearby.**
- **The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403) for post-deployment handling instructions.**
- **If the air bag fails to deploy, do not go near the module.**



8. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403).

DEPLOYMENT OUTSIDE VEHICLE <SIDE-AIRBAG MODULE>

⚠ DANGER

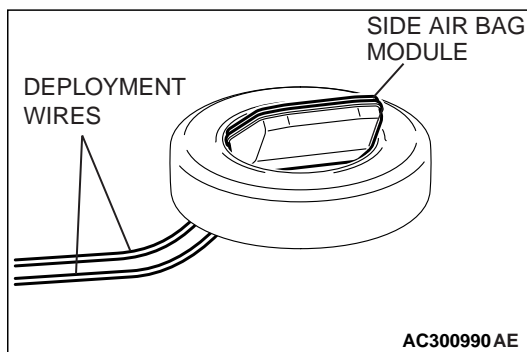
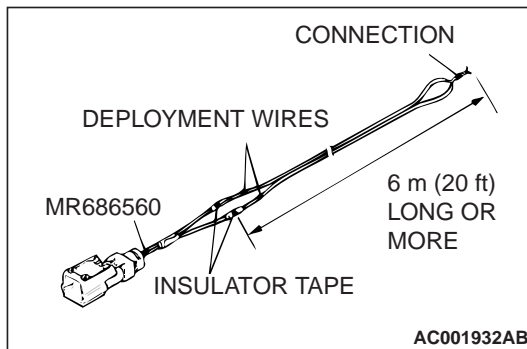
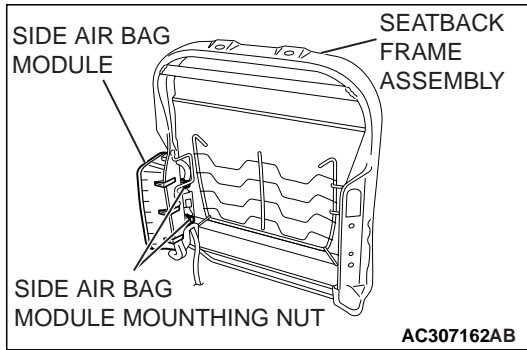
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-26).

⚠ WARNING

- **Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.**
 - **Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.**
 - **Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.**
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ CAUTION

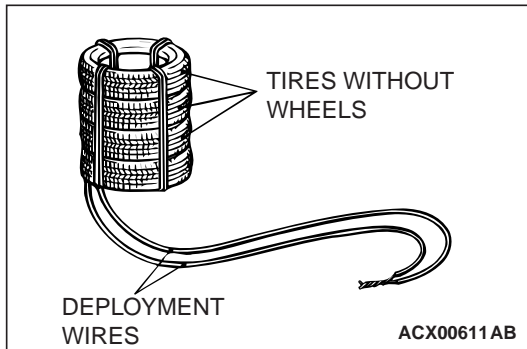
Once disconnected, both electrodes of the side-airbag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.



2. Remove the front seatback assembly with side-airbag module from the vehicle (Refer to P.52B-368).
3. After disassembling the front seatback assembly, remove the side air bag module mounting nut from the seatback frame assembly.
4. Connect two wires, each 6 meters (20 feet) or longer, to the two leads of SRS air bag adapter harness (MB686560), and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.
5. Route SRS air bag adapter harness MB686560 connected to the deployment wires beneath an old tire and wheel assembly and connect it to the side air bag module connector.

⚠ CAUTION

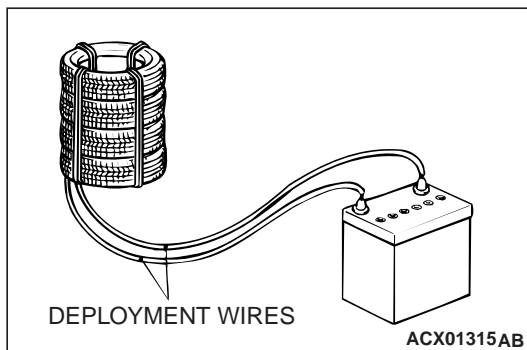
- The adapter harness below the wheel should be loose. If it is too tight, the reaction when the air bag deploys could damage the adapter harness.
 - During deployment, the connector of SRS air bag adapter harness (MB686560) must not be between the tires.
6. Install a nut to the side air bag module mounting bolt, tie thick wire there for securing and secure the side air bag module to an old tire and wheel assembly with the deployment surface facing up.



7. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires together with ropes (four locations).

⚠ WARNING

- **Before deployment, check carefully to be sure that no one is nearby.**
- **The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403) for post-deployment handling instructions.**
- **If the air bag fails to deploy, do not go near the module.**



8. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-403).

DEPLOYMENT OUTSIDE THE VEHICLE <SEAT BELT PRE-TENSIONER>

⚠ DANGER

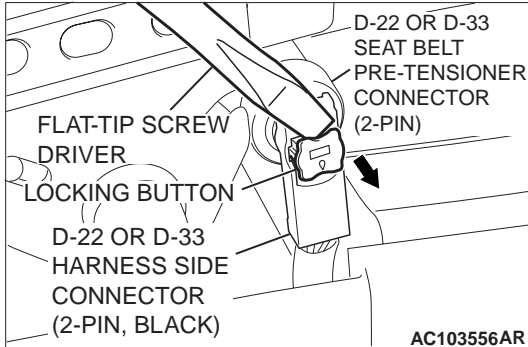
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-26).

⚠ WARNING

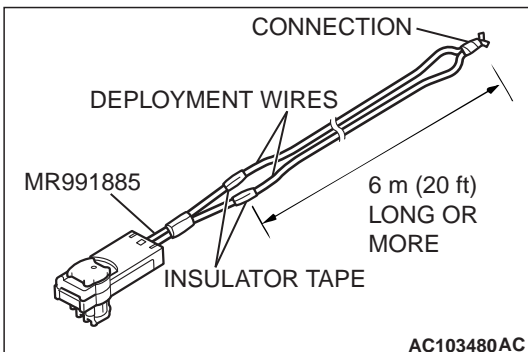
- **Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.**
 - **Operate the seat belt pre-tensioner in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.**
 - **Do not perform operation outside if a strong wind is blowing. If there is a slight breeze, place the seat belt pre-tensioner downwind from the battery.**
1. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ WARNING

Store the seat belt pre-tensioner on a flat surface with its operation surface facing up. Do not place anything on top of them.



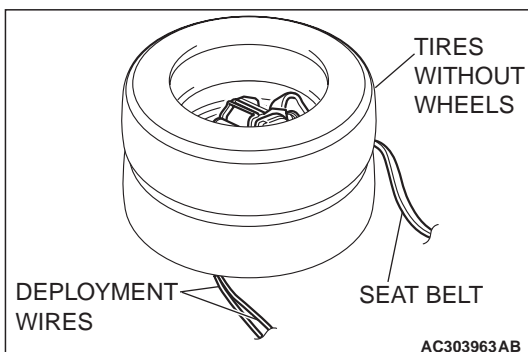
2. Remove the seat belt pre-tensioner from the vehicle (Refer to P.52B-380).
3. Use a flat-tip screwdriver to unlock the harness side connector locking button by withdrawing it toward you in two stages.
4. Disconnect the D-22 or D-33 harness side connector.



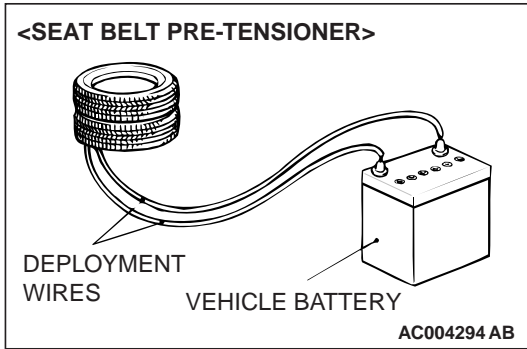
5. Connect two wires, each 6 meters (20 feet) or longer, to the two leads of special tool pre-tensioner adapter harness (MB991885), and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.
6. Connect the special tool pre-tensioner adapter harness (MB991885), which the deployment wires is attached to, to the seat belt pre-tensioner connector.

⚠ CAUTION

The adapter harness below the wheel should be loose. If it is too tight, the reaction when the seat belt pre-tensioner operates could damage the adapter harness.



7. Pass the thick wires through the hole on the seat belt pre-tensioner bracket and secure them to the front (raised part) of the wheel in two places.
8. Pull the seat belt out to the outside of the tire, and then place one tire without a wheel on top.



⚠ WARNING

- **Before operation, check carefully to be sure that no one is nearby.**
 - **The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from seat belt pre-tensioner operation. See Deployed Air Bag Module and Operated Seat Belt pre-tensioner Disposal (Refer to [P.52B-403](#)) for post-operation handling instructions.**
 - **If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.**
9. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operate the seat belt pre-tensioner.
 10. Discard the operated seat belt pre-tensioner as specified in Deployed Air Bag Module and Seat Belt pre-tensioner Disposal (Refer to [P.52B-403](#)).

DEPLOYED AIR BAG MODULE AND OPERATED SEAT BELT PRE-TENSIONER DISPOSAL

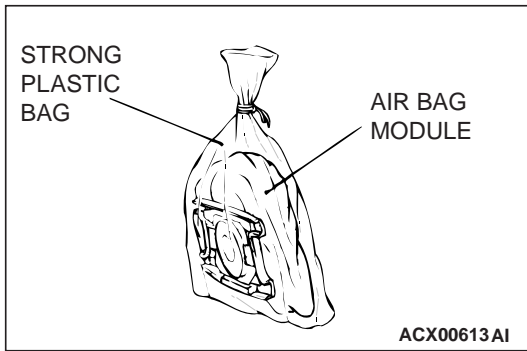
After deployment and operation, the air bag module and seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag or seat belt pre-tensioner disposal:

1. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it cool before attempting to handle it.
2. Do not put water or oil on the air bag after deployment or on the seat belt pre-tensioner after operation.

⚠ WARNING

If after following these precautions, any material does get into the eyes or on the skin, immediately rinse the affected area with a large amount of clean water. If any irritation develops, seek medical attention.

3. There may be material on the deployed air bag module or the operated seat belt pre-tensioner, that could irritate the eye and/or skin. Wear gloves and safety glasses when handling a deployed air bag module or the operated seat belt pre-tensioner.



4. Tightly seal the air bag module and seat belt pre-tensioner in a strong plastic bag for disposal.
5. Be sure to always wash your hands after completing this operation.

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

M1524004900299

ITEM	SPECIFICATION
Air bag module(s) and clock spring	
Steering wheel dynamic damper mounting bolt	3.9 ± 0.9 N·m (35 ± 8 in-lb)
Steering wheel nut	41 ± 8 N·m (30 ± 6 ft-lb)
Clock spring screw	0.69 ± 0.15 N·m (6 ± 1 in-lb)
Torx screw	9.0 ± 2.0 N·m (80 ± 17 in-lb)
Front impact sensor	
Front impact sensor nut	7.5 ± 2.5 N·m (67 ± 22 in-lb)
Seat belts with pre-tensioner	
Seat belt lower anchor bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Seat belt shoulder anchor bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Seat belt with pre-tensioner mounting bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Seat slide sensor	
Seat slide sensor mounting bolt	5.0 ± 1.0 N·m (44 ± 9 in-lb)
Side impact sensor	
Side impact sensor nut	7.5 ± 2.5 N·m (67 ± 22 in-lb)
SRS control unit (SRS-ECU)	
SRS-ECU mounting bolt	7.5 ± 2.5 N·m (67 ± 22 in-lb)